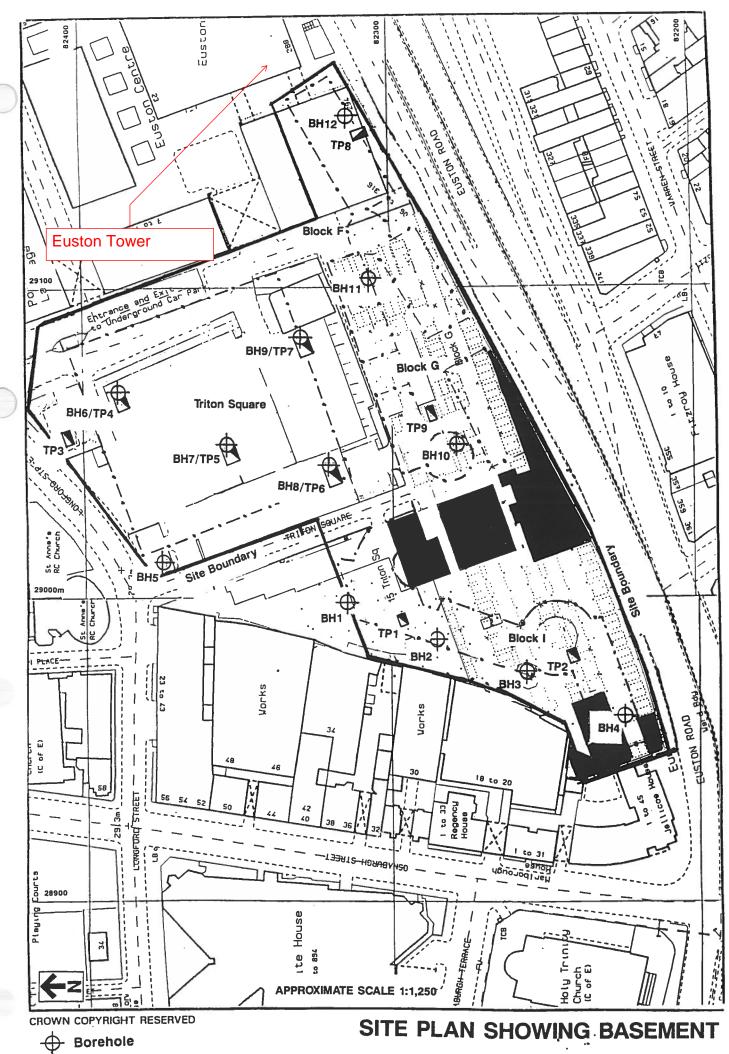


Contours on the top of the Chalk Group in metres relative to OD

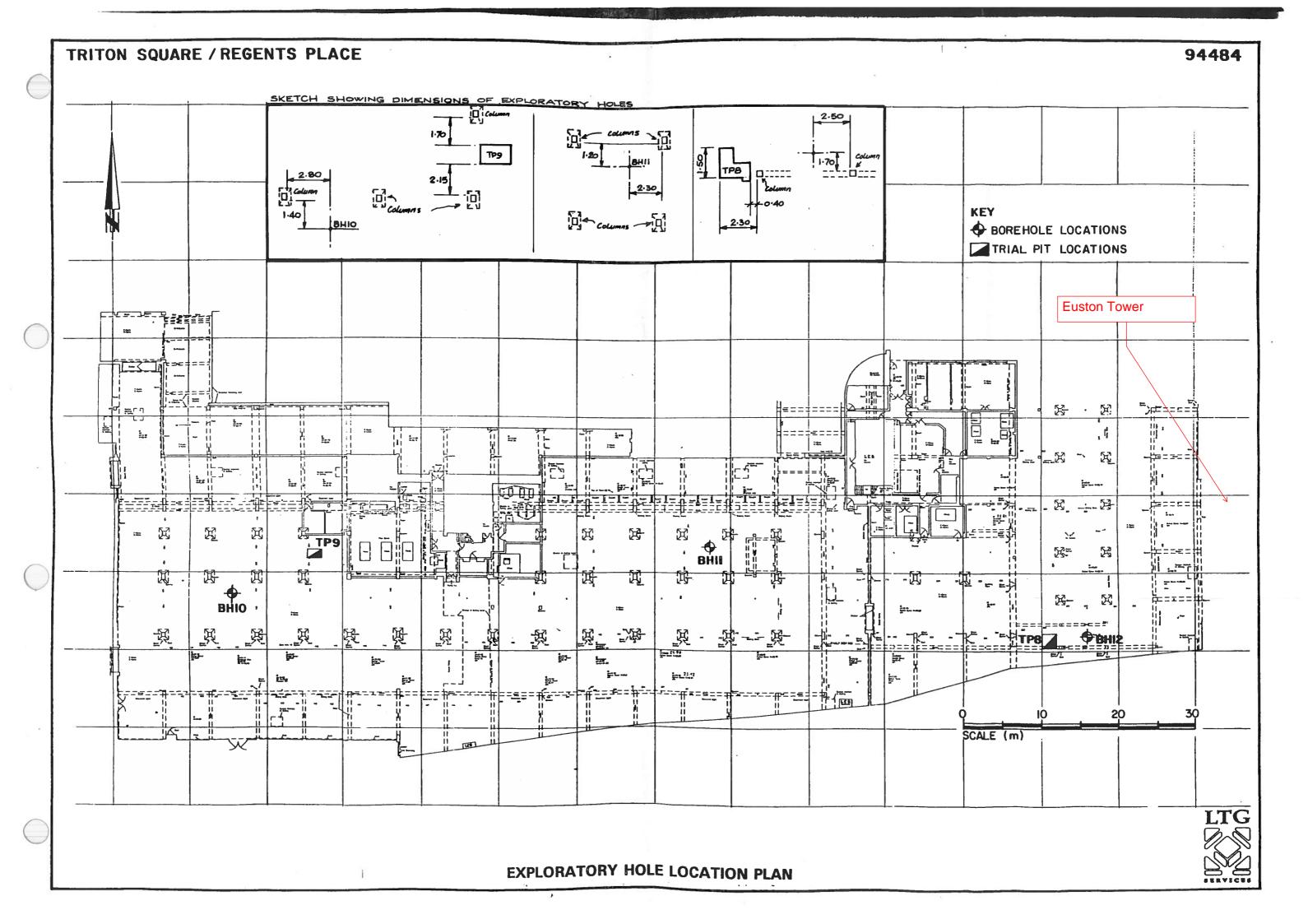
Scale 1:250 000

Euston Tower BGS CONTOUR MAPS FOR LONDON CLAY AND CHALK FIGURE 4 Appendix D – Existing ground investigation information



Trial Pit

Proposed Development



| roject Name: | | | | | TRI | TON S | QUA | RE/REG | EN | TS PLACE | | | Rec Borel | ord of nole No | o: |
|-------------------|----------|-------------|--------|-------|----------------------------|------------------|-----------------------------------|---|-------------------------|--|--|---------|--|-------------------|-----------|
| Project 9 | 4 4 | 1 8 | 4 | Clie | ent: | TH | E BR | ITISH L | _AN | ID CORPO | RATION | I | 3F | I 1 | 2 |
| Co-ordinates (| Nation | al): | | Gro | und level (m | AOD): | Method: | | | | | | | | |
| 29153.0 | E 82 | 2311. | .0N | Den | 23.8 oth of Hole: | 7 | Hole dia | | | BLE PERC | Sheet: | | | | |
| 24/01/9: | 5 to 1 | 31/01 | /95 | Deh | 40.9 | n | | 150mm | | 00/150mm | 1 of 6 | | [achin | e Numl | har |
| Sampl | | | | | Str | | 2007 | 15011111 | 1_2 | JO/ IJOIMI | 1010 | | | - Titalin | |
| Depth (m) | No. | Т | OTHE | | Depth (m) | Reduced Level | | Γ | Desc | cription of S | trata | Geology | Legend | Water | Piezo |
| | | | | 0_ | | | MĀD | Ē GROŪN | ĪD(c | oncrete floor) | | | \sigma | | الأوا |
| 0.25-0.70 | 1 2 | В | | | (0.25) 0.25 (0.35) 0.60 | 23.62 | MAD and su | E GROUN | D(y | ellow brown m | edium to coarse sand coarse gravel | | | | 000 |
| 0.85 | 3 | D | |] = | (0.25) 0.85 | 23.02 | | minantly o | | | ounded brick and | 1 | \boxtimes | | M |
| 1.00-1.45 | 4 | ВС | 37 | = | | | morta Mediu | r cobbles. ım dense v | vello | w brown fine to | o coarse SAND and se flint GRAVEL. | | | | |
| 1.60 | 6 | w | | | | | (TER | RACE GR. | AVE | EL) | e min GRAVEL. | | | | |
| 2.00-2.45 | 5 | ВС | 24 | 2= | (2.00) | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 2.90 3.00-3.45 | 7 8 | D U | | 3 | (0.35) 3.20 | 21.02 | silty C | LAY with | 1 OCC | asional commu | tled poorly fissured united shell, (fissures | | x-x x-x | | |
| 3.45 3.50-3.95 | 9 | D DS | 19 | | | | (WEA | | LO | NDON CLAY) | | | X-X X-X | | |
| 4.50-4.95 | 11 | U | (45) | 4 | | | grey of debris | or green gr , fissure pl - curvinla | rey s lane: anar. | ilt veins and co s generally incl commonly and | very to extremely ccasional light blue ommunited shell independent and documented shell sure planes. eration along fissure | | X X X X X X X X X X | | |
| 4.95 5.00-5.45 | 12 13 | D DS | 19 | 5 | | | planes @3.45 pocker From | i. Sm occasio ts: (oxidise | onal : ed py Om l | 5mm diameter | orange brown clay ne sand lining to | | X - X X - X X - X X - X | | |
| | | | | | | | (LON | DON CLA | Y) | | | | X-X X-X X-X | | |
| 6.00-6.45 | 14 | U | (45) | 6 | | | | | | | | | x-x x-x | | |
| 6.45 6.50-6.95 | 15 16 | D DS | 24 | 7 | | | | 50m occas in diameter | | al light grey sil | t pockets up to 2 - | | (1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X | | |
| 7.50-7.95 | 17 | U | (45) | | | | | | | | | | X | | |
| | | | | 8 | | | | | | | | | x-x ×-x | | |
| | | | | | ater Ot | | | niselling | | Remarks: | orogress, water obs | ervat | ione | and | |
| Date Tim | e D |)epth | Casing | Wa | ter Rose | Sealed | From | To M | lins | chiselling de Full SPT and | tails are given on a 1 U100 details are ghole in underground | separ | rate on s | shee separ | t. ate |
| | | | | | | | | | | | bbreviations and ols see key sheet | | r | LT | G'G |
| | | | | | | | | | | GE/tech 101 | Produced by J.M.Davidson on | | | 11 | M |
| ale: 1 | :50 | | | Proce | ssed in acco | rdance with | | Processed by | y: | | Logged by: | | ٦ | | // |

| Project Nar | ne: | | | | TRI | TON S | QUA | RE/RI | EGEN | NTS PLACE | 3 | | Rea Bore | cord of | o: |
|--------------------------|-------------|---------|------------|----------|-----------------------------|------------------|--------------------|------------------------|--------------------|---|---|---------------------------------|---|----------------------------|-------------------|
| Project No: | 4 4 | 8 | 4 | Clien | nt: | TH | E BR | ITISH | LA | ND CORPO | RATION | I | 3F | I 1 | 2 |
| Co-ordinate | | • | | Grou | ınd level (m | AOD): | Method: | | | | | | | | |
| 29153 Date: | .0E 82 | 2311 | .0N | Dept | 23.8' h of Hole: | 7 | Hole dia | meter: | | BLE PERC | CUSSION Sheet: | | | | |
| 24/01/ | 95 to 3 | 31/0 | 1/95 | | 40.9 | 0 | | 150m | | 00/150mm | 2 of 6 | M | fachir | ne Num | ber |
| Sam | ples & | د Те | sts | Ī | Str | ata | | | | | | | T | | |
| Depth (m) | No. | Туре | SPT CPT | | Depth (m.) | Reduced Level | | | Des | cription of S | Strata | Geology | Legend | Water | Piezo Backfill |
| 8.00-8.4 | 5 18 | ₽S | 25 | 8 | 10.35) | | l debris | . fissur | e nlane | s generally inc | very to extremely ccasional light blue ommunited shell lined, smooth and | | X - X X - X X - X X - X X - X X - X X - X X X - X X X - X | | |
| 9.00-9.4 | 5 20 | ט | (65) | 9 = | | | debris | with b | ack m | ottling along fi | d communited shell ssure planes. | i | X - X X X | | |
| 9.45 9.50-9.9 | 21 22 | D DS | 29 | 11111116 | | | | | | | | | X | | |
| 10.50-10. | 95 23 | ט | (65) | | | | | | | | | | X | | |
| 10.95 11.00-11. | 24 45 25 | D DS | 28 | <u>=</u> | | | | | | | | | X | | |
| 12.00-12.4 | 15 26 | ט | (55) | 12 | | | | | | | | | (X X X X X X X X X X | | |
| 12.45 12.50-12. | 27 28 | D DS | 28 | 13 | | | | | | | | | X | | |
| 13.50-13.6 13.65-14.3 | | U B | (100) | | 13.55 | 10.32 | G rey 1 | fresh Cl | LAYS | ONE, strong. | | | ×-× ×-× | | |
| 14.00-14.3 | : | B | (70) | 14 | 14.00 | 9.87 | closely shell d | y fissure lebris, f | ed silty issure | CLAY with or planes generall | grey brown extremely ccasional communited by inclined smooth | , | X-X X-X | | |
| 14.95 | 33 | D | 30 | 15 | | | planar | and me | ottled t | olack. | | | X-X X-X X-X | | |
| 15.00-15.4 | 15 34 | DS | | | | | | | | | | | X-X X-X | | |
| | | | | 16 | | | | | | | | | ×-× | | |
| | | rogr | Casing | Wat | ater Ober Rose | Sealed | From | niselli To | Mins | Remarks: Full boring periods of the chiselling design of the chiselling design of the chiself of | progress, water obsetails are given on a d U100 details are ghole in underground | ervat sepa given l car | ions rate on a parl | and shee separ k. | t. ate |
| | | | | | | | | | | For a symb | bbreviations and ols see key sheet | | | LI | <u>G</u> |
| 0-1 | | | | | | | | [| | GE/tech 101 | Produced by J.M.Davidson on | INT, 199 | <u></u> | | |
| Scale: All dimens | 1:50 | etres | | | ised in accor 3S5750 and | | | Processe | - | OC . | Logged by: | | | | |

| Project Na | me: | | | | TRI | TON S | QUA | RE/RI | EGEN | TS PLACE | 3 | | Rec Bore | ord of hole N | o: |
|--|----------|------------|-----------|------|---------------------|--------------|-------------------------|--------------------------------|----------------------------|--|---|-----------|--|------------------|-----------|
| Project (| 9 4 | 4 8 | 4 | Clie | nt: | TH | E BR | ITISH | LAN | ID CORPO | RATION | I | 3 E | I 1 | 2 |
| Co-ordinate | es (Nati | onal): | | Gro | und level (m | AOD): | Method: | | | - i | | | | | |
| 29153 Date: | 3.0E | 82311 | .0N | Dom | 23.8 th of Hole: | 7 | Hole dia | | | BLE PERC | Sheet: | | | | |
| 24/01 | /05 to | 31/0 | 1/05 | рер | ш от ноје: 40.9 | n | | 150m | | 00/150mm | 3 of 6 | Ι, | Canhin | e Num | ha- |
| The state of the s | | & T | | | Str | | 2007 | 130111 | ш 2 | 00/13011111 | 3 01 0 | L IV | lacini | e Ivuin | Der |
| Depth | | o. Typ | OTHE | 1 1 | Depth | Reduced | | | Desc | cription of S | Strata |) kg | - I | | |
| (m) | | - - | 'N' value | | (m) | Level | | | 2000 | ription of b | , ci aca | Geology | Legend | Water | Biezo |
| 16.00-16. 16.45 16.50-16. | 3 | 6 D | (70) | 16 | 4.80) | | shell of planar | lebris, i and me 6.45m s | issure jottled ballity to | planes generall lack. | grey brown extremely ccasional communited y inclined smooth occasional light | | | | |
| 17.50-17. 17.95 18.00-18. | 3 | 9 D | (65) | 18 | | | | | | | | | | | |
| 18.80-19. 19.00-19. 19.45 19.50-19. | .45 4 | 2 U 3 D | (80) | 19 | 18.80 | 5.07 4.87 | Very s | stiff dar | k grey mmuni | ONE, strong. brown silty to ted shell debris yood fragments | very silty CLAY with s, grey green silt s. | | | | |
| 20.50-20. 20.95 21.00-21. | 4 | 6 D | (60) | 20 | | | @20 fissure and m | 0.00m ted; fissu ottled b | ecomir re plan lack. | ng silty and ext es generally in | tremely closely clined smooth planar | | X | | |
| 22.00-22. 22.45 22.50-22. | 4! | 9 D | (60) | 22 | 7.50) | | | | | casional fine bi es show polish | rown sand/silt ing and striated. | | XIXIXIXIXIXIXIXIXIXIXIXIXIXIXIXIXIXIXI | | |
| 23.50-23. | .95 5 | ı U | (70) | 24 | | | @2: sand p | 3.50m s partings: | mall 31 fissure | nm diameter p | ockets of silt/fine polishing in part. | | X | | |
| Во | ring | Prog | ress & | Ł W | ater Ol | os. | C | hiselli | ng | Remarks: | | | | | |
| | Time | Depth | Casing | _ | | Sealed | From | То | Mins | chiselling de | progress, water obsetails are given on a d U100 details are ghole in underground | sepa | rate | shee | t. |
|) | | | | | | | | | | symb | bbreviations and ols see key sheet | | | LI | [G |
| Scale: | 1 = | 0 | <u> </u> | Des | | -dan 'd | <u> </u> | Processe | i hv: | GE/tech 101 | Produced by J.M.Davidson on Logged by: | EINT, 199 | <u>-</u> | | |
| | 1:5 | U | | | ssed in acco | AGS stand | | | D | • | SR | | Ш | | // |

| | Project : | Name: | | | | | TRI | TON S | QUA | RE/RI | EGE | NTS PLACE | 3 | | Rec Bore | cord of hole N | 0: |
|-----|------------------|---------------|----------|---------|-------------------------|---------------------------|----------------|--------------------------|--------------------------|-----------------------------------|----------------------------|--|---|-----------|---|-------------------|--------------------|
| _ | Project No: | 9 | 4 4 | 4 8 | 4 | Clie | nt: | TH | E BR | ITISH | LA | ND CORPO | RATION | I | 3F | H 1 | 2 |
| i i | Co-ordi | nates (1 | Vation | al): | | Gro | und level (n | AOD): | Method | | | | | | | | |
| | _ | 53.0 | E 8 | 2311 | .0N | | 23.8 | 7 | | | | ABLE PERC | USSION | | | | |
| | Date: | | | 04.40 | | Dep | th of Hole: | _ | Hole dia | | | asing diameter: | Sheet: | | | | |
| | | | | 31/0 | | | 40.9 | | 200/ | 150m | m 4 | 200/150mm | 4 of 6 | M | fachir | e Nun | ber |
| | | | | Ł Τe | | | | ata Reduced | - | | Б. | | | _ | | | _ |
| | Dep m | | No. | Туре | SPT CPT 'N' value | 24 | Depth (m) | Level (m) | | | Des | scription of S | | Geology | Legend | Water | Piezo, Backfill |
| | 24.83 | 2 4.45 | 53 | ъВ | 35 | | | | occasi | ional co | mmur | y brown silty to lited shell debris wood fragments | very silty CLAY with s, grey green silt s. | | | | |
| | 24.70- 25.00- | | 54 55 | В | (70) | 25 | | | @2 | 4.70m į | grey fi | resh CLAYSTO | NE, strong. | | X - X X X X X X X X X X X X X X X X X X | | |
| | 25.50- 25.50- | 45 | 56 57 | D DS | 37 | 11111111 | | | @2 | 5.50m l | ecom | ing very silty/sa | undy. | | XIXIXIXIXIXI | | |
| | 26.50- | 26.95 | 58/5 | D/U | (80) | 26 | 26.50 | -2.63 | Very | stiff gre | y mot | tled red and bro | wn silty to very silty | E | X | | |
| | 26. 27.00- | | 60 61 | D DS | 75 | 2T | 26.90 27.10 | -3.03 -3.23 | curvir (WOC | lanar. LWICI | I ANI | O READING BE | EDS) | 3 | ×-× ×-× | | |
| | 28.00- | 28.45 | 62 | U | (100) | 28 | 28.00 | -4.13 | Very : | stiff bro with o | wn an ccasio | CLAY with occ fine to medium d blue grey ban anal pockets (up | own and light blue asional small 5mm a grey sand. ded and mottled silty to 5mm) of fine to | | X X X X X X X X X X | | |
| | 28.4 28.50- | | 63 64 | D DS | 86 | | | | Very s | and. Fi | d blue selv fi | grey yellow an assured silty CL planes generally | d purple mottled AY locally with a inclined smooth and | | X | | |
| | | | | | | 29 - - - | 1.70) | | P | • | | | | | (1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X | | |
| _ | 29.50-2 | 29.95 | 65 | U | (120) | ╽∄ | 29.70 | -5.83 | | | | | | , | X~X X~X | | |
| | 29.8 29.90-3 | 1 | 66 67 | D DS | 55 | 30 | | | Spotte CLAY polish | d blue v 7; fissur ed or st | ery to e plan riated | extremely close es generally inc | rviplanar: locally | | | | |
| | 31.00-3 | 31.35 | 68 | ט | (120) | 3[| | | | | | | | | X - X X - X X - X X - X X - X | | |
| | 31.3 31.40-3 | | 69 70 | D DS | 61 | | 3.70) | | | | | | | | X | | |
| | p | Orin | σD | rogr | Pec 9 | 32 VX/ | ater Ol | | | hiselli | | Remarks: | | | <u>x</u> -x | | |
| | Date | Time | | Pepth | Casing | Wat | | | From | To | Mins | Full boring p chiselling de Full SPT and | orogress, water obsetails are given on a 1 U100 details are ghole in underground | sepai | rate on s | shee sepa | et. rate |
| _ |) | | | | | | | | | | | symb | bbreviations and ols see key sheet | | | L | r G |
| Į | Scale: | | | = - | | | | | | <u> </u> | 11 | GE/tech 101 | Produced by J.M.Davidson on | INT, 1992 | | | |
| | All dim | | :50 | atros | | | | rdance with AGS stand | | Processe | • | OC | Logged by: | | | | |
| ι | An diffi | CHSIOIR | шш | cnca | | | _ | | | L. | 1 | <i></i> | SR | | - II | | _ |

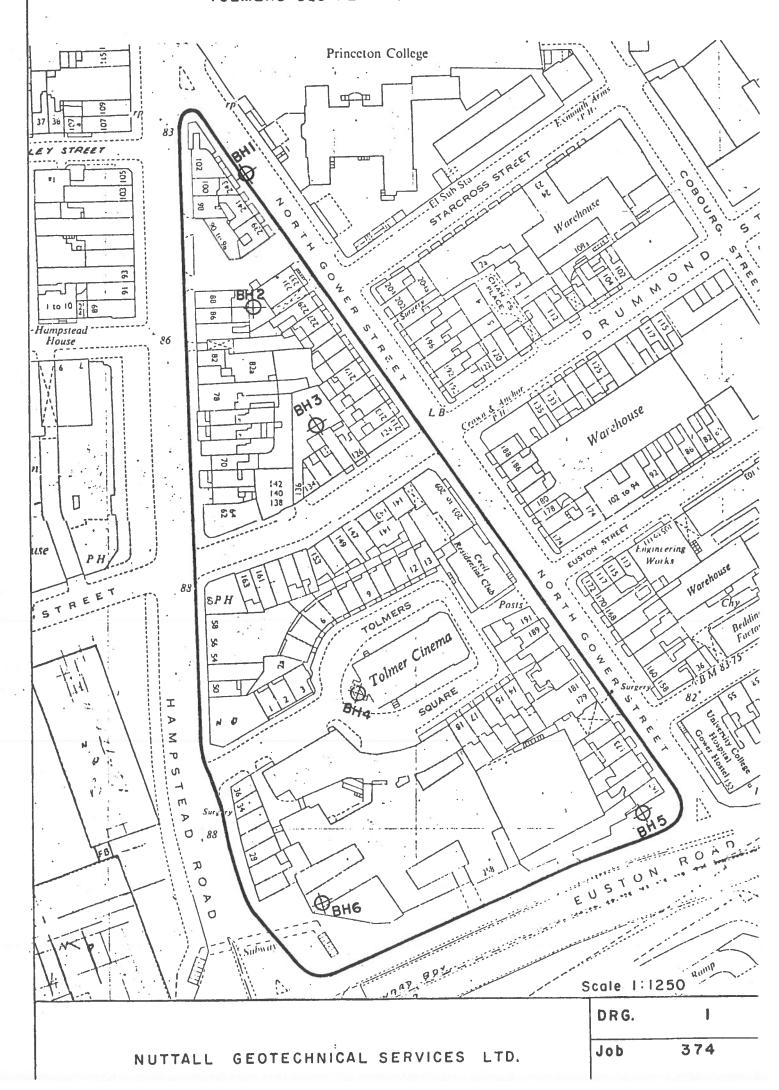
| Project N | Name: | ······ | | • • | | TRI | TON S | OIIA | RE/R | EGFI | NTS PLACI | . | | Rec | ord of | |
|----------------------------|----------------|----------------|----------|--------------|-------|----------------------|------------------|---------------------------|--|------------------------------|---|--|----------------------------------|---|-----------------------|-------------------|
| Project | | | | | Clie | | | | | | | | ∥ _ | | | |
| No: | 9 4 | | | 4 | | | | E BR | UTISH | I LA | ND CORPO | RATION | H | 3F | H 1 | 2 |
| Co-ordin | 12 (N 53.01 | | • | ON | Gro | and level (m 23.8 | • | Method | l: | C | ABLE PERO | CHESTON | | | | |
| Date: | | | | | Dept | h of Hole: | | Hole di | | C | asing diameter: | Sheet: | | | | |
| | 1/95 | | | | | 40.9 | | 200 | /150m | m / 2 | 200/150mm | 5 of 6 | M | fachin | e Num | ber |
| Dept | mple | No. | Туре | ODG | | Str Depth | Reduced Level | - | | Des | scription of S | Strata | , S | - E | | |
| (m) | | | 1 | 'N' value | | (m) | (m) | | | | | | Geology | Legend | Water | Piezo Backfill |
| 32.50-3 32.9 | | 71 72 | U D | (120) | 32 | | | Spotte | stiff to ed blue Y; fissu ne sand | extrem re plar | nely to very clo | n mottled brown sely fissured silty clined planar and | | X X X X X X 1 | | |
| 33.3 33.50-3 | 1 | 73 74 | D DS | 61 | 34 | 33.40 | -9.53 | mottle locall mediu | ed very y very ım flint | to extr sandy (grave) | remely closely | l orange brown fissured silty sandy asional rounded generally inclined | | X X X X X X X X X X | | |
| 34.50-3 | | 75 | U - | (120) | | | | | | | | | | X - X - X - X - X - X - X - X - X - X - | | |
| 34.8 34.90-3 | | 76 77 | D DS | 64 | 35 2 | .90) | | | | | | | | | | |
| 36.00-3 36.2 36.30-3 | .5 | 78 79 80 | U D | (120) 103 | 36 | 36.30 | -12.43 | | | | | l lenses of fine to | | 0 X X X X X X X X X X X X X X X X X X X | | |
| 37.00-3 | | 81 | DS BC | 143 | 37 | .10) | | Very | rse clay gravel | lack/da | ark grey subrou | inded to rounded fine with white incrust on coming gravelly with | | | | |
| 37.50-3 | 7.70 | 82 | DS | 300 | 38 | 37.40 | -13.53 | Very occasi (THA | dense g ional gr NET S | rey sili avel si AND) | ty fine to mediu zed lumps of so | m SAND with oft silt/clay. | | × × × × × × | | |
| 38.50-38 | 8.78 | 83 | DS | 200 | 39 | | | | | | | | | * * * * * * * * * * * * * * * * * * * | : | |
| 39.50-39 | 9.77 | 84 | DS | 206 | 40 | | | fror soft? t | n 39.50 brown s |) - 40.(ilty CI | 00m occasional LAY. | thin (3mm) bands of | | * * * * * * * * * * * * * * * * * * * | | |
| | | | <u> </u> | | | ater Ob | | | hiselli | | Remarks: | progress water of | OFF. C.4. | 0=- | 05.4 | |
| Date | Time | De | pth | Casing | Wate | er Rose | Sealed | From | То | Mins | chiselling de Full SPT and sheets. Bore | orogress, water obso- tails are given on a d U100 details are g hole in underground | separ separ given i car | ate on s park | and sheet epara | :. ate |
| | | | | | | | | | | | symb | bbreviations and ols see key sheet | <u> </u> | r | LT | 'G |
| Scale: | 1:: | 50 | | I | roces | sed in accor | dance with | | Processe | d by: | GE/tech 101 | Produced by I.M.Davidson on a Logged by: | INT, 1992 | ╣ | | |
| All dime | | | res | | | S5750 and | | urds | | • | OC | SR | | | | # |

| Project Nam | e: | | | | | TRI | ron s | QUA | RE/R | EGEN | ITS PLACE | Ξ | | Rec Bore | cord of hole N | o: |
|-----------------|-------|---------------|--------|------------|-----------|--------------------|------------------|----------|-----------------|-----------|-------------------------------|---|------------|-------------|-------------------|--------------------|
| Project 9 | 4 | 4 | 8 | 4 | Clie | nt: | TH | E BR | ITISI | I LAN | ND CORPC | RATION | H | 3F | H 1 | 2 |
| Co-ordinates | | | | | Grou | ınd level (m | - | Method | : | | | | il | | | |
| 29153. Date: | .0E 8 | 823 | 11.0 | ON | Dent | 23.8 h of Hole: | 7 | Hole dia | | | BLE PERC | | | | | |
| 24/01/9 | 05 to | . 31 | /O1 | /05 | Dept | п от нове: 40.9 | n | | meter: /150m | | sing diameter: 00/150mm | Sheet: | II . | | | |
| Samp | | | | | | Str | | 2007 | 13011 | un 2 | 00/13011111 | 6 of 6 | <u> </u> | Lachin | e Num | ber |
| Depth | | $\overline{}$ | Гуре | SPT CPT | ┨ | Depth | Reduced Level | - | | Dec | cription of S | Strata | 25 | _ | | _ |
| (m) | "" | ŭ. . | , ypc | CPT | | _ | | | | Desi | or ibrion or r | ou ala | Geology | Legend | Water | Piezo. Backfill |
| (III) | | | | N Value | 40 | (10) | (m) | | | | | | | 7.6 | | 7.7 |
| | | | | | l∃ | | | Very | dense ; | grey silt | y fine to medi | um SAND. | | x x | | |
| 40.50-40.7 | 5 85 | 5 | DS | 240 | | | | | | | | | | ×× | | |
| | | | ŀ | | \exists | 40.90 | -17.03 | | | | | | | ×× | | |
| | | | | | H | 40.30 | -17.03 | EXPI | ORAT | ORY H | OLE COMPL | ETED AT 40.90m. | 1 | ×× | | |
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| Bori | ng I | Pro | gre | ss & | W | ater Ob | s. | C | hiselli | ng | Remarks: | | | | | |
| Date Tir | | Dep | | Casing | Wate | | Sealed | From | То | Mins | Full boring | progress, water obstails are given on a d U100 details are ghole in underground | ervati | ons | and | |
| | | | \top | | | | | | | 1000 | chiselling de Full SPT and | talls are given on a d U100 details are o | separ | ate | shee | t. ate |
| | | | | | | | | | | | sheets. Bore | hole in underground | d car | parl | K. | ull |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | For a | bbreviations and | | | | |
| | | | | | | | | | | | symb | ols see key sheet | | | Γ | 'G |
| | | | | | | | | | | | GE/tech 101 | Produced by J.M.Davidson on | gINT, 1992 | | | M |
| ale: | 1:50 |) | \top | | | sed in accor | | | Processe | d by: | | Logged by: | | ٦l | | |
| ll dimensio | | | . | BS5 | 930, E | S5750 and | AGS standa | ards | | D | C | SR | | 11 | <u> </u> | ν <u>/</u> _ |

| OVE A | RUP AN | ND PAF | RTNER | S | | | | 2 | APPENDIX |
|-------------|---------------|------------|--|----------|----------|----------|--------|--|---|
| | NT'S PL | | | | | | | | JOB NO. 49198/77 |
| | RD OF | | PIT - T | P 8 | | | Page 1 | of 2 | MADE BY JMB |
| | | | | | | | | | DATE MADE 25/1/95 |
| DAILY | DEPTH | SAMP | LE/ IN S | ITU | TEST | LEG | DEPTH | RED | DESCRIPTION OF STRATA |
| PROG- | то | _ | | | | END | | LEVEL | |
| RESS | WATER | | PTH | T | YPE | - | | | |
| | | FROM | ТО | | | <u> </u> | | | Face A B C D E F |
| 33/1/05 | (m) | (m) | (m) | ļ., | | ļ | (m) | (mOD) | GROUND LEVEL at 23.87 |
| 23/1/95 | 1 | | - | ╆ | | | | | b 1) a |
| | | | | | | | | | , d |
| | | 0.40 | | 3 | J | | | | |
| | ļ | 0.40 | | 4 | J | | 0.45 | 23.42 | |
| | | | | | | \vdash | | | Void |
| | | | | | | | | | |
| | ļ | | | | <u> </u> | | | | |
| | | | | ╁ | | | | | |
| | | | | | | | | | 1 |
| 24/1/95 | 1.25* | 1.25 | | 5 | W | | 1.25 | 22.62 | 2° 2° F |
| - | | 1.30 | | 1 2 | B | | 1.35 | 22.52 | |
| | | | | 1 | | | | | Base of pit |
| | | | | | | | | | |
| 1 | | | | - | | | | | 4 |
| | | | | | - | | | | 1 |
| | | | | | | | | | j - |
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| - | | | | - | | \vdash | | | |
| | | | | | | | | | STRATA |
| | | | | _ | | | | | - |
| - | | | | | | | | | a. Concrete floor slab with 6mm diameter mesh with 150mm spacing. b&c. Structural concrete with spiral drawn 16mm diameter reinforcement @ 300mm centres. |
| | | | | | | | | | & 10-12mm shear reinforcement @ 150mm centres |
| | | | | | | | | | d. 150mm wide black rubber water bar |
| | | | | | | | | | e. Concrete footing under column f. Blinding |
| | | | · · · · · · | \vdash | | Н | | | 1. Dinding |
| | | | | | | | | | a. Medium dense orange brown medium to coarse SAND and fine to medium |
| 1 | | | | | | \vdash | | | 2 angular to rounded GRAVEL with occasional building rubble (concrete & wood) b. Black sheet pile section surrounded in concrete |
| | | | | | | | | | c. Below 0.6m (2) a becoming SAND and GRAVEL (as (2) a) with soft to firm grey |
| | | | | | | | | | CLAY |
| | | | | | | | | | 1 |
| | | | | | | | | | 1 |
| | | - | | | | | | | |
| NOTES | | | | | | | | | METHOD OF EXCAVATION |
| | Water lev | el after o | vernich* | rice | | | | | Hand Dug |
| | | 14 | | | | | | | |
| ** | Void noti | | | | | | | g and up | to |
| | 0.45m wi | de. Blaci | k pipe vis | sible | 1.5m ir | ito voi | d. | | |
| | | | | | | | | | |
| 1 | | | | | | | | | |
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| | | | | | | | | | TP 8 |
| | | | | | | | | | * * * * * * * * * * * * * * * * * * * |
| | | | | | | | | | |

| ABCORD OF TRIAL PIT - TP 8 Page 2 of 2 MADE BY DATE MADE DATE MA | OVE A | | | TNERS | 3 | | | | | APPENDIX |
|--|----------------|---------|-----------|----------|--|--------------|--|-----------|--|----------------------------|
| DATE MADE SAMPLE/IN SITUTEST PROC TO RESS WATE FROM TO (m) | | | | | | | | | | JOB NO. 49198/77 |
| DAILY DEPTH SAMPLE'N SITU TEST LEG. DEPT RED PROC. TO RESS WATER DEPTH TYPE FROM TO TO RESS WATER FROM TO TO SET TO THE PROM TO THE PROM TO THE PROM TO TO THE PROM T | RECOR | RD OF 1 | RIAL P | PIT - TI | P 8 | | | Page 2 | of 2 | |
| TO RESS WATER DEPTH TYPE END LEVEL | 1 | DEDTIL | 6 4 3 4 5 | | | ECT. | Treo | I D E D O | Loco | |
| Nation N | DAILY | | SAMP | LE/ IN S | SILCI | E51 | LEG- | DEPT | | DESCRIPTION OF STRATA |
| FROM TO (m) | | | DFF | тн | Т | YPF | END | 1 | LEVEL | |
| (m) (m) (m) (m) (mOD) GROUND LEVEL Sam 0 (eBal 100) 90 GROUND LEVEL Car park slab. Sam 0 (eBal 100) 90 Feat. well footings Column footings Column footings Section 1-1 Retaining wall One of Excavarious and the same of the sam | | | | | 1 '' | | | ĺ | | |
| Car park slab. Car park slab. Car park slab. Car park slab. Column footings Ret. walf footing Column footings Saction 1-1 Retaining wall A | | (m) | | | | | | (m) | (mOD) | GROUND LEVEL |
| OTES Bulk Conc. Vold Car park Stab Column footings Ret. walf footings Ret. walf footings Section 1-1 Retaining wall Construction joint Pipe E D TP8 B 1.80 PLAN VIEW All dimensions in m | | | | | | | | | | 16mm () |
| Bulk Conc. Vold O.45 Bulk Conc. Vold Column footings Ret. wall footings Section 1-1 Retaining wall A | | | | | | | | | | Car park slab rebar 100 90 |
| Column footings Column footings Ret. wall footings Section 1-1 Retaining wall construction joint and property of the prope | | | | | - | - | - | 0.30 | | |
| Column footings Column footings Ret. wall footings Section 1-1 Retaining wall construction place in the property of the pr | | | | | - | | | 0.45 | | Bulk Conc. Void |
| Column footings footings Column footings footings Section 1-1 1.25 | - 1 | | | | - | | - | 0.43 | - | |
| Column footings 1.25 Binding Section 1-1 Retaining wall Construction Pipe E D TPB B 1.80 Viod 2.00 PLAN VIEW All dimensions in m | | | | | | | † | | | Ret. walf |
| 1.25 Saction 1-1 Retaining wall 1.3 1.15 Pipe E D TPB B 1.80 PLAN VIEW All dimensions in m | | | | | | | İ | | | Column feeting |
| Section 1-1 Retaining wall 1.3 1.15 Retaining wall construction joint Pipe E D TP8 B 1.80 Viced 2.00 PLAN VIEW All dimensions in m | | | | | | | | | | Commir loodings |
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| Section 1-1 Retaining wall 1.3 1.15 Retaining wall construction joint Viod 2.00 PLAN VIEW All dimensions in m METHOD OF EXCAVATION | | | | | _ | | | 1.25 | | Blinding |
| Retaining wall 1.3 1.15 Retaining wall construction joint Viod 2.00 PLAN VIEW All dimensions in m | | | | | | | | | | |
| N PLAN VIEW All dimensions in m | | | | | | | | | | Section 1-1 |
| N PLAN VIEW All dimensions in m | | | | | L | | | | | |
| N PLAN VIEW All dimensions in m | | | | | | - | | | | |
| N PLAN VIEW All dimensions in m |)—— | | | | | | - | | - | |
| N PLAN VIEW All dimensions in m | | | | | | | | | | |
| N PLAN VIEW All dimensions in m | | | | | | | | | | Retaining wall |
| The staining wall construction joint to the state of the | | | | | | | | | | ///////////// |
| OTES A construction joint Pipe D TP8 B 1.80 2.00 PLAN VIEW All dimensions in m | | | | | _ | | | | ļ | i i |
| OTES A construction joint Pipe D TP8 B 1.80 2.00 PLAN VIEW All dimensions in m | | | | | | | | | | |
| OTES A construction joint Pipe D TP8 B 1.80 2.00 PLAN VIEW All dimensions in m | | | | | - | _ | | | H | |
| N PLAN VIEW All dimensions in m | | | | | | | | | | 1.3 1.15 Retaining wall |
| Pipe D TP8 B 1.80 2.00 PLAN VIEW All dimensions in m METHOD OF EXCAVATION | | | | | | | | | | |
| Pipe TPB B 1.80 2.00 PLAN VIEW All dimensions in m | | | | | | | | | | |
| Viod 2.00 PLAN VIEW All dimensions in m | | | | | | <u> </u> | - | | | <u> </u> |
| N PLAN VIEW All dimensions in m | | | | | | | _ | | | Pipe E D TP8 B 1.80 |
| N PLAN VIEW All dimensions in m | | | | | 1 | | - | | | |
| PLAN VIEW All dimensions in m METHOD OF EXCAVATION | | | | | | | | | | V/ + c + |
| PLAN VIEW All dimensions in m METHOD OF EXCAVATION | | | | | | | | | | Viod . |
| PLAN VIEW All dimensions in m METHOD OF EXCAVATION | | | | | | ļ | | | | |
| PLAN VIEW All dimensions in m METHOD OF EXCAVATION | | | | | | | _ | | | - A |
| All dimensions in m OTES METHOD OF EXCAVATION | | | | | - | | | | | |
| OTES METHOD OF EXCAVATION | | | | | | | | | | |
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| Hand Dug | OTES | | | | | | | | | METHOD OF EXCAVATION |
| | | | | | | | | | | Hand Dug |
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| | | | | | | | | | | TP 8 |
| TP 8 |) | | | | | | | | | |

TOLMERS SQUARE - BOREHOLE LOCATION PLAN



Job 374

LOG OF BOREHOLE No. 1

Shell and Auger

200mm (8") to 6.90m 150mm (6") to 20.00m

| | | DEPTH | DEPTH | | AMPLIN | G D | ATA | | STR | SE OF | |
|--------------|---|------------|--------------|-------------------------|--------|----------------|-------------------------|-------------------------|-------|---------|---|
| | DAILY PROGRESS | ٠, | OF | DEI | PTH | | | LEG - | | REDUCED | DESCRIPTION OF STRATA |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | WATER | CASING | FROM | 10 | No. | TYPE | END | DEPTH | LEVEL | |
| | | m | m | т | m | | | | m | m | GROUND LEVEL: 25.48m O.D. |
| | 7.1276 | | 6 | G.L. | 2.40 | - | D | | | | Ashphalt, concrete and ballast material (Road surface foundations). |
| l <u>, m</u> | | | 11 2 | 2 | ų. | | | | | | |
| | , | | | . 2 | | | | $ \otimes\!\!\!\otimes$ | | | |
| 2 m | | | | - | | | | | | Q. | |
| | | 1 | | | | | | | 2.90 | 22.58 | (Fill) |
| 3 m | - | 12 | 3.00 | 3,15 | 3.45 | 2 | CP(18)B | | 2.90 | 22,50 | Medium dense brown sandy fine to coarse GRAVEL with occasional cobbles. |
| 4 m | | | | 3.90 | | 3 | D D | • • • • | 3.80 | 21.68 | (Taplow Gravel) |
| | | | 3.50 | 3.90 4.35 | 4.35 | 4 | U4 D | | | | Firm to stiff brown highly fissured, slightly silty CLAY with occasional grey fissure surfaces. |
| 5 m | | | 2 | 4.50 | 4.80 | 6 | SP(2I)D | | | * | (London Clay) |
| | | | | - | | | | | | 8 | |
| ó m | | | | 6.00 6.00 6.45 | 6.45 | 7 8 9 | D U4 D | X | | å. | with traces of organic material |
| 7 m | | | | 6.60 | 6.90 | 10 | SP(25)D | | : | | |
| | | | 13 | 7.50 | 7.95 | 12 | D U4 | | | İ | |
| 8 m | 2 42 | 2014 | 7.50 7.50 | 7.50 7.95 8.10 | 8.40 | 12 13 14 | D SP(19)D | | | | |
| 9 m | 8,40 8,12 <i>7</i> 6 | DRY DRY | 7.50 | 9.00 | | 15 | D | | | | |
| | | | | 9.00 9.45 | 9.45 | 16 | U4 D | | - | | |
| 10 m | | | | 9.60 | 9.90 | 18 | SP(24)D | | | _ | |
| | | | | 1 | | | | | | | |
| 11 m | | | | | | | | | i. | | |
| 12 m | | | | II.40 II.40 II.85 | 11.85 | 19 20 | D U4 D SP(33)D | | | *// | |
| . z m | | | | 12.00 | 12,30 | 22 | SP(33)D | | | u Ş | |
| 13 m | | | | 13,00 | | 23 | D | X | | = .5 | |

Key sampling depth, soils U 4 4 in. dia. undisturbed sample (102 mm) U3 3 in. dia. undisturbed sample (73 mm) D disturbed jar sample В disturbed bulk sample W water sample SP (standard penetration test CP (cone penetration test (25) number of blows e.g. 25 RQD no recovery 80 core drilling, 80 % recovery rock quality designation

Notes

(a) Starting pit dug to 1.00m.

BOREHOLE

Job 374

BOREHOLE

Job

- 1

374

(Continuation Sheet)

| | | DEPTH | DEPTH | , | SAMPLIN | G DA | TA | | CHANC STR | E OF | | |
|------------|-------------------|-------|--------|----------------|------------|-----------------------|--------------|-------|--------------|---------|--|---|
| | DAILY PROGRESS | TO | OF | DE | РТН | Na | TYPE | LEG - | DEPTH | REDUCED | DESCRIPTION OF STRATA | |
| | | WAIEK | CASING | FROM | 10 | Na | | | | LEVEL | | |
| | | m | 7.50 | m 13.00 | m 13.45 | 24 | U4 | | m | m | continued from previous sheet | Т |
| - | : | | 7,50 | 13.45 | 10.10 | 25 | D | X | | | (Stiff mottled brown and grey fissured silty CLAY with traces of organic staining) | F |
| 14 m | | | | 13.60 | 13.90 | 26 | SP(34)[| | | | (London Clay) | Ł |
| - | | | | | | | | | | | (London Clay) | F |
| | | | | | | | | | | | • | E |
| 15 m | | | | | | | | X | | | 9 | - |
| | | | | | | | | | | | | F |
| _ 1 6 m | | | | 16.00 | | 27 | D | | | | | F |
| - | | | | 16.00 | 16.45 | 27 '28 29 30 | U4 | | | | with some silt bands | F |
| | | | | 16.45 | | 29 | D | V | | | | E |
| 17m | | | | 16.60 | 16.90 | 30 | SP(37)[| 檯 | | | 2 | - |
| | | | | | | 1 | } | | | | | |
| _ 18m | | | | | | | | | | | | - |
| F | | | | | | | | X | | | | F |
| - | | | | | | | | | | 12 | | H |
| 19m | | | | | | | | | | | | F |
| E | | | | 19.10 19.10 | 19.55 | 31 | D U4 | | | | | t |
| -20m | 20.00 | DRY | 7.50 | 19.55 19.70 | 20.00 | 33 | D SP(41)D | X | 20.00 | 5.48 | · · | - |
| 2011 | 20.00 | DRT | 1.30 | 19.70 | 20.00 | | 3 3 (41) | | 20.00 | 3.46 | Borehole completed. | F |
| - | | | | e. | ŀ | | 1 | | | | | - |
| 2 1m | | | | | | | | | 2 | | | |
| - | | | | | | | | | | | * | - |
| F. | | | | | | | | | | | 0. | F |
| 22 m | | | | | | | 1 | | | | * | |
| - | | | | | | | | | | | | - |
| 23m | | | 1 | | 19 | | | | | | 90 | L |
| - | | | | | | | | | | | | + |
| F. | | | | | | | | | | | | F |
| 24m | 1 | | | | | | | | |] | | |
| F | | | | | | | | | | | | F |
| 25m | | | | | | | | | | | | E |
| - | | | | | | | | | | | · | - |
| | | ļ | | | | | | | | | ¥ | F |
| 26m | 1 | | | | | | | | | | 8 | - |
| F | | | | | | | | | | | 9 | F |
| 27m | | | | | | | | | | | | E |
| - | | | | | | | | | | | | F |
| | | 1 | | : | | -5 | | | | | | L |
| 28 m | 1 | | | | | | | | | | | - |
| | | | | | | | | | | | | |
| 29 m | | | | | | | | | | | | - |
| | 1 | | | | | | | | | | | F |
| F | | | | | | | | | | 1.50 | | L |
| 30 m | 1 | I | 1 | I | I | 1 1 | 1 | 1 | I | 1 | | Г |

SERVICES

LTD.

For Key to symbols and Notes, see first sheet for this borehole,

GEOTECHNICAL

NUTTALL

Job 374

LOG OF BOREHOLE No. 2

Shell and Auger

200mm (8")

| ## DALP OF WATER CASHO TO WATER CASH | | | DEPTH | DEPTH | | SAMPLIN | IG D | ATA | | STR | SE OF | |
|--|------------|--------|-------|-------|--------------------------------------|----------------------|------------------|------------------------------------|-------|-----------|-------------------------|--|
| Marcon M | | | TO | OF | | | No. | TYPE | LEG - | DEPTH | | DESCRIPTION OF STRATA |
| C | - | | m | m | | | ├ | - | | | | GROUND LEVEL: 25.79m O.D. |
| m | 27 | .11.76 | | | | | 1 | d D | | | | |
| <u>m</u> | m m m m 6. | | | | 2,20 2,80 3,25 3,45 4,05 | 3.25 3.75 4.35 | 3 4 5 6 | D U4 D CP(14)B CP(29)B D U4 D U4 D | | 2.50 3.00 | 23.29 22.79 20.19 | Soft to firm dark brown sandy silty CLAY with some gravel of brick, concrete and flint material and occasional ash fragments. (Fill) Soft mottled brown slightly sandy silty CLAY with some iron staining. Medium dense brown fine to coarse SAND with some fine and medium, angular to sub-rounded gravel. (Taplow Gravel) Stiff mottled grey-brown laminated (2mm) fissured slightly silty CLAY with occasional brown fissure surfaces and hard clay layers. (London Clay) |
| <u>"</u> | n n | | | | | | | | | | | |

| • | | | Kay | |
|---------------|---------|---|---|---|
| [] U 4 | | | sampling depth, soils 4 in. dia. undisturbed sample (102 mm) | 8 |
| U3 D | | | 3 in. dia. undisturbed sample (73 mm) disturbed jar sample disturbed bulk sample | |
| W SP CP | (|) | water sample standard penetration test | 1 |
| (25) RQ | 80 D | , | cone penetration test number of blows e.g. 25 no recovery core drilling, 80 % recovery rock quality designation | |

Notes

- (a) Starting pit dug to 0.25m.
- (b) Standpipe installed with tip at 5.50m.

Job 374

Tolmers Square Shell and Auger

200mm (8")

| | | DEPTH | DEPTH | S | AMPLIN | G DA | TA | LEG - | STR | E OF | ** |
|-------------|-------------------|------------|--------------|-------|--------|------|-------------|-------|-------|---------|---|
| | DAILY PROGRESS | TO | OF CASING | DEF | | No. | TYPE | END | DEPTH | REDUCED | DESCRIPTION OF STRATA |
| | | E | m | FROM | TO m | | | _ | m | LEVEL | GROUND LEVEL: 25.75m O.D. |
| - - - | 23,11,76 | | | 0.50 | | ı | D | | | | Fine to coarse GRAVEL of brick rubble, ash and wood material. |
| 1 m | | | | 1.60 | 97 | | | 0 | 1.45 | 24.30 | (Fill) |
| | 2.00 24.11.76 | DRY DRY | 1.50 1.50 | 2.35 | 2.65 | 3 | D SP(I)D | | 100 | | Soft brown sandy silty CLAY with some gravel of brick and ash material. |
| | | | | 2.55 | 2.03 | | SP(I)D | | 2.75 | 23.00 | (Fill) |
| 3 m | | | | 2.95 | 3.25 | | CP(33)B | | | | Dense to very dense brown medium to coorse SAND and fine to medium angular to rounded GRAVEL. |
| - 4 m | 1 | | | 3.65 | 3,95 | 5 | | | | | |
| - | | | - | 4.35 | 4.65 | 6 | CP(30)8 | | | | |
| 5 m | Ç | | | 4.95 | 5,25 | l f | CP(50)B | | | | (Taplow Gravel) |
| 6 m | | | | 5.60 | 6.25 | 9 | D U4 | | 5.60 | 20.15 | Stiff brown and grey laminated fissured CLAY. |
| - | | | | 6.55 | 6.85 | 10 | 7 | X | | | (London Clay) |
| 7 m | 7.00 25.11.76 | DRY DRY | 5.80 5.80 | 7.30 | 7.75 | 11 | U4 | | | | |
| | | : = | | 8.20 | 8.50 | 12 | SP(34)D | Z | | | |
| 9 m | , | | | 8.80 | 9,25 | 13 | U4 | | | | with some mudstone fragments |
| 10 m | | | | 9.75 | 10.05 | 14 | SP(28)D | | | | ļ · |
| - | | | | 10.30 | 10.75 | 15 | U4 | X | | | with some organic staining |
| 11 m | | | | 11.15 | 11.45 | 16 | SP(24)D | | | | · |
| 12 m | | | | 11.80 | 12.25 | 17 | U4 | | | | becoming slightly silty with occasional silt pockets |
| _ | 12.70 | DRY | 5.80 | 12.40 | 12.70 | 18 | SP(28)D | | 12.70 | 13,05 | Borehole completed |

| | Kay |
|----------------|---|
| Ø ∪4 | sampling depth, soils 4 in. dia. undisturbed sample (102 mm) |
| U3 | 3 in. dia. undisturbed sample (73 mm) |
| D | disturbed jar sample |
| В | disturbed bulk sample |
| W | water sample |
| SP () | standard penetration test |
| CP () | cone penetration test |
| (25) | number of blows e.g. 25 |
| * | no recovery |
| 80 | core drilling, 80% recovery |
| RQD | rock quality designation |

Notes

- (a) Starting pit dug to 0.80m.
- (b) Piezometer installed with tip at 12.00m.

LTO

BOREHOLE

LOG OF BOREHOLE No. 3

3 344

GEOTECHNICAL

cenyines

Site Investigation at

Tolmers Square

Shell and Auger

Type of equipment 200mm (8") Diameter of hole CHANGE OF SAMPLING DATA

Job 374

| | | DEPTH | DEPTH | S | AMPLIN | G D | AT/ | 4 | | STR | ATA | |
|---------------|-------------------|-------|--------|----------------------|--------|----------------|-----|--------------|-------|-------|----------|---|
| l . | DAILY PROGRESS | TO | OF | DEF | PTH | | | | LEG - | | REDUCED | DESCRIPTION OF STRATA |
| SCALE | ricondo | WATER | CASING | FROM | 10 | No. | | TYPE | | DEPTH | LEVEL | |
| | | m | m | m | m | | | | | m | m | GROUND LEVEL: 28,50m O.D. |
| - 1 m | 10,1276 | | | G.L. | 2.00 | | | В | 0 | | | Grey slightly silty fine and medium SAND with much fine to coarse, sub-angular to rounded gravel. |
| 2 m | | | : | 2.00 | | 2 | | D T | | 2.00 | 26.50 | (Fill) |
| - - 3 m | | | | | | 1 | | | | | | Firm to stiff mottled grey and brown slightly sandy, silty CL AY with some fine and medium gravel of flint and brick material and occasional bone material. |
| E | | | | 3.50 | | 3 | | D | | 3.50 | 25.00 | (Fill) |
| 4 m | | | 3.00 | 3.50 3.95 | 3.95 | 4 5 | | U4 D | | | | Firm dark grey silty CLAY. |
| | | | 4.20 | 4.65 | 4.95 | 6 | | CP(54)8 | | 4.50 | 24.00 | Medium dense brown medium to coarse SAND with much |
| 5 m | 1 | | | | | | 4 | and Sames | | | | fine and medium, sub-angular to sub-rounded gravel. |
| 6 m | | | 5.80 | 6.15 | 6.23 | 7 | Z | CP(80)‡I | 3 | | | (Taplow Gravel) |
| - 7 m | | | 6.40 | 6.65 | 6.95 | 8 | N | CP(28) | 3 | | | - - |
| 8 m | | | | 8.20 | 8.65 | 9 | | D U4 | | 8.10 | 20.40 | Stiff mottled brown and grey fissured CLAY with |
| 9 17 | 9.10 | DRY | 8.00 | 8.20 8.65 8.80 | 9.10 | 10 11 12 | | D SP(31)D | | | | evidence of iron staining on fissure surfaces. (London Clay) |
| E | | | | | | | 1 | | | 9.10 | 19.40 | Borehole Completed |
| 10 - | n | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 11 6 | n | | | | | | | | | | | |
| 12, | | | | | | | | | | | | 8 |
| - | | | | | . 4 | | | 88 | | | | A. A. A. A. A. A. A. A. A. A. A. A. A. A |
| 13 (| m | | | | | | | 1 . | | | <u> </u> | |

| | sampling depth, soils |
|--------|--|
| U 4 | 4 in. dia. undisturbed sample (102 mm) |
| U3 | 3 in. dia. undisturbed sample (73 mm) |
| D | disturbed jar sample |
| В | disturbed bulk sample |
| W | water sample |
| SP () | standard penetration test |
| CP () | cone penetration test |
| (25) | number of blows e.g. 25 |

rack quality designation

Key

(25) 80 RQD core drilling, 80% recovery

No. of blows for 0.30m penetration calculated form actual number of blows.

Notes

- (a) Starting pit dug to 0.50m.
- (b) Standpipe installed with tip at 8.00m.

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LOG OF BOREHOLE No. 5

Shell and Auger

200mm (8") to 7,00m 150mm (6") to 22,00m

| | | DEPTH | DEPTH | 9 | AMPLIN | G D | ATA | | STR | GE OF ATA | |
|-----|-------------------|------------|--------------|--------------------------------|--------|----------------------|-------------------------|--------------|-------|--------------|---|
| | DAILY PROGRESS | τo | OF CASING | DE | | No. | TYPE | LEG ~ END | DEPTH | REDUCED | DESCRIPTION OF STRATA |
| | | WATER | CASING | FROM | 10 | | | | | LEVEL | |
| _ | 10 10 77 | m | m | m | m | | 4 - | *112.00.2 | m | m | GROUND LEVEL: 26,08m O.D. |
| m | 13,12,76 | | *** | G.L. | 3.00 | | Б | | | | Fine to coarse GRAVEL of brick, concrete and paving material with some sand and wood fragments. |
| m | | | | | | | | 0 | | | |
| | | 22 | | | | | | 0.1 | | - 25 | |
| m | 3.00 4.1276 | DRY DRY | 3.00 | | | , | | | | 00.70 | . (Fill) |
| | | | | 1 | 5 | | | | 3.30 | 22.78 | |
| m | a 76 | | 3.70 | 3.95 | 4.25 | 2 | CP(19)B | | | L. | Medium dense grey, medium and coarse SAND with some fine to coarse gravel. |
| Э | | | | 4.60 | | 3 | w | | 5.10 | 20.98 | (Taplow Gravel) |
| 3 | | | rs. | 5.50 5.50 5.95 6.10 | 5.95 | 4 5 6 7 | D U4 D SP(23)D | X | 3,10 | 20,70 | Firm to stiff brown highly fissured slightly silty CLAY with occasional grey fissure surfaces. |
| m | | | | © | | | | | | | (London Clay) |
| Э | | | 6.00 | 7.50 7.50 7.95 8.10 | 7.95 | 8 9 10 11 | U4 D · SP(22)D | X | | | |
| Œ | 19 13 | | | | | | | | | | |
|) m | | | 9.00 | 9.65 9.65 10.10 10.25 | 10.10 | 12 13 14 15 | D U4 D SP(26)D | | | | |
| m | | | | 11.00 11.00 11.45 | 11.45 | 16 17 18 | D U4 D | | | 9 | with traces of organic material |
| m | 12.00 15,12,76 | DRY DRY | 9.00 | 11.60 | 11.90 | 19 | SP(27)0 | | | | |
| | | | | 12 00 | 5 | 200 | | | | | |
| 3 m | L | | | 12.80 | | 120 | D D | 1 | 1 | | continued on next sheet |

Key sampling depth, soils 4 in. dia. undisturbed sample (102 mm) U4 U3 3 in. dia. undisturbed sample (73 mm) disturbed jar sample D disturbed bulk sample W water sample SP (standard penetration test CP (cone penetration test (25) number of blows e.g. 25 no recovery 8 R Q D 80 core drilling, 80 % recovery rock quality designation

Notes

- (a) Starting pit dug to 0.75m
- (b) Reduced to 150mm (6") casing at 7.00m

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GEOTECHNICAL

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| | | | | | | | | | | | (Continuation Sheet) |
|-------|----------|-------------|--------------|----------------|---------|----------------------|---------|--|-------|------------------|--|
| 50T) | DAILY | DEPTH | DEPTH | | SAMPLIN | G DA | TA | 1,50 | CHANG | GE OF | |
| | PROGRESS | TO WATER | OF CASING | DE FROM | то | No. | TYPE | END | DEPTH | REDUCED LEVEL | DESCRIPTION OF STRATA |
| | | m | m | m | m | | | | m | m | continued from previous sheet |
| | | | 9.00 | 12.80 13.25 | 13.25 | 21 22 23 | U4 D | X | | | (Stiff brown fissured CLAY) |
| 4 m | | | | 13,40 | 13.70 | 23 2 | SP(29)D | | | | (London Clay) |
| | | | | | | | | | | | |
| 5 m | | | | , | | | 0 | | | | |
| | | 9 | | 15.50 15.50 | 15.95 | 24 25 | D U4 | | | 23 | |
| m | | | | 15.95 | | 24 25 26 27 | D | | | .90 | . *** |
| | | | | 16.10 | 16.40 | 27 2 | SP(34)D | | | | |
| m | | | | | | | | | 9. | | |
| m | | | | | | | | X | | | |
| | | | | 18.50 | | 28 | D | | | | |
| , m | | 9 | | 18.50 18.95 | 18.95 | 28 29 30 31 | U4 D | | | | 5 × × × × × × × × × × × × × × × × × × × |
| | : | | | 19.10 | 19.40 | 31 | SP(38)0 | | | | |
|) m | | | | | | | | | | | |
| | | 3.6 | | | | | | | ø | , , | |
| lm | | | | | | | - | | | | a . |
| 2 m | | | | 21.55 21.55 | 22,00 | 32 33 | D U4 | X | | 4.00 | with occasional grey mottling and traces of organic staining |
| - 111 | 22.00 | DRY | 9.00 | 22.00 | | 30/2 | D | | 22,00 | 4.08 | Borehole completed |
| l m | | | | | | | 8 | | | | porentie completed |
| | | (k) | | | | | | | | | |
| l m | | | | | | | | | | | |
| | | | | | | | | | | | |
| m | | | | | | | | | | | |
| | | | | | | | | | | | |
| m | | | | | | | | | | | |
| | | | | | | | | | | * | at 2 |
| m | | | | | | | | | | | |
| | | | | : | | | | | | | <u>.</u> |
| 3 m | | | | | | | ke: | | 9 | | |
| m | * | ¥ | | 7 7. | | | ** | | | | |
| m | | | T. | | | | | - 1 | | | |
|) m | | | | | | | | | | | |
| m | | | L | L | L | | | | | | |

For Key to symbols and Notes, see first sheet for this borehole,

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Job 374

Type of equipment

Diameter of hole

Shell & Auger

200mm (8") to 13,40m 150mm (6") to 23.70m

| | | DEPTH | DEPTH | S | AMPLIN | G DA | TA | | STR | SE OF | |
|----------------|-------------------|------------|--------------|-------------------------------|--------|----------------------|------------------------------------|----------|-------|------------------|---|
| | DAILY PROGRESS | 10 | OF CASING | DEF FROM | тн | No. | TYPE | LEG - | DEPTH | REDUCED LEVEL | DESCRIPTION OF STRATA |
| _ | | m | m | m | m | | | \ | m | m | GROUND LEVEL: 26.62m O.D. |
| Э | 29.11.76 | | | G.L. | 2.00 | l | В | 9 | | | Fine to coarse, angular to sub-rounded GRAVEL of flint and brick material, with much fine to coarse sand. |
| m | | | | | | | | | 2.00 | 24.62 | (Fill) Soft to firm mottled brown silty CLAY with some |
| l m | | | | 2,15 | 2.45 | 2 | SP(8)D | | 3.00 | 23.62 | ash material. |
| m | | | 3.00 | 3,15 | 3,30 | 3 | CP(102)B | | 3.00 | 25.02 | Dense brown silty sandy GRAVEL. |
| 4 m | | : | | | | | | | | - W | e e |
| | | | | | | |] | *** | | 2000 | (Taplow Gravel) |
| m | 4.95 L1276 | DRY DRY | 4.60 4.60 | 4.65 | 4.95 | 4 5 | CP(15)B | | 4.60 | 22.02 | Soft to firm brown silty CLAY with traces of sand and medium gravel. |
| b m | | | | 5.00 5.45 5.60 | 5.45 | 6 7 8 | CP(15)B D U4 D SP(15)D | X | 5.40 | 21.22 | Firm to stiff grey-brown laminated, fissured CLAY with some organic staining. |
| 7 m | | | | 6.50 6.50 6.95 | 6.95 | 9 10 11 | D U4 D | | - | | becoming stiff |
| | | | | 7.10 | 7.40 | 12 | SP(24)C | X | | | (London Clay) |
| 8 m | | | | 8.00 8.00 | 8.45 | 13 14 | D U4 | | | | i |
| 9 m | | | | 8.45 | 8.90 | 14 15 16 | SP(31)E | | | | a) |
| 10 m | | | | 9.50 9.50 9.95 10.10 | 9.95 | 17 18 19 20 | D U4 D SP(37)(| X | | | 5-10mm band of mudstone |
| !1 m | | | , | | | | | | | | |
| | | | | 11.00 | 11.45 | 21 | U4*,D | | | | band of grey, moderately strong mudstone |
| 12 m | | | | 11.60 | 11.90 | 1 1 | SP(4I)D | X | | | |
| - - 13 m | 13 00 | DRY | 5.00 | 12.50 12.50 12.95 | | 23 24 25 | D U4 D | | | | |

Key sampling depth, soils 4 in. dia. undisturbed sample (102 mm) U4 U3 3 in. dia. undisturbed sample (73 mm) D disturbed jar sample В disturbed bulk sample W water sample SP (standard penetration test CP (cone penetration test number of blows e.g. 25 (25) no recovery RQD core drilling, 80% recovery 80 rock quality designation No. of blass for 0.30m penetration calculated from actual number of blass.

Notes

- (a) Piezometer installed with tip at 23.00m.
- (b) Reduced to 150mm (6") casing at 13.40m.

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BOREHOLE

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| JE DTL: | DAILY | DEPTH | DEPTH | | SAMPLIN | G D | ATA | LEG - | STR | SE OF | |
|-------------------|----------|-------------|--------------|----------------------------------|-----------|--|---|-------|-------|------------------|---|
| | PROGRESS | TO WATER | OF CASING | DE FROM | РТН ТО | Na | TYPE | END | DEPTH | REDUCED LEVEL | DESCRIPTION OF STRATA |
| | | m | m | m | m | | | | m | m | continued from previous sheet |
| 5 m 8 m 9 m 2 0 m | 2,12,76 | WATER | CASING | I3. 5 | τo | 26 27 28 29 30 , , 31 32 33 34 | SP(31)D D U4 D SP(32)D C SP(36)D D U4 D U4 D U4 D U4 D | | m | TEVEL m | |
| 22m | | DRY | 14.00 | 22.05 22.05 22.50 23.20 | 22.50 | 39 40 41 42 | D U4 D | | 21.90 | 4.72 2.92 | Hard, light grey, mottled red, laminated and fissured silty CLAY (Woolwich and Reading Beds) Red-brown from 22.50m. Light grey-green from 23.60m. Borehole Completed |
| 25m 26m | | | | | | | | | | | |

For Key to symbols and Nates see first sheet for this barehole

BOREHOLE

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Appendix E – Crossrail 2 safeguarding correspondence

From: Crossrail2 < <u>Crossrail2@tfl.gov.uk</u>> Sent: Monday, October 9, 2023 3:07 PM

To: Henry Tayler < Henry.Tayler@arup.com >; Crossrail2 < Crossrail2@tfl.gov.uk >

Cc: G.Williams@Gardiner.com; j.pennell@gardiner.com; Marc Easton < Marc.Easton@arup.com>

Subject: RE: Euston Tower, 286 Euston Road, London. Crossrail 2 Safeguarding

You don't often get email from crossrail2@tfl.gov.uk. Learn why this is important

Henry,

Euston Tower, 286 Euston Road, does fall within the 2015 Crossrail 2 Safeguarding Directions. This means that any consultation on planning applications submitted to the Local Planning Authority in respect of this site which propose or imply works more than 3 metres below ground level, an increase in height or floor area must include TfL to prevent planning permission being granted for development that might be prejudicial to the subsequent delivery of Crossrail 2.

Since the 2015 Directions were confirmed the current alignment of Crossrail 2 has been the subject of ongoing review and the latest proposal, shown below, are for the Mk.20.1 alignment which has moved the running tunnels slightly east of the above site. The purple lines show the centrelines of each of the two running tunnels.



Given the distance between the Crossrail 2 running tunnels and the site, in the event an application for planning permission were to be submitted I would still expect TfL to be notified of the proposals. Your email speaks about modifications to the existing building and, depending on the nature of the works and whether any below ground works are proposed, TfL may recommend to the local planning authority its Crossrail 2 conditions relating to ground movement and noise and vibration be attached to a grant of planning permission. If we do recommend conditions

the Crossrail 2 information for Developers guidance document provides further advice on how these may be discharged in conjunction with the local planning authority.

I am happy to meet but don't necessarily see there being an immediate need unless you would like to share the proposals in more detail.

Regards,

Michael Johnson BSc. Hons BTP MRTPI Safeguarding Manager Crossrail 2 Investment Delivery Planning Transport for London

M: 0751 505 2717 E: michaeljohnson@tfl.gov.uk

TfL RESTRICTED

From: Henry Tayler < Henry. Tayler@arup.com >

Sent: 07 October 2023 10:00

To: Crossrail2 < Crossrail2@tfl.gov.uk >; Safeguardcrossrail2 < Safeguardcrossrail2@tfl.gov.uk > Cc: G.Williams@Gardiner.com; j.pennell@gardiner.com; Marc Easton < Marc.Easton@arup.com >

Subject: Euston Tower, 286 Euston Road, London. Crossrail 2 Safeguarding

For attention of the safeguarding manager, Crossrail 2-TfL.

This correspondence is to request details of TfL Crossrail 2 safeguarding in proximity to the above site and to make initial contact with the safeguarding manager in relation to proposed feasibility studies for modifications to the existing building and development of the site.

Brief summary:

On behalf of our client, British Land, Arup are carrying out structural/geotechnical studies for the 286 Euston Road, "Euston Tower" site, Euston Road, within the London Borough of Camden. The site is located at the corner of Euston Road and Hampstead Road and the existing 1960s constructed Euston Tower building and associated 2 storey podium structure are located within the Regents Place /former Euston Centre development. The existing 36 storey 1960s constructed Euston Tower building has a single level basement and is founded on deep piled foundations.

Existing TfL engagement.

The project team have held initial screening sessions with TfL related to the public realm and highways aspects of the proposal since April 2023.

The lead contact for engagement within TfL related to this scheme is Nahuel Mainard-Sardon.

The project team are in contact with TfL/LUL Infrastructure Protection in relation to tube assets adjacent to the site, the lead contact within TfL is Lydia Wong.

Crossrail 2 safeguarding:

An extract from the Crossrail 2 safeguarding directions is provided below, showing the location of the existing Euston Tower building in blue.

The Euston Tower and associated basement surrounding the tower is shown as located within the limited of land subject to consultation (safeguarding limits).

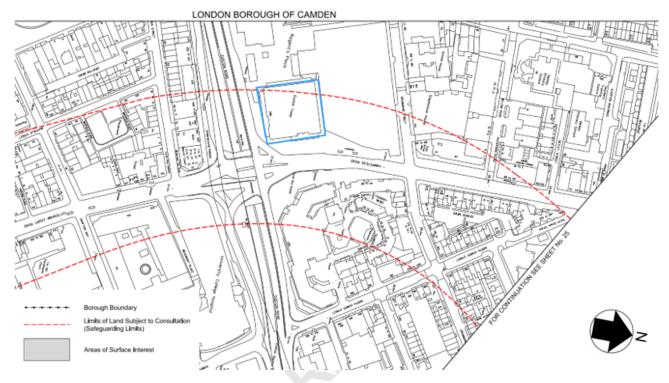


Figure 14 - Crossrail 2 safeguarding directions Sheet No24. March 2015. [MMD-307346-C-DR-SG-XX-1124]

An extract from the Crossrail2 interactive webmap is below, also showing the location of the existing Euston Tower building in blue.

https://cr2.maps.arcgis.com/apps/webappviewer/index.html?id=21a7f72dfd0c443db5733bd81a707a67
The Euston Tower site falls within the Crossrail 2 safeguarding limits, however we note that the proposed tunnel alignment, shown in brown, falls outside the safeguarding limits to the east.

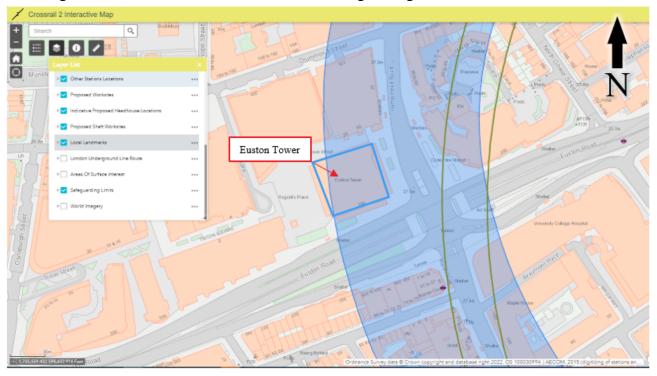


Figure 15 - Crossrail 2 safeguarding map extract - accessed 13/1/2023.

The team are aware of the guidance information available on https://crossrail2.co.uk/discover/safeguarding/ and the associated "Information for Developers" guidance - CRL2-CRL2-GEN-ROUTWID-NOT-LP-00003. The team request details of the latest safeguarding arrangements, tunnel alignment and exclusion zones to inform engineering assessment at the site and ahead of a Planning Application.

We would like to arrange an initial meeting to discuss the current feasibility proposals and establish the requirements for further studies or submissions.

Please let us know if we can provide any further information to assist in this enquiry. Our contact details are given below.

Kind regards,

Henry

Henry Tayler

Associate | Geotechnics - Transport London MEng CEng MICE MAPM

Arup

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