150 HOLBORN

Z2_RESIDENTIAL BUILDING

150- PWA-Z2-XX-SP-A-8023-C02_ K10 PLASTERBOARD PARTITIONS / CEILINGS

SPECIFICATIONS

MARCH 2019

DARPLUS

PERKINS + WILL

NOTES ***All changes within the specification highlighted in Green have been updated by Perkins + Will as part of the Stage 05 Deliverables.***

DATE + REV **Issue tracker**

K10 – REV C01 22.02.2019

K10 – REV C02 08.03.2019

K10 PLASTERBOARD PARTITIONS/ CEILINGS

Refer to A10 for list of related documents which are to be read with this Work Section.

K10.100 COMPLIANCE AND SCOPE

COMPLIANCE

K10.101 General

a) Refer to and comply with A15.100 of the Architectural Specification regarding the Contractor's design responsibility for this element of the works.

b) Complete the Detailed Design of this element of the works maintaining the intent of the Design Drawings (A10.104 d) i)) using an in-house, appointed or novated design team.

c) This works section is to be distributed and read in conjunction with the A-Sections (A10, A13, A15, A70, A71 and A72) and relevant Z-Sections as noted in the Quality and Workmanship sub-section.

SCOPE

Plasterboard Partition Systems

K10.102 Type IWS-201 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C1 - 30.

b) Manufacturer: British Gypsum, or acceptable equivalent.

c) Reference: GypWall Classic.

d) Specific performance:

i) Fire rating: 30 minutes, as the Fire Strategy Report.

ii) Acoustic rating: Rw 40(dB), as the Acoustic Report.

iii) Duty rating: Medium, to suit the service conditions.

e) Height(s): As the Design Drawings.

f) Framing:

i) Gypframe 70 S 50 stud framework at 600mm centres.

ii) Gypframe 60 S 50 stud framework at abutments, openings and junctions.

iii) Floor channel: Gypframe 72 FEC 50 at heights up to 4200mm, Gypframe 72 DC 60 at heights up to 8000mm and Gypframe 72 EDC 80 at heights over 8000mm.

iv) Head channel: As the floor channel or as determined by the deflection criteria.

v) Fixing:

- Gypframe GFT1 to support horizontal joints of single layer board linings.
- Gypframe GFS1 to support horizontal joints in face layer of double layer board linings.

g) Thickness: 97mm.

h) Insulation: Not required.

i) Linings to both sides of the framing:

i) Plywood pattressing as required to suit the service conditions.

ii) Type: 1 No. layer of Gyproc SoundBloc to both sides of framing.

iii) Thickness: 12.5mm.

iv) Sheet width: 1200mm.

v) Fixing: 25mm British Gypsum Drywall Screws.

j) Finish:

i) Taped and jointed.

ii) 3mm skim coat finish. Refer to M20.

iii) Refer to the Design Drawings for applied finish/ lining type.

k) Accessories: Gyproc Profilex access panels as required.

l) Other requirements: Moisture resistance where required to wet areas, i.e. bathrooms and kitchens.

K10.103 Type IWS-202 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C5 - 90.

b) Manufacturer: British Gypsum, or acceptable equivalent.

c) Reference: GypWall Classic.

d) Specific performance:
   i) Fire rating: 90 minutes, as the Fire Strategy Report.
   ii) Acoustic rating: Rw 49(dB), as the Acoustic Report.
   iii) Duty rating: Severe, to suit the service conditions.
e) Height(s): As the Design Drawings.
f) Framing:
   i) Gypframe 70 S 50 stud framework at 600mm centres.
   ii) Gypframe 60 S 50 stud framework at abutments, openings and junctions.
   iii) Floor channel: Gypframe 72 FEC 50 at heights up to 4200mm, Gypframe 72 DC 60 at heights up to 8000mm and Gypframe 72 EDC 80 at heights over 8000mm.
   iv) Head channel: As the floor channel or as determined by the deflection criteria.
   v) Fixing:
      • Gypframe GFT1 to support horizontal joints of single layer board linings.
      • Gypframe GFS1 to support horizontal joints in face layer of double layer board linings.
g) Thickness: 122mm.
h) Insulation: Not required.
i) Linings to both sides of the framing:
   i) Plywood pattressing as required to suit the service conditions.
   ii) Type: 2 No. layers of Gyproc FireLine to both sides of framing.
   iii) Thickness: 12.5mm.
   iv) Sheet width: 1200mm.
   v) Fixing: 25mm and 42mm British Gypsum Drywall Screws.
j) Finish:
   i) Taped and jointed.
   ii) 3mm skim coat finish. Refer to M20.
   iii) Refer to the Design Drawings for applied finish/ lining type.
k) Accessories: Gyproc Profilex access panels as required, with painted finish panels and beading for hidden access.
l) Other requirements: Moisture resistance where required to wet areas, i.e. bathrooms and kitchens.

K10.104 Type IWS-203 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C6 - 90.
b) Manufacturer: British Gypsum, or acceptable equivalent.
c) Reference: ShaftWall.
d) Specific performance:
   i) Fire rating: 90 minutes, as the Fire Strategy Report.
   ii) Acoustic rating: Rw 45(dB), as the Acoustic Report.
   iii) Duty rating: Severe, to suit the service conditions.
e) Height(s): As the Design Drawings.
f) Framing:
   i) Gypframe 92 I 90 stud framework.
   ii) Floor channel: Gypframe 94 FEC 60 at heights up to 4200mm, Gypframe 94 DC 60 at heights up to 8000mm and Gypframe 94 EDC 70 at heights over 8000mm.
   iii) Head channel: As the floor channel or as determined by the deflection criteria.
   iv) Fixing:
      • Gypframe GFT1 to support horizontal joints of single layer board linings.
      • Gypframe GFS1 to support horizontal joints in face layer of double layer board linings.
g) Thickness: 119mm.
h) Insulation: 25mm thick Isover Acoustic Partition Roll (APR 1200).
i) Linings to both sides of the framing:
   i) Plywood pattressing as required to suit the service conditions.
   ii) Type: 2 No. layers of Gyproc FireLine to both sides of framing.

iii) Thickness: 12.5mm.
iv) Sheet width: 1200mm.
v) Fixing: 25mm and 42mm British Gypsum Drywall Screws.

j) Finish:
i) Taped and jointed.
ii) 3mm skim coat finish. Refer to M20.
iii) Refer to the Design Drawings for applied finish/ lining type.

k) Accessories: Gyproc Profilex access panels as required, with painted finish panels and beading for hidden access.

K10.105 Type IWS-204 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C7 - 90.
b) Manufacturer: British Gypsum, or acceptable equivalent.
c) Reference: ShaftWall.
d) Specific performance:
i) Fire rating: 90 minutes, as the Fire Strategy Report.
ii) Acoustic rating: Rw 45(dB), as the Acoustic Report.
iii) Duty rating: Severe, to suit the service conditions.
e) Height(s): As the Design Drawings.
f) Framing:
i) Gypframe 60 I 50 stud framework.
ii) Floor channel: Gypframe 62 FEC 50 at heights up to 4200mm, Gypframe 62 DC 60 at heights up to 8000mm.
iii) Head channel: As the floor channel or as determined by the deflection criteria.
iv) Fixing:
- Gypframe GFT1 to support horizontal joints of single layer board linings.
- Gypframe GFS1 to support horizontal joints in face layer of double layer board linings.

g) Thickness: 102mm.
h) Insulation: Not required.
i) Linings:
i) Plywood pattressing as required to suit the service conditions.
ii) Type:
- 2 No. layers of Gyproc FireLine to one side of framing.
- 1 No. layer of Gyproc Soundbloc to the other side of the framing.

iii) Thickness:
- Gyproc FireLine - 12.5mm.
- Gyproc SoundBloc - 15mm.

iv) Sheet width: 1200mm.
v) Fixing: 25mm and 42mm British Gypsum Drywall Screws.

j) Finish:
i) Taped and jointed.
ii) 3mm skim coat finish. Refer to M20.
iii) Refer to the Design Drawings for applied finish/ lining type.

k) Accessories: Gyproc Profilex access panels as required.
l) Other requirements: Moisture resistant board and fire backer where required.

K10.106 Type IWS-205 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C8 - 90.
b) Manufacturer: British Gypsum, or acceptable equivalent.
c) Reference: ShaftWall.
d) Specific performance:
i) Fire rating: 90 minutes, as the Fire Strategy Report.
ii) Acoustic rating: Rw 40(dB), as the Acoustic Report.

iii) Duty rating: Severe, to suit the service conditions.

e) Height(s): As the Design Drawings.

f) Framing:

i) Gypframe 60 I 50 stud framework.

ii) Floor channel: Gypframe 72 FEC 50 at heights up to 4200mm, Gypframe 72 DC 60 at heights up to 8000mm.

iii) Head channel: As the floor channel or as determined by the deflection criteria.

iv) Fixing:

- Gypframe GFT1 to support horizontal joints of single layer board linings.
- Gypframe GFS1 to support horizontal joints in face layer of double layer board linings.

g) Insulation: Not required.

h) Linings:

i) Plywood pattressing as required to suit the service conditions.

ii) Type: 2 No. layers of Gyproc FireLine to one side of framing.

iii) Thickness: 15mm.

iv) Sheet width: 1200mm.

v) Fixing: 25mm and 42mm British Gypsum Drywall Screws.

i) Finish:

i) Taped and jointed.

ii) 3mm skim coat finish. Refer to M20.

iii) Refer to the Design Drawings for applied finish/ lining type.

j) Accessories: Gyproc Profilex access panels as required.

K10.107 Type IWS-206 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C2 - 90.

b) Manufacturer: British Gypsum, or acceptable equivalent.

c) Reference: GypWall Quiet.

d) Specific performance:

i) Fire rating: 90 minutes, as the Fire Strategy Report.

ii) Acoustic rating: Rw 64(dB) Rw+Ctr 57(dB) when finished both sides with 2mm skim coat plaster, as the Acoustic Report.

iii) Duty rating: Severe, to suit the service conditions.

e) Height(s): As the Design Drawings.

f) Framing (2 No. Gypframe metal stud frames):

i) Gypframe 48 S 50 stud framework located in pairs at 600mm centres and at abutments, openings and junctions.

ii) Floor channel: Gypframe 50 FEC 50 at heights up to 4200mm, Gypframe 50 DC 60 at heights up to 8000mm and 50 EDC 70 at heights over 8000mm.

iii) Head channel: As the floor channel or as determined by the deflection criteria.

iv) Bracing between stud pairs: Gypframe 99 FC 50 Fixing Channel at 1200mm vertical centres (half staggered between stud pairs for partition heights above 2400mm) fixed with British Gypsum Wafer Head DryWall Screws.

v) Fixing: Gypframe GFS1 to support horizontal joints in face layer boards.

g) Thickness (including skim finish to both sides): 360mm.

h) Insulation: 100mm thick Isover Acoustic Partition Roll (APR 1200).

i) Linings:

i) Plywood pattressing as required to suit the service conditions.

ii) Type: 2 No. layers of Gyproc SoundBloc to both sides of framing.

iii) Thickness: 15mm.

iv) Sheet width: 1200mm.

v) Fixing: 100mm and 40mm British Gypsum Drywall Screws.

j) Finish:

i) Taped and jointed.

ii) 2mm skim coat finish. Refer to M20.

iii) Refer to the Design Drawings for applied finish/ lining type.

k) Accessories: Gyproc Profilex access panels as required.

K10.108 Type IWS-207 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C3 - 90.

b) Manufacturer: British Gypsum, or acceptable equivalent.

c) Reference: GypWall Quiet.

d) Specific performance:

i) Fire rating: 90 minutes, as the Fire Strategy Report.

ii) Acoustic rating: Rw 64(dB) Rw+Ctr 57(dB) when finished both sides with 2mm skim coat plaster, as the Acoustic Report.

iii) Duty rating: Severe, to suit the service conditions.

e) Height(s): As the Design Drawings.

f) Framing (2 No. Gypframe metal stud frames):

i) Gypframe 48 S 50 stud framework located in pairs at 600mm centres and at abutments, openings and junctions.

ii) Floor channel: Gypframe 50 FEC 50 at heights up to 4200mm, Gypframe 50 DC 60 at heights up to 8000mm and 50 EDC 70 at heights over 8000mm.

iii) Head channel: As the floor channel or as determined by the deflection criteria.

iv) Bracing between stud pairs: Gypframe 99 FC 50 Fixing Channel at 1200mm vertical centres (half staggered between stud pairs for partition heights above 2400mm) fixed with British Gypsum Wafer Head DryWall Screws.

v) Fixing: Gypframe GFS1 to support horizontal joints in face layer boards.

g) Thickness (including skim finish to both sides): 300mm.

h) Insulation: 25mm thick Isover Acoustic Partition Roll (APR 1200).

i) Linings:

i) Plywood pattressing as required to suit the service conditions.

ii) Type: 2 No. layers of Gyproc SoundBloc to both sides of framing.

iii) Thickness: 15mm.

iv) Sheet width: 1200mm.

v) Fixing: 100mm and 40mm British Gypsum Drywall Screws.

j) Finish:

i) Taped and jointed.

ii) 2mm skim coat finish. Refer to M20.

iii) Refer to the Design Drawings for applied finish/ lining type.

k) Accessories: Gyproc Profilex access panels as required.

K10.109 Type IWS-208 Plasterboard Partition - Fire and Acoustic Rated

Metal stud plasterboard partition system.

a) Partition reference as the Design Drawings: C4 - 90.

b) Manufacturer: British Gypsum, or acceptable equivalent.

c) Reference: GypWall Quiet.

d) Specific performance:

i) Fire rating: 90 minutes, as the Fire Strategy Report.

ii) Acoustic rating: Rw 64(dB) Rw+Ctr 57(dB) when finished both sides with 2mm skim coat plaster, as the Acoustic Report.

iii) Duty rating: Severe, to suit the service conditions.

e) Height(s): As the Design Drawings.

f) Framing (2 No. Gypframe metal stud frames):

i) Gypframe 60 S 50 C stud framework located in pairs at 600mm centres and at abutments, openings and junctions.

ii) Floor channel: Gypframe 62 FEC 50 at heights up to 4200mm, Gypframe 62 DC 60 at heights up to 8000mm and 62 EDC 70 at heights over 8000mm.

iii) Head channel: As the floor channel or as determined by the deflection criteria.

iv) Bracing between stud pairs: Gypframe 99 FC 50 Fixing Channel at 1200mm vertical centres (half staggered between stud pairs for partition heights above 2400mm) fixed with British Gypsum Wafer Head DryWall Screws.

v) Fixing: Gypframe GFS1 to support horizontal joints in face layer boards.

g) Thickness (including skim finish to both sides): 430mm.

h) Insulation: 100mm thick Isover Acoustic Partition Roll (APR 1200).

i) Linings:

i) Plywood pattressing as required to suit the service conditions.

ii) Type: 2 No. layers of Gyproc SoundBloc to both sides of framing.

iii) Thickness: 15mm.

iv) Sheet width: 1200mm.

v) Fixing: 25mm and 40mm British Gypsum Drywall Screws.

j) Finish:

i) Taped and jointed.

ii) 2mm skim coat finish. Refer to M20.

iii) Refer to the Design Drawings for applied finish/ lining type.

k) Accessories: Gyproc Profilex access panels as required.

Plasterboard Ceiling Systems

K10.110 Type CLG-101 Suspended Plasterboard Ceiling System

Plasterboard lining fixed to suspended metal support system, as shown on the Design Drawings.

a) Manufacturer: British Gypsum, or acceptable equivalent.

b) Reference: Casoline MF Suspended Ceiling System.

c) Specific performance:

i) Fire rating: No target rating other than that provided inherently by the system.

ii) Acoustic rating: No target rating other than that provided inherently by the system.

iii) Duty rating: Severe.

d) Support framing: Suspended concealed metal support framing to suit the service conditions.

i) Manufacturer: British Gypsum or acceptable equivalent.

ii) Reference: ~~To be confirmed by the Architect~~. As recommended by manufacturer

iii) Thickness: As the Design Drawings.

e) Linings/ facings:

i) 1No. layer of Gyproc WallBoard.

ii) Thickness: 12.5mm.

f) System to allow for coffer design at perimeter and lighting trough for recessed lighting and feature lighting and to include visually discreet access panels, as the Design Drawings. Refer to the Services Engineer's documentation.

g) Finish:

i) Painted, refer to PT-101 in M60 and PLS-101 in M20, the Design Drawings and to the Finishes Schedule.

ii) Colour: RAL 9010. Refer to the Finishes Schedule.

h) Perimeter trim/ shadow gap: Refer to the Design Drawings.

K10.111 Type CLG-105 Suspended Plasterboard Ceiling System - Moisture Resistant

Moisture resistant plasterboard lining fixed to suspended metal support system for kitchen/living and bathrooms as shown on the Design Drawings.

a) Manufacturer: British Gypsum, or acceptable equivalent.

b) Reference: Casoline MF Suspended Ceiling System.

c) Specific performance:

i) Fire rating: No target rating other than that provided inherently by the system.

ii) Acoustic rating: No target rating other than that provided inherently by the system.

iii) Duty rating: Severe.

d) Support framing: Suspended concealed metal support framing to suit the service conditions.

i) Manufacturer: British Gypsum, or acceptable equivalent.

ii) Reference: ~~To be confirmed by the Architect.~~ As recommended by manufacturer

iii) As the Design Drawings.

e) Linings/ facings:

i) 1 No. layer of Gyproc WallBoard.

ii) Thickness: 12.5mm.

f) System to allow for coffer design at perimeter lighting trough for recessed lighting and feature lighting and to include visually discreet access panels, as the Design Drawings. Refer to the Services Engineer's documentation.

g) Finish:

i) Painted, refer to PT-101 in M60 and PLS-101 in M20, the Design Drawingsand to the Finishes Schedule.

ii) Colour: RAL 9010. Refer to the Finishes Schedule.

h) Perimeter trim/ shadow gap: As the Design Drawings.

Access Panels

K10.112 Type CLG-901 Ceiling Access Panel

Standard ceiling access panel such as Profilex Standard Access Panel as shown on the Design Drawings.

a) Manufacturer: British Gypsum, or acceptable equivalent.

b) Reference: Profilex Standard Access Panels.

c) Size and configuration: As the Design Drawings.

d) Specific performance: To maintain the surrounding ceiling system's stipulated performance criteria and including high security locks.

e) Frame and finishes: Flush finished beaded frame and etched finish, to receive final finish to match surrounding ceiling finish.

K10.113 Type IWS-501 Wall Access Panel

Standard wall access panel, as shown on the Design Drawings.

a) Manufacturer: British Gypsum, or acceptable equivalent.

b) Reference: Gyproc Profilex Access Panels.

c) Size and configuration: As the Design Drawings.

d) Specific performance: To maintain the surrounding wall system's stipulated performance criteria.

e) Frame and finishes: Flush finished beaded frame and etched finish, to receive final finish to match surrounding wall system.

f) Hardware: Budget/ high security lock and hinges.

K10.200 QUALITY AND WORKMANSHIP

QUALITY

Refer to A70 for detailed descriptions of Submittals and Quality Requirements.

K10.201 Samples

a) Each plasterboard type: 500mm x 500mm.

b) Metal framing components: 500mm length.

c) Access panels/ grilles.

K10.202 Mock-ups, Prototypes, Benchmarks

a) Mock-ups:

i) Not required.

b) Prototypes:

i) Not required.

c) Benchmarks:

i) Initial structural bay of each type of system for the following:

- Partitions.
- Ceilings.

K10.203 Other Documentation

Not used.

K10.204 General Work Section Requirements

a) Comply with the following Building Fabric Reference Specifications:

i) Z10 - General Joinery.

ii) Z11 - Metalwork.

iii) Z13 - Rigid Sheet/ Board.

iv) Z20 - Fixings/ Adhesives.

v) Z22 - Sealants.

vi) Z30 - Metalwork Finishes.

vii) Z31 - Powder Coatings.

viii) Z33 - Anodising.
ix) Z55 - Plasterboard.
x) Z60 - Membranes.
xi) Z61 - Insulation.

b) Comply with:
i) BS 8212 - Dry lining and partitioning.
ii) BS EN 13964 - Ceilings.

K10.205 Performance (General)

a) Comply with all performance requirements as described in A71.100.

b) Comply with the following requirements as described in K0.100:
i) General.

K10.206 Performance (Work Section Specific)

Where shafts and stairs are required to be airtight and pressurised provide adequate penetration seals to maintain leakage rates of 0.23 litres/m²/second at 160 Pascals of differential pressure in builder's work shafts and 0.34 litres/m²/second at 50 Pascals of differential pressure in air pressurisation shafts.

K10.207 Testing (General)

a) Comply with all testing requirements as described in A72.100.

b) Comply with the following requirements as described in A72.200:
i) Fixings.
ii) Fire.
iii) Acoustic.

c) Comply with the following requirements as described in K0.200:
i) General.

K10.208 Testing (Work Section Specific)

a) Shaft/ Stair:
i) Carry out testing periodically on builder's and stair pressurisation shafts both during construction and on each completed shaft.

K10.209 Materials (General)

a) Comply with all requirements as described in A70.200.

b) Comply with the following requirements as described in K0.300:
i) General.
ii) Support Systems.

K10.210 Materials (Work Section Specific)

Provide proprietary metal stud partition systems, including 0.55mm (minimum) hot-dip zinc/ iron zinc alloy coated sheet steel supports of appropriate size, with additional members around openings, fixed with zinc or cadmium plated countersunk screws in accordance with BS EN 10143.

WORKMANSHIP

K10.211 Workmanship (General)

a) Comply with all workmanship requirements as described in A70.300.

b) Comply with the following workmanship requirements as described in K0.400:
i) Installation.

K10.212 Workmanship (Work Section Specific)

a) Comply with:
i) BS 5234.
ii) BS 8212.
iii) BS EN 13964.

b) Install floor to ceiling metal stud partitions vertically and in straight lines, taking account of any structural, MEP, acoustic or fire related materials or components, maintaining integrity at all times.

c) Install metal studs at equal and appropriate centres with additional lengths to support openings and attachments.

d) Fix plasterboard sheets to metal studwork with properly sized screws/ fixings at consistent and recommended centres, with end fixings being at least 10mm from the edge of each sheet. Where multiple layers of plasterboard or vertical joints on either side are required, they are to be staggered to avoid alignment.

e) Plasterboard ceiling systems are to be flat and rigid at all times, supported by a suitable concealed suspension system.

f) Tape and joint as appropriate in preparation for application of finishes.

g) Install partition systems with a high degree of accuracy, being ±2mm in terms of height and position on plan. Plasterboard joints are to be continuous and butted tightly with gaps of no more than 1mm with openings cut to ±1mm.

End of Section