

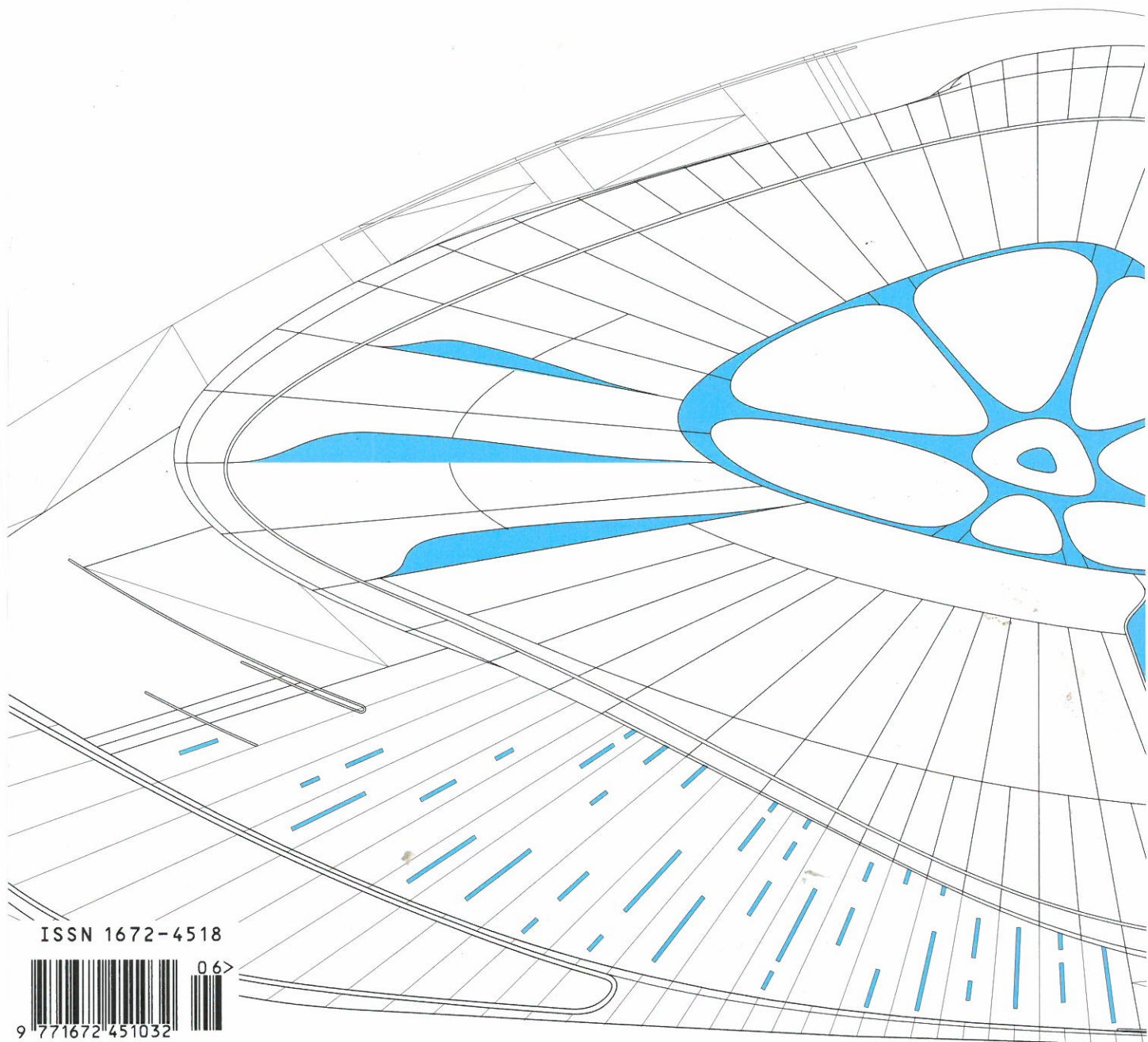
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建筑细部

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牛津大学的船屋

University College Boathouse, Oxford

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结构工程师: AKSWard Ltd
完工时间: 2007.10



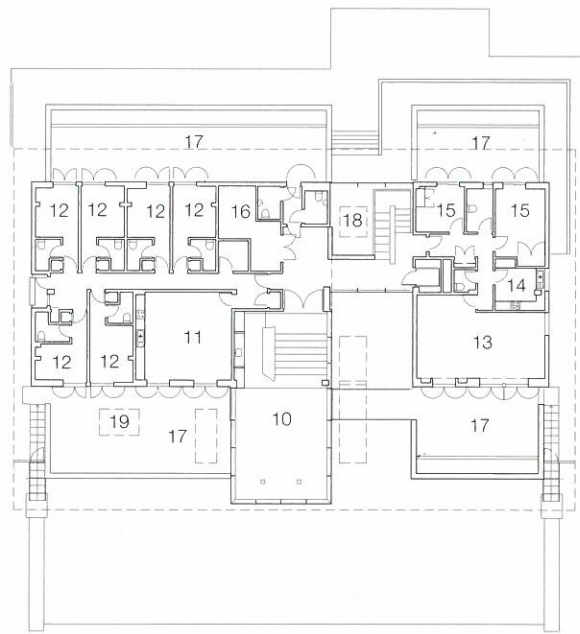
牛津大学以前的船屋建于19世纪, 1999年毁于一场火灾。八年后, 建筑师被要求设计一座符合校园风格的建筑, 满足划船、社交及居住功能。新船屋并不需要在外观上与原建筑一致, 但应尽量保持旧建筑的多样化传统。设计需满足各种实际的限制。基地位于一片漫滩地, 居住着需要保护的湿地生物种群, 如麝香鼠。新船屋的设计构思非常有创意, 主要体现在以下两点:

首先, 铜屋顶部分表现出船、桨、水等的特征, 其目的是为了模仿船桨划过水面, 使之具有划破天空的效果。整个屋顶就像是这艘船的壳体, 覆盖了整座建筑, 给划船者和观光者提供了栖身处。设计者在屋顶的关键位置开了洞口, 让光线射入内部。屋顶很薄, 屋檐出挑的长度很大, 使人们可以欣赏到各个方向上的风景。

其次, 建筑底层可以存放大量物品, 这是出于安全方面的考虑, 以防止火灾再次发生。砌砖无疑是最适宜的材质, 而且还是原建筑的主要材料。基于以上考虑, 同时为了使体量具有对外开放的特性, 从而在某些特殊场合成为一座使远方来客感到温馨的建筑, 建筑师在屋顶的适当位置进行了开洞处理。设计者还在室内留出一处中庭, 贯穿整个体量。如此一来, 景观设计就能延续到建筑内部; 同时, 建筑内部的活动也得以展现在周围环境中。这个中庭成为建筑内部的主要交通节点, 站在这里可以看到建筑里里外外的风景。

俱乐部聚会室主要由玻璃围合, 也是一个重要的空间延续。它脱离主体建筑的束缚, 打破二层百叶门窗的限制, 努力探向水边。建筑两翼有宽阔的平台, 凌驾于底层的砌砖体量之上, 可观赏整个河景、河面以及河边活动。新船屋主体被提升到地面以上——就像船的壳体, 河水从下面穿流而过。它为参与河上运动的人们提供了休息和交流的场所。

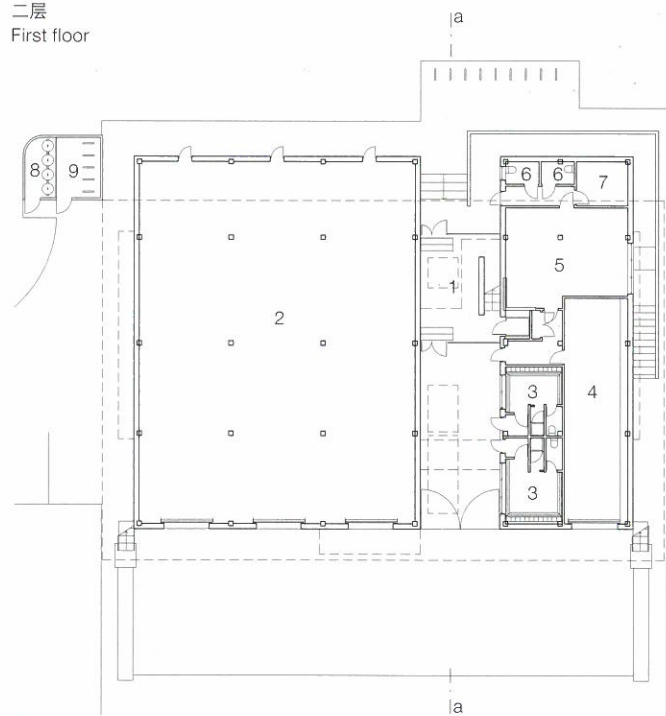
管娴静 译 / 方拓 审



楼层平面图
剖面图
比例 1 : 500

- 1 入口
- 2 船库
- 3 更衣室
- 4 维修处
- 5 健身室
- 6 无障碍卫生间
- 7 机房
- 8 垃圾室
- 9 安全自行车停车处
- 10 俱乐部聚会室
- 11 公共厨房(厨房/休息室)
- 12 学生公寓
- 13 主要工作人员房间(起居室/餐厅)
- 14 厨房
- 15 卧室
- 16 储藏室
- 17 露台
- 18 上方为采光天窗
- 19 上方为屋顶洞口
- 20 桥

二层
First floor

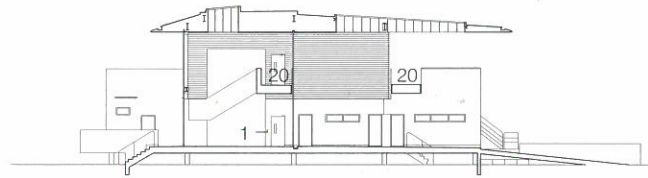


Floor plans
Section
Scale 1 : 500

- 1 entry
- 2 boat storage
- 3 changing room
- 4 boat repair
- 5 gym
- 6 disable toilet
- 7 plant room
- 8 dustbin enclosure
- 9 security bike parking
- 10 clubroom
- 11 communal kitchen (kitchen / lounge)
- 12 student room
- 13 key worker flat (living / dining)
- 14 kitchen
- 15 bedroom
- 16 storage
- 17 terrace
- 18 skylight above
- 19 roof opening above
- 20 bridges

一层
Ground floor

The original 19th century boathouse of University College Oxford succumbed to arson in 1999. Eight years later, architects were invited to submit a proposal to meet the college's requirements for a building which would provide rowing, social and residential facilities. The new boathouse did not need to be as traditional in appearance as its predecessor, but it still had to be able to support as much tradition as was invested in the original building. The design had to meet the practical constraints. In particular the entire site is on a flood plain, as well as providing a home for protected wetland species, such as water voles. Creatively, the design concept for the new Boathouse draws upon two main principles, which are: Firstly, the boats, the oars, the water, all exhibited unique characteristics, which were manifested in the copper roof. The goal was to achieve a sort of blade cutting the sky, as the scull cut the river. The roof, like the shell of that boat, stretches over the entire building to provide shelter over the rowers and spectators. Strategic penetrations through it allow streams of light to filter into core areas. Keeping the roof as thin as possible and cantilevering it from the building give uninhibited views to all sides. Secondly, the architects wanted the ground level of the building to carry a lot of mass for storage & security reasons, in as much as to prevent the occurrence of another arson attempt. Brick was an obvious choice of material for both its resistance to tampering, as well as its use as the predominate material of the previous building. In working with such mass, it was critical for the architects to open the building up at key points to ensure that it could also be a welcoming volume to the public during special events. The insertion of a void through the solid base, and vertically through the building, creates a space in which the landscape is allowed to enter, while presenting the internal activities to the surroundings. This atrium is an active place where all circulation passes, and its generosity exposes views through and around the building. The glazed clubroom is also an important extension of this space. Breaking free from the louvered first floor, it propels itself out from the main mass of the building towards the water. Flanked on two sides by the generous terraces atop the brick lower mass, it is a privileged vantage point, giving the occupant an active view of the river and all that is happening on and beside it. The new Boathouse for the University College Oxford is lifted just above the ground – it is the shell of a boat, allowing water to pass beneath it while providing both sheltered as well as interactive space for participation in the rivers events.



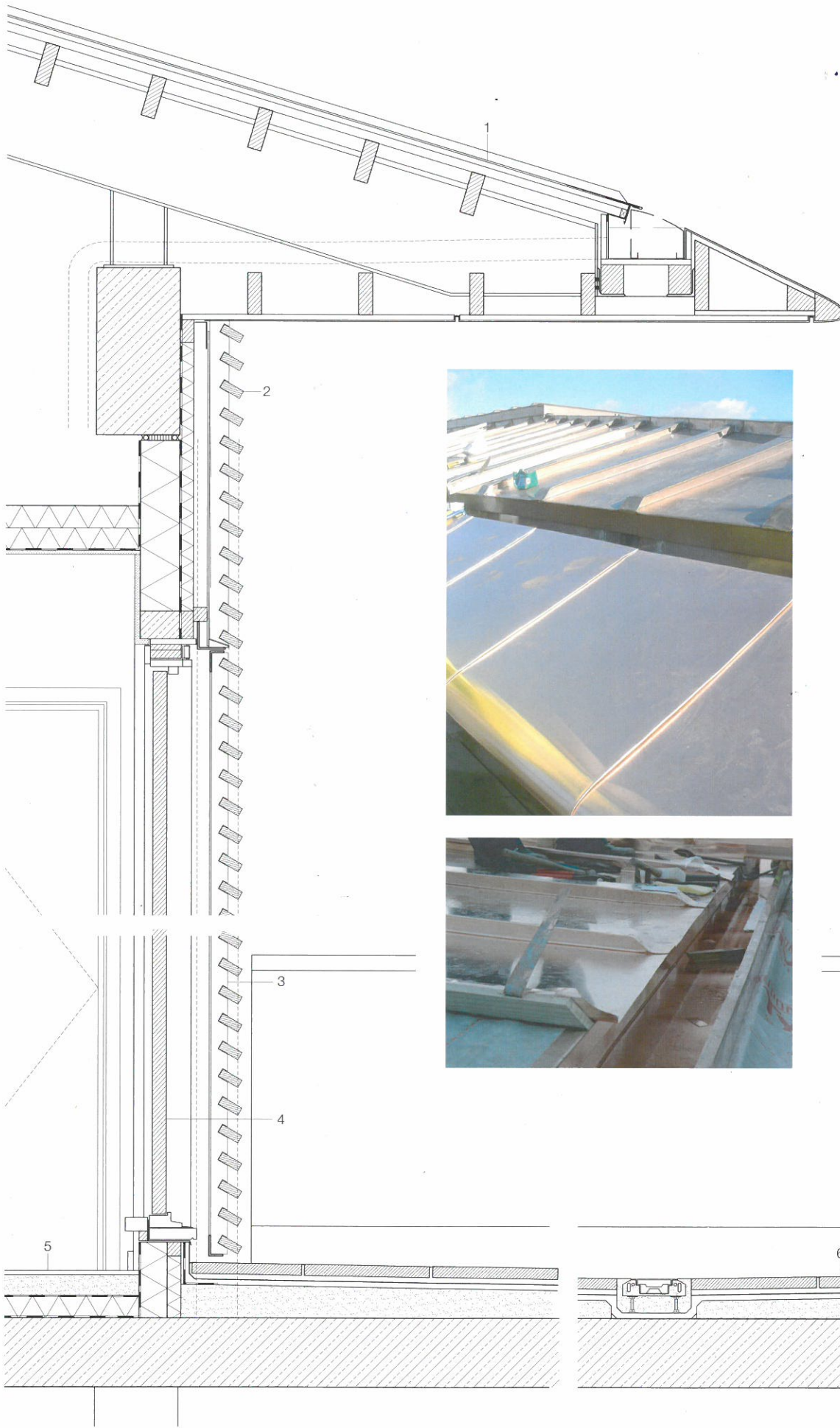
- 1 Tecu 青铜屋面。
带 30mm × 30mm 立边
25mm 夹层板
30mm × 30mm 木板条，间距 400mm
50mm × 150mm 屋顶木托梁
屋顶通风腔
50mm × 150mm 屋顶木托梁
18mm 室外定向刨花板
Tecu 青铜拱腹。
带 20mm 凹形接缝
- 2 50mm × 70mm 雪松百叶
安装在预制的托架上，间距 600mm 固定
屋面油毡
12mm 夹层板，安装在 50mm × 50mm 板条上
50mm 刚性保温层
隔汽层
140mm 混凝土砌块
琢磨石面上的 12.5mm 石膏板
- 3 百叶门



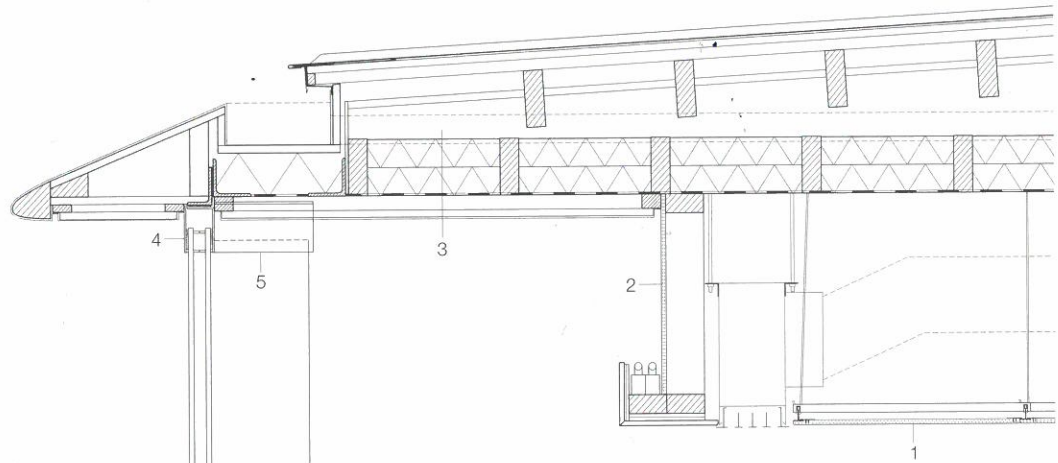
- 50mm × 70mm 的角钢支架连接着 100mm × 150mm 的角钢支架
嵌入式百叶板悬挂在不锈钢折叶上
角钢外刷 MIO RAL 7016 漆
- 4 复式铝木推拉门
- 5 450mm × 450mm 未抛光的灰色铺地地砖
75mm 整平板，带地热
隔汽层
80mm 刚性保温层
250mm 钢筋混凝土
- 6 450mm × 450mm 混凝土砖铺砌
30mm 砂石 / 水泥垫层
20mm 石油沥青砂胶
65mm 找平层
250mm 钢筋混凝土
- 7 蓝色面砖
50mm 空腔
150mm 钢筋混凝土
- 8 混凝土盖顶

- 1 Tecu bronze copper roof with
30mm × 30mm batten seams
25mm ply
30mm × 30mm timber battens 400 CTRS
50mm × 150mm timber roof joists
vented roof space
50mm × 150mm timber roof joists
18mm external grade OSB
Tecu bronze copper soffit
with 20mm shadow gap
- 2 50mm × 70mm cedar louvers in
pre-cut carrier battens
600mm ctrs. fixed
roofing felt
12mm ply fixed over 50mm × 50mm
battens
50mm rigid insulation
vapour barrier
140mm concrete block
12.5mm plasterboard on dabbing
- 3 louver door

- 50mm × 70mm steel angle frame with
inset louver panel hung on
SS hinges with 100mm × 150mm steel angle
frame, steel painted with MIO Paint RAL 7016
- 4 composite aluminum/timber
sliding door
- 5 unpolished porcelain tiles
arena grey 450mm × 450mm
75mm screed with under floor heating
vapour barrier
80mm rigid insulation
250mm reinforced concrete
- 6 concrete pavers 450mm × 450mm
30mm sand/cement bedding
20mm mastic asphalt
65mm screed to fall
250mm reinforced concrete
- 7 blue brick
50mm air space
150mm reinforced concrete
- 8 concrete coping



穿过二层屋顶和墙体的
剖面详图
比例 1 : 20
Section through roof &
wall of 1st floor
Scale 1 : 20



穿过悬挑玻璃盒子的剖面详图
比例 1 : 20

- 1 悬挂式吊顶
600mm × 600mm 隔声微孔石膏板，位于可调吊钩上的隐蔽式 T 形金属悬挂系统上
- 2 100mm × 50mm 立柱框架，带 12.5mm 石膏板，其上覆有 3mm 蓟属植物装饰层，来遮蔽四周的荧光灯具
- 3 76mm 铸铁雨水管，安装在托梁上方覆以保温层，具有额定斜度
- 4 4mm 玻璃护角
固定在连续护角上的锻纹不锈钢
允许屋顶有 ±25mm 的位移
- 5 预制锻纹不锈钢垫座，用于承载玻璃片
- 6 四周加热沟槽，位于玻璃翅片之间
- 7 预制不锈钢垫座，用于承载玻璃片
锚固在地面上
- 8 非固定膨胀密封带，30~100mm 沥青浸泡泡沫材料
- 9 450mm × 450mm 未抛光的灰色铺地砖
75mm 找平层，带地热盘管
隔汽层
80mm 刚性保温层
防潮层
250mm 钢混底板，下方涂以砌体外用漆

Section through cantilevered glazed box
Scale 1 : 20

- 1 suspended ceiling
micro perforated
600mm × 600mm on concealed "T"
metal suspension system
on adjustable hangers
- 2 100mm × 50mm stud frame with
12.5mm plaster board
with 3mm thistle coat to house perimeter
fluorescent lighting
- 3 76mm cast iron rainwater pipe
fixed over joists
covered with insulation
to have nominal fall
- 4 4mm glazing angles
satin SS fixed to continuous angle
to allow for ± 25mm movement for roof
- 5 bespoke satin SS fin shoe
carrier for glass fins
- 6 perimeter trench heating between fins
- 7 bespoke SS fin shoe
carrier for glass fins
anchor bolted to floor
- 8 non setting expanding tape,
compraband 30-100mm
- 9 unpolished porcelain tiles
arena grey 450mm × 450mm
75mm screed with
underfloor heating coils
vapour barrier
80mm rigid insulation
DPM
250mm reinforced concrete,
soffit painted with external grade
masonry paint

