

# 设计说明

## 一. 工程概况:

本工程为玫瑰园 S12 内装给排水工程，共上下两层，地下一层。

## 三. 设计依据:

1. 业主提供的设计委托任务书。
2. 本所其他专业提供的资料。
3. 《建筑给水排水设计规范》GB 50015—2003  
《建筑设计防火规范》GB50016—2006  
《建筑排水硬聚氯乙烯管道技术规程》CJJ/T 29—98  
《建筑给水钢塑复合管道工程技术规程》CECS 125: 2001  
《建筑给水排水及采暖工程施工质量验收规范》GB 50242—2002

## 四. 给水系统:

1. 本工程供水水源为市政给水管网，总生活用水量最高日 2.8m³/d，最大时 0.27m³/h。
2. 给水总管由室外水表计量后引入地下室设备房一体化水净化处理设备后分至各卫生间用水点及地下室热水锅炉房用水。
3. 本工程给水管使用铜塑复合管，专用给水配件扣压连接，铜塑复合管在图中用 DN 表示，给水管在穿楼板就墙体时应加套管保护，套管使用 PVC 管，在图中用 De 表示，套管应比给水管大 2 号，两者关系如下：

DN	15	20	25	32	40	50	65	80
De	20	25	32	40	50	63		

4. 管径小于 50mm 时,采用截止阀，管径大于等于 50mm 时,采用闸阀。

## 五. 热水系统:

1. 本工程热水由安装在地下一层的一个容积式热水器供应，热水器的选用由专业厂家选择，热水器必须符合消防及住宅相关规范规定，锅炉房必须与室外有强制通风措施，通风量必须满足热水器的要求，热水器的热水生产率应满足 1.5L/S 要求。
2. 一二层卫生间热水设置循环系统，使使用过程中热水出水时间不大于 10S 热水的循环由地下一层锅炉房的热水循环泵来完成，循环泵安装于回水管，当回水管温度小于 55℃ 时自动启动循环泵，当回水管温度大于 65℃ 时自动关闭循环泵。
3. 热水管使用铜塑复合管( PN=1.60)，专用给水配件扣压连接，施工合格后用厚度不小于 30mm 保温管保温。

## 六. 排水系统:

1. 本工程生活污水、废水室内采用合流制，地下室使用机械提升排水。
2. 排水立管尽量使用原有管道，适当增加立管，地下一层由于标高原因不能采用重力流，在适当区域增加污水集水坑，使用污水泵提升排至室外。
3. 室内排水管使用白色硬聚氯乙烯( U—PVC )塑料管，粘接连接；室外排水管采用( HDPE )双壁缠绕管，胶圈承插连接。
4. 排水管道转弯和交汇处，应尽量使用 45° 弯或斜三通连接，管道穿越隔墙或楼板处设置阻火圈。

5. 排水管伸缩节安装，立管每层设一个伸缩节，横管 2~ 4M 设一伸缩节，具体做法参 96S406。

6. 室内排水横管标准的坡度如下：  
De50 i=0.025, De75 i=0.015, De110 i=0.012, De160 i=0.007

7. 本工程地漏使用直通式耐腐蚀不锈钢地漏，水封问题采用在地漏排出管中设置 S 弯或 P 弯的方法予以解决，S 弯或 P 弯水封高度大于 50 毫米。

8. 室内排水管道大于等于 110mm 时，穿越楼板或防火墙处均设阻火圈。

## 七. 卫生器具:

1. 卫生间水管嵌墙暗敷，水管保护层厚度不小于 20mm。
2. 凡有冷、热水供应的卫生器具，左手开启的龙头为热水，右手开启的龙头为冷水，龙头上的冷、热标记,必须与接管相符。
3. 卫生间所有脸盆为墙落水；所有排水管道的铺设不得出现无坡、倒坡现象。
4. 坐便器容积为 6L 的水箱，洁具的五金配件应配建设部指定的节水型产品。

## 八. 管道试压:

1. 给水管试验压力，应为管道系统工作压力的 1.5 倍，但不得小于 0.6MPa，水压试验时，升压时间不小于 10min，至规定试验压力，稳压 1h，测试压力降压力降不得超过 0.03MPa，即为合格。
2. 排水主立管及水平干管道应做通球试验。

## 九. 其他:

1. 由于地下使用同层排水，淋浴房地面应抬高不少于 20cm 以满足排水坡度。
2. 暗敷管道施工完成后，应在墙面和地坪面标注位置，防止装修损害暗敷管道。
3. 管道安装过程中，如遇有与其他管道或梁柱相碰的，可根据现场情况作适当调整。原则是有压 让无压，小管让大管，管道施工应严格遵守有关给排水施工验收规范。
4. 给排水管道安装支架或吊架，可参照 03S402 图集，特殊的支架或吊架由安装单位现场确定，并符合施工验收规范。
5. 图中标高以米计，其他以毫米计，所有标高为相对于本层地面标高。
6. 凡本说明及设计中未述及之处，均按国家现行相关规范，手册，国标执行。不明之处与业主、监理、设计共同协商解决。

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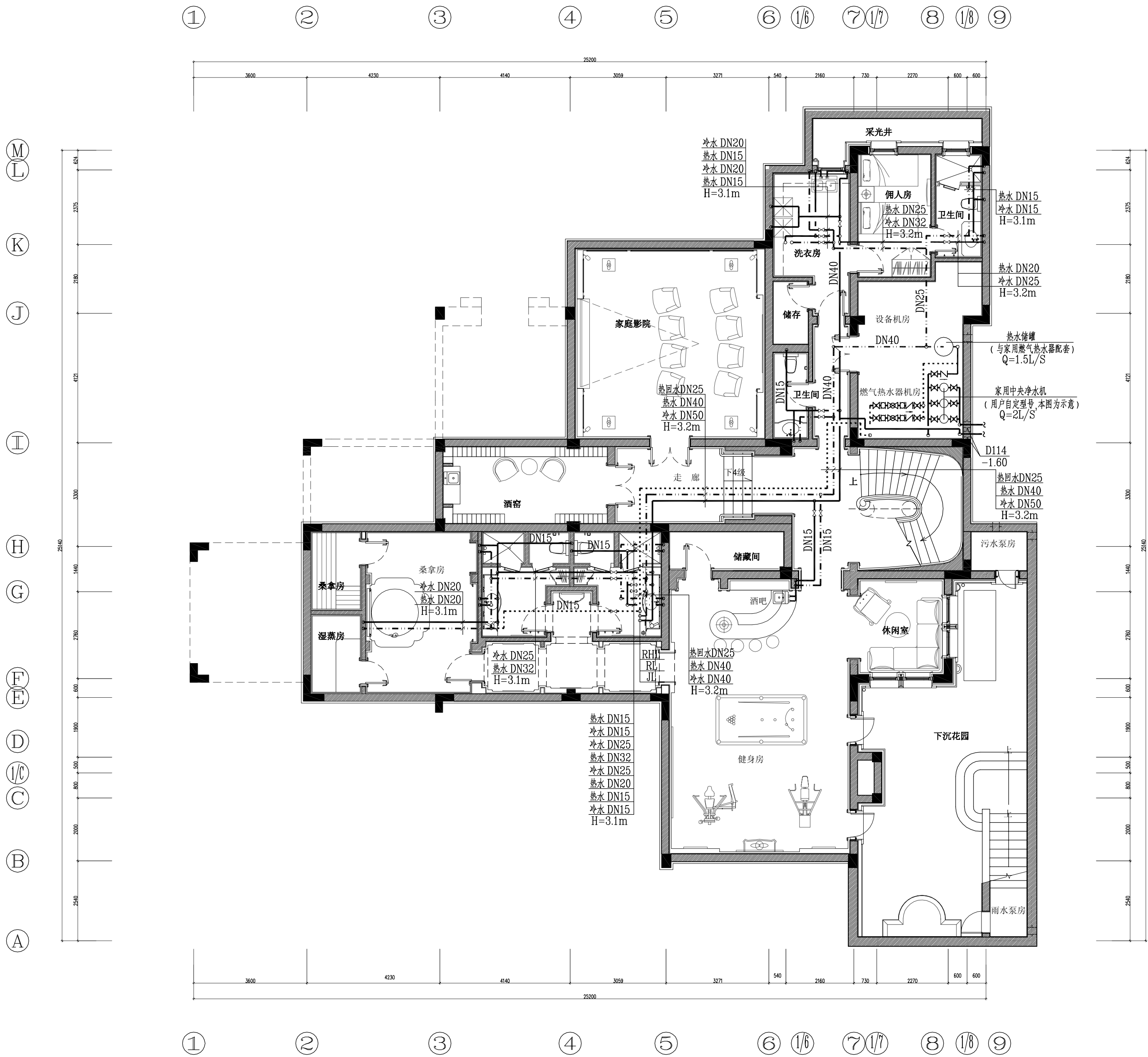
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设计说明  
施工图

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S12 型  
地下室给水平面图  
施工图

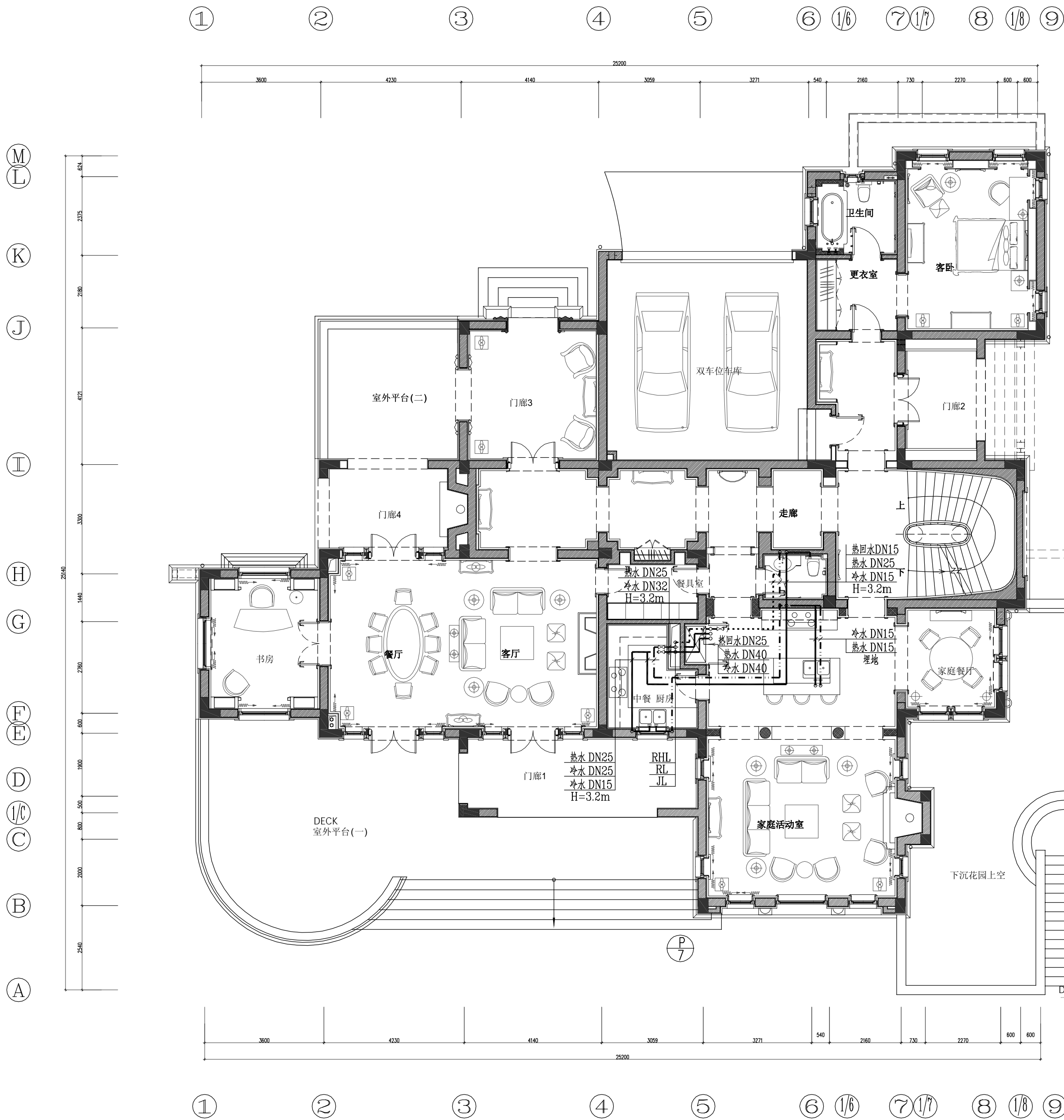
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SHEET NO.  
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**S12 STYLE** 1:100  
地下室给水平面图



**S12 STYLE** 1:100  
一层给水平面图

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S12型  
一层给水平面图  
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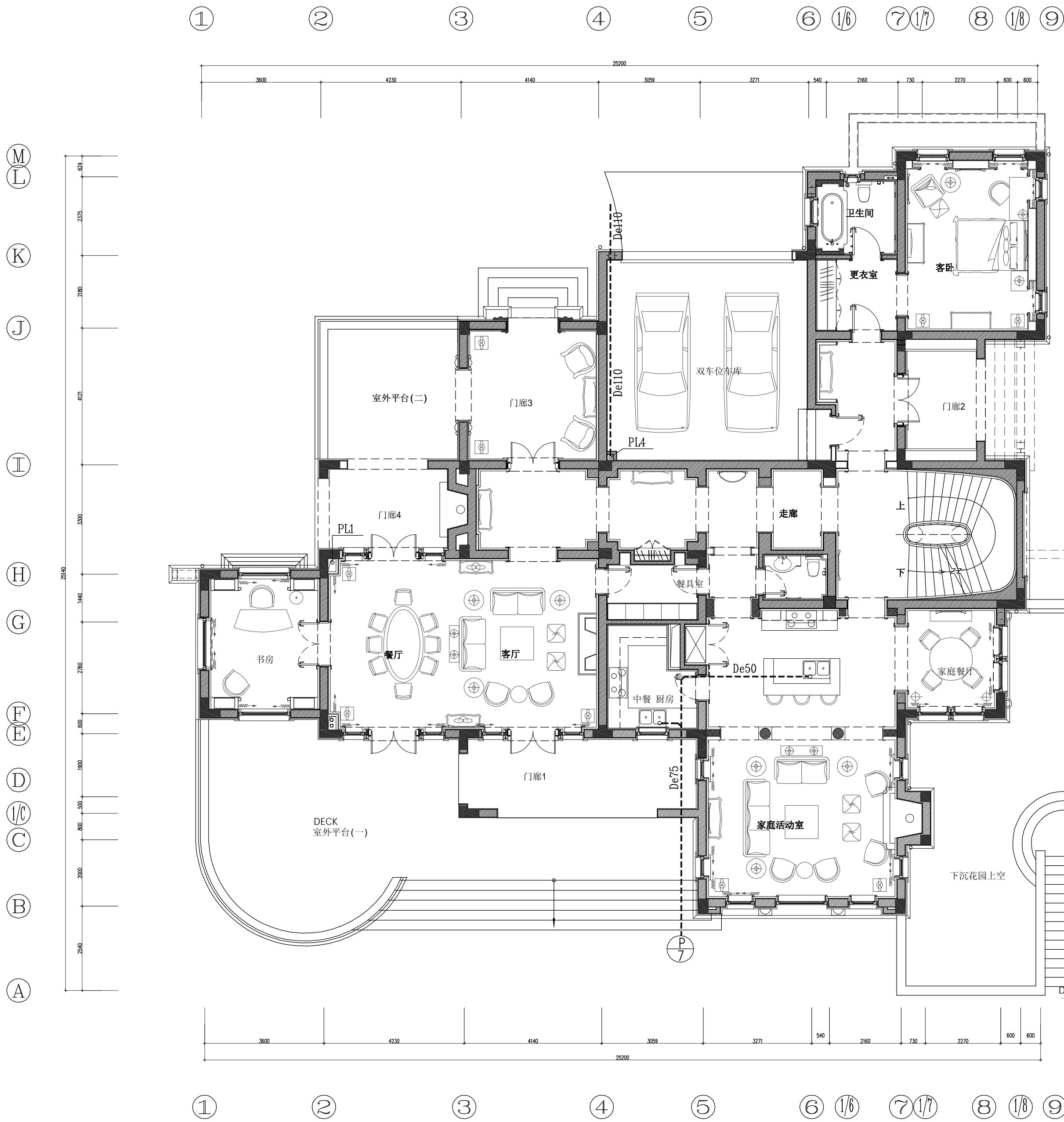
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**S12 STYLE** 1:100  
地下室排水局部修改平面图



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S12型  
一层排水局部修改平面图  
施工图

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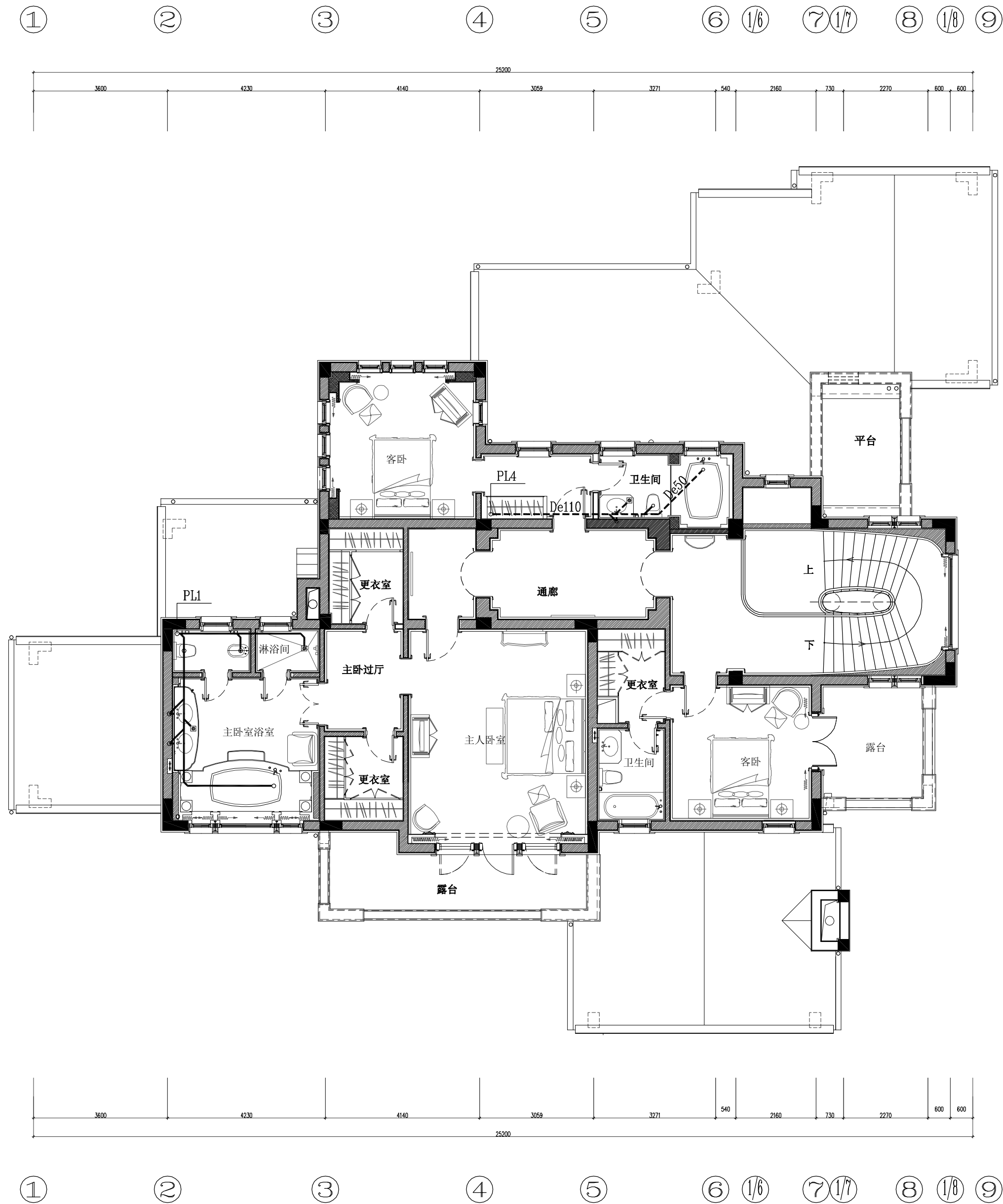
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一层排水局部修改平面图



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**S12 STYLE** 1:100  
二层排水局部修改平面图

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S12型  
二层排水局部修改平面图  
施工图

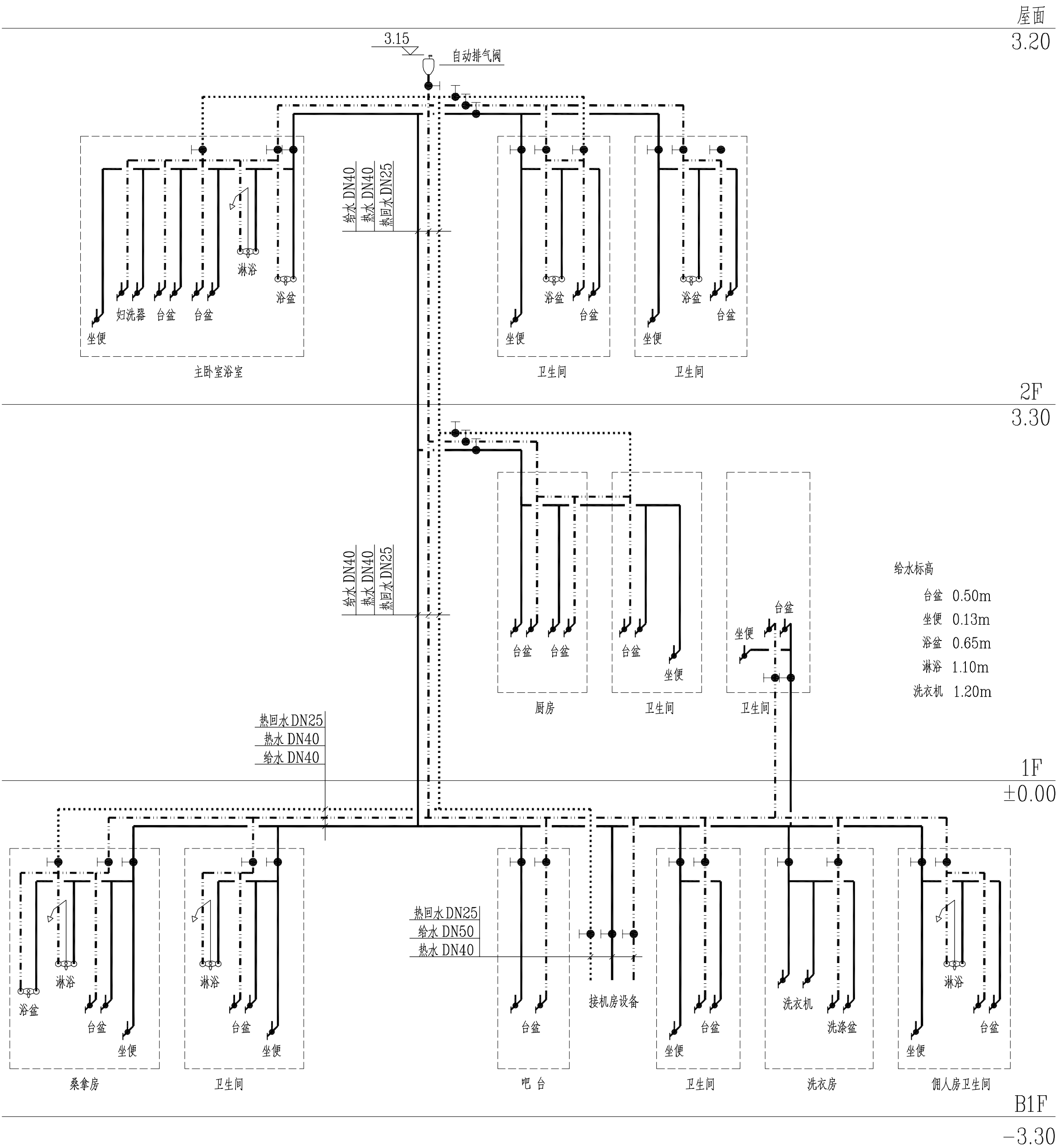
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给水热水原理图

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给水热水原理图  
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