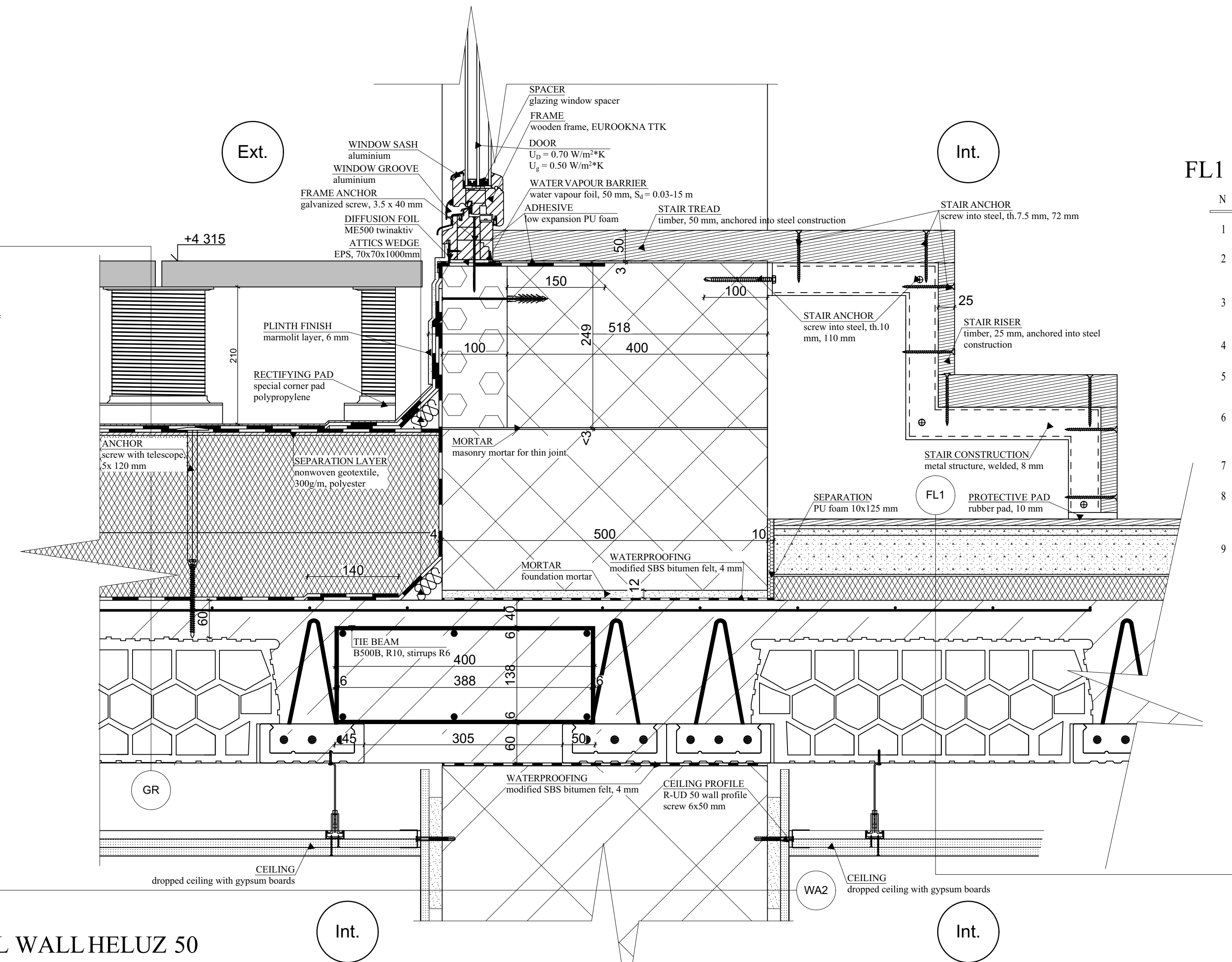


DETAIL D - ENTRANCE DOOR

SC 1:5

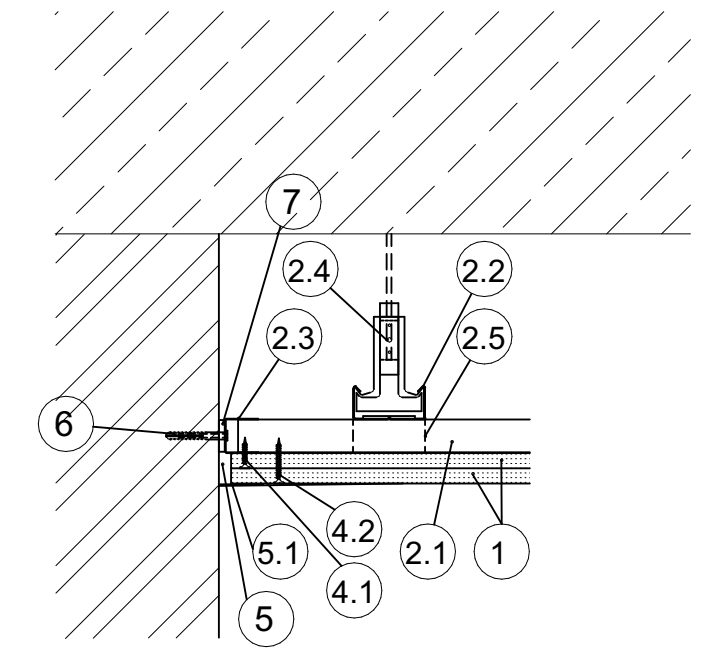
GR COMPOSITION OF GREEN ROOF I

| N  | FUNCTION                     | MATERIAL SPECIFICATION   | STABILIZATION                     | THICKNESS |
|----|------------------------------|--|-----------------------------------|-----------|
| 1  | VEGETATION                   | EXTENSIVE SUBSTRATE<br>vegetation carpet for succulents  | -                                 | 70        |
| 2  | FILTRATION                   | GEOTEXTILE<br>nonwoven geotextile, 300g/m, polyester   | -                                 | 1.5       |
| 3  | DRAINAGE/ WATER ACCUMULATION | NOPIC FOIL/ DIMPLE MEMBRANE<br>nop height 20 mm  | -                                 | 20        |
| 4  | SEPARATION                   | GEOTEXTILE<br>nonwoven geotextile, 300g/m, polyester   | -                                 | 1.5       |
| 5  | WATERPROOFING                | BITUMEN SHEET<br>modified SBS, self-adhesive, top and bottom layer homogeneous elastomer coating, core layer glass textile   | melted                            | 3.5       |
| 6  | WATERPROOFING                | BITUMEN SHEET<br>modified SBS, self-adhesive, top layer foil, core layer glass textile, bottom layer PE foil   | anchored                          | 3.5       |
| 7  | SEPARATION                   | GEOTEXTILE<br>nonwoven geotextile, 300g/m, polyester   | -                                 | 1.5       |
| 8  | LEVELING/ THERMAL INSULATION | THERMAL INSULATION<br>EPS 200 polystyrene, thermal resistance R 5.80 m²*K/W, coefficient of thermal conductivity λ <sub>a</sub> 0.034W/m²*K, fire reaction class E, compressive strength 250 MPa, diffusion resistance factor μ 100  | -                                 | 140 <     |
| 9  | THERMAL INSULATION           | THERMAL INSULATION<br>EPS 200 polystyrene, thermal resistance R 5.80 m²*K/W, coefficient of thermal conductivity λ <sub>a</sub> 0.034W/m²*K, fire reaction class E, compressive strength 250 MPa, diffusion resistance factor μ 100  | -                                 | 100       |
| 10 | VAPOUR BARRIER               | BITUMEN SHEET<br>modified SBS, top layer separation foil, core layer aluminium foil, bottom layer PE foil  | melted in points                  | 3.5       |
| 11 | PENETRATION                  | ASPHALT COATING<br>asphalt emulsion, cold processed, sparse, solvent free, frost resistant   | roller, brush or spraying machine | 0.5       |
| 12 | GROUTING                     | GROUTING CONCRETE<br>concrete C20/25 XC1, consistency S3, with reinforcement mesh diameter 4/150   | -                                 | 60        |
| 13 | LOAD-BEARING                 | CEILING JOIST + CARTRIDGE<br>reinforced concrete, fire reaction class A1, fire resistance REI 180 D1   | -                                 | 190       |
| 14 | CEILING                      | GYPSUM BOARD + INSTALLATION GAP<br>suspended ceiling, coefficient of thermal conductivity λ <sub>a</sub> 0.21 W/m²*K, fire reaction class A2-s1,d0, diffusion resistance factor μ 6-10, longitudinal expansion factor in case of humidity change 5-8*10⁻⁴, compressive strength 5.0 - 10.0 MPa | -                                 | 2x12.5    |



WA2 COMPOSITION OF INTERNAL WALL HELUZ 50

| N  | FUNCTION        | MATERIAL SPECIFICATION   | STABILIZATION                     | THICKNESS |
|----|-----------------|--|-----------------------------------|-----------|
| 1  | PAINT           | ONE-COMPONENT, WATER-SOLUBLE PAINT DESIGNED FOR GYPSUM BOARDS<br>internal dispersion paint with organic binders and limestone fillers, water vapour permeability 0.02 m  | brush or spraying machine         | -         |
| 2  | FILLER          | UNIVERSAL PASTE FILLER<br>bending strength > 320N, fire reaction class A2-s1,d0  | stainless steel trowel            | -         |
| 3  | GYPSUM BOARD    | GYPSUM BOARD<br>coefficient of thermal conductivity λ <sub>a</sub> 0.21W/m²K, fire reaction class A2-s1,d0, diffusion resistance factor μ 6-10, longitudinal expansion factor in case of humidity change 5-8*10⁻⁴, compressive strength 5.0 - 10.0 MPa   | mechanically anchored             | 12.5      |
| 4  | ADHESIVE BINDER | GYPSUM ADHESIVE BINDER<br>adhesion min. 0.24 MPa, fire reaction class A1, drying time min. 12 hours  | stainless steel trowel            | 20        |
| 5  | PENETRATION     | CONCENTRATED WATER DISPERSION<br>concentrated aqueous dispersions of artificial resins based on acrylic resins with additives, consumption 100g/m², dilution ratio 1:4, drying time circa 24 hours   | roller, brush or spraying machine | -         |
| 6  | LOAD-BEARING    | LOAD-BEARING MASONRY BRICK<br>monolayer load-bearing, heat transfer coefficient U 0.16W/m²K, thermal resistance R 9.16 m²K/W, coefficient of thermal conductivity λ <sub>a</sub> 0.081W/m²K, fire reaction class A1, fire resistance REI 180 DP1, airborne noise Rw 43, diffusion resistance factor μ 5/10 | -                                 | 500       |
| 7  | PENETRATION     | CONCENTRATED WATER DISPERSION<br>concentrated aqueous dispersions of artificial resins based on acrylic resins with additives, consumption 100g/m², dilution ratio 1:4, drying time circa 24 hours   | roller, brush or spraying machine | -         |
| 8  | ADHESIVE BINDER | GYPSUM ADHESIVE BINDER<br>adhesion min. 0.24 MPa, fire reaction class A1, drying time min. 12 hours  | stainless steel trowel            | 20        |
| 9  | GYPSUM BOARD    | GYPSUM BOARD<br>coefficient of thermal conductivity λ <sub>a</sub> 0.21W/m²K, fire reaction class A2-s1,d0, diffusion resistance factor μ 6-10, longitudinal expansion factor in case of humidity change 5-8*10⁻⁴, compressive strength 5.0 - 10.0 MPa   | mechanically anchored             | 12.5      |
| 10 | FILLER          | UNIVERSAL PASTE FILLER<br>bending strength > 320N, fire reaction class A2-s1,d0  | stainless steel trowel            | -         |
| 11 | PAINT           | ONE-COMPONENT, WATER-SOLUBLE PAINT DESIGNED FOR GYPSUM BOARDS<br>internal dispersion paint with organic binders and limestone fillers, water vapour permeability 0.02 m  | brush or spraying machine         | -         |



| NO. | FUNCTION                        |
|-----|---------------------------------|
| 1   | PLASTERBOARD                    |
| 2.1 | MOUNTING R-CD PROFILE           |
| 2.2 | LOAD-BEARING R-CD PROFILE       |
| 2.3 | PERIMETER PROFILE UD            |
| 2.4 | HANGER                          |
| 2.5 | ANGLED ANCHOR                   |
| 4.1 | SCREW 212/25 TN                 |
| 4.2 | SCREW 212/45 TN                 |
| 5   | ANCHORED TO PERIMETER STRUCTURE |
| 5.1 | REINFORCING TAPE                |

INSTALLATION

- 1) INSTALLATION OF R-CD PROFILES
- 2) APPLICATION OF THE MINERAL WOOL, WHICH WILL BE INSERT ABOVE THE R-CD PROFILE
- 3) IT IS NECESSARY TO PUT THE INSTALLATION OARDS ONE NEXT TO EACH OTHER, THERE CAN NOT E ANY GAP BETWEEN THEM
- 4) APPLICATION OF PLASTERBOARDS AS DROPPED CEILING, IT WILL BE ANCHORED ON THE R-CD PROFILE

FL1 COMPOSITION OF FLOOR IN 2<sup>nd</sup> ABOVE GROUND FLOOR

| N | FUNCTION            | MATERIAL SPECIFICATION  | STABILIZATION                      | THICKNESS |
|---|---------------------|---|------------------------------------|-----------|
| 1 | SURFACE FINISH      | LAMINATE FLOORING<br>marmoleum 2 mm on top finish, load-bearing 7 mm, bottom 1 mm   | lock connected                     | 10        |
| 2 | SEPARATION          | PE FOAM LAYER<br>mirelon layer  | -                                  | 5         |
| 3 | LEVELING            | SELF-LEVELING SCREED<br>calcium sulfate base, thickness from 2.5 to 10 mm, compressive strength >35 N/mm², coefficient of thermal conductivity λ <sub>a</sub> 1.4 W/m²K, density 2100 kg/m³, initial setting 15-30 minutes, final setting 60-90 minutes, curing 48 hours                      | smoothing trowel or screeding rake | 10        |
| 4 | GROUTING            | GROUTING CONCRETE SCREED<br>concrete C20/25 XC1, consistency S3, with reinforcement mesh diameter 4/150   | -                                  | 60        |
| 5 | SEPARATION          | PLASTIC FOIL<br>strong building foil  | -                                  | -         |
| 6 | ACOUSTIC INSULATION | STEP INSULATION<br>elasticozed polystyrene, thermal resistance R 0.40 m²K/W, coefficient of thermal conductivity λ <sub>a</sub> 0.037W/m²K, fire reaction class E, compressive strength 6.0 MPa   | -                                  | 40        |
| 7 | GROUTING            | GROUTING CONCRETE<br>concrete C20/25 XC1, consistency S3, with reinforcement mesh diameter 4/150  | -                                  | 60        |
| 8 | LOAD-BEARING        | CEILING JOIST + CARTRIDGE<br>reinforced concrete, fire reaction class A1, fire resistance REI 180 D1  | -                                  | 190       |
| 9 | CEILING             | GYPSUM BOARD + INSTALLATION GAP<br>suspended ceiling, coefficient of thermal conductivity λ <sub>a</sub> 0.21 W/m²K, fire reaction class A2-s1,d0, diffusion resistance factor μ 6-10, longitudinal expansion factor in case of humidity change 5-8*10⁻⁴, compressive strength 5.0 - 10.0 MPa | -                                  | 2x12.5    |

NOTES:

- MORTAR USED FOR CONNECTION OF BRICKS IS SBC MORTAR FOR THIN JOINTS

0.000 = 162.00 m.a.s.l., B.H.S. / COORDINATE SYSTEM S-JTSK

|                 |   |   |
|-----------------|---|---|
| TYPE OF WORK    | DIPLOMA THESIS  | FAKULTA STAVEBNÍ Ústav pozemního stavitelství |
| DRAWN BY        | Bc. Richard Sasko   |   |
| SUPERVISED BY   | Ing. Karel Struhala   |   |
| CUSTOMER        | John Davidson, Suvorovova 2888/9, 902 01 Pezínok-Stará hora |   |
| SITE LOCATION   | Suvorovova 2888/9, 902 01 Pezínok-Stará hora                |   |
| PROJECT TITLE   | HOTEL   | PAPER FORMAT 8 * A4                           |
| BUILDING OBJECT | H-1 HOTEL   |   |
| PART            | D.1.2 - Building Construction Solution                      |   |
| DRAWING TITLE:  | DETAIL D - ENTRANCE DOOR                                    |   |
| SCALE           | 1:5   |   |
|                 |   | DRAWING NO. D.1.2.07                          |