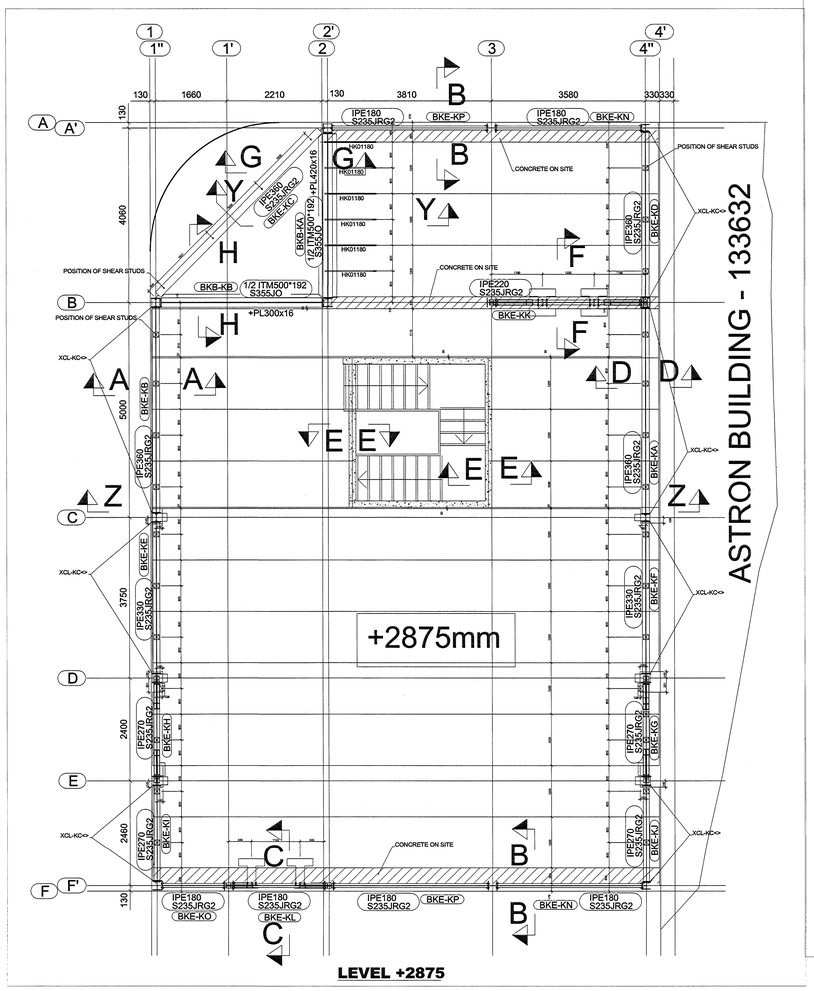
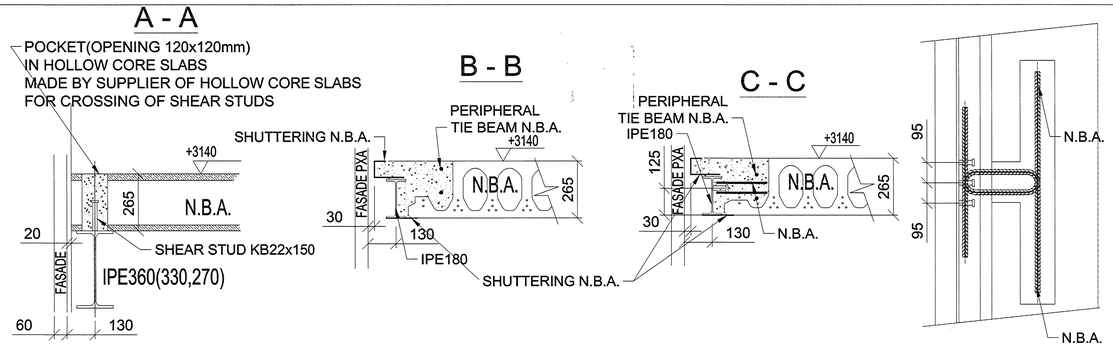
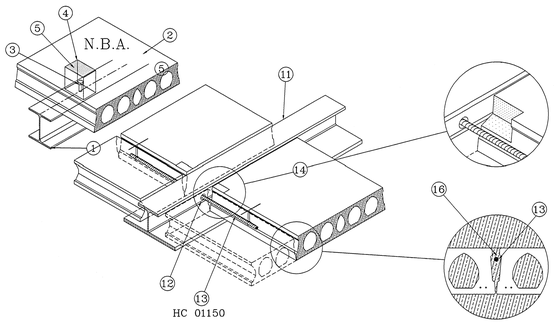
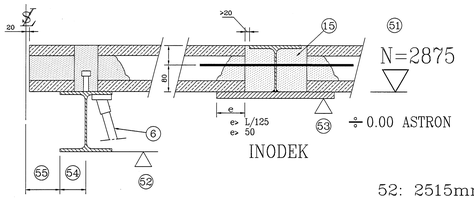


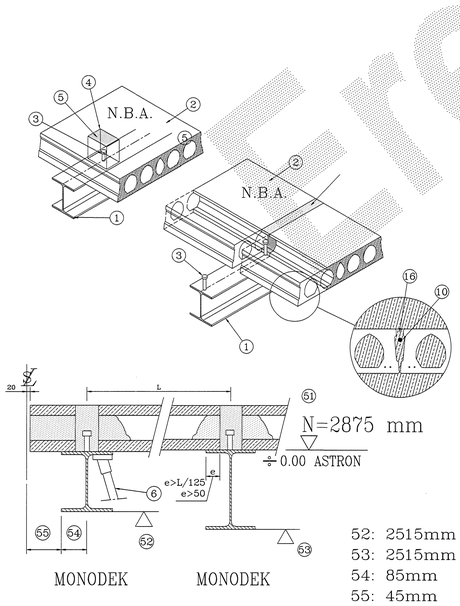






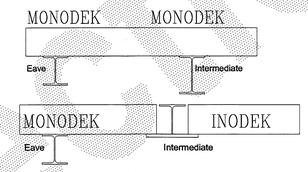
52: 2515mm
53: 2859mm
54: 85mm
55: ROUND BALCONY

SECTION Y-Y



52: 2515mm
53: 2515mm
54: 85mm
55: 45mm

SECTION Z-Z



Legend and explanations of the system

Supply of hollow core floor not by ASTRON

1. Monodek beam
2. hollow core floor element
3. shear stud : positions, type and quantities : see page opposite
4. pocket in the element for the crossing of the shear studs
   (option possible if ASTRON deliver the hollow core elements). In this case, the calculation of the Monodek beam include the diaphragm action
5. to fill with concrete (B25) and compact concrete to fill all the cavities between the hollow core elements and the steel beams
6. propping (see sketch above)
7. cantilever: propping necessary if large overhang (refer to your local engineer)
8. edge shutter : to plan on jobsite
10. concrete bars for diaphragm effect
11. Inodek beam
12. Beams drilled for lateral reinforcement bar included if hollow core units supplied by Astron (see note below for units supplied by B/D)
13. steel bars (included in ASTRON supply when hollow core units supplied by ASTRON) ø12mm L=3m to cut in the steel bars HC_01150
14. including, where necessary, accessability for placing and vibrating concrete
15. in situ concrete (B25) to be propely compacted to fill all the cavities between the hollow core elements and the steelbeams
16. in situ concrete (B25) (see notice of the hollow core elements supplier)
26. substitution solution to use following some conditions
    (please contact the ASTRON's engineering)

Important note for the drilling of the INODEK

If hollow core elements are not supplied by ASTRON, the following information is required by ASTRON 's engineering before production :
- type and section of hollow core elements
- position of the holes (vertical and horizontal) for steel bars
  (erection drawings of hollow core floor units)

Without this information, holes will be drilled on site by the B/D .

Measurements

51 . reference level of the mezzanine (underside of the hollow core element)
52 . clear height to underside of steel edge beam
53 . clear height to underside of intermediate beams
54 . maximum flange outstand of edge beam
55 . clearance between steel line and outside edge of flange,
to check for the place of the eventual wall or girt.

Shoring-up

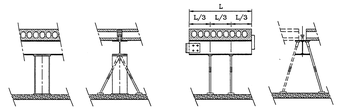
temporary propping of steel beams for in situ concrete operation.

1) Stabilisation of the hinged columns

All mezzanine columns should be stabilised utilising two props.

2) anti lateral tortionnal backling of the beams L/3 and 2L/3 prevention of torsionnal building of beams

All beams , during the erection, having unsymetrical loads including edge beams should be shored with a minimum of 2 props.



Unless noted different :
All BSK- bolts must be installed with the "TURN OF THE NUT" method, as described in the erection manual.
All other must be installed 'SNUG TIGHT'

Loads (kN/m2)
dead load : 3.00
live load : 3.50
addl.DL (screed) : 2.00
addl.DL (finish) :

ASTRON DOESN'T DELIVERY
HOLLOW CORE ELEMENTS FOR MEZZANINE.
ASTRON TAKES NO RESPONSIBILITY
OF THE DIAPHRAGM EFFECT DESIGN OF THE FLOOR.

THIS DRAWING IS NOT ERECTION DRAWING
OF HOLLOW CORE ELEMENTS FOR MEZZANINE.
DELIVERY AND INSTALLATION OF REINFORCEMENT BARS
IS RESPONSIBILITY OF HOLLOW CORE SUPLIER

Technical notes

Remarks for all types of mezzanines

- position of the mezzanine in the building : see hatched area on the anchor bolt plan
- anchor details of the columns : see anchor bolt plan
- reaction loads from the mezzanine beam through the concrete support (wall,concrete column,...) to be checked by the local engineer
- half torque of bolted connexions : see table

To organise and provide on jobsite by the company who put the concrete

- all shoring (see sketch below)
- all shuttering

Mezzanine with hollow core elements

- As the horizontal loads are transmitted by the mezzanine, the diaphragme action of the mezzanine has to be assured. The global stability of the mezzanine has to be assured by building frames or buildings bracing. The calculation of the diaphragm action is the responsability of the hollow core elements supplier.
- the hollow core elements are installed after the erection and the fitting of the main structure and before the stability of the roof in the area of the mezzanine
- the hollow core elements are installed before the erection of the façades
- the concrete is not supplied by ASTRON
- the concrete must be compacted in order to completly fill the cavities between the hollow core elements and the steel beams.

Supply of hollow core floor element not by ASTRON:

Symbols

*	: to be adapted on site
<>	: fitting with shim plates (2x2mm) put the plattes on each side of the beam
▽ NF	: reference level corresponding to the bottom of the hollow core element
OPT	: optional supply if specified in the order
NBA	: Not By ASTRON

Comparison table of the steel quality

EN	S235JR	S355JO
NF	E24-2	E36-3
DIN	St 37-2	St 52-3U
NBN	AE235-B	AE355-C
BS	40	50C

INDEX	NAME	MODIFICATION	DATE
A	J.T.	ADD PARTNUMBERING AND DETAIL'S DIMENSIONS	12/03/2007

Remarks:

Notes on the erection of the hollow core:

1) Read the instructions mentioned in the erection manual.

2) Prop the pinned columns and the beams subjected to a asymmetrical load until the complete hardening of the concrete.

3) Respect the minimum support dimensions (S1) of the hollow core (See the erection drawing of hollow core).

4) The installation of the reinforcement bars has to be done according to the details shown on the erection drawing and manual.

5) Concreting:
- Shutter and place end caps before pouring the concrete.
- The concrete poured on site must be of C25/30 quality and 0.8 granulometry.
- Spaces between the hollow cores and the beams or columns must be completely filled with vibrated concrete.

Pinned columns
2 props / column

Asymmetrical loading
L/3 OR 2L/3
L/3
L/3
L/3
L
S1
S1

Notes:

1) List of drawings in appendix.
2) Documeniations to be consulted:
-Technical and erection manual.
3) Design and drawing of foundation by a local engineering department.
4) Table of the loads: see design calculation.
5) All dimensions in millimeters.
6) All the primary bolts, except indicated otherwise, are galvanized and tightened according the "snug tight" method.
7) Steel quality (unless indicated otherwise):
-Plates: S355JRG3.
-Profiles: S235JRG2.
8) Any anomaly will be pointed out to Astron immediately, before doing any modification on site.

Legend:

1) * to adapt on site.
2) N.B.A. = Not By Astron.

Building location:
Gummmynd sem synir burðarvirki undir hol-plötu milliloft, asamt deili smíði
Samþykkt þann 19 JÚLÍ 2007
Byggingafulltrúinn í Hafnarfirði
F.h.Sigurbjartur Hallgrímsson
Details
Building site address:
Iceland
Selhella 9, Hafnarfirði.

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TEL: 00 420 / 581 250315

B\D: MEST
PROJECT: FEDEX, Selhella 9
SCALE: 1/75 SIZE:A0
REF. JOB NUMBER:

MEZZANIN LAYOUT
133634 MP-1 REV. A