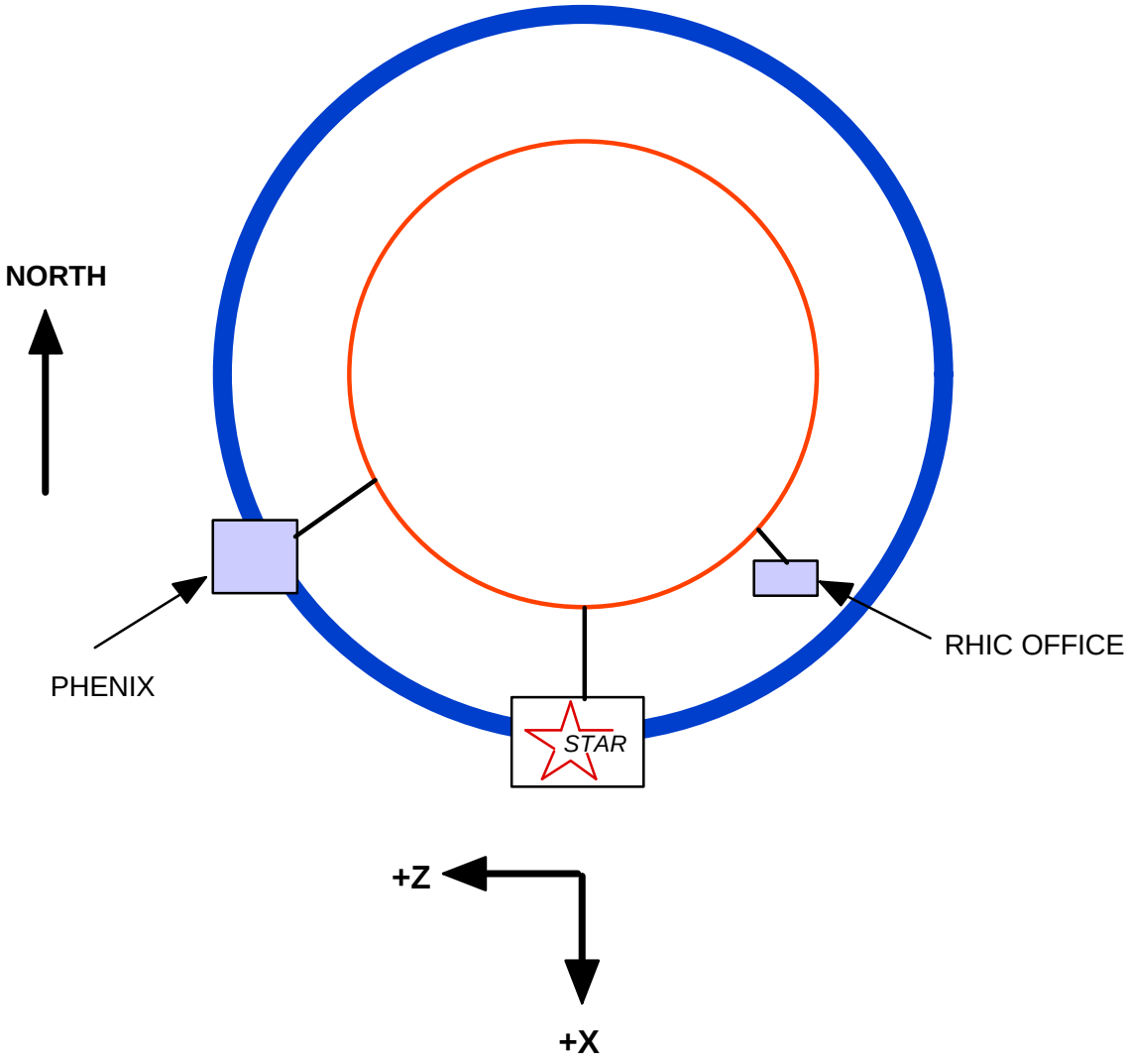
STAR Note #389

PROPOSAL FOR THE IDENTIFICATION OF COMPONENTS AND EMC'S FIBER BUNDLES PATH IN THE STAR BARREL

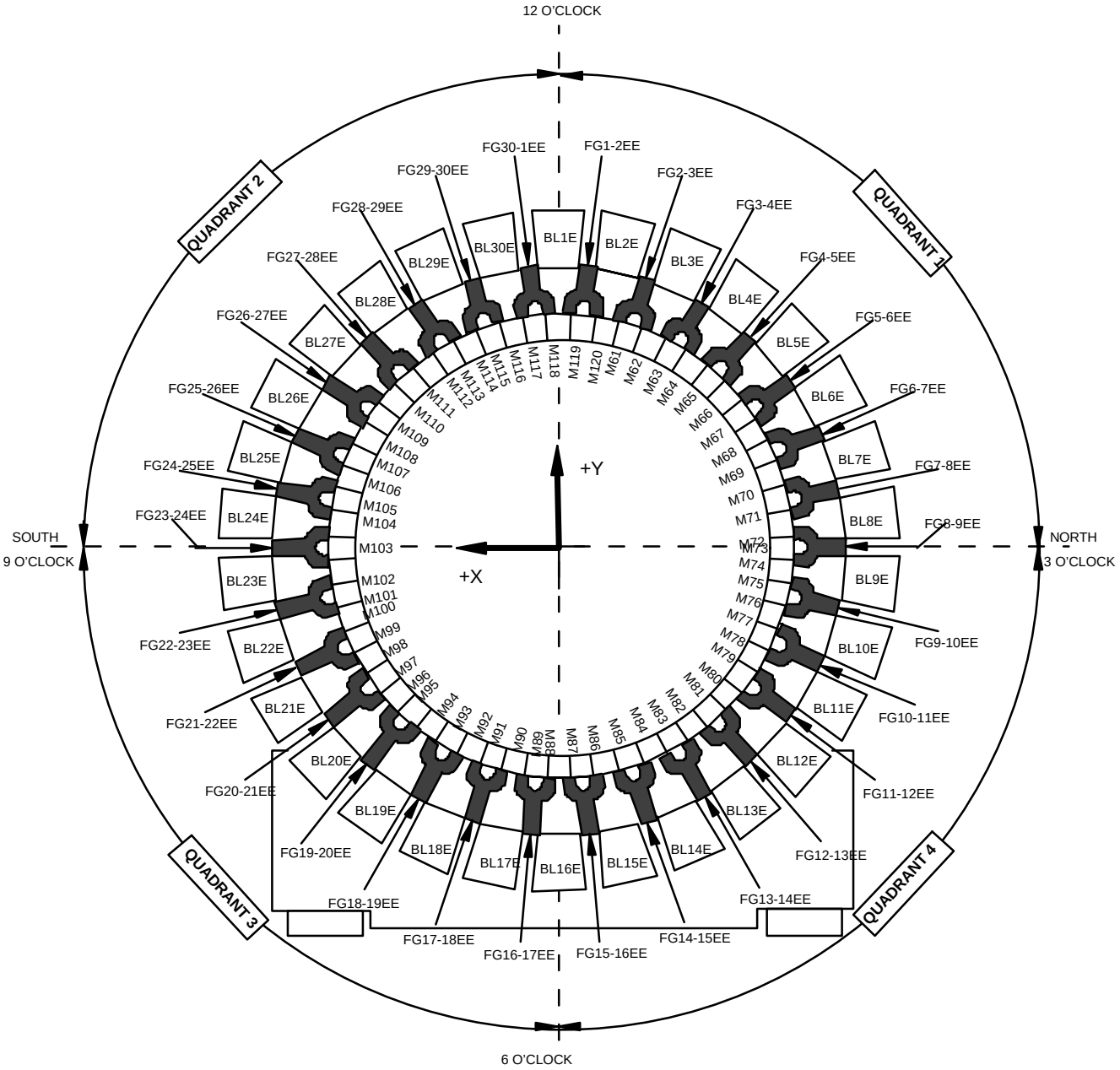
JOSE RISO, 3/5/99

A naming code to help to aid the identification of EMC components within the STAR barrel for the purpose of routing, tracking and tagging fiber bundles cables, etc. is proposed.
The numbering and coordinate system described in the STAR Note #229A is used as reference.
For the position of fiber guides, the numbering and orientation of flux return bars is used as reference.
For components not identified previously as the optical connectors current numbering codes used at WSU are applied.
In this scheme, looking at the front end of the STAR barrel from –Z (east face), the flux return bars are numbered 1 to 30 CW being bar #1 at 12 o'clock position.
Looking in the same direction, the modules are numbered 61 to120 CW.
Looking at the STAR barrel from +Z (West face), the flux return bars are numbered 1 to 30 CCW, being bar #1 situated at 12 o'clock position.
Looking from the same direction, the modules are numbered 1 to 60 CW.
The fiber guides are identified by the position between bars, they are also classified in Z direction from A to E, the complete code is FG#-# followed by the position in ETA and position letter E or W.
The position of single scintillator tiles, towers and SMD are identified using as reference the geometry and orientation of the modules.
The included figures show a detailed view of the naming code. Further identification has to be done with the PMT boxes, cables, and other individual components.

STAR COORDINATE SYSTEM AS IN STAR NOTE #229A



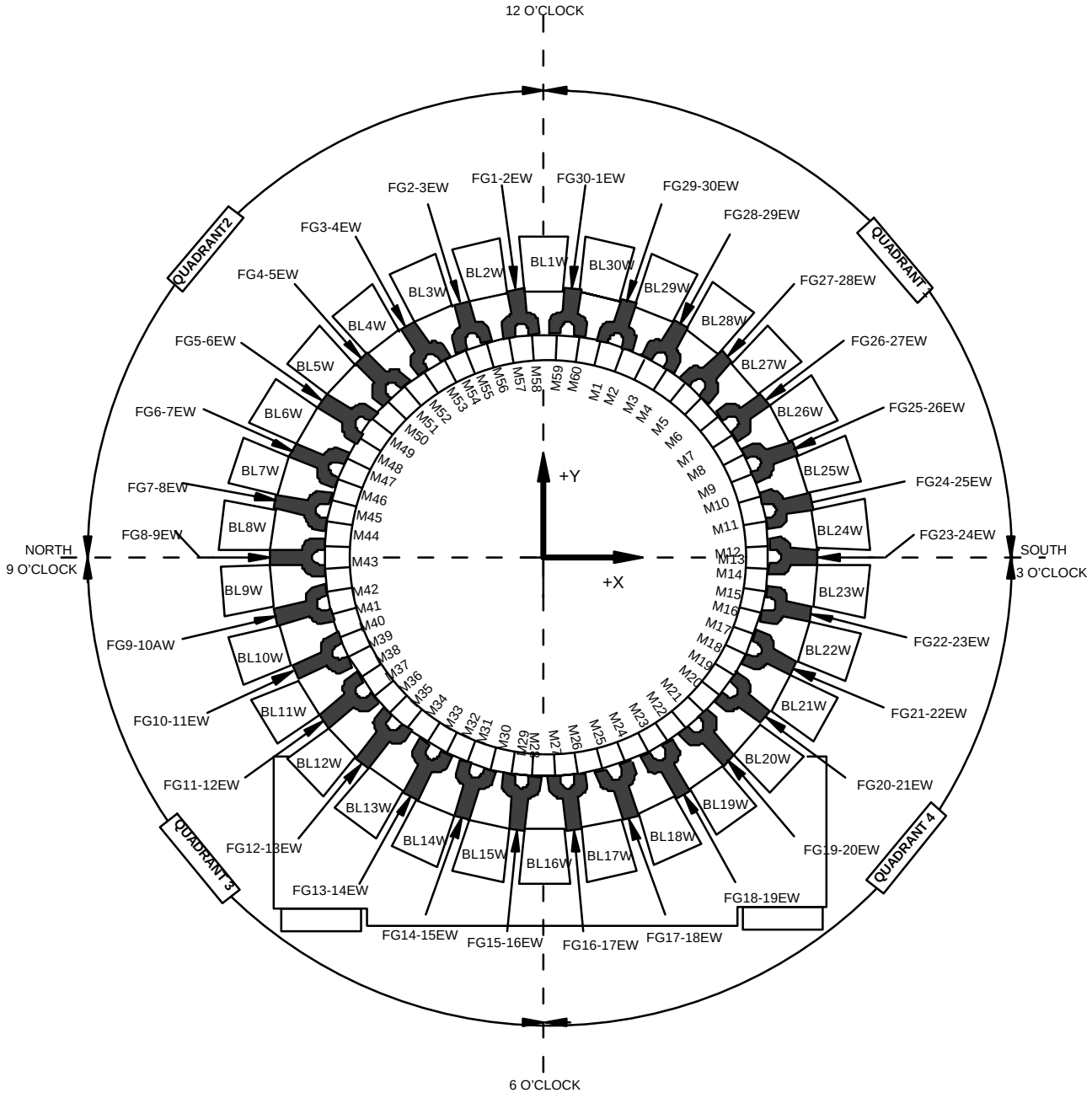
ROUTING AND TAGGING NAMING CODE
WSU, EMC, 11/3/98, JOSE RISO



EMC FACE OF THE STAR BARREL AS SEEN FROM -Z (EAST FACE)

BL#E= BACKLEG # EAST
FG#-#AE= FIBERGUIDE BETWEN BACKLEGS # & #, ETA POSITION E, EAST
M#= MODULE #

ROUTING AND TAGGING NAMING CODE
WSU, EMC, 11/2/98, JOSE RISO

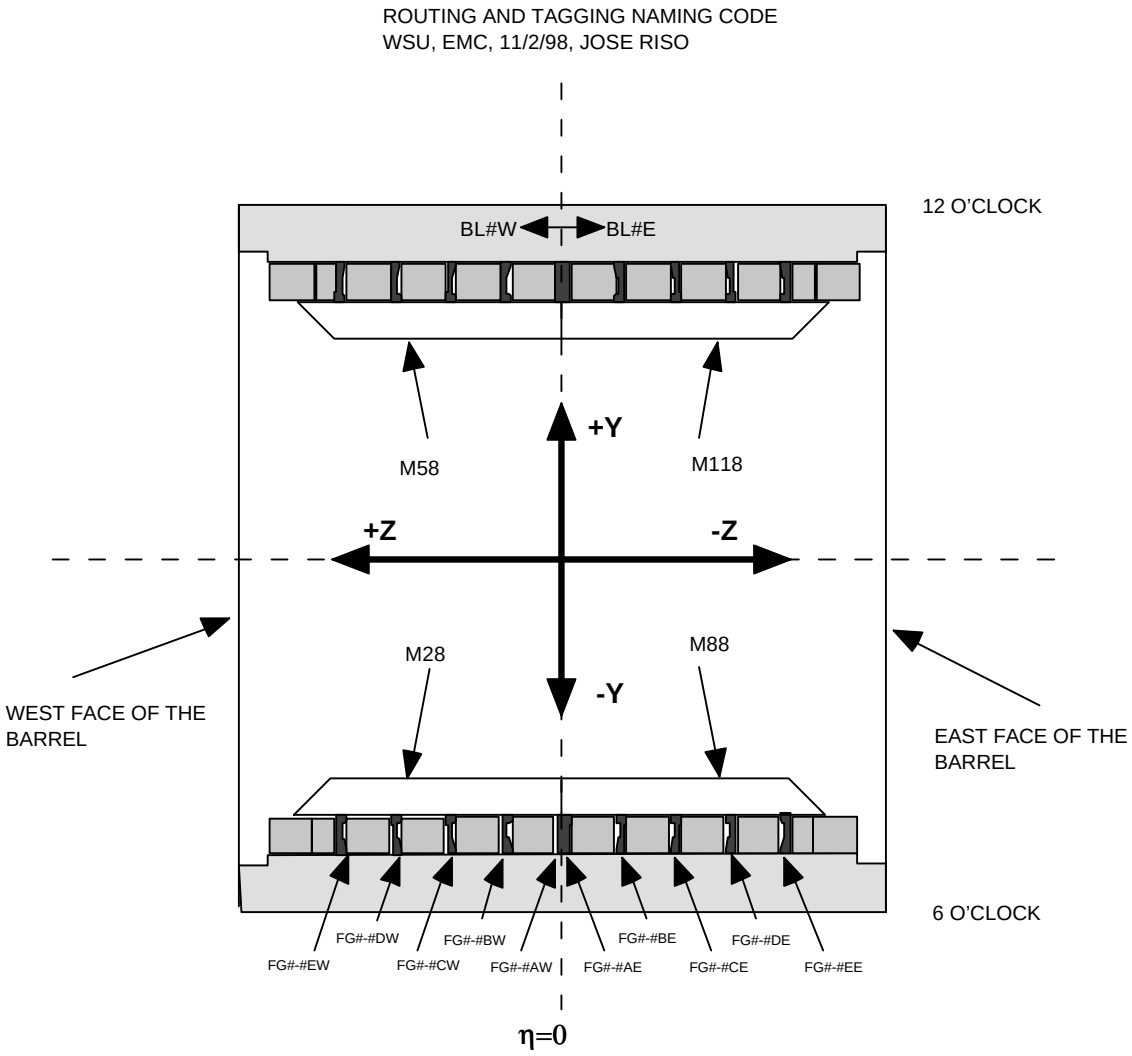


EMC FACE OF THE STAR BARREL AS SEEN FROM +Z (WEST FACE)

BL#W= BACKLEG # WEST

FG#-#EW= FIBERGUIDE BETWEN BACKLEGS # & #, ETA POSITION E, WEST

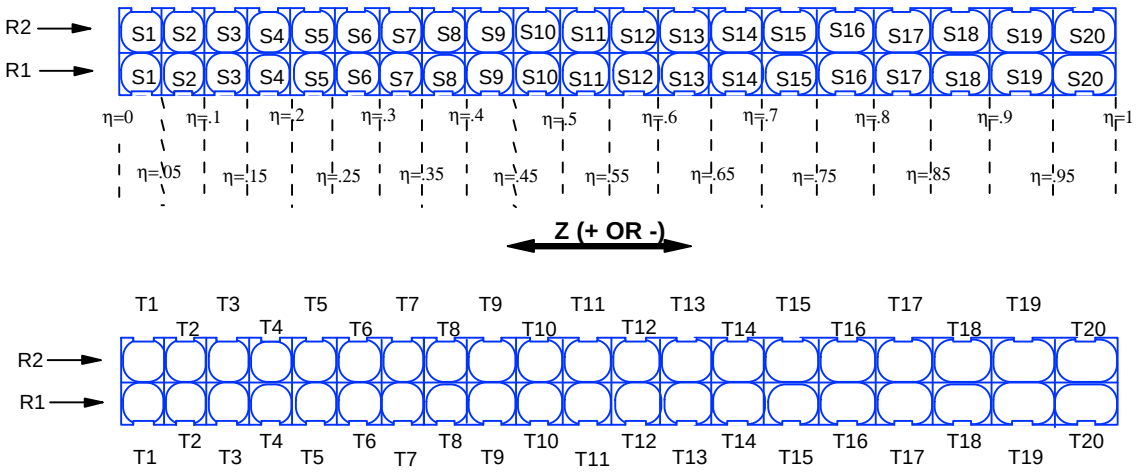
M#= MODULE #



CENTRAL CUT OF THE STAR BARREL AS SEEN FROM +X (SOUTH)

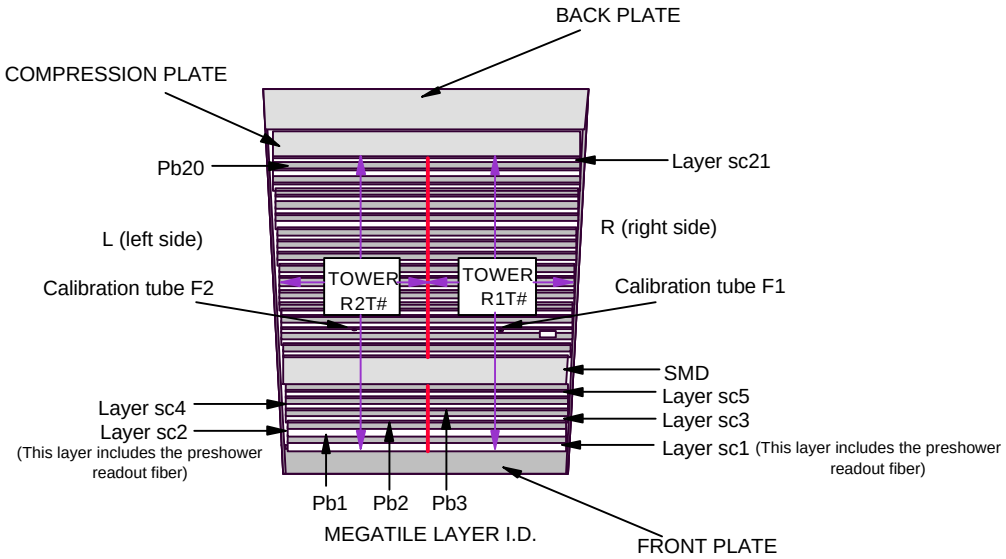
ROUTING AND TAGGING NAMING CODE
WSU,EMC, 10/31/98, JOSE RISO

TILE POSITION I.D.



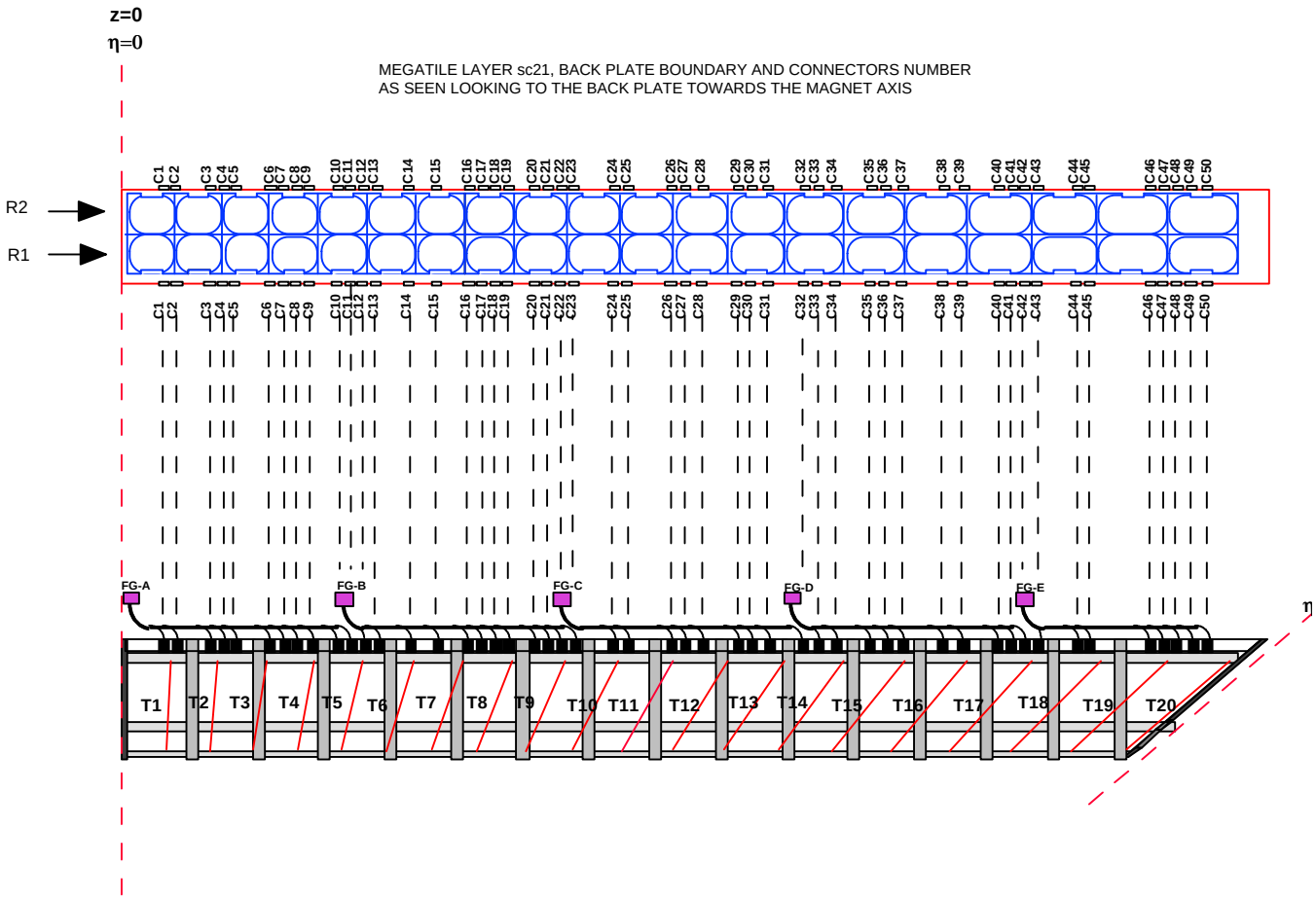
TOWER IN MODULE I.D.

SCINTILLATOR MEGATILE LOOKING FROM THE BACK PLATE TOWARDS
THE MAGNET AXIS



CROSS-SECTION OF THE MODULE
LOOKING FROM ETA=0

IDENTIFICATION OF COMPONENTS FOR ROUTING AND TAGGING
WSU, EMC, 3/5/99, JOSE RISO



SIDE VIEW OF THE EMC MODULE SHOWING THE NUMBER AND POSITION OF CONNECTORS IN RELATION TO TOWERS AND STRAPS, ALSO IS SHOWN THE POSITION OF THE FIBER GUIDES IN RELATION TO THE OPTICAL CONNECTORS AND NUMBER OF FIBER BUNDLES ROUTED THROUGH EACH GUIDE.

To give one example of how we can follow routing paths of fiber bundles let's suppose that we want to identify the route of a fiber or fiber bundle that starts at the photomultiplier box PMB# and finishes in tower T4 (Tower 4) in R1 (Row1) of the module M60.

The path is:

PMB#>FG30-1BW>R1>C#>T4

A code for photomultipliers and PMT boxes must be established in order to extend the path identification to PMT-tower/tile range.