



# DESCENTE DE CHARGES

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Complexe sportif Diderot

Lot 4 Ossature et Viture bois



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|            |       |                      | Réf.S :      | GBM Diderot            |
|            |       |                      | Doc N° :     | 2409-501               |

## Sommaire

# Chapitre 1

## INFORMATIONS GENERALES

### 1.1 Situation de l'ouvrage

Affaire/projet : 2404-234GBM Diderot  
Note d'hypothèse N° : 2409-500  
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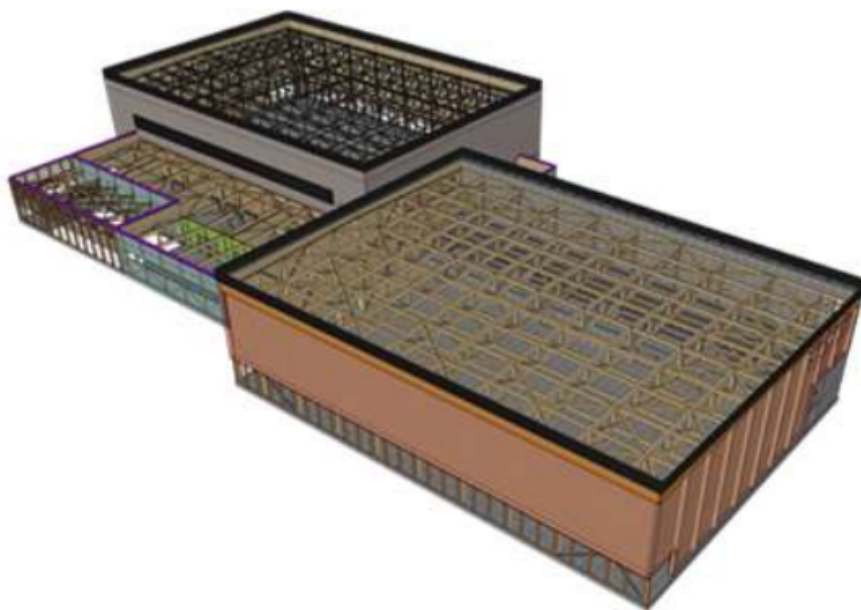


FIGURE 1.1 – Description de l'ouvrage

### 1.2 Plan de situation

### 1.3 Description de l'ouvrage

### 1.4 Règles de calcul et de conception

Les calculs de structures sont réalisés conformément aux normes Eurocode en vigueur :

- (i) Eurocode 0 EN 1990 : Base de calcul des structures
- (ii) Eurocode 1 EN 1991 : Actions sur les structures
- (iii) Eurocode 2 EN 1992 : Calculs des structures en béton
- (iv) Eurocode 3 EN 1993 : Calculs des structures en acier
- (v) Eurocode 4 EN 1994 : Calculs des structures mixtes acier-béton
- (vi) Eurocode 5 EN 1995 : Calculs des structures en bois

- (vii) Eurocode 6 EN 1996 : Calculs des structures en maçonnerie
- (viii) Eurocode 8 EN 1998 : Calculs des structures pour leur résistance aux séismes
- (ix) Résix® Technique d'assemblage sous avis technique CSTB 3.3-19-986 V1

## 1.5 Stabilité et Repérage des points d'appuis

### 1.5.1 Principe de stabilité de la structure

### 1.5.2 Repérage des points d'appuis



FIGURE 1.2 – Repérage des points d'appui 2D

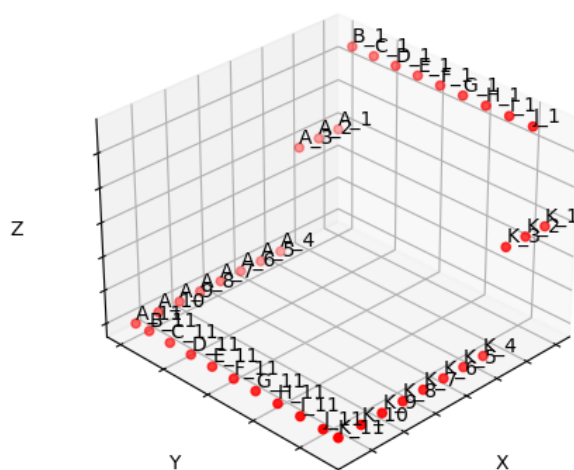


FIGURE 1.3 – Repérage des points d'appui 3D

## Chapitre 2

# DESCENTE DE CHARGES

### 2.1 Charges permanentes G

| Nom point | X     | Y     | Z     | RFx_kN | RFy_kN | RFz_kN |
|-----------|-------|-------|-------|--------|--------|--------|
| A_1       | 0     | 0     | 5790  |        |        | -5.2   |
| A_2       | 3250  | 0     | 5790  |        |        | -6.7   |
| A_3       | 6500  | 0     | 5790  | 1.0    |        | -13.2  |
| A_4       | 9750  | 0     | 0     | -3.1   |        | -14.1  |
| A_5       | 13000 | 0     | 0     |        |        | -24.6  |
| A_6       | 16250 | 0     | 0     | 3.3    |        | -48.1  |
| A_7       | 19500 | 0     | 0     |        |        | -54.8  |
| A_8       | 22750 | 0     | 0     | -5.0   |        | -29.6  |
| A_9       | 26000 | 0     | 0     |        |        | -24.0  |
| A_10      | 29250 | 0     | 0     | 1.3    |        | -33.4  |
| A_11      | 32740 | 0     | 0     |        | -23.9  | -81.8  |
| B_1       | 0     | 3160  | 11112 |        | 10.0   | -94.5  |
| B_11      | 32740 | 3160  | 0     |        |        | -138.1 |
| C_1       | 0     | 7960  | 11112 |        | -3.1   | -97.0  |
| C_11      | 32740 | 7960  | 0     |        | 17.4   | -193.7 |
| D_1       | 0     | 12760 | 11112 |        |        | -99.1  |
| D_11      | 32740 | 12760 | 0     | 1.0    |        | -165.2 |
| E_1       | 0     | 17560 | 11112 |        | -1.6   | -100.7 |
| E_11      | 32740 | 17560 | 0     |        |        | -194.7 |
| F_1       | 0     | 22360 | 11112 |        |        | -101.1 |
| F_11      | 32740 | 22360 | 0     | 1.1    |        | -166.6 |
| G_1       | 0     | 27160 | 11112 |        | 1.5    | -100.6 |
| G_11      | 32740 | 27160 | 0     |        |        | -194.6 |
| H_1       | 0     | 31960 | 11112 |        |        | -99.1  |
| H_11      | 32740 | 31960 | 0     | 1.0    |        | -165.2 |
| I_1       | 0     | 36760 | 11112 |        | 3.1    | -97.1  |
| I_11      | 32740 | 36760 | 0     |        | -17.3  | -193.6 |
| J_1       | 0     | 41560 | 11112 |        | -10.0  | -94.4  |
| J_11      | 32740 | 41560 | 0     |        |        | -138.1 |
| K_1       | 0     | 44720 | 5790  |        |        | -5.2   |
| K_2       | 3250  | 44720 | 5790  |        |        | -6.7   |
| K_3       | 6500  | 44720 | 5790  |        |        | -13.2  |
| K_4       | 9750  | 44720 | 0     | -3.1   |        | -11.9  |
| K_5       | 13000 | 44720 | 0     |        |        | -15.7  |
| K_6       | 16250 | 44720 | 0     | 3.9    |        | -23.9  |
| K_7       | 19500 | 44720 | 0     |        |        | -12.7  |
| K_8       | 22750 | 44720 | 0     | -6.0   |        | -26.2  |
| K_9       | 26000 | 44720 | 0     |        |        | -18.3  |
| K_10      | 29250 | 44720 | 0     | 2.2    |        | -29.9  |
| K_11      | 32740 | 44720 | 0     |        | 24.0   | -81.9  |

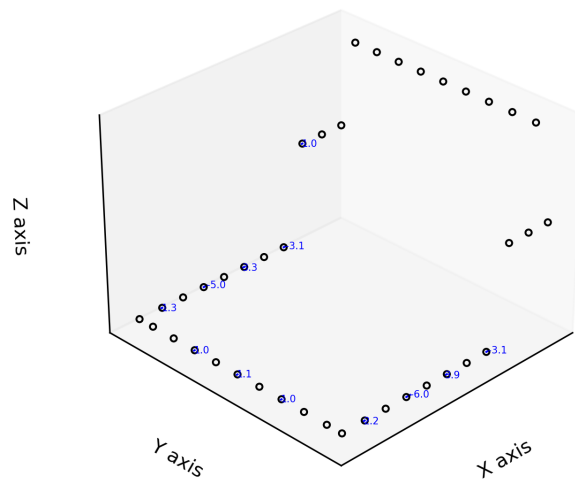


FIGURE 2.1 – Charges permanentes G\_RFx\_kN

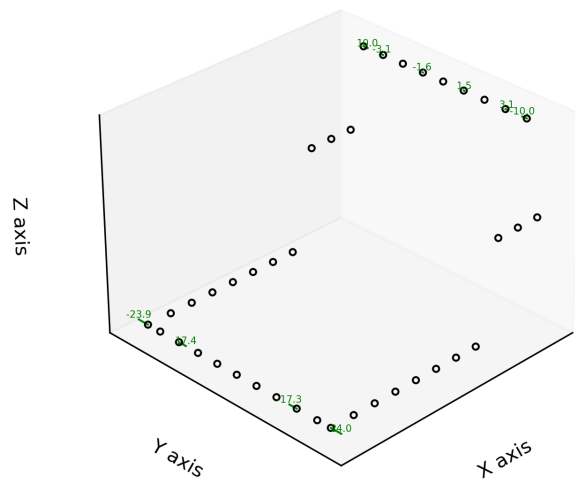


FIGURE 2.2 – Charges permanentes G\_RFy\_kN

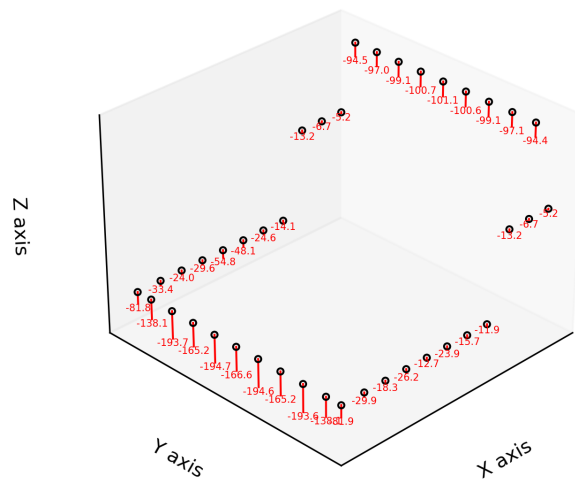


FIGURE 2.3 – Charges permanentes G\_RFz\_kN



## 2.2 Charges d'exploitation Q

| Nom point | X     | Y     | Z     | RFx_kN | RFy_kN | RFz_kN |
|-----------|-------|-------|-------|--------|--------|--------|
| A_1       | 0     | 0     | 5790  |        |        |        |
| A_2       | 3250  | 0     | 5790  |        |        |        |
| A_3       | 6500  | 0     | 5790  |        |        |        |
| A_4       | 9750  | 0     | 0     |        |        |        |
| A_5       | 13000 | 0     | 0     |        |        |        |
| A_6       | 16250 | 0     | 0     |        |        |        |
| A_7       | 19500 | 0     | 0     |        |        |        |
| A_8       | 22750 | 0     | 0     |        |        |        |
| A_9       | 26000 | 0     | 0     |        |        |        |
| A_10      | 29250 | 0     | 0     |        |        |        |
| A_11      | 32740 | 0     | 0     |        |        |        |
| B_1       | 0     | 3160  | 11112 |        |        |        |
| B_11      | 32740 | 3160  | 0     |        |        |        |
| C_1       | 0     | 7960  | 11112 |        |        |        |
| C_11      | 32740 | 7960  | 0     |        |        |        |
| D_1       | 0     | 12760 | 11112 |        |        |        |
| D_11      | 32740 | 12760 | 0     |        |        |        |
| E_1       | 0     | 17560 | 11112 |        |        |        |
| E_11      | 32740 | 17560 | 0     |        |        |        |
| F_1       | 0     | 22360 | 11112 |        |        |        |
| F_11      | 32740 | 22360 | 0     |        |        |        |
| G_1       | 0     | 27160 | 11112 |        |        |        |
| G_11      | 32740 | 27160 | 0     |        |        |        |
| H_1       | 0     | 31960 | 11112 |        |        |        |
| H_11      | 32740 | 31960 | 0     |        |        |        |
| I_1       | 0     | 36760 | 11112 |        |        |        |
| I_11      | 32740 | 36760 | 0     |        |        |        |
| J_1       | 0     | 41560 | 11112 |        |        |        |
| J_11      | 32740 | 41560 | 0     |        |        |        |
| K_1       | 0     | 44720 | 5790  |        |        |        |
| K_2       | 3250  | 44720 | 5790  |        |        |        |
| K_3       | 6500  | 44720 | 5790  |        |        |        |
| K_4       | 9750  | 44720 | 0     |        |        |        |
| K_5       | 13000 | 44720 | 0     |        |        |        |
| K_6       | 16250 | 44720 | 0     |        |        |        |
| K_7       | 19500 | 44720 | 0     |        |        |        |
| K_8       | 22750 | 44720 | 0     |        |        |        |
| K_9       | 26000 | 44720 | 0     |        |        |        |
| K_10      | 29250 | 44720 | 0     |        |        |        |
| K_11      | 32740 | 44720 | 0     |        |        |        |

assets/img/graph3D\_charges\_cas\_{2}\_RFx\_kN.png

FIGURE 2.4 – Charges d'exploitation  $Q_{RFx\_kN}$

assets/img/graph3D\_charges\_cas\_{2}\_RFy\_kN.png

FIGURE 2.5 – Charges d'exploitation  $Q_{RFy\_kN}$

assets/img/graph3D\_charges\_cas\_{2}\_RFz\_kN.png

FIGURE 2.6 – Charges d'exploitation  $Q_{RFz\_kN}$

## Table des figures

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