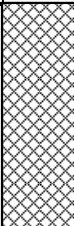







| OBJAŚNIENIA GEOLOGICZNE |                                     |   |   |                                   | PARAMETRY GEOTECHNICZNE                    |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             | wyniki badań sondą statyczną CPT                      |  |  |   |                                     |      |  |  |
|-------------------------|-------------------------------------|---|---|-----------------------------------|--|--------------------------------------|---------------------------------------|--|--|------------------------------|---|-----------------------------------|---------------------------|---------------------------------|-----------------------------|---|--|--|---|-------------------------------------|------|--|--|
|                         |                                     |   |   |                                   | wg PN-81/B-03020                           |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   | wartość charakterystyczna $x^{(m)}$        |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   | współczynnik materiałowy $\gamma_{(m)}$    |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   | wartość obliczeniowa $x^{(i)}$             |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   | *** wg projektu zmiany normy PN-81/B-0302C |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
| stratygrafia            | Profil stratygraf.-<br>litologiczny | Opis litologiczno- genetyczno-<br>stratygraficzny                                   | nr warstwy                                      | symbol gruntu wg<br>PN-86/B-02480 | symbol konsolidacji gruntu                 | Stan gruntu                          |                                       | Wilgotność naturalna<br><br>$W_n$<br>% | Gęstość objętościowa<br><br>$\rho$<br>t/m <sup>3</sup> | Spójność<br><br>$C_u$<br>kPa | Kąt tarcia<br>wewnętrznego<br><br>$\phi_u$<br>° | Edometryczny moduł<br>ściśliwości |                           | Moduł<br>odkształcenia          |                             | Zawartość części<br>organicznych<br><br>$I_{om}$<br>% | stopień zagęszczenia /<br>plastyczności<br><br>$I_D / I_L$ | wytrzymałość na<br>ściskanie w warunkach<br>bez odpywu<br><br>$S_u$<br>MPa | Kąt tarcia<br>wewnętrznego<br><br>$\phi_u$<br>° | Moduł ściśliwości<br><br>$M$<br>MPa |      |  |  |
|                         |                                     |   |   |                                   |  | stopień<br>zagęszczenia<br><br>$I_D$ | stopień<br>plastyczności<br><br>$I_L$ |  |  |                              |   | pierwotnej<br><br>$M_o$<br>MPa    | wtórnej<br><br>$M$<br>MPa | pierwotnego<br><br>$E_o$<br>MPa | wtórniego<br><br>$E$<br>MPa |   |  |  |   |                                     |      |  |  |
| 1                       | 2                                   | 3   |   | 4                                 | 5  | 6                                    | 7                                     | 8                                      | 9  | 10                           | 11  | 12                                | 13                        | 14                              | 15                          | 16  | 17   | 18   | 19  | 20                                  |      |  |  |
| CZWARTORZĘD             | holocen                             |    | grunty nasypowe                                 | Ia                                | nB   |                                      | szg                                   |  | nasyb budowlany  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   | Ib                                | nN, Gb                                     |                                      | ln-szg                                | tpl-pl                                 | nasyb niebudowlany                                     |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         | holocen + plejstocen                |   | piaski  | IIa1                              | Pd, Pd(+G), Ps//G                          |                                      | 0,60                                  |  | 15,60*   | 2.00                         |   | 31.00                             | 74                        | 92                              | 55                          | 69  | u-0,6-2,0*   | 0,59   | -   | 34.0                                | 51,2 |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   | pospółki  | IIa2                              | Ps, Ps(+Ż, G)                              |                                      | 0,65                                  |  | 16,40*   | 1.95                         |   | 34.00                             | 122                       | 135                             | 103                         | 114   | u-1,1-1,3*   | 0,66   | -   | 38.0                                | 81,3 |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |  | pyły, piaski gliniaste,<br>gliny pylaste, gliny | IIa3                              | Po, Po(+G)                                 |                                      | 0,80                                  |  | 14,00  | 2.10                         |   | 40.00                             | 220                       | 220                             | 190                         | 190   |  | 0,82   |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   | IIb1  | Π, Gπ, G, Pg, Gπz, Gz             | C  |                                      | 0.05                                  | 15,00*                                 | 2.15   | 26.00                        | 17.00   | 42                                | 70                        | 30                              | 50                          |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     | IIb2  | Π, Gπ, G, Pg, Gπz, GπH                          | C                                 |  | 0.20                                 | 17,50*                                | 2.12                                   | 17.00  | 15.00                        | 29  | 48                                | 21                        | 35                              | u-1,2*, ż-2,1*              | 0,21  | 0,018  | -  | 18,9  |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     | IIb3  | Π, Πp, G, Gπ, Gπz                               | C                                 |  | 0.35                                 | 18,70*                                | 2.05                                   | 12.00  | 12.00                        | 21  | 35                                | 15                        | 25                              | u-1,3*                      |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     | IIb4  | Π, Πp, G, Gπ, Gπz                               | C                                 |  | 0.55                                 | 19,30*                                | 1.95                                   | 8.00   | 9.00                         | 14  | 23                                | 10                        | 17                              |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |  | grunty organiczne                               | IIc1                              | GπH, GH                                    | C                                    |                                       | 0.30                                   | 20,30*   | 1.80                         | 10.00   | 10.00                             | 19                        | 32                              | 14                          | 23  | u-1,7*, ż-2,7*   |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |  |   | IIc2                              | Nmg, T, Pd//Nmg                            |                                      | 0.33                                  | tpl-mpi                                | 18,8-156,8*  |                              |   |                                   |                           |                                 |                             |   | u-9,7*   | 0,58   | 0,004   | -                                   | 3,2  |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |  |   | IIId1                             | Gπz, I                                     | D                                    |                                       | 0.05                                   | 30,30*   | 2.15                         | 57.00   | 12.00                             | 35                        | 44                              | 20                          | 25  |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   | IIId2                             | Gπz, I                                     | D                                    |                                       | 0.20                                   | 25,50*   | 2.05                         | 49.00   | 10.00                             | 24                        | 30                              | 14                          | 17  |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |
|                         |                                     |   |   |                                   |  |                                      |                                       |  |  |                              |   |                                   |                           |                                 |                             |   |  |  |   |                                     |      |  |  |