## TEST POINT LOCATION 6: GREAT JACKSON STREET

| | |
|---|---|
| NGR | SJ83285 97276 |
| Alt: | 54m |
| Mast Height: | 12m |
| Existing Aerial Arrays: | 10 element and high gain aerials on 1m masts mounted at single storey height on commercial units, area predominantly commercial. |
| Existing Obstructions: | Cranes on beam. |

**Analogue Results**

| Channel | Programme | Level (dbmv) | CCIR Grade | Audio |
|---|---|---|---|---|
| 48 | Channel 5 | +4 | 4(G) | Good |
| 55 | BBC1 | +15 | 5 | Good |
| 59 | ITV | +18 | 5 | Good |
| 62 | BBC2 | +12 | 4(G) | Good |
| 65 | Channel 4 | +19 | 5 | Good |

**Digital Results**

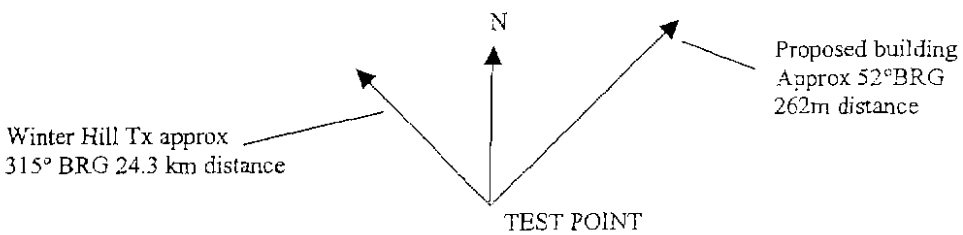
| Channel | Level | BER | CSI | Quality |
|---|---|---|---|---|
| 56 | -1 | -7 | 7% | Pass |
| 60 | +2 | -7 | 8% | Pass |
| 63 | +2 | -7 | 8% | Pass |
| 66 | 0 | -7 | 19% | Pass |
| 67 | -1 | -7 | 9% | Pass |
| 68 | -1 | -7 | 21% | Pass |

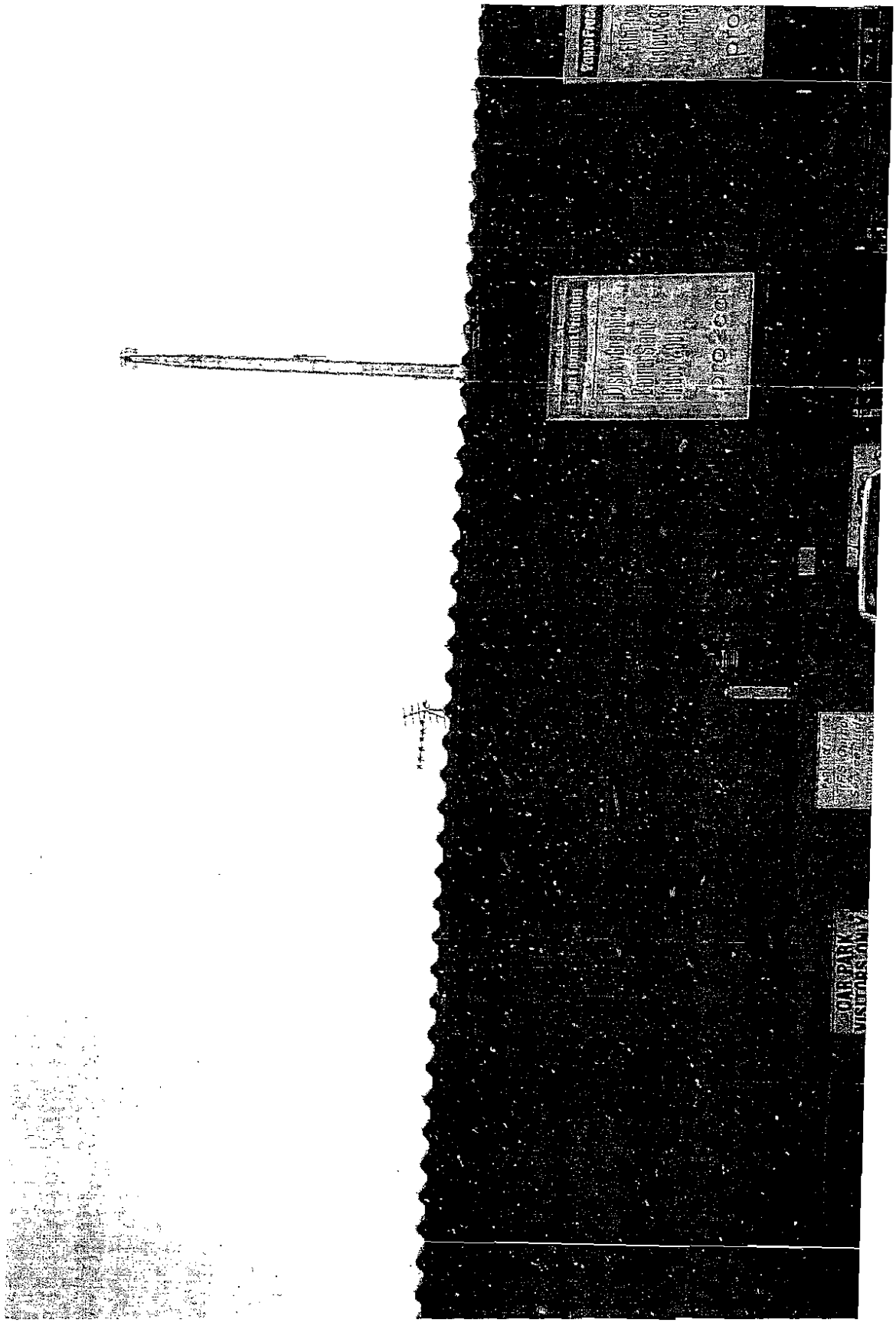
**Report**

Signal strength and quality is varying due to cranes in line with the TV aerials. Overall reception is good with ghosting present on the analogue reception.

**Impact**

No impact is envisaged due to aerial direction in this area.






PHOTOGRAPH 6 – TYPICAL AERIAL LOCATED ON A COMMERCIAL UNIT IN THE AREA OF TEST POINT 6

## TEST POINT LOCATION 7: CITY ROAD E

| | |
|---|---|
| NGR | SJ83597 97386 |
| Alt: | 55m |
| Mast Height: | 12m |
| Existing Aerial Arrays: | None visible. Office development and large construction site in close proximity possibly 8-10 storey. |
| Existing Obstructions: | Construction site. Multi-storey buildings on beam. |

### Analogue Results

| Channel | Programme | Level (dbmv) | CCIR Grade | Audio |
|---|---|---|---|---|
| 48 | Channel 5 | -5 | 3(G) | Good |
| 55 | BBC1 | +7 | 4(G) | Good |
| 59 | ITV | +10 | 4(G) | Good |
| 62 | BBC2 | +3 | 4(G) | Good |
| 65 | Channel 4 | +7 | 4(G) | Good |

### Digital Results

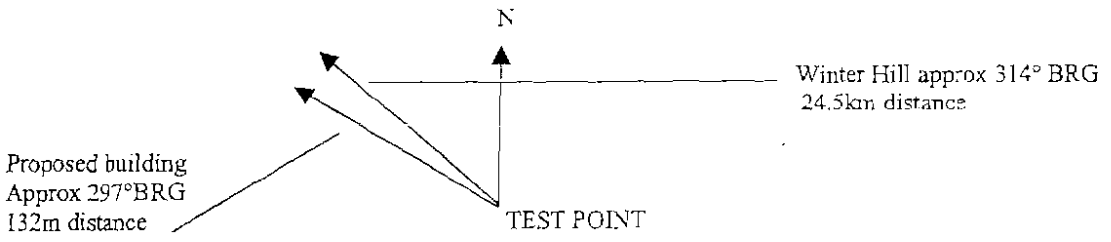
| Channel | Level | BER | CSI | Quality |
|---|---|---|---|---|
| 56 | -9 | -7 | 7% | Pass |
| 60 | -8 | -7 | 8% | Pass |
| 63 | -7 | -7 | 7% | Pass |
| 66 | -11 | -7 | 22% | Pass |
| 67 | -12 | -7 | 7% | Pass |
| 68 | -13 | -7 | 22% | Pass |

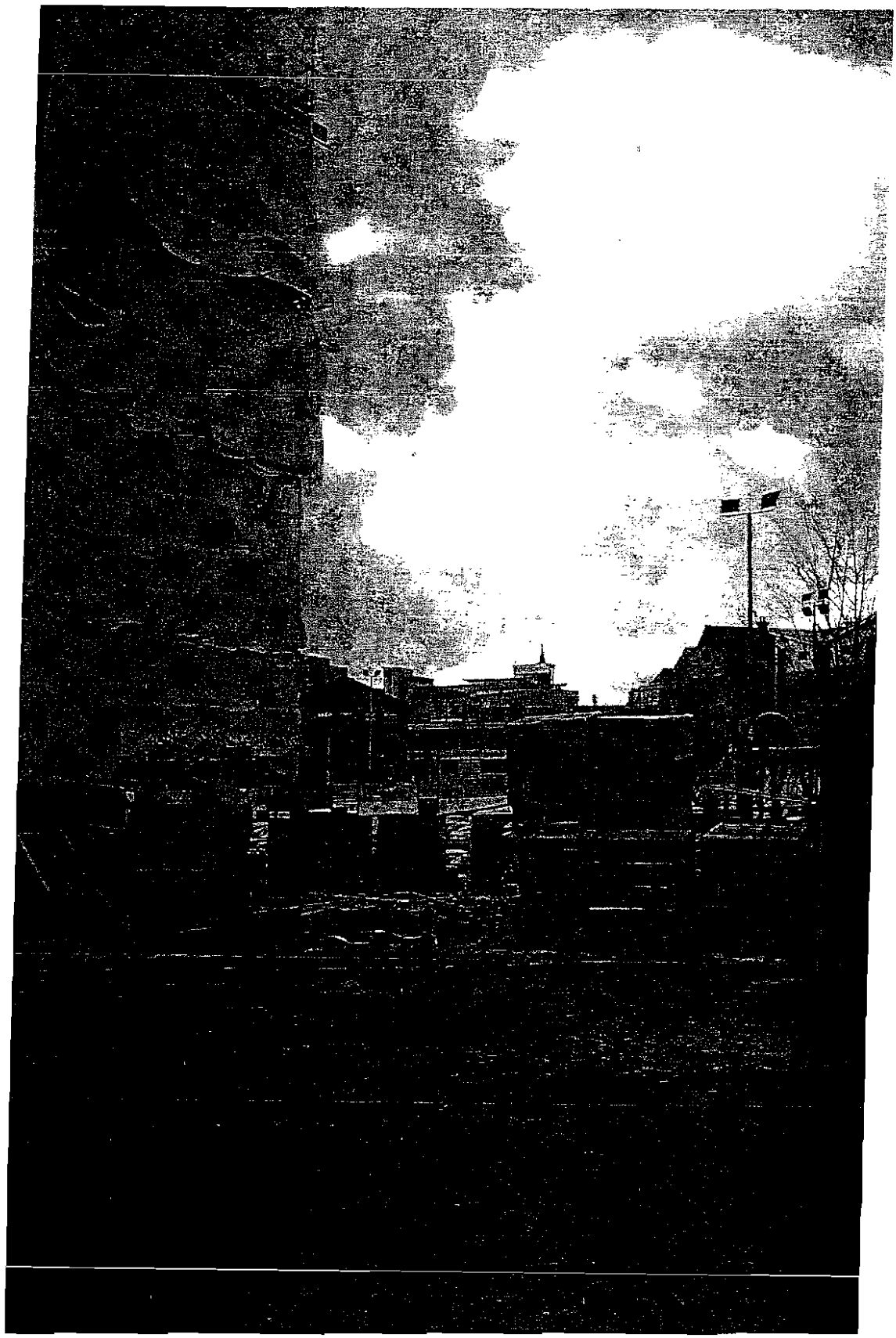
### Report

Analogue reception is ghosting.
Digital reception is acceptable.

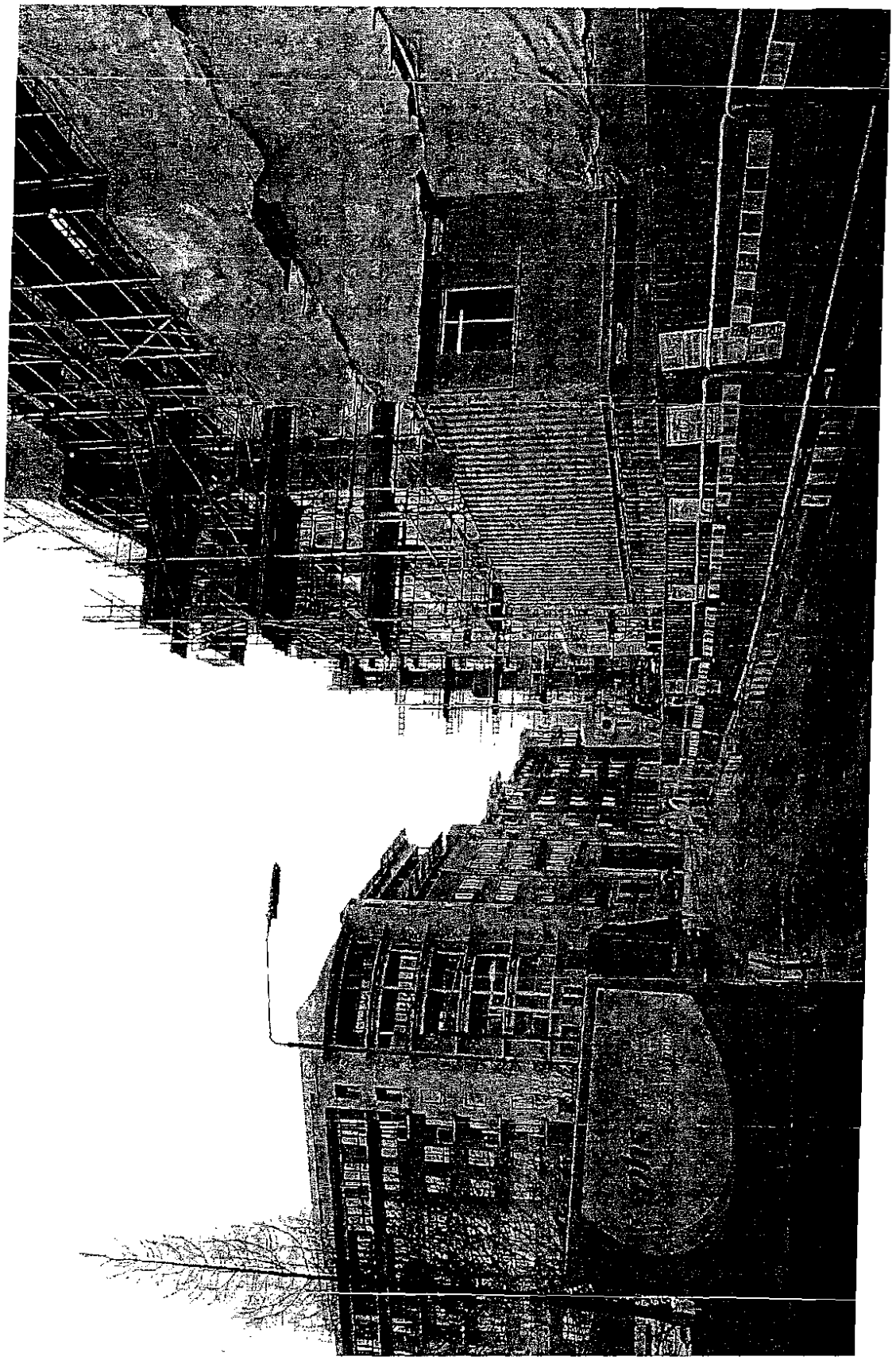
### Impact

No impact is envisaged due to height of existing buildings, height of buildings under construction and ground height compared to the proposed building and its location.





PHOTOGRAPH 7 – TAKEN IN THE DIRECTION OF THE PROPOSED SITE AND THE WINTER HILL TX FROM TEST POINT 7



PHOTOGRAPH 7A – EXISTING APARTMENT COMPLEX'S AND NEW CONSTRUCTION SITE IN THE AREA OF TEST POINT 7

## TEST POINT LOCATION 8: RIVER STREET

| | |
|---|---|
| NGR | SJ83628 97243 |
| Alt: | 55m |
| Mast Height: | 14m |
| Existing Aerial Arrays: | Anti-ghost grid aerial on 3m mast mounted at roof top height on 5-storey building (Premier Travel Inn) directed towards the Winter Hill Tx. |
| Existing Obstructions: | 9-storey apartment complex.<br>9-storey construction site.<br>Cranes on beam. |

**Analogue Results**

| Channel | Programme | Level (dbmv) | CCIR Grade | Audio |
|---|---|---|---|---|
| 48 | Channel 5 | -15 | 2(G) | Good |
| 55 | BBC1 | -12 | 3(G) | Good |
| 59 | ITV | -2 | 1(G) | Good |
| 62 | BBC2 | -8 | 1(G) | Good |
| 65 | Channel 4 | -5 | 2(G) | Good |

**Digital Results**

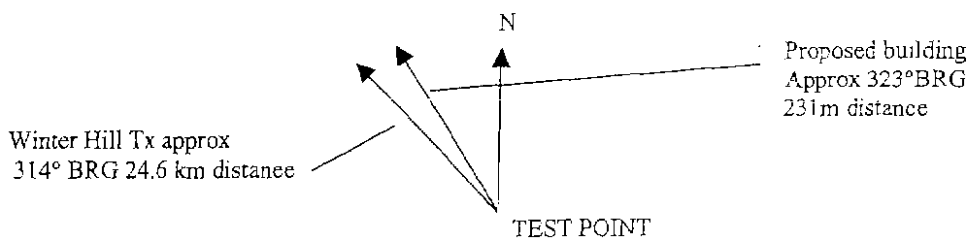
| Channel | Level | BER | CSI | Quality |
|---|---|---|---|---|
| 56 | -18 | -7 | 16% | Pass |
| 60 | -18 | -6 | 24% | Pass |
| 63 | -16 | -6 | 21% | Pass |
| 66 | -20 | -3 | 48% | Fail |
| 67 | -21 | -4 | 27% | Fail |
| 68 | -22 | -3 | 50% | Fail |

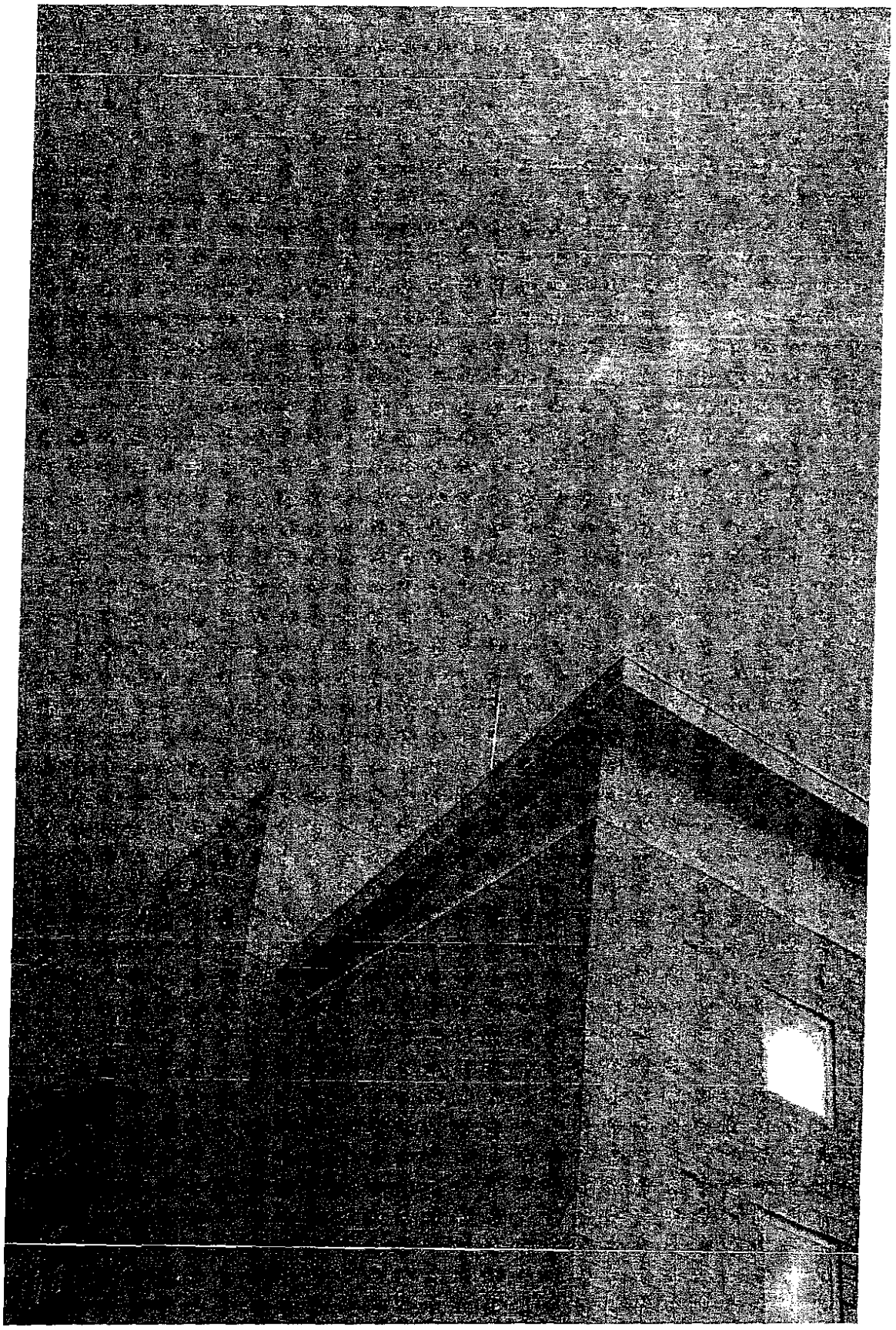
**Report**

Could not get a gap through the existing buildings or above the height. Would anticipate reception is of a better quality and strength at the local aerial location of 9-storey height.

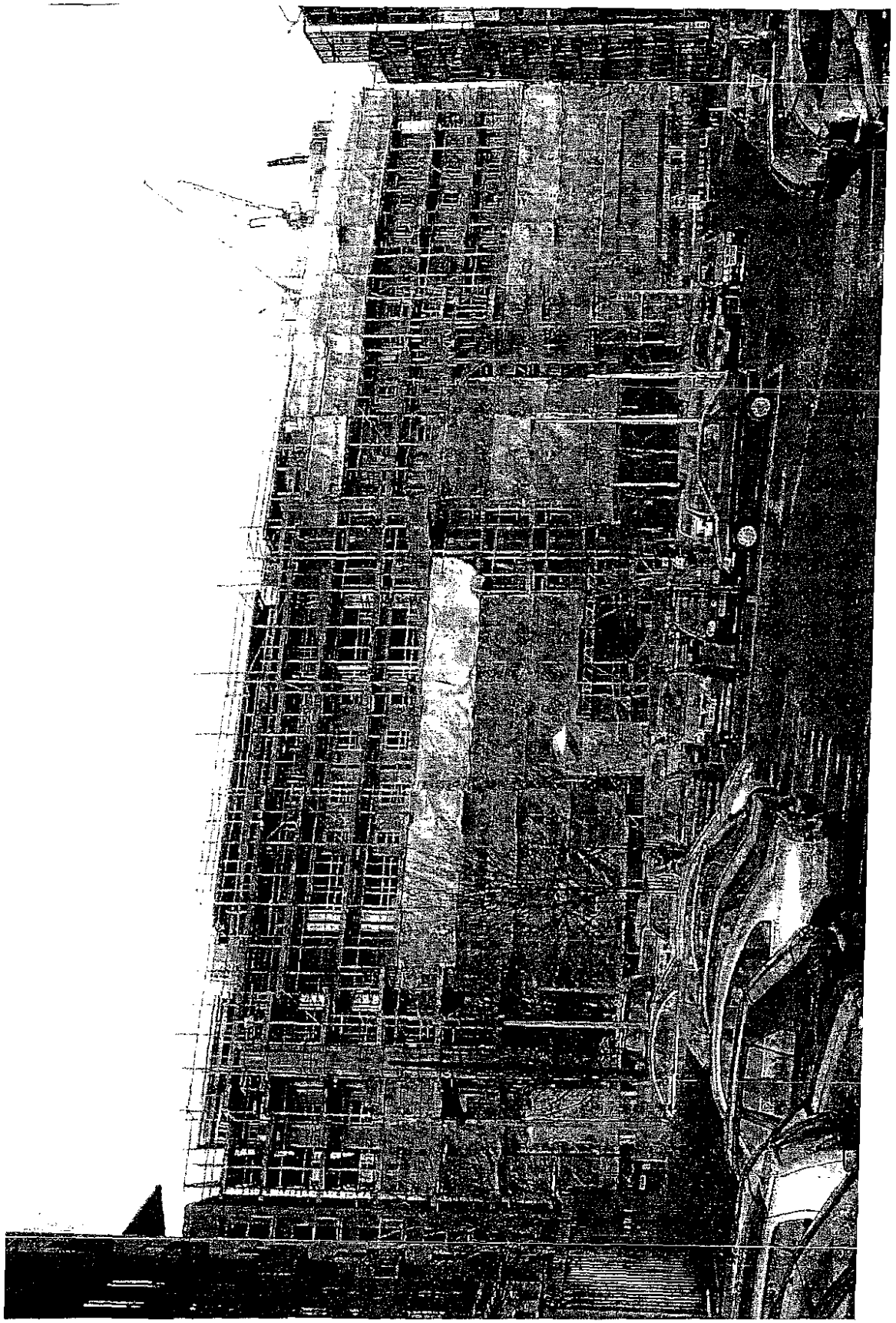
**Impact**

No impact is envisaged due to the existing building heights in test point area. Also existing buildings shadow the proposed building from this area.





PHOTOGRAPH 8 – AERIAL LOCATED IN THE AREA OF TEST POINT 8



PHOTOGRAPH 8A – EXISTING OBSTRUCTIONS TO TV RECEPTION IN THE DIRECTION OF THE WINTER HILL TX AND THE PROPOSED SITE FROM TEST POINT 8

## SUMMARY

## THE PROPOSED SITE

1) The proposed building is to be located within an area of Manchester City centre which has recently undergone and is still undergoing re-development.

2) Many of the new developments are multi-storey buildings, for example, apartment complexes and office developments.

3) A series of photographs have been taken to highlight the surrounding buildings to the proposed site. The location and direction that the photographs were taken is shown on map 1.

PHOTOGRAPH A : Existing buildings located on Little Peter Street to the North of the proposed building.

PHOTOGRAPH B : Existing buildings located on Little Peter Street to the east of the proposed building.

PHOTOGRAPH C : Existing buildings located off Medlock Street to the east of the proposed building.

PHOTOGRAPH D : Construction site located on City Road East to the south east of the proposed site.

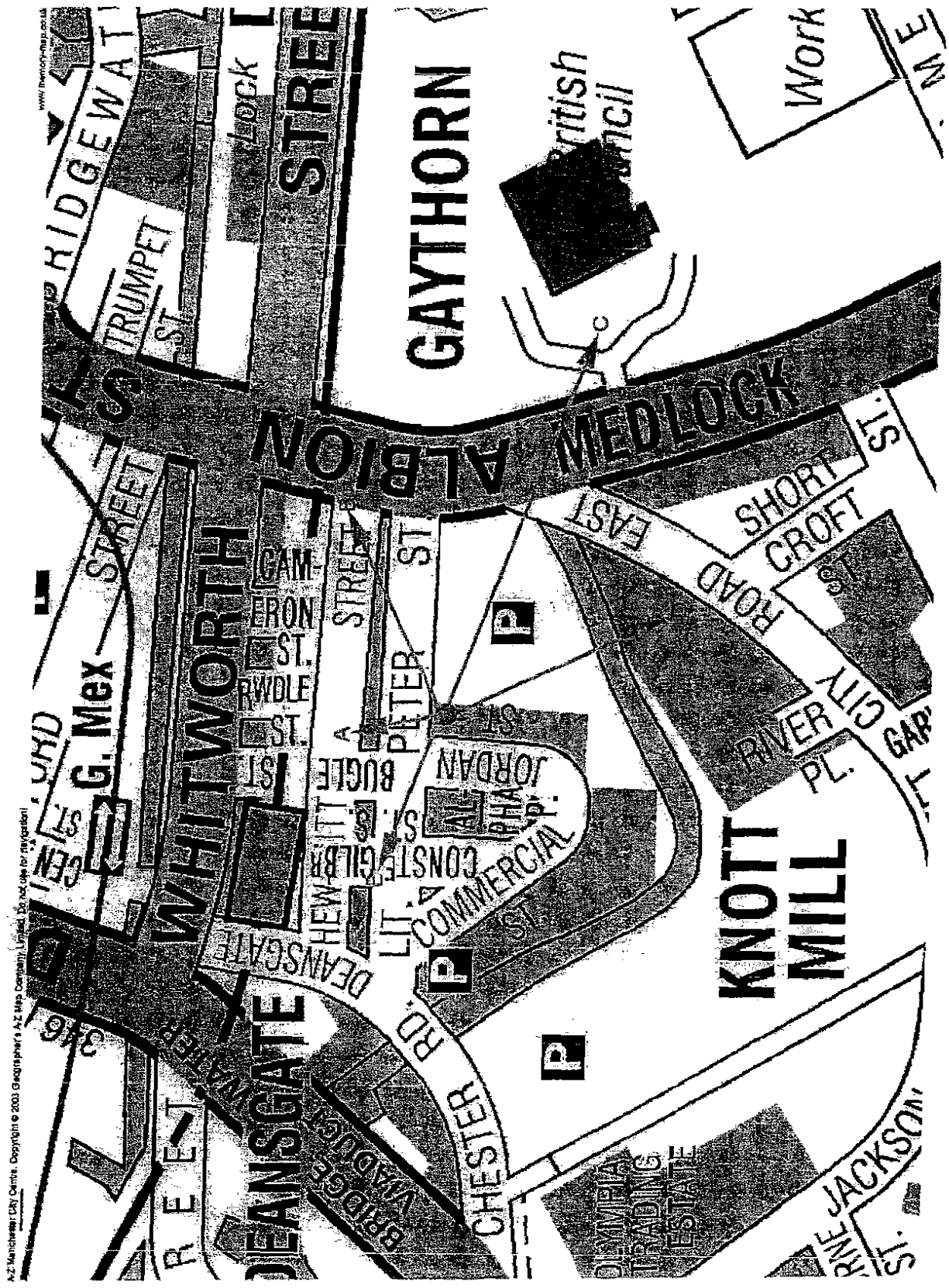
PHOTOGRAPH E : Existing properties located on Little Peter Street to the north west of the proposed building.

## TELEVISION RECEPTION

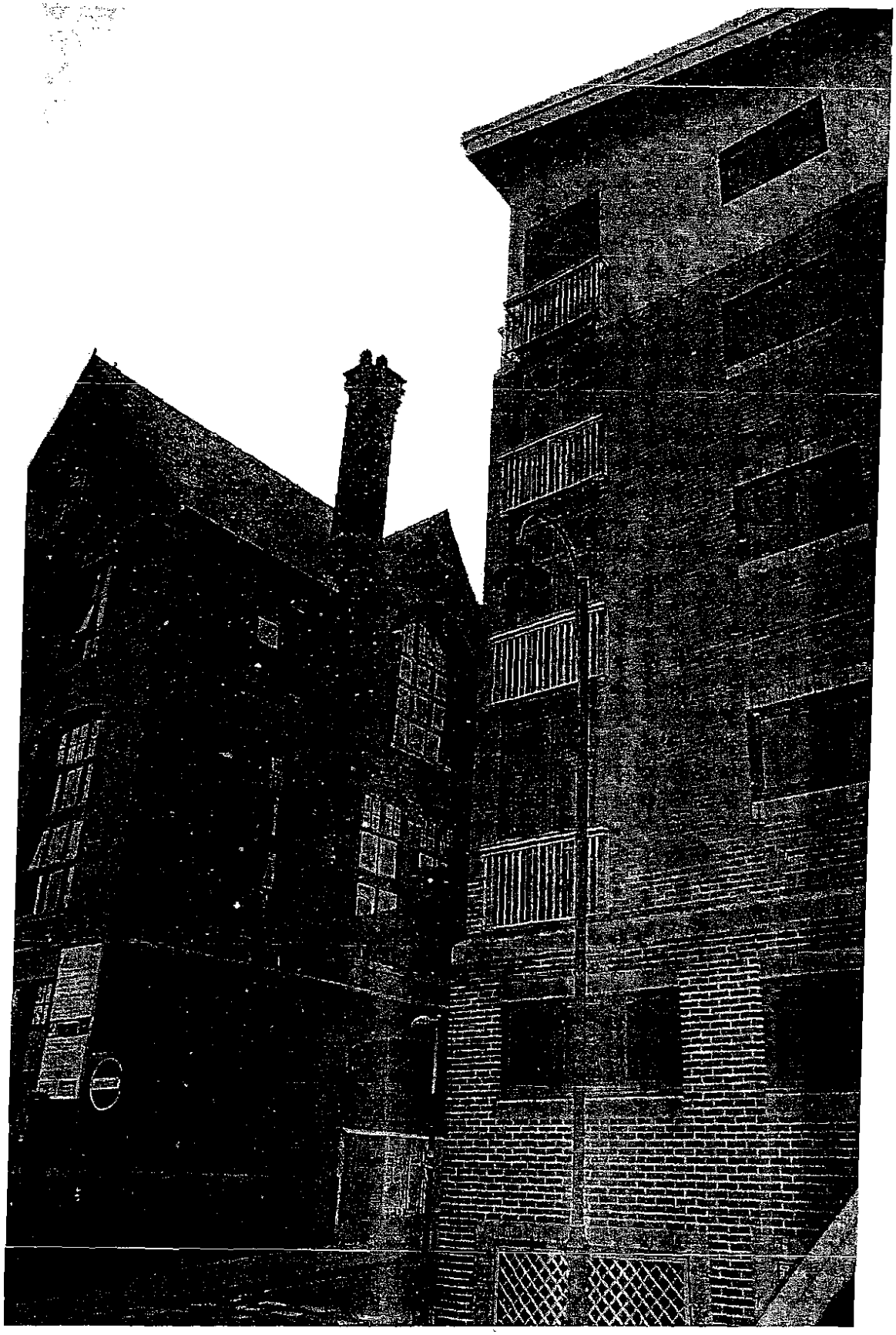
1) Television reception in the area surveyed is from the Winter Hill TV transmitter located to the north west at the approximate bearing of 315°.

2) The Winter Hill Tx broadcasts the five analogue channels BBC1, BBC2, ITV, CH4 and CH5 as well as the six digital multiplexers required for DTTV.

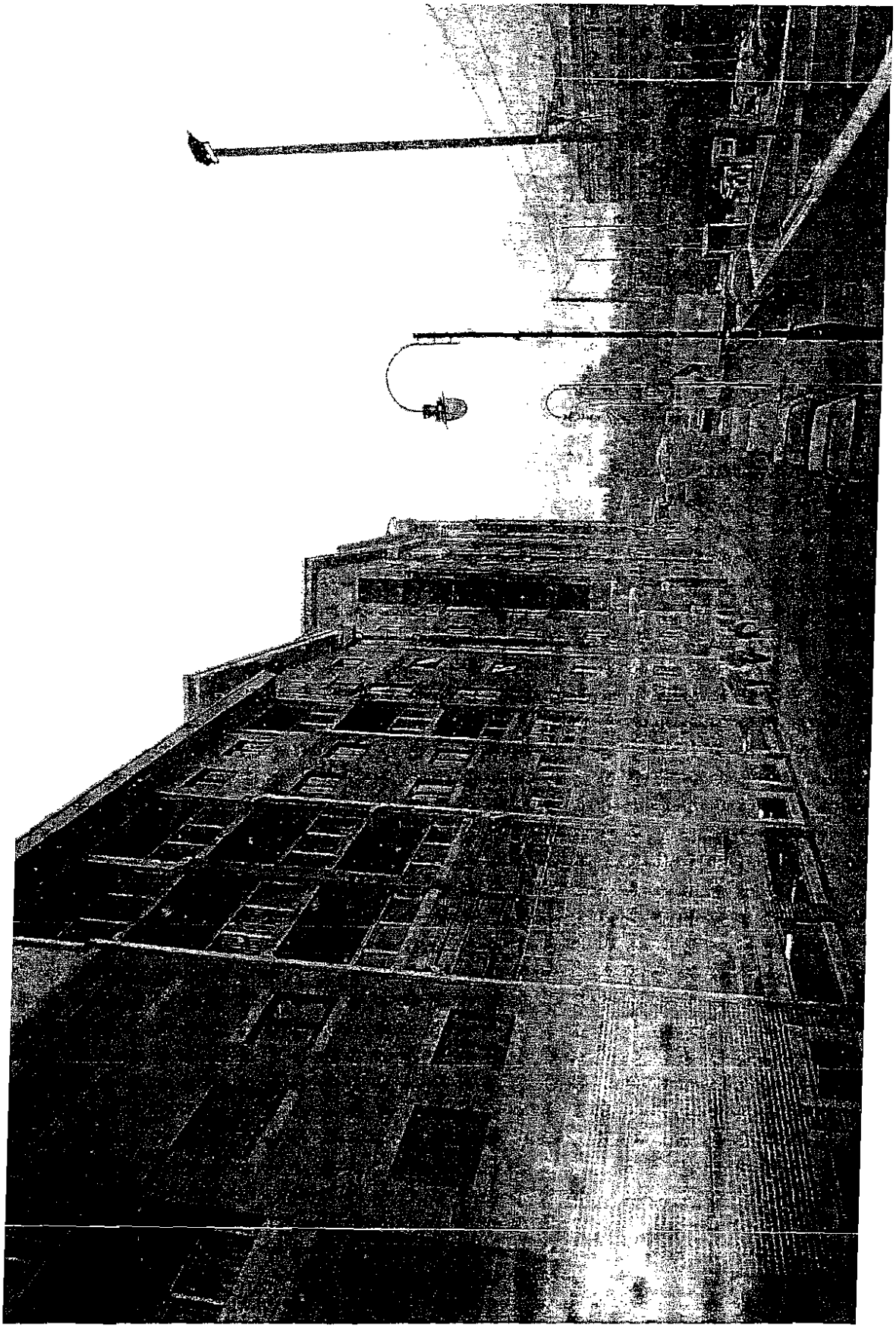
3) No alternative transmitter could be received at an acceptable quality or strength in the area surveyed.




MAP 1 – PHOTOGRAPH DIRECTIONS



PHOTOGRAPH A



PHOTOGRAPH B



PHOTOGRAPH (



PHOTOGR .H D

PHOTOC

## CONCLUSIONS

1. The beampath (direction) of viewers' televisio[illegible] proposed building is to the northwest. Due to [illegible] television reception for viewings located to th[illegible] aerial beampath passes through or within clos[illegible] case of 2 Jordan Street certain factors have b[illegible]

   a) The area to the southeast within close [illegible] no properties with television aerials.

   b) Further to the southeast of the propose[illegible] land height rises. Existing properties a[illegible] land are multi-storey.

   Taking these points into account we anticipate [illegible] viewers located to the southeast due to the prop[illegible]

2. To the north and east of the proposed building [illegible] envisage impairments to TV reception for view[illegible]

3. To the west of the proposed site there is an ind[illegible] located on commercial units but due to the la[illegible] anticipate impairments to television reception [illegible] building.

4. Within close proximity to the proposed site in [illegible] visible aerials on residential properties. For th[illegible] television reception due to back reflections.

   Back reflections: Where unwanted signals a[illegible] causing a ghost image.

   Experience tells us that this is possibility due [illegible] received at the viewers aerial from the Winter [illegible] strength signals being reflected by the propos[illegible] resulting in ghosting.

Taking into account the results from the survey a[illegible] have plotted an area on Map 2 showing the test p[illegible]

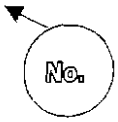



MAP 2 – PREDICTED AFFE

**KEY TO MAP**



PROPOSED SITE




TEST POSITION SHOWN



PREDICTED EFFECTED [illegible] CTS

## POSSIBLE REMEDIES

### 1. REMEDIAL AERIAL WORK

One or all of the following may help redu [illegible] receiv[illegible]

a) Change of Aerial Type

Possibly to an aerial with no or minimal [illegible] [illegible]nce the amo[illegible] [illegible]nted reflected signal received on the back of [illegible]

b) Change of Aerial Height

In some cases increasing or decreasing the aerial [illegible] an reduce imp[illegible] [illegible]eceived.

c) Relocation of the Aerial

Moving the receiving aerial to a position [illegible] [illegible]where [illegible] [illegible]om the unwanted reflected signals can reduce imp[illegible]me

### 2. D.T.T.V DIGITAL TERESTRIAL TE[illegible]VIS

D.T.T.V is less prone to reflections but w[illegible] [illegible] install[illegible] [illegible] [illegible]oxes, and a possible aerial upgrade may be requi[illegible] [illegible] [illegible]igital [illegible]

**NOTE:**

The results at test point 1 show that the [illegible] [illegible] already corr[illegible] [illegible] to the existing obstructions. his may rule out th[illegible] [illegible] DTTV as a [illegible] [illegible]edy.

### 3 SATELLITE TV

Receiving television from one of the satel[illegible] [illegible] Sky. [illegible]is wo[illegible] [illegible]ire the installation of a satellite dish and set top b[illegible] [illegible] incu[illegible] monthl[illegible] [illegible]iptions.

### 4. CABLE TV

Connection to the local cable network. [illegible] [illegible] [illegible]liai[illegible] [illegible] cable operator for availability and cost incur[illegible]

### 5. 'SELF HELP SCHEME'

In some cases a Self Help Transposer c[illegible] [illegible] [illegible]re [illegible] [illegible]sion relay stations and can be installed whe[illegible] [illegible] [illegible]lable[illegible] [illegible] [illegible]ally require new aerial installations directed [illegible] [illegible]pos[illegible] [illegible]ansposer channels. These are usually lower pow[illegible] [illegible]

**NOTE:**

1. The existing aerials recorded on the surve[illegible] ials in the area. They are the aerials which are visible [illegible] and are used as a guide during the survey.

2. If high level cranes are used on site they cou[illegible] a larger scale that the completed proposed buildings [illegible] tion of the time that the cranes are present.

Signed: .....

K BODEN

[illegible]5