Facade composition formular

- Dominant horizontal repetition/vertical variation
- Reinforcement of horizontal variation, vertical repetition
- Program allocation
- Clothing identity on the volume
- Evaluated design in spatial, perceptual value
- Further evaluated design in terms of identity, perceptual effect, space program, sustainability

Special facade part:
- Eyecatching part from the openspace of Nieuwe Doelenstraat

Merged interior:
- Balcony
- Loggia
- Seating place

Expressive exterior:
- Window seal desk
- Window seal head level change

Adjusted window composition to the space behind

Conventional style facade:
- + roof deck
- + Solar collector

Additional floor, Gable front:
- - focus point

Gable - Lowered volume at street viewpoint

Various Penthouse

Clothing identity on the volume:
- Street facade of clothes and shoes

Clothing Amsterdam identity, adapted in current situation.
- Narrower and longer, reduced window size, compared to the typical Amsterdam identity.

Evaluated design in spatial, perceptual value:
- Various residential space additions
- Preserving existing
- Various socio-cultural programs
- Various ground floor programs

Various residential space addition

Residential program loss compensation

Further evaluated design in terms of identity, perceptual effect, space program, sustainability
Facade materialization formular

Materialization formular Structure

Materialization formular wall depth: RC 7 wall composition and wall depth

Current situation
Appearance
Preservation
Timber frame
Brick cavity wall
Heavy, deep
Timber frame
Glued / finished (brick, timber)
Light, thin

Depth variation between wall and window

Finish material: to emphasize the squiggly silhouette (detail)

Materialization formular XY axis: variation by different window head, seal height and width of openings

Adjacent head to the floor bottom
Detached head from the floor bottom
General Seal
Seal on the floor

opening existing
opening variation 2
opening variation 3
Existing wall composition

Existing wall transformation

Wall window ratio, proportion

Existing: more than 53%
Recommended: less than 40% for over R-7 value

Design: 38-43%
Considering interior light level (>50 lux)

Media facade addition in different grids

180x80 in 120x40
240x80 in 160x55
240x80 in 240x240

place to put heat exchanger for each unit (small size, independant).
Fresh air come from facade inlet. Exhaust air goes out through the existing pipe shaft.

1: existing loggia
2: added loggia
3: added balcony
4: existing balcony
R-7 aimed wall composition

Existing (2.31 m$^2$/W)
- 214mm existing Brick (0.35 m$^2$/W)
- 66mm existing EPS (1.78)
- 5mm existing Stucco

Type 1: Appearance preservation (7.31 m$^2$/W)
- Finish (Acoustic layer-sector B)
- PVC Vapo layer
- 100mm Isocyanurate (5 m$^2$/W)
- 214mm existing Brick (0.35)
- 66mm existing EPS (1.78)
- 5mm existing stucco

Type 2: Brick cavity wall (6.82 or 9.18 m$^2$/W)
- Finish (Acoustic layer-sector B)
- PVC Vapo layer
- 100mm EPS in timber stud (50x200mm) (ca. 2.7 m$^2$/W)
- or 214mm existing Brick (0.35)
- 120mm Isocyanurate (6)
- 50mm Cavity wall (0.18)
- 100mm outer Brick (0.12)

Type 3: timber frame + various exterior finish glued (>7.53 m$^2$/W)
- Finish (Acoustic layer-sector B)
- PVC Vapo layer
- 120mm Isocyanurate in timber stud (55x150mm) (ca. 6 m$^2$/W)
- or 214mm existing Brick (0.35)
- 50mm EPS (1.35)
- 20mm Brick slice glued on EPS (0.02)
- or Timber panel

Special type: prefabricated Fiber concrete sandwich panel (>7.78 m$^2$/W)
- Finish
  - Curve shaped fiber concrete structure 100mm
  - Curve shaped Isocyanurate 150mm
  - ca. 20mm~70mm lightweight concrete cast shaped in diagonal brick stack

New window triple glazing (1.13 m$^2$/W)
- Triple glazing, 2 Low-E (soft coat) with argon (g=0.09), insulated spacer
General scale: 1:10

Type 3 wall:
Brick slice (280x80 pattern)

Type 2 wall:
Brick (150x35 pattern)

Type 3 wall:
Timber panel (W=135)
Type 1

Prefabricated unit border

Special type wall

Diagonal curve pattern

Timber panel (W=135)

Stucco
1 Conduit connected to LED light
2 LED light source/ heatsink module/ acryl optical light guide
3 C channel mount on stucco

Basement connection to library

Double skin facade louver
Acoustic window addition (Sector B)

1. Convector, none forced air
2. Insulation inserted triple glazing window unit, Zola Thermo plus

Over insulation

Preheated fresh air from heat exchanger

Fresh warm air

Cold air

Sheer bar

Steel rod D 80

Rear balcony
Roof deck support

Timber part connection to concrete facade frame, where no existing structure continues

Decorative seam in brick pattern

Special type
Preheated fresh air entering to convector inlet

Tilt window for natural ventilation

Acoustic absorption pad

Fixed triple glazing

Rotating Louver

Louver motor

Slim line steel concrete plate composite system

Forced air convector

Warm fresh air

Fresh air inlet

Warm fresh air

Exhaust air outlet
Crea music studio Auditorium

Warm fresh air

Type 2

Preheated fresh air from heat exchanger

Slim line steel concrete plate composite system

Exhaust air outlet