

当代世界 景观建筑细部图集

弗吉尼亚·麦克利奥德

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Detail in Contemporary
Landscape Architecture

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Detail in Contemporary Landscape Architecture

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景观建筑细部图集

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Detail in Contemporary Landscape Architecture

Virginia McLeod

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景观建筑细部图集

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· 01 · 景观建筑

6	Introduction	80	18 Gustafson Porter Cultuurpark Westergasfabriek, The Netherlands	148	34 Foreign Office Architects (FOA) South-East Coastal Park, Spain
9	Parks	84	19 Grimshaw The Eden Project, England, UK	152	35 Groupe Signes, Patel Taylor Thames Barrier Park, England, UK
10	01 Anton James Design Mount Penang Gardens Garden Park, Australia	88	20 Mosbach Paysagistes Bordeaux Botanical Gardens, France	156	36 Hargreaves Associates Homebush Bay, Australia
14	02 AP Atelier, Josef Pleskot Pathway Through the Deer Moat, Prague Castle, Czech Republic	92	21 Nikken Sekkei Osaka City University Media Centre Plaza, Japan	160	37 Latz + Partner / Latz-Riehl- Bauermann Partner Bremerhaven Old and New Harbour, Germany
18	03 Barkow Leibinger Architects Biosphere and Flower Pavilion, Germany	96	22 Office of Dan Kiley Cudahy Gardens, Milwaukee Art Museum, USA	164	38 Margarita Danou and Sevina Floridou Voroklini Coastal Promenade, Cyprus
22	04 Batlle i Roig Arquitectes La Vall de'n Joan, Spain	100	23 PWP Landscape Architecture Nasher Sculpture Center Garden, USA	168	39 Turenscape Zhongshan Shipyard Park, China
26	05 Burckhardt + Partner Architects MFO Park, Switzerland	104	24 Room 4.1.3. Garden of Australian Dreams, The National Museum of Australia, Australia	172	40 W Architecture Tide Point Urban Waterfont Baltimore, USA
30	06 Bureau B+B Stedebouw en Landschapsarchitectuur Waldpark, Germany	108	25 PWP Landscape Architecture Copia: The American Center for Wine, Food and the Arts, USA	177	Directory of Details
34	07 Donaldson + Warn, Architects Bali Memorial, King's Park, Australia	113	Civic	183	Directory of Landscape Architects
38	08 Gustafson Guthrie Nichol The Lurie Garden, USA	114	26 Edouard François Flower Tower, France	187	Index and Further Information
42	09 Enric Miralles i Benedetta Tagliabue, EMBT Diagonal Mar Park, Spain	118	27 Maya Lin Studio Ecliptic, USA		
46	10 Noel Harding Studio, Neil Hadley, Landscape Architects The Elevated Wetlands, Canada	122	28 OKRA Landschapsarchitecten Bus Stop and Station Square, The Netherlands		
50	11 Schweingruber Zulauf Landschaftsarchitekten Oerliker Park, Switzerland	126	29 Edouard François La Closerie, France		
54	12 SWECO FFNS Architects Dania Park, Sweden	130	30 KBAS: Keith Kaseman and Julie Beckman The Pentagon Memorial, USA		
58	13 Wenk Associates Northside Park, USA	134	31 Tract Consultants with Cox Rayner Architects Cairns Esplanade, Australia		
62	14 West 8 Urban Design and Landscape Architecture AEGON Square, The Netherlands	139	Waterfront		
67	Cultural	140	32 Abel Bainnson Butz, LLP Hudson River Park, USA		
68	15 Atelier Kempe Thill Hedge Pavilion, Germany	144	33 Camlin Lonsdale Landscape Architects Donegal Quay, Northern Ireland, UK		
72	16 Gigon / Guyer Architekten Kalkriese Museum and Park, Germany				
76	17 Hargreaves Associates Shaw Center for the Arts, USA				

7	前言	树篱凉亭 德国 洛斯德克	139	滨水景观工程项目
9	公园景观工程项目	72 16 纪贡·盖伊尔建筑设计公司 卡尔克里泽考古博物馆和公园 德国 卡尔克里泽	140	32 ABB景观建筑事务所 哈得逊河公园 美国 纽约
10	01 安东·詹姆斯设计事务所 槟城山花园 澳大利亚 新南威尔士州	76 17 哈格瑞夫建筑事务所 肖艺术中心 美国 路易斯安那州 巴 顿鲁治	144	33 卡姆林·朗斯德尔景观建筑事务所 多尼戈尔码头 英国 北爱尔兰 贝尔 法斯特
14	02 AP 阿泰烈, 乔赛夫·普莱斯考特 景观设计事务所 穿越护城堤的小路 捷克斯洛伐克共和国 布拉格城堡	80 18 古斯塔夫森·波特景观设计事务所 西瓦斯工厂文化公园 荷兰 阿姆斯 特丹	148	34 FOA建筑事务所 对角玛尔 西南海岸公园 西班牙 巴 塞罗那
18	03 巴考·利宾格建筑师事务所 生物圈及花卉馆 德国 波茨坦	84 19 格雷姆肖景观设计事务所 伊甸园 英国 英格兰 康沃尔	152	35 格洛普·西哥尼斯, 派特洛·泰 勒景观设计事务所 泰晤士河水闸公园 英国 英格兰 伦敦
22	04 巴特列·艾·罗伊格建筑设计事 务所 La Vall de'n Joan垃圾填埋场改造项 目 西班牙 巴塞罗那	88 20 莫斯巴赫景观设计事务所 波尔多植物花园 法国 波尔多	156	36 哈格里夫斯景观设计事务所 侯姆布什湾 澳大利亚 新南威尔士 州 悉尼
26	05 布尔克哈特公司建筑事务所 MFO公园 瑞士 苏黎世	92 21 日建设计 大阪市立大学传媒中心广场 日本 大阪	160	37 莱茨及伙伴景观设计事务所/ 莱 茨·莱尔·鲍曼及伙伴景观设计事 务所 不来梅哈芬老港和新港 德国 不来 梅州
30	06 Bureau B+B Stedebouw景观设 计事务所 森林公园 德国 波茨坦	96 22 丹·凯利工作室 密尔沃基艺术博物馆 古达西花园 美国 威斯康星州 密尔沃基	164	38 玛格丽特·丹欧和诗维弗·鲁瑞 都景观建筑事务所 沃罗科林尼海滨步行道 塞浦路 斯 拉纳卡 沃罗科林尼
34	07 唐纳森和华恩建筑事务所 国王公园 巴厘岛爆炸纪念公园 澳大利亚 西澳洲 珀斯	100 23 彼得·沃克及伙伴景观设计事务所 纳什雕塑中心公园 美国 得克萨斯 州 达拉斯	168	39 土人景观设计事务所 中山岐江公园 中国 广东省 中山市
38	08 古斯塔弗森·古斯瑞·尼古拉景 观设计事务所 芝加哥鲁里叶花园 美国 芝加哥 伊 利诺斯州	104 24 4.1.3.工作室景观设计事务所 澳大利亚国家博物馆 澳大利亚梦花园 澳大利亚 首府行政区 堪培拉	172	40 W景观建筑设计事务所 城市临海潮汐场 美国 马里兰州 巴 尔的摩
42	09 恩瑞克·米拉莱斯·埃·本纳达 塔·塔格利亚沃, EMBT景观建筑事 务所 达尔哥诺玛公园 西班牙 巴塞罗那	113 市政景观工程项目	177	图片分类索引
46	10 诺尔·哈丁工作室, 耐尔·海德 里景观设计事务所 爱丽维特湿地 加拿大 安大略省 多 伦多市	114 26 爱德华·弗朗西斯景观设计事务所 花塔 法国 巴黎	183	景观建筑事务所名录
50	11 施韦因格鲁伯·楚劳夫风景建筑 团队 欧瑞康公园 瑞士 苏黎世	118 27 林纓工作室 黄道 美国 密歇根州 急流城	187	索引及更多信息
54	12 SWEKO FFNS景观设计事务所 丹妮亚公园 瑞典 马尔默市	122 28 OKRA景观设计事务所 公共汽车站点和车站广场 荷兰 恩 斯赫德	191	鸣谢
58	13 维恩克景观设计事务所 城北公园 美国 科多拉多州 丹佛市	126 29 爱德华·弗朗西斯景观设计事务所 小园林 法国 卢维埃	192	附赠光盘简介
62	14 West 8 城市规划和景观设计事务 所 埃贡广场 荷兰 海牙	130 30 凯斯·凯兹曼和茱莉·拜克曼景 观设计事务所 五角大楼纪念公园 美国 弗吉尼亚 州 阿灵顿		
67	文化景观工程项目	134 31 特拉克特顾问公司和库克斯·瑞 纳建筑事务所 凯恩斯中心商务区 澳大利亚 昆士 兰州 凯恩斯		
68	15 阿特力尔·凯·提尔景观设计事 务所			

Introduction

As a companion volume to *Detail in Contemporary Residential Architecture*, this book seeks to reveal the details of contemporary landscape design. The key to the choice of projects in this volume is in the title-all of the projects presented here, while often falling within traditional landscape categories of parks and gardens, nonetheless have an architectural component that separates them from being predominantly plant-based. It is impossible to deny, even in the most densely urban of contexts, that landscape underscores all of our daily interactions with the built environment. All too often, however, strategies for creating meaningful landscapes in urban environments are at best an afterthought and at worst leave the spaces between and around buildings as blighted, even dangerous places to be. It has become all too clear that landscape architects, planners and even those who commission buildings and landscaped spaces ignore the problems of unchecked urban growth and the potential for landscape as a redeeming urban quality at their peril.

The projects here, by comparison, are examples of how landscaped spaces can, and should, be. Almost all of the designs featured here exist in urban environments-from the densest city contexts, for example Edouard François, Flower Tower in Paris, which utilizes the building itself as a site for the application of a vertical landscape, to PWP Landscape Architecture and Partners Nasher Sculpture Center which responds to the towering skyscrapers which surround it in downtown Dallas. Other projects, while perhaps in more traditional open settings nonetheless utilize elements of architecture to create environments of great impact and usability.

As such, this book focuses on the details that make up the architectural components of all of these disparate projects, including stairs, paving, water features, and of course the way these elements interact with all types of planting. Construction details are as vital a part of landscape architecture as its external form and layout. Whether so subtle as to be invisible, or revealed as extraordinarily complex, details determine the quality and character of a landscape. Good detailing entails exercising the utmost care and attention at the junctions between materials, between the different elements of a landscaped space, and where a material changes direction. Through details, the myriad parts that make up a landscape come together to form a whole-joints, connections, seams, openings and surfaces are transformed via a combination of technology and invention into a meaningful landscape.

We are accustomed to being presented with photographic representations of landscape architecture in books, magazines and online, with the inspiring image continuing to be the focus of the two-dimensional representation of landscape. Increasingly these images are now often accompanied by site plans to provide a better understanding of the way a landscape works. The availability of site plans is, of course, of enormous assistance in helping us to understand the spatial sequences, the extent and scale of a space, however it is not inherent in the purpose of a plan or a photograph, even if accompanied by a section, to reveal the individual elements that go together to make up a section of paving, an arbour, a pool, a planting bed and so on. Construction details, however, do just this, and this book unites the photograph, the site plan and section, as well as the details to bring to the reader a comprehensive insight into the true workings of the landscape.

Landscape architects draw details specifically to reveal the inner workings of a landscape-primarily, of course, they are used by the builder in order to put the elements together. Readers of architectural publications, however, are all too rarely given the opportunity to examine the details-the 'real' representation of how a landscape is put together. This book aims to remedy that situation and provides a guide to the inner

workings of 40 of the most inspiring examples of contemporary landscape architecture. This book brings to the reader what has previously remained invisible. These details reveal not only an 'x-ray' of the landscape presented, but an insight into the cognitive processes of the architects and artists who brought the landscapes into being.

Details make up to 95 per cent of the sometimes hundreds of drawings produced to describe the way a landscape is put together. They act as the means by which landscape architects communicate their intent to builders, engineers and other participants in the building process. They also act as one of the most challenging intellectual and technical exercises for any landscape architect, producing, as they must, a series of what are essentially graphic representations of every single junction and connection in the built space. Because these details are made up almost exclusively of two-dimensional representations (plan and sectional drawings), the challenge resides in the architect's ability to imagine the most complex of junctions, assemblies and components in three dimensions-as they will actually be built on site-and translate them onto paper or on screen into two dimensions, into the conventional drawn representations that have been used in the construction industry for decades, even centuries.

While the selection of details presented for each of the landscapes in this book is necessarily limited by space, they nonetheless go a long way towards deconstructing the image of the finished landscape. As a result, they not only inspire, they also help us to understand the thought that went into the making of the building, and perhaps the technical problems that were solved along the way. Details also reveal the preoccupations and specialties of an individual landscape architect. Each of the landscape architects in this book were asked to provide their personal selection of the details that they felt best represented the garden or park in question. As a result, a focus on the way paving is put together with the trees that are planted within it may be revealed in some projects, while the sculptural qualities of a balustrade or a water feature may come into focus through the details in others.

In many cases, details also reveal cultural differences as well as commonalities. The scope of this book covers four continents-Europe, North America, Asia and Australia. Many of the landscapes appear to have aesthetic qualities in common, perhaps revealing similarities in the way landscape architecture is taught at universities around the world, as well as the contemporary cultural influences that cross geographical boundaries. However, many differences are revealed in the details. The climate or economics in one country or region may make concrete inappropriate or too expensive. Timber or stone may, instead, be the most available, affordable material.

Similarly, culture is inextricably linked to place, and therefore unites landscape and architecture. For example, Mosbach Paysagistes' elegant landscape for the Bordeaux Botanical Gardens in France embraces the challenge to illustrate thousands of years of both natural and man-made landscapes in the River Garonne area. The vibrant and exuberant landscape created by Room 4.1.3. by contrast, bravely tackles the complicated and often emotional subject of Australia's past, embracing the prickly issue of the history of native Australians. In a similar vein, Turenscape have created a place for contemplating China's Cultural Revolution, bravely acknowledging one of the most troubling periods in that country's recent past through a landscape that is available to all.

A continuing preoccupation of landscape design is the regeneration of industrial sites, typically created in the nineteenth century as, for example, shipyards or power stations that ended their lives in the wake of improving or changing technologies in the late twentieth century. Often located in inner-city locations, the transformation of these vast sites into

meaningful public spaces has, more often than not, had an enormous impact on the economic and social well-being of the city in question. This is a global phenomenon that is reflected in several projects presented here, including the Tide Point Urban Waterfront in Baltimore, Maryland, USA, by W Architecture-the transformation of a soap production plant into a popular harbour-side recreation facility. Similarly, Camlin Lonsdale has successfully regenerated Belfast's Donegal Quay to reflect both its aspiration as a vibrant global city, as well as its history as a city of trade. The Eden Project in Cornwall, England, takes the most unpromising of sites-a defunct clay pit-and transforms it into one of the most celebrated landscapes of recent years.

The design of relevant, meaningful landscapes, such as those illustrated in this volume, involves the integration of ecological, technological and cultural forces through sensitive responses to place and people, and requires the concerted efforts of informed, sensitive designers. The projects collected here offer many interpretations and possibilities for the relationship between architecture and landscape. What they have in common is that this relationship has been considered at every stage in the design process, at every negotiation in the procurement process, and show that culture and place can be incorporated with understanding and intelligence. This collection is based on the fact that the architecture-landscape symbiosis is at the centre of inspired design.

Virginia McLeod

Notes

Imperial and Metric Measurements
Dimensions have been provided by the architects in metric and converted to imperial, except in case of projects in the USA in which imperial dimensions have been converted to metric.

Terminology
An attempt has been made to standardize terminology to aid understanding across readerships, for example 'wood' is generally referred to as 'timber' and 'aluminum' as 'aluminium'. However materials or processes that are peculiar to a country, region or architectural practice that have no direct correspondence are presented in the original.

Floor Plans
Throughout the book, the following convention of hierarchy has been used-ground floor, first floor, second floor, and so on. In certain contexts, terms such as basement level or upper level have been used for clarity.

Scale
All floor plans, sections and elevations are presented at conventional architectural metric scales, typically 1:50, 1:100 or 1:200 as appropriate. An accurate graphic scale is included on the second page near the floor plans of every project to aid in the understanding of scale. Details are also presented at conventional architectural scales, typically 1:1, 1:5 and 1:10.

作为《当代住宅建筑细部图集》的姊妹篇，本书对当代景观设计中的设计和工程细部进行了详细阐述。选入本书的项目标准在于“景观建筑”一词——书中的一些项目，常会被划分在公园或花园这种传统景观的范畴之中，然而本书筛选的项目不仅有植物景观，更有建筑的组成部分。不可否认，即使是在拥挤喧嚣的城市环境中，景观依然是联系我们的日常生活与建筑环境之间的纽带。然而多数情况下，在城市里建造有价值景观的政策，会有滞后的现象出现，有些还会破坏环境以及附近建筑物，甚至会形成危险区域。

这本书里所研究的项目，明确指出了景观建筑空间能用来做什么，或者说，应该成为什么样子。这里提到的所有设计几乎都存在于城市环境中，以最密集的城市为背景。比如巴黎的爱德华·弗朗西斯景观设计事务所设计的花塔，利用建筑本身作为垂直景观；还有彼得·沃克及伙伴景观设计事务所设计的纳什雕塑中心公园，与达拉斯中心高耸的摩天楼相呼应。其他的项目也是在更为传统的开放式空间里，利用建筑元素给周围环境带来巨大的视觉冲击和良好的使用价值。

本书的立足点在于，给出书中所有项目的景观建筑组成的细部设计方案，包括楼梯、人行步道、水景、以及这些元素与植物的组合方式。与建筑的外观和构造相同，细部设计也是景观建筑中非常重要的一部分。尽管它们很微妙，甚至很难捕捉，即使展露出来也极其复杂，但细节的确决定着一个工程的质量与特征。好的细部设计，意味着要在不同材料之间，在空间搭配的不同元素之间，或是在原材料组合使用方面，给予最大限度的仔细研究和关注。细部处理使景观的许多细节，包括接合处、连接处、接缝、开阔场地、表面等部分，通过科技和创新技术加以改造并结合在一起，以此形成了富有内涵的景观建筑项目。

我们往往习惯从书籍、杂志或是网上参阅景观建筑图片，然而这些启发灵感的图片多是从二维的角度来展示景观的。现在，市面上更多书籍是通过提供总平面图，使读者更好地理解每个景观建筑的构成。总平面图帮助我们理解空间的序列和广度，有时还附带剖面图来展示不同的元素如何组建路面、凉亭、池塘、植被苗床等。然而，一个平面图或是一个图片的作用不仅限于此。本书结合了项目照片、总平面图、剖面图，同时对细部图解，帮助读者更为深入地了解景观建筑。

景观建筑师通过绘制细部图来明确地展示景观的内部构造。当然，细部图会指引建筑师把不同的元素有序的组合在一起。然而建筑类出版物的读者很少会有机会来研读细节，即景观建筑真实构造的从内到外的展示。这本书就是要改善这种状况，为读者提供可参考的实用指南。书中包含40个最具代表性的当代景观建筑实例的内部构造细部

图，带领读者了解之前被忽略的部分。这些细部不仅仅是景观的“X光片”，也是深入了解这些景观的建筑师和设计师思想和方法的工具。

95%甚至100%的细部图用来描述景观建筑的构造。通过细部图，景观建筑师把设计意图传达给建筑者、工程师和其他建筑过程的参与者。对景观建筑师而言，细部图也是在智力上和技术上最具挑战性的工作。他们必须将建筑空间上每个交叉点和连接点的基本图解标示出来。由于这些细部图几乎都是二维的（平面图和剖面图），这挑战了建筑师从三维角度来想象最复杂的交叉点、集合点和细部构成的能力。因为这些项目最后要在施工现场完成，建筑师要把这些元素转换到书面或屏幕上，转换到建筑工业上应用了几十年、甚至几个世纪的常规的二维图纸上。

由于篇幅的关系，本书对于每个景观建筑细部图的选择很严格。这些细部图必须缜密地解构已建成的景观建筑。它们不仅能给我们带来启发，还能帮助理解建筑师在建造过程中的想法，或是解决在建造过程中遇到的技术难题。细部图还为我们展示每个景观建筑师的喜好和特点。这本书中的每一位景观建筑师，都亲自选择了他们认为能最好地展现花园或公园的细部图。因此，有一些工程会着重体现路面铺设及植物种植，而另外一些则会聚焦在栏杆雕刻的特色或是水景特征上。

在许多情形下，细部图也体现了文化的差异与共同点。本书所选项目的地域范围包括了四大洲：欧洲、北美洲、亚洲和大洋洲。它们中的许多景观建筑具有共同的美学特质，这或表现为全球各国大学讲述的景观建筑的相似性，或表现为当代国际间的文化交流和影响。同时，这些细部图也展示了许多的文化差异以及不同区域的气候和经济发展状况。

不可避免的，文化与地域的联系也同样体现在景观与建筑上。例如莫斯巴赫风景设计事务所设计的法国波尔多植物花园，在他们对法国植物花园的优雅的景观设计中，面临着在加龙河地区重现几千年自然和人工景观的挑战。相比之下，由4.1.3工作室设计的新颖而充满活力景观建筑，勇敢地处理了澳大利亚过去在情感方面的复杂主题，包括解决澳大利亚土著人历史的棘手问题。同样的，土人设计事务所设计了一个场所来反思中国“文化大革命”，通过建筑，向世人勇敢地展现了中国近代最动荡不安的艰辛年代。

一直备受人们关注的景观设计是对废弃工业场地的改造。典型的是那些在19世纪建造的，在20世纪末由于产业提升或科技改造而被废弃的工业场所，例如造船厂或发电所。这些庞大的废弃工厂区域多数位于城市里，要将它们转变成富有内涵的公共空间，对所在城市的经济发展或社会福利的促进会有很大的效应。这是一个全球性的现象，在

书中的几个工程中均有所反映。包括位于美国马里兰州的巴尔的摩，由W景观建筑设计事务所设计的城市临海潮汐场——成功地将一个肥皂工厂转型为一个深受大众喜爱的海边娱乐场所。同样，卡姆林·朗斯德尔景观建筑事务所，成功地将英国北爱尔兰贝尔法斯特的多尼戈尔码头加以转型，既反映了这个城市的国际化特色，也展现了这座贸易城市的历史。格雷姆肖景观设计事务所设计的伊甸园，把英国英格兰康沃尔——一个最没有生气的死泥潭——转型成近几年来最受欢迎的景观地之一。

这些在本书中加以详细研究的优秀的、富有内涵的景观设计，融合了生态、科技和文化的元素，对空间与人的关系加以敏锐把握，并由经验丰富的设计师来担纲设计。书中的每个项目，都对建筑与景观之间的关系提供了注释和可行性说明。对于这两者的关系，在每个项目设计的不同阶段、研讨过程中都有阐述，并结合文化和地理位置予以理解和演绎，这也成为了书中所有项目的共同特征。本书所选项目的研究表达了这样一种理念：建筑与景观的巧妙结合是设计与创意的中心。

弗吉尼亚·麦克利奥德

说明

英制和公制度量单位

建筑师以公制度量单位标明尺寸，并将其转化为英制单位。在美国的一些项目中，英制单位已转化为公制度量单位。

术语

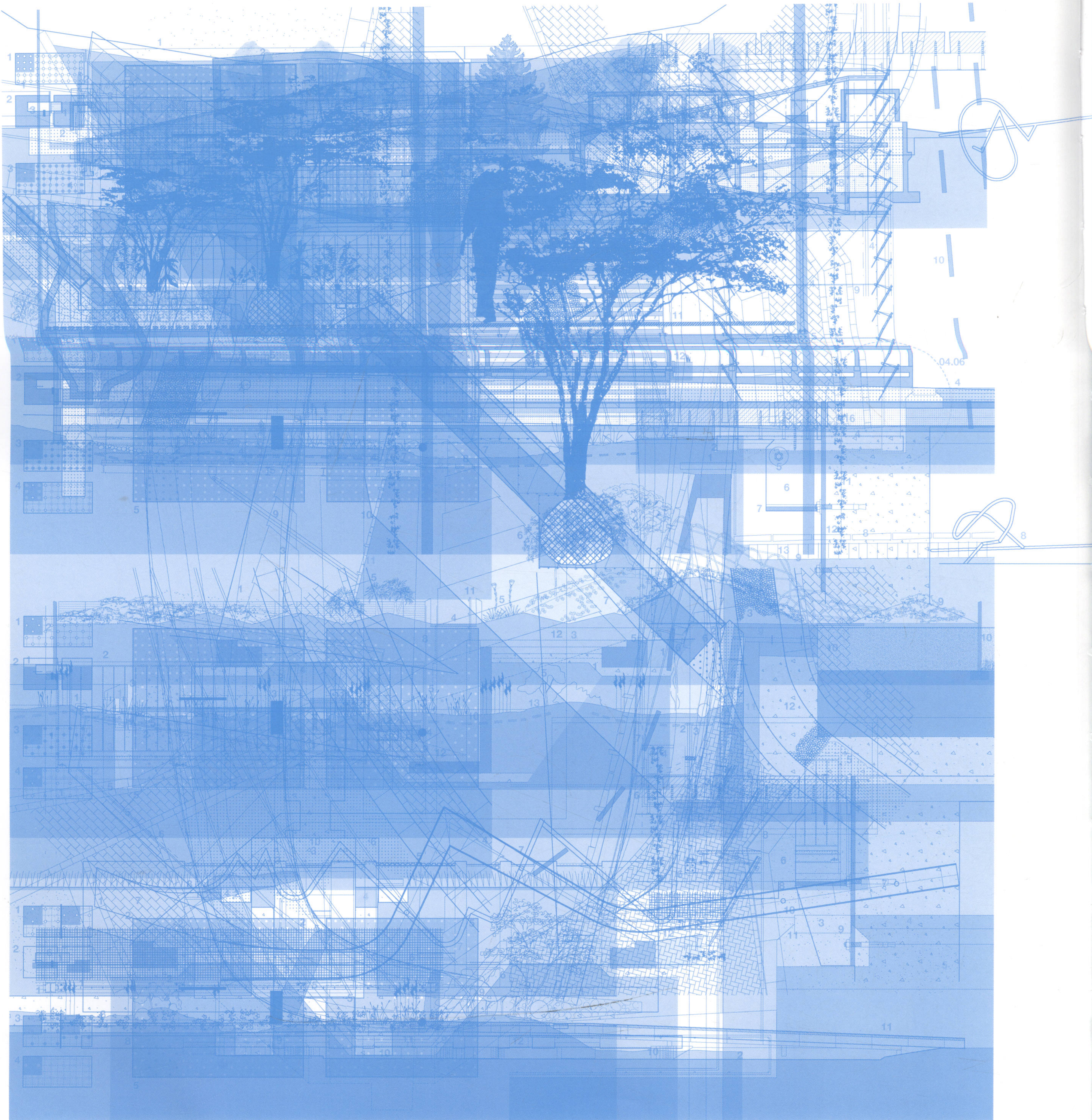
本书试图统一术语，以方便读者的理解，例如“wood”（木头）被通指为“timber”（木材），“aluminum”和“aluminium”在这里都指“铝材”。然而某个国家和地区特有的材料、流程或建筑工程，没有通用语，就没有加以更改，而是保留原样。

平面图

贯穿全书，应用以下的表达：一层，二层，三层等。在某种情况下，为了表达清楚，使用像“地下一层”或“地上一层”等术语。

比例

所有的平面图、剖面图及立面图都采用了通用的建筑公制尺度，1:50，1:100，1:200等。为帮助理解比例概念，每个项目的靠近平面图的第二页都有一个准确的图示比例尺。每个细部图也都提供建筑传统比例，比如1:1，1:5，1:10。



The background of the page is a detailed, multi-layered architectural drawing in blue ink. It depicts a park landscape project with various elements: two large, semi-circular structures at the top, possibly bridges or large planters; winding paths and roads; numerous trees and shrubs of different sizes; and various numbered annotations (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). The drawing is a technical representation of a landscape design, showing the layout of the park and the placement of various features.

01-14 Parks 公园景观工程项目

Mount Penang Gardens
Mount Penang, New South Wales, Australia

Client
NSW State Government Festival Development Corporation

Area
6 hectares (14.8 acres)

Project Team
Anton James, Geoffrey Britton, Matt O'Connor, David Duncan,
Diana Pringle, Romilly Davis, Jenny Clarsen

Structural Engineer
Structural Mechanics and Dynamics

The Mount Penang Gardens are located on a cleared swamp with numerous natural springs. In response, the garden is comprised of a raised plateau bordered by a series of cascading ponds to avoid the waterlogged soils. Two deeply incised lobes provide a series of intimate spaces for over 1,000 plant species, including numerous rare and endangered plants. Carved into the sides of the plateau are five Fissure Gardens for specialized horticultural displays. A blue steel bridge spans over the ponds, from the entrance to the plateau, while cantilevered concrete and steel stairs take visitors into the gabion-lined Fissure Gardens.

Several sculptural elements are used as formal counterpoints to the plantings. Two steel 'clouds' are planted with vines to form large shade-giving forms. One sits above an undulating lawn from which a fine water mist rises-the Cloud Garden. The second provides shade to the Puddle Fountain-a folded inclined plane from which water jets emerge and where depressions set with coloured glass beads collect water to form puddles. The Puddle Fountain is fed by three ponds which step down the slope from the Bottle Tree Garden, which features the uniquely bottom heavy forms of the Brachychiton rupestris. The Dragon Garden, on the southern lobe, is planted with a rich variety of succulents and cacti set in an assortment of concrete water pipes. Water is an ever-present element in the garden, spilling through water stairs, brass sills, splash ledges and water chutes to animate each cascade as it flows to the lower dam.

安东·詹姆斯设计事务所

槟城山花园 澳大利亚 新南威尔士州 槟城山

委托方 新南威尔士州政府节日发展公司

占地面积 6公顷（14.8英亩）

项目小组
安东·詹姆斯, 杰弗里·布立顿, 马特·欧考那, 戴维德·邓肯, 戴安娜·普林格勒, 罗米利·戴维斯, 杰尼·克拉森

结构工程师 结构力学及动力学设计公司

槟城山花园位于涌动着许多天然泉水的沼泽地上。整个花园呈高原地势。因土壤泥泞, 花园边缘有许多小巧的瀑布水塘。两条坑道深深贯穿于整个花园, 为1000多种植物提供了自由生长的空间, 其中包括许多种稀有和濒危的植物。高原边缘处的五个裂缝花园专门用于园艺展览。一条蓝色钢制的桥梁越过池塘, 从入口处一直延伸至高原。悬臂式水泥制和钢制的楼梯则将游客带到如篾筐织纹一般交错的坑道花园。

一些线条硬朗的石刻与这些柔美的植物形成了强烈的对比。两片用于蔽荫的“云”钢（云状钢结构）, 一片位于起伏不平、水雾笼罩的草坪上空, 因此被命名为“云花园”; 另一片则漂浮于泥潭喷泉上空, 这个喷泉是一架倾斜的折叠式飞机, 从机身喷射出的水倾泻而下, 流入下面的洼地, 形成小泥潭。泥潭中装饰有五颜六色的玻璃珠, 熠熠发光。从酒瓶树花园沿着斜坡向下有三个池塘, 它们形成了泥潭喷泉的水循环, 这充分利用了酒瓶树根部吸水性强的特点。南侧的龙园则种有许多种肉质植物和仙人掌, 它们被分门别类地摆放在混凝土制的水管中。水景在花园中不可或缺, 这里也不例外。花园中的细流淌过水梯和青铜基石, 流过溅水岩架和水槽, 一直汇入下面的堤坝, 使每一个小瀑布都显得生机勃勃。



1 View across the lowest cascade pond and splash ledges towards the raised Plateau Garden. The blue bridge leads visitors from the entrance to the left, to the gardens on the right.
2 The Stepped Pond, flanked on the left by the Bottle Tree Garden. The stepped water

body leads from the highest point of the garden to the Puddle Fountain.
3 The Steel Cloud leads the viewer from the Blue Bridge toward the Mist Garden beyond.
4 Entrance to the Pandanus Fissure, where the precast concrete walls that wrap the

Plateau Garden are seen in the foreground.
5 A steel and concrete stair takes visitors up and onto the Plateau Garden, past plants displayed on gabions and custom built stainless steel and coconut fibre logs.

1 从最下面的小瀑布池塘和溅水岩架眺望高原花园, 可见一座蓝桥将游客从入口引至左面和右面的花园。
2 阶梯池塘位于酒瓶树花园的左侧。池塘中贮水来源于花园的最高点, 最终流淌至泥潭喷泉。

3 “云”状钢结构。它吸引着观光者顺着蓝桥到达薄雾花园。
4 通往露兜坑道的入口。可以远望到高原花园的预制混凝土围墙。
5 由钢铁和混凝土铸成通往高原花园的阶梯。茂盛而古老的植物陈列在由不

锈钢和可可纤维原木制成的石笼中。





**01.01
Site Plan
1:3000**

- 1 Perimeter road
- 2 Grassland
- 3 Upper dam terrace
- 4 Upper dam
- 5 Cascading ponds
- 6 Mist Garden
- 7 Blue Bridge
- 8 Central lawn
- 9 Temporary display gardens
- 10 Dragon Garden
- 11 Water Edge path
- 12 Lower dam
- 13 Service road
- 14 Landscaping depot
- 15 Rain Forest Fissure
- 16 Puddle Fountain
- 17 Stepped Pond
- 18 Bottle Tree Garden
- 19 Pandanus Fissure
- 20 Lotus Garden

- 21 Entrance
- 22 Gondwana Garden
- 23 Rock garden
- 24 Wind Fissure
- 25 Epiphyte Fissure
- 26 Viewing deck
- 12 Mist Garden
- 13 Pandanus Fissure
- 14 Pond edge planting with Melaleuca quinquenervia
- 15 Vantage point above Pandanus Garden

**01.02
Planting Plan
1:1000**

- 1 Colour Field garden
- 2 Puddle Fountain
- 3 Bottle Tree Garden
- 4 Inverted obelisk
- 5 Stepped pond
- 6 Grasses garden
- 7 Path
- 8 Allocasuarina planting
- 9 Plateau Garden perimeter path
- 10 Cascade pond
- 11 Syzygium mound
- 16 Path widening at Steel Cloud
- 17 Plateau edge endemic planting
- 18 Lophostemon conferta at weir edge
- 19 Blue Bridge abutment
- 20 Central lawn
- 21 Weir wall and water stair
- 22 Weir wall and splash ledges

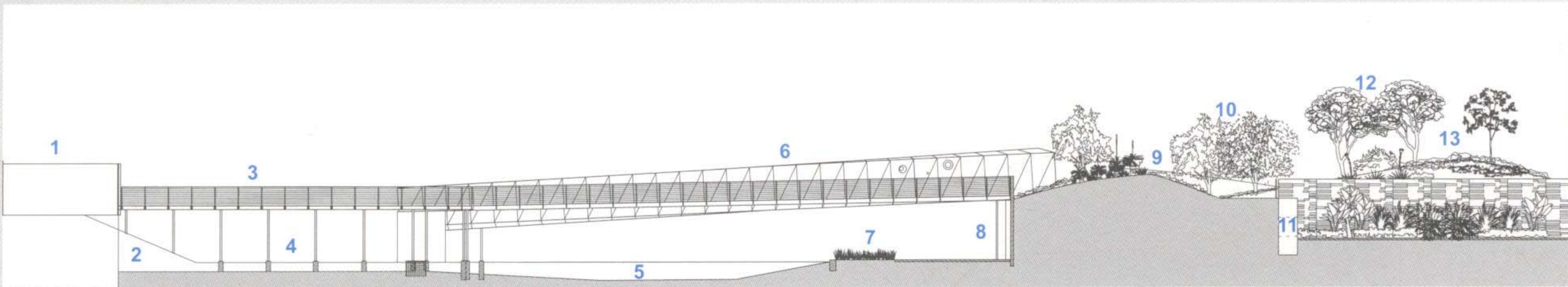
**01.01
总平面图
1:3000**

- 1 围墙路
- 2 草地
- 3 上堤坝草原
- 4 上堤坝
- 5 小瀑布水塘
- 6 薄雾花园
- 7 蓝桥
- 8 中央草坪
- 9 临时的展览花园
- 10 龙花园
- 11 水边小径
- 12 低坝
- 13 服务通道
- 14 规划预留地
- 15 雨林坑道
- 16 泥潭喷泉
- 17 阶梯式池塘
- 18 瓶子树花园
- 19 露兜坑道
- 20 莲花园
- 21 入口

- 22 冈瓦纳古花园
- 23 岩石花园
- 24 风化坑道
- 25 附生植物坑道
- 26 观光甲板
- 12 薄雾花园
- 13 露兜坑道
- 14 池塘边的茶树
- 15 露兜花园上的良好视点
- 16 云状钢结构旁的小径
- 17 高原边缘地方性植物
- 18 拦河坝边缘的红胶木林
- 19 蓝桥拱座
- 20 中央草坪
- 21 拦河坝墙及水梯
- 22 拦河坝及洒水岩架

**01. 02
绿化平面图
1:1000**

- 1 色彩地带花园
- 2 泥潭喷泉
- 3 瓶子树花园
- 4 倒置方尖碑
- 5 阶梯式池塘
- 6 草地花园
- 7 小径
- 8 异果木麻黄属花园
- 9 高原花园围墙路
- 10 小瀑布水塘
- 11 热带雨林蒲桃属丛



- 01.03
Bridge Section A-A
1:500

 - 1 Entry kiosk
 - 2 Bamboo planted slope
 - 3 Viewing deck
- 4 Lotus Garden

5 Cascading pond (lowest pond)

6 Blue Bridge box beam

7 Poa planting

8 Precast concrete wall
- 9 Garden path

10 *Banksia robur*

11 Pandanas Fissure gabion wall

12 *Cupaniopsis anacardioides*

13 Ground cover planting
- 01.03
桥梁剖面图 A-A
1: 500

 - 1 入口电话亭
 - 2 种着竹子的斜坡
 - 3 观光甲板
- 4 莲花园

5 小瀑布水塘（最低的池塘）

6 蓝桥箱形梁

7 禾本科植物

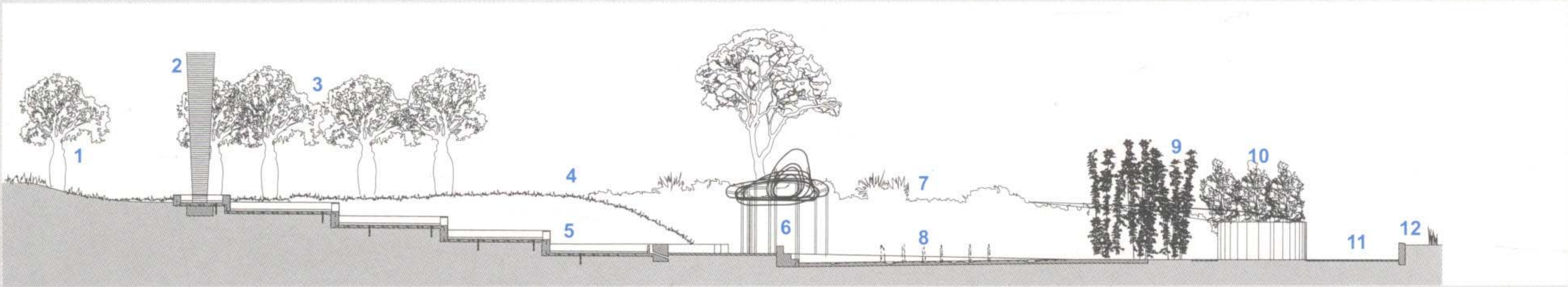
8 预制混凝土墙
- 9 花园小径

10 拔克西木属栎树

11 露兜坑道

12 一种国外产属无患子科植物

13 覆盖地表的植被



- 01.04
Puddle Fountain Section B-B
1:500

 - 1 *Brachychiton discolor*
 - 2 Inverted concrete obelisk
 - 3 Bottle Tree Garden planted
- with *Brachychiton Rupestris*

4 Liriope planting

5 Stepped pond

6 Steel Cloud 2

7 Colour Field garden

8 Puddle Fountain
- 9 *Bambusa lako*

10 *Eucalyptus haemastoma*

11 Plateau perimeter path

12 Cascading pond
- 01.04
泥潭喷泉
剖面图 B-B
1:500

 - 1 异色瓶木
 - 2 倒置水泥方尖碑
- 3 种有酒瓶树的瓶子树花园

4 麦冬种植

5 阶梯式池塘

6 钢铁乌云2

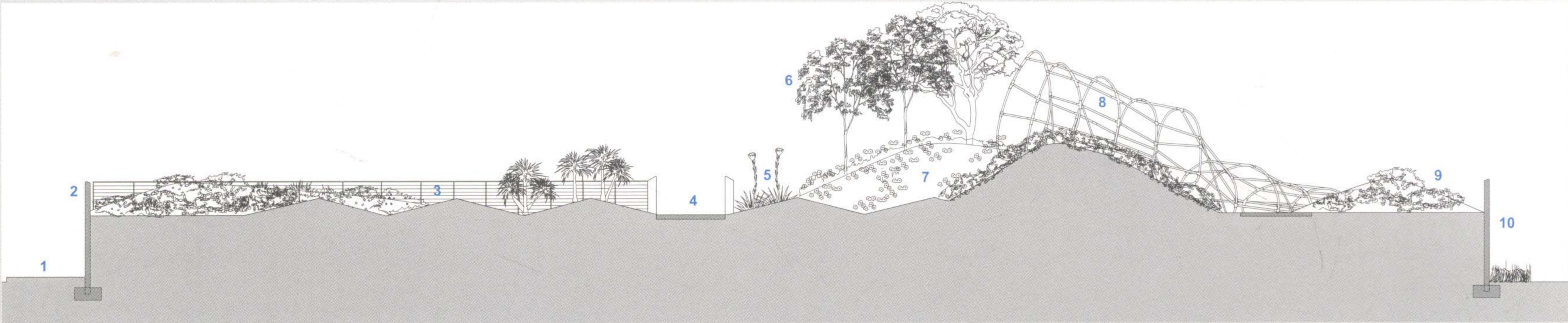
7 色彩地带花园

8 泥潭喷泉
- 9 竹林

10 桉树

11 高原围墙小径

12 小瀑布水塘



- 01.05
Mist Fountain Section C-C
1:200

 - 1 Plateau Garden perimeter path
 - 2 Precast concrete wall
 - 3 Earth undulations and mist fountain
- 4 Stair and Pandanas Fissure

5 Gynea Lily (*Doryanthes excelsa*)

6 Carrotwood (*Cupaniopsis anacardioides*)

7 Mixed native groundcover and perennials
- 8 Steel Cloud 1

9 Plateau Garden edge with endemic planting

10 Precast concrete wall and central lawn
- 01.05
薄雾花园剖面图 C-C
1:200

 - 1 高原花园围墙小径
 - 2 预制混凝土墙
- 3 起伏地面和薄雾花园

4 阶梯和露兜坑道

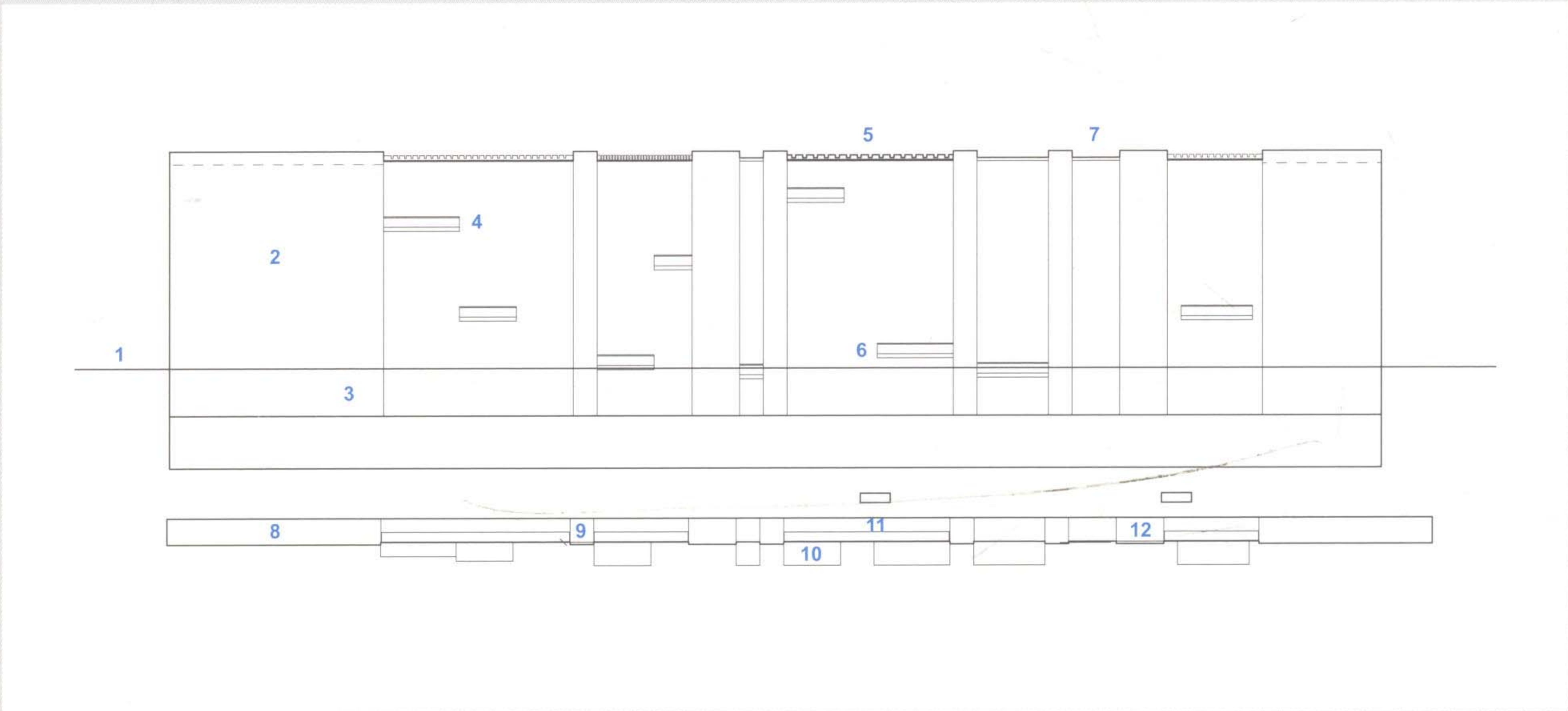
5 格米亚百合

6 一种国外产属无患子科植物

7 混合地被层和唐菖蒲
- 8 钢铁乌云1

9 种着地方性植物的高原花园边缘

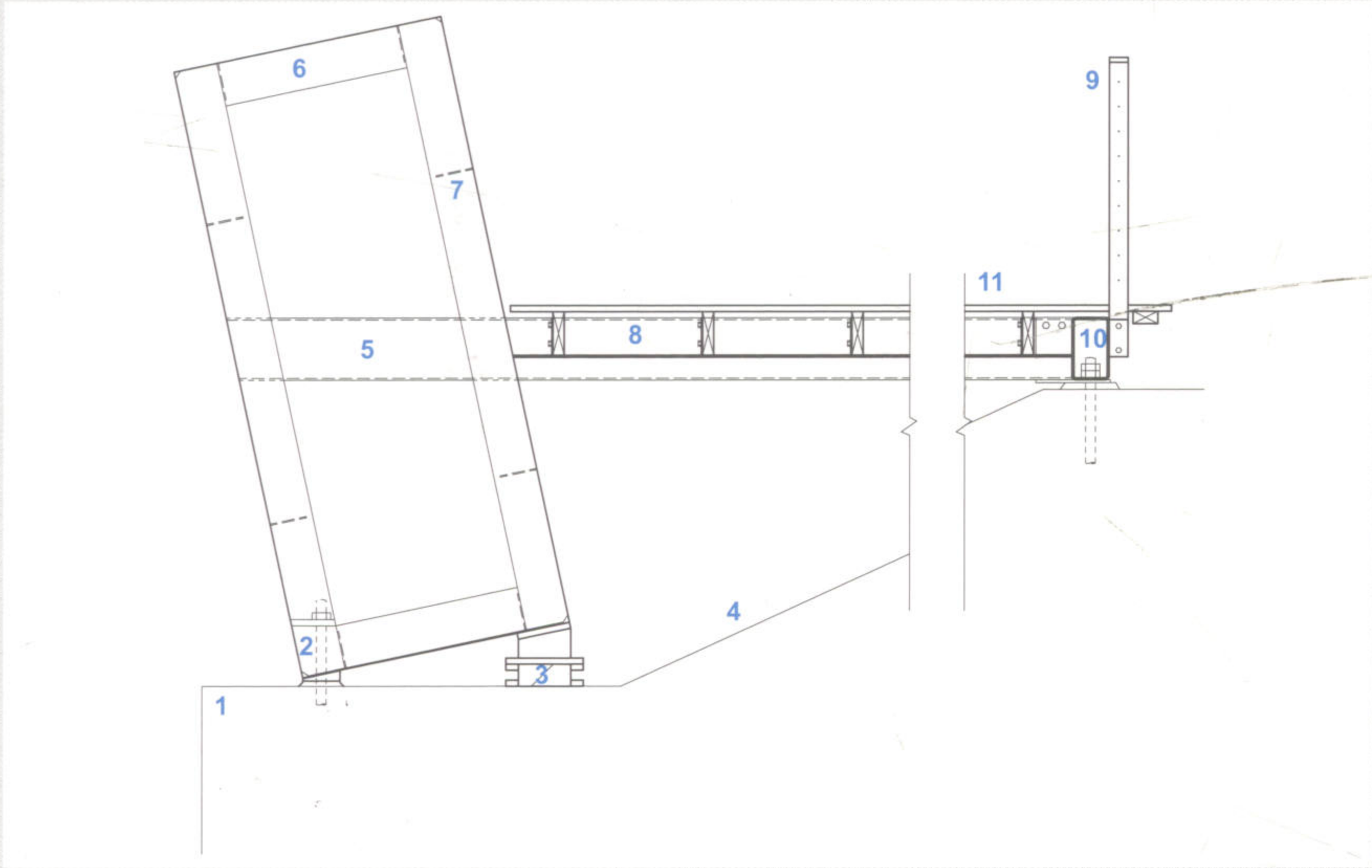
10 预制混凝土墙和中央草坪



- 01.06
Cascade Elevation and Plan
Detail
1:100

 - 1 Water level
 - 2 Off-form concrete weir wall
 - 3 Concrete footing
 - 4 Concrete splash edge
 - 5 Spitter with brass plate to shape flow
 - 6 Splash ledge
 - 7 Brass rill
 - 8 Weir wall
 - 9 Weir wall
 - 10 Splash ledge
 - 11 Spitter with brass plate to shape flow
 - 12 Spitter with brass plate to shape flow
- 01.06
小瀑布立面图和平面图细节
1:100

 - 1 水位
 - 2 无形态混凝土拦河坝墙
 - 3 混凝土基础
 - 4 混凝土跌水平台
 - 5 黄铜板制流程装置
 - 6 跌水平台
 - 7 黄铜小溪
 - 8 拦河坝墙
 - 9 拦河坝墙
 - 10 跌水平台
 - 11 黄铜板制流程装置
 - 12 黄铜板制流程装置



01.07
Bridge Section
1:50

- 1 Concrete abutment
- 2 Hold-down bolt
- 3 Fastening bracket
- 4 Ground level
- 5 Rectangular hollow section steel beam
- 6 Blue twisted beam

- 7 Internal diaphragm
- 8 Steel joists
- 9 Galvanized steel ballustrade with tensioned stainless steel horizontal cables
- 10 Hold-down bolt
- 11 Timber decking

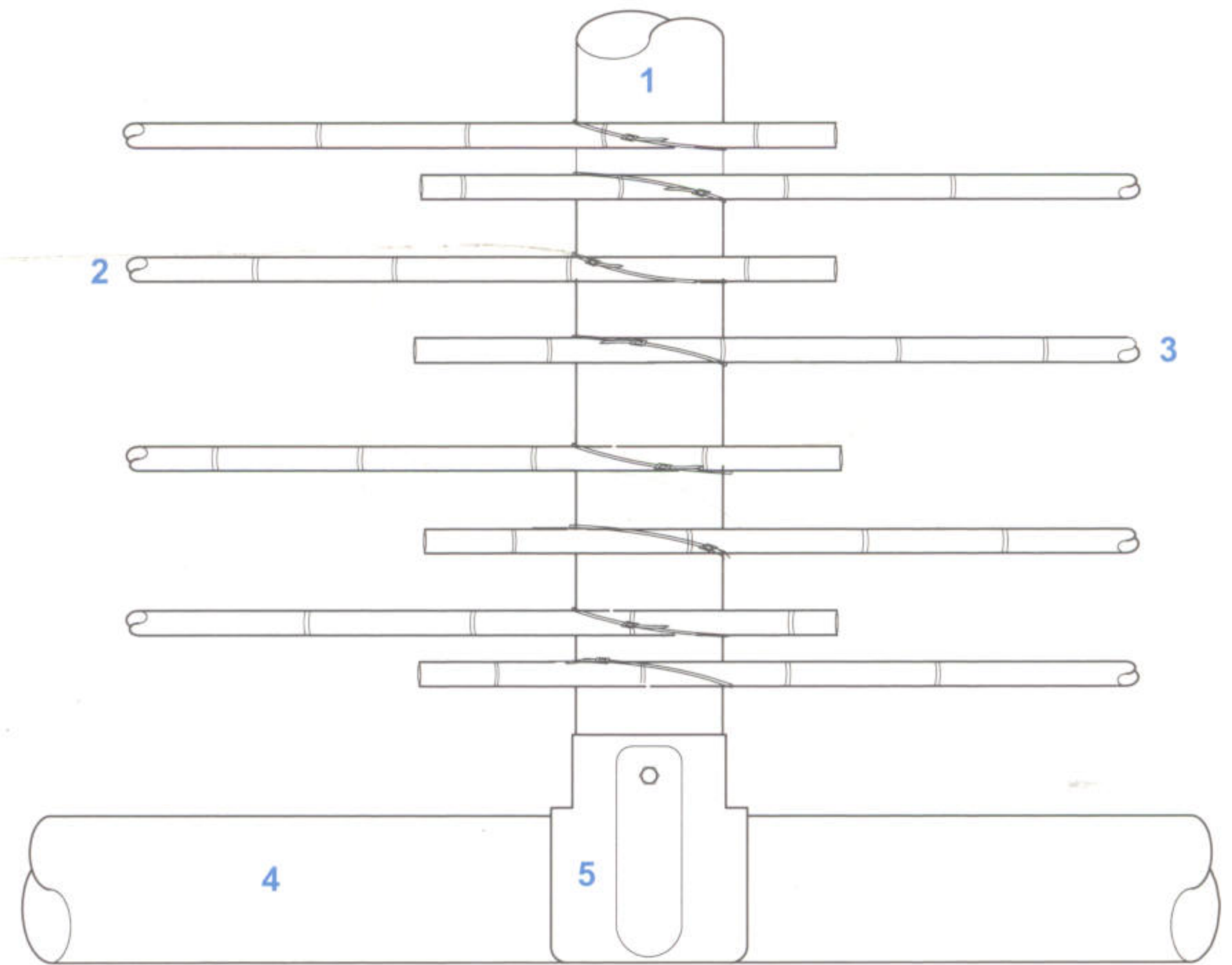
01.07
桥的立面图
1:50

- 1 混凝土桥台
- 2 固定螺栓
- 3 牢固托架
- 4 地平面
- 5 矩形洼地立面图钢梁
- 6 蓝色转动梁

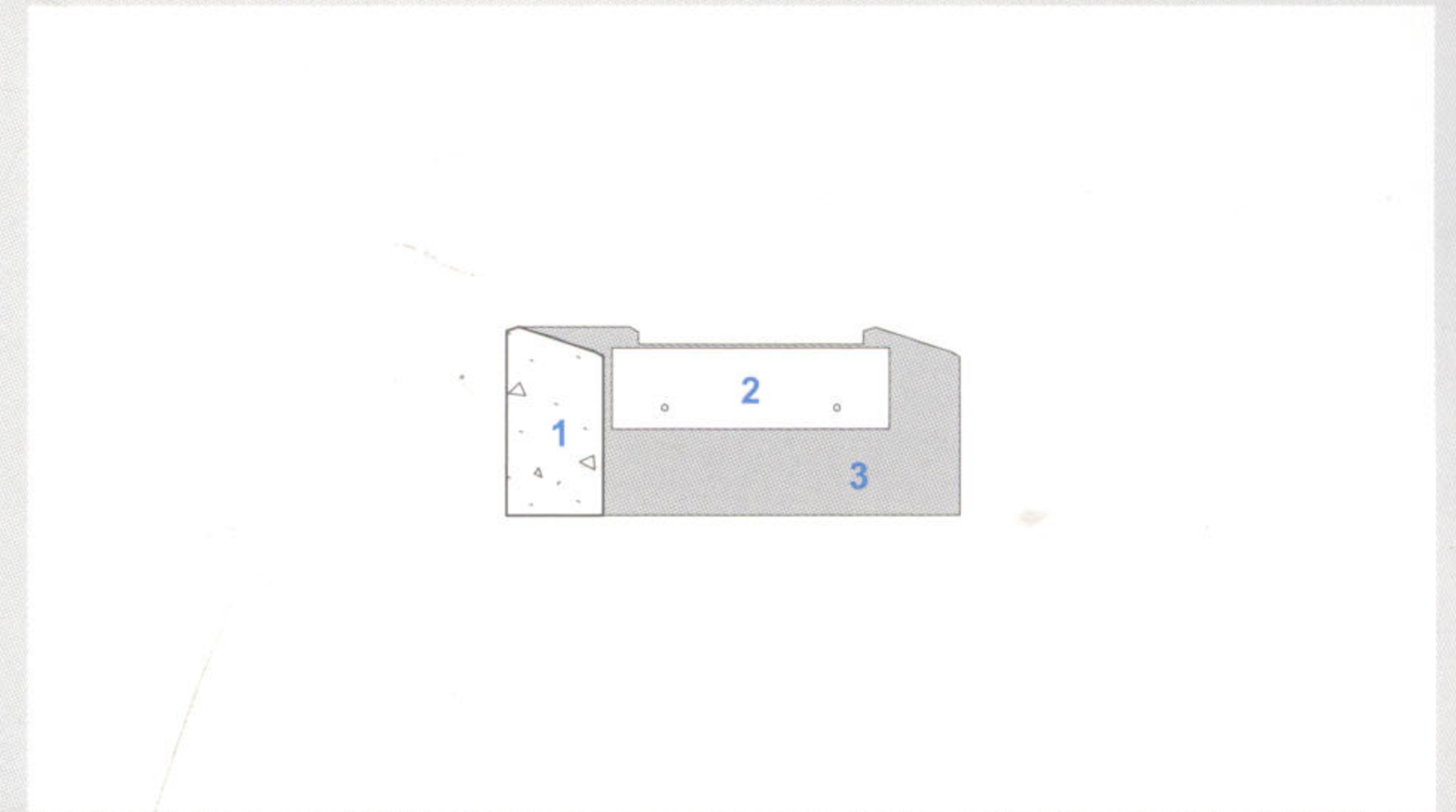
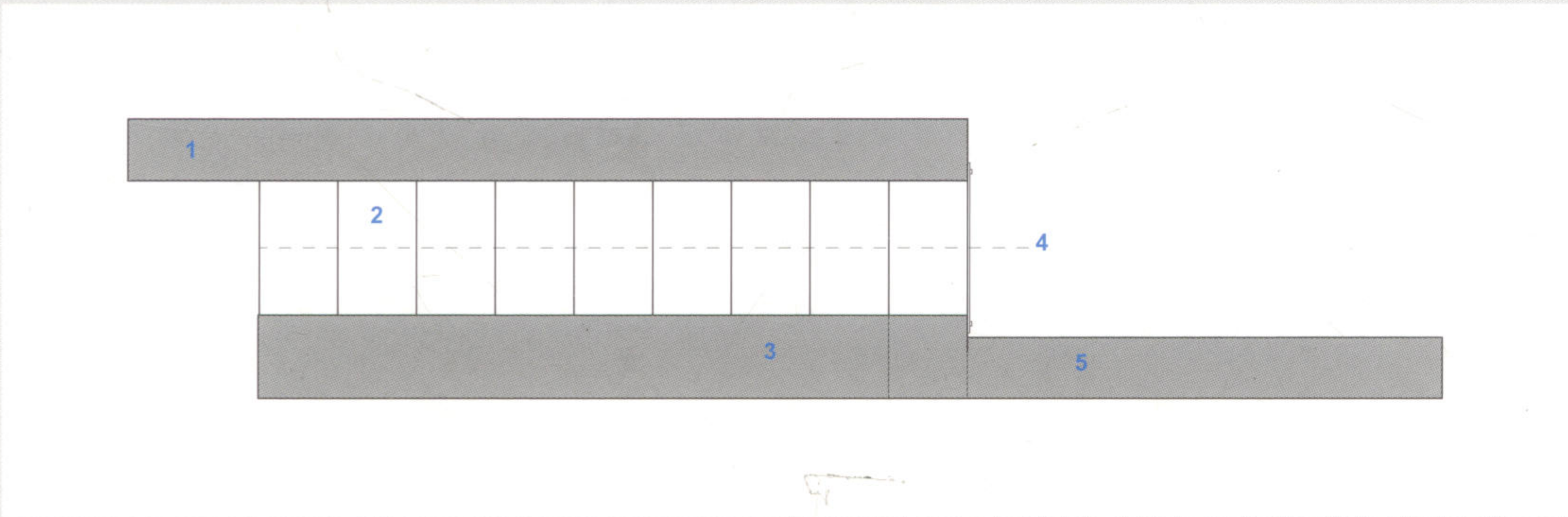
- 7 内膜
- 8 钢铁托梁
- 9 电镀钢铁 外侧有拉紧不锈的水平电缆
- 10 固定螺栓
- 11 原木层面

01.08
Cloud Detail
1:10

- 1 90 mm (31/2 inch) galvanized tubing
- 2 Bamboo canes
- 3 Bamboo canes
- 4 Cable ties
- 5 Fixed angle pipe connector



- 01.08
云细节
1:10
- 1 90毫米 (31/2英寸) 电镀锌管
- 2 竹茎
- 3 竹茎
- 4 光缆线
- 5 固定角度的管子连接物



01.09
Water Stair Detail Plan
1:50

- 1 Concrete weir wall
- 2 Water stair
- 3 Sloped weir wall
- 4 Brass plate to control water flow
- 5 Concrete weir wall

01.10
Water Stair Detail Long Section
1:50

- 1 Concrete weir wall
- 2 Concrete footing
- 3 Sloped weir wall in foreground
- 4 Brass plate to control water flow
- 5 Water level

01.11
Water Stair Detail Cross Section
1:50

- 1 Concrete weir wall
- 2 Brass plate to control water flow
- 3 Concrete weir wall

01.09
水梯细节平面图
1: 50

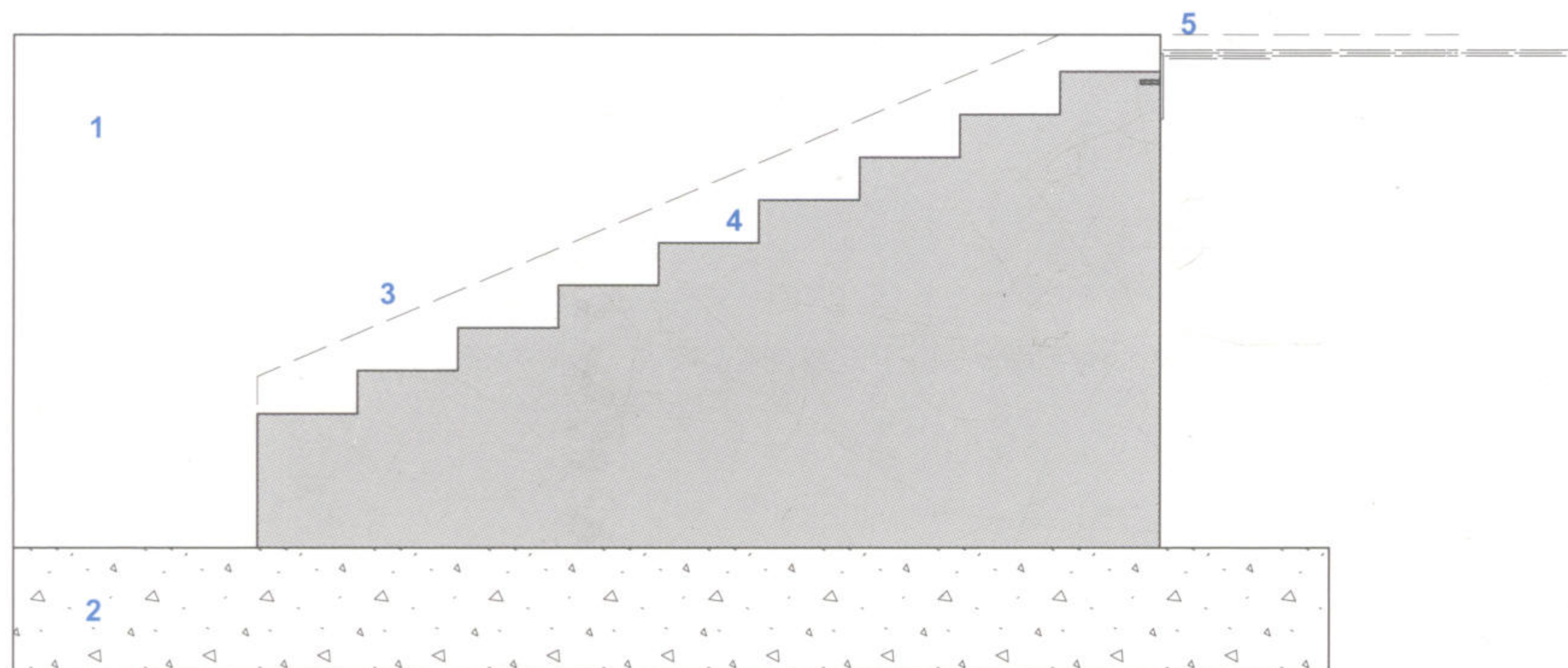
- 1 混凝土拦河坝墙
- 2 水梯
- 3 倾斜水梯
- 4 控制水流动的黄铜薄板
- 5 混凝土拦河坝墙

01.10
水梯细节纵立面图
1: 50

- 1 混凝土拦河坝墙
- 2 混凝土基础
- 3 前部倾斜拦河坝墙
- 4 控制水流动的黄铜薄板
- 5 水位

01.11
水梯细节横剖面图
1: 50

- 1 混凝土拦河坝墙
- 2 控制水流动的黄铜薄板
- 3 混凝土拦河坝墙



Pathway Through the Deer Moat
Prague, Czech Republic

Client
Prague Castle Administration / Dagmar and Václav Havel
VISION 97 Foundation

Area
160 square metres (1,720 square feet)

Project Team
Josef Pleskot, Jana Kantorová, Jitka Svobodová, Jiří Trčka,
Zdeněk Rudolf, Isabela Grosseová

Structural Engineer
Metroprojekt Praha / Křístek,
Trčka a spol

Landscape Architect
Eva Vízková

Commissioned at the instigation of Czech President Václav Havel, this underground tunnel provides a route from the Vlatava River to the grounds of Prague Castle, forming a connection between two sections of the existing Deer Moat. The project facilitates pedestrian movement along the entire length of this unique natural monument and makes the castle accessible via a new system of walkways. The tunnel follows the line of an existing stream located below the bastion walls used to protect the original Renaissance Powder Bridge. The massive open-cut concrete portal entrances to the tunnel facilitate water run-off to the stream, which continues beneath the new tunnel.

Once beyond the portals, the orthogonal geometry is abandoned in favour of a striking brick vault. The 84-metre (275-foot) long cambered vault was designed to necessarily narrow dimensions, however the impression of spaciousness is enhanced by recessed floor lighting and glimpses of the stream below through metal grilles. The tunnel is clad in self-supporting, hard-burnt, fair-faced dark-red brick which, when lit, gives the space a warm glow. The paving to the floor of the tunnel is made from pre-fabricated concrete elements with a textured, non-slip surface treatment. Elsewhere, grilles designed to reveal the presence of the stream are made from steel rods with slip-resistant lugs. A Renaissance column rescued during excavations for the tunnel is dramatically displayed in a niche in the arched tunnel.

AP 阿泰烈，乔赛夫·普莱斯考特景观设计事务所

穿越护城堤的小路 捷克斯洛伐克共和国 布拉格城堡

委托方
布拉格城堡管理部门
达玛和瓦茨拉夫·哈维尔希望97基金会

占地面积 160平方米（1，720平方英尺）

项目小组
乔赛夫·普莱斯考特，加纳·坎特拉瓦，
基卡·斯沃鲍德瓦，基里·捷克，
赞内科·鲁道夫，伊萨贝拉·格罗塞瓦

结构工程师
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卓科卡·阿·思波尔

风景建筑师 埃娃·维兹克瓦

在捷克斯洛伐克总统瓦茨拉夫·哈维尔的委任下建造的地下隧道，将现存的护城堤的两个部分连接起来。这条地下通道从渥拉塔娅河通至布拉格城堡，人们可以沿着这个独特的自然建筑步行到达城堡。这个隧道位于堡垒墙的下面，沿小河而建。堡垒墙是为了保护文艺复兴时期的宝德桥而建造的。通道上的积水可以流入隧道下面的小河。

隧道门口的设计，摒弃了正交几何原理的应用，而采用了非常惹人注目的砖制拱顶。这有效的缩小了84米（275英尺）长拱形设计的体积。而凹形的地面灯光和透过金属格板看到的小河使视觉变得更为宽阔。这个隧道自我支撑，不易烧毁。灯光照亮深红色的砖块时，会发出温暖的金色光芒。通往隧道的甬路是由混凝土铺设而成，表层进行了防滑处理。小河上方的格板则由防滑钢杆构架。文艺复兴时期的建筑陈列在隧道旁的黄金位置，使得整个设计更富有戏剧性。



1 The sophistication of the brick vault construction makes a striking contrast with the historic walls and ramparts of the castle.

2 The project is located in the grounds of one of Prague's most iconic historic monuments- Prague Castle (right). Two

sections of the existing Deer Moat are linked to create a new pedestrian access route to and from the Castle.

3 View of one of the cast in-situ concrete portals that announce the entrances to the tunnel.

4 The floor of the tunnel incorporates steel grilles

that reveal the presence of the stream below. Here, the concrete portals give way to the dark red brick vaulted arch of the tunnel.

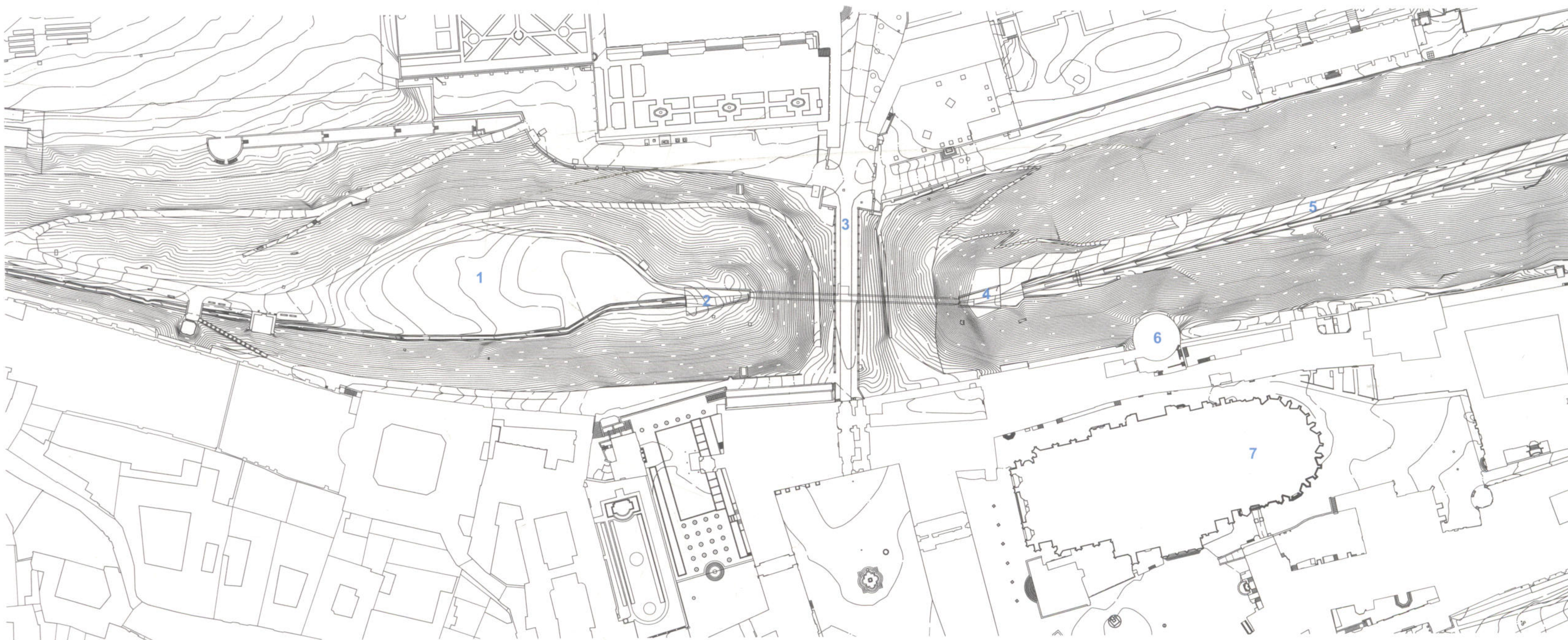
1 复杂的砖制拱形设计与历史城墙和城堡的壁垒形成了鲜明的对比。

2 这个工程坐落于布拉格最受尊崇的历史纪念建筑之一的布拉格城堡（右）旁边。将现存的护城堤的两个部分连接起来。给行人经过提供了新的路径。

3 当游人看到了扔在水泥入口处的铸件，那就意味着到了隧道的入口。

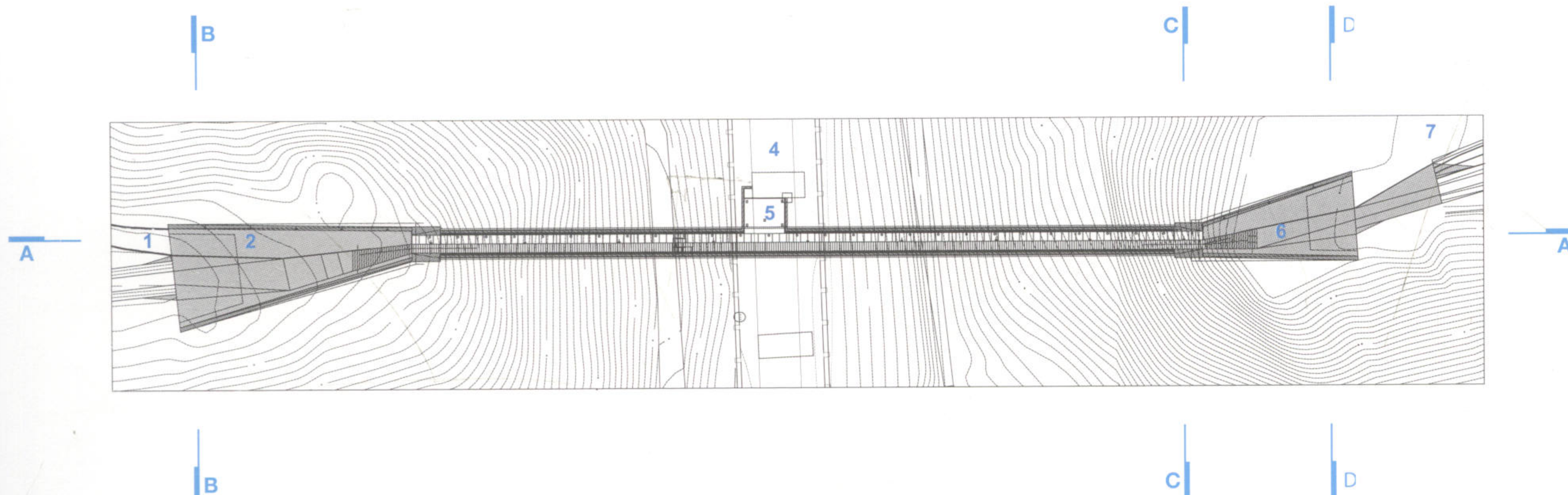
4 钢铁格板构成了隧道的地面，透过它能看到下面的小河。隧道的拱形结构采用了红色砖块而非混凝土。





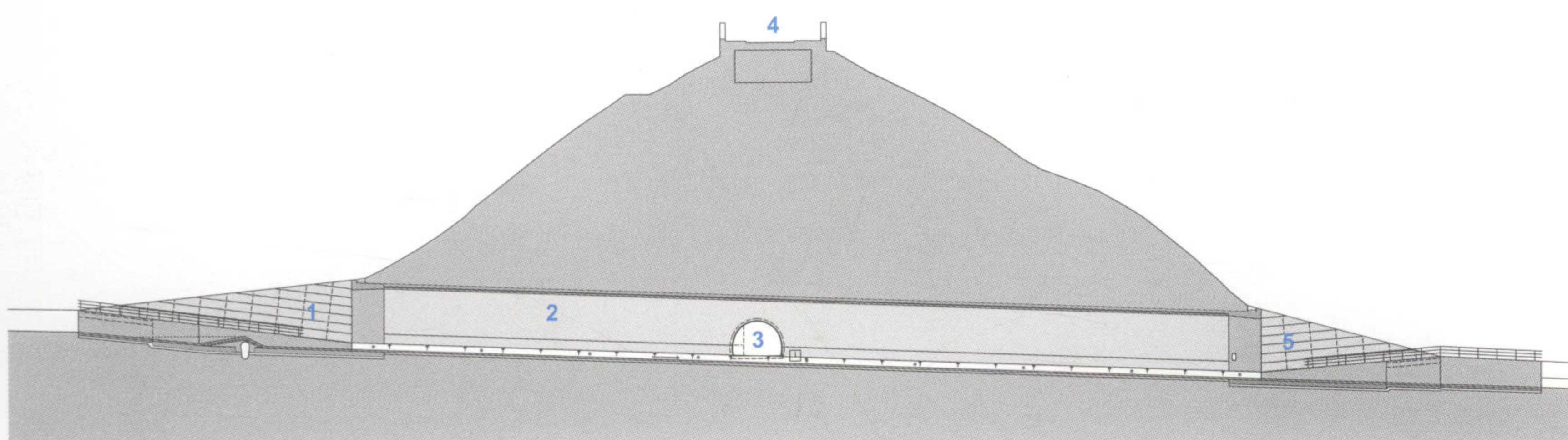
**02.01
Site Plan
1:3000**
1 Upper Deer Moat
2 Western portal
tunnel entrance
3 Existing
Renaissance
Powder Bridge
4 Eastern tunnel
entrance
5 Lower Deer Moat
6 Mihulka Tower
7 St Vitus Cathedral

**02.01
总平面图
1:3000**
1 地势较高的护城堤
2 西侧的隧道入口
3 现存的文艺复兴粉末桥
4 东侧的隧道入口
5 地势较低的护城堤
6 火药塔
7 圣维特大教堂



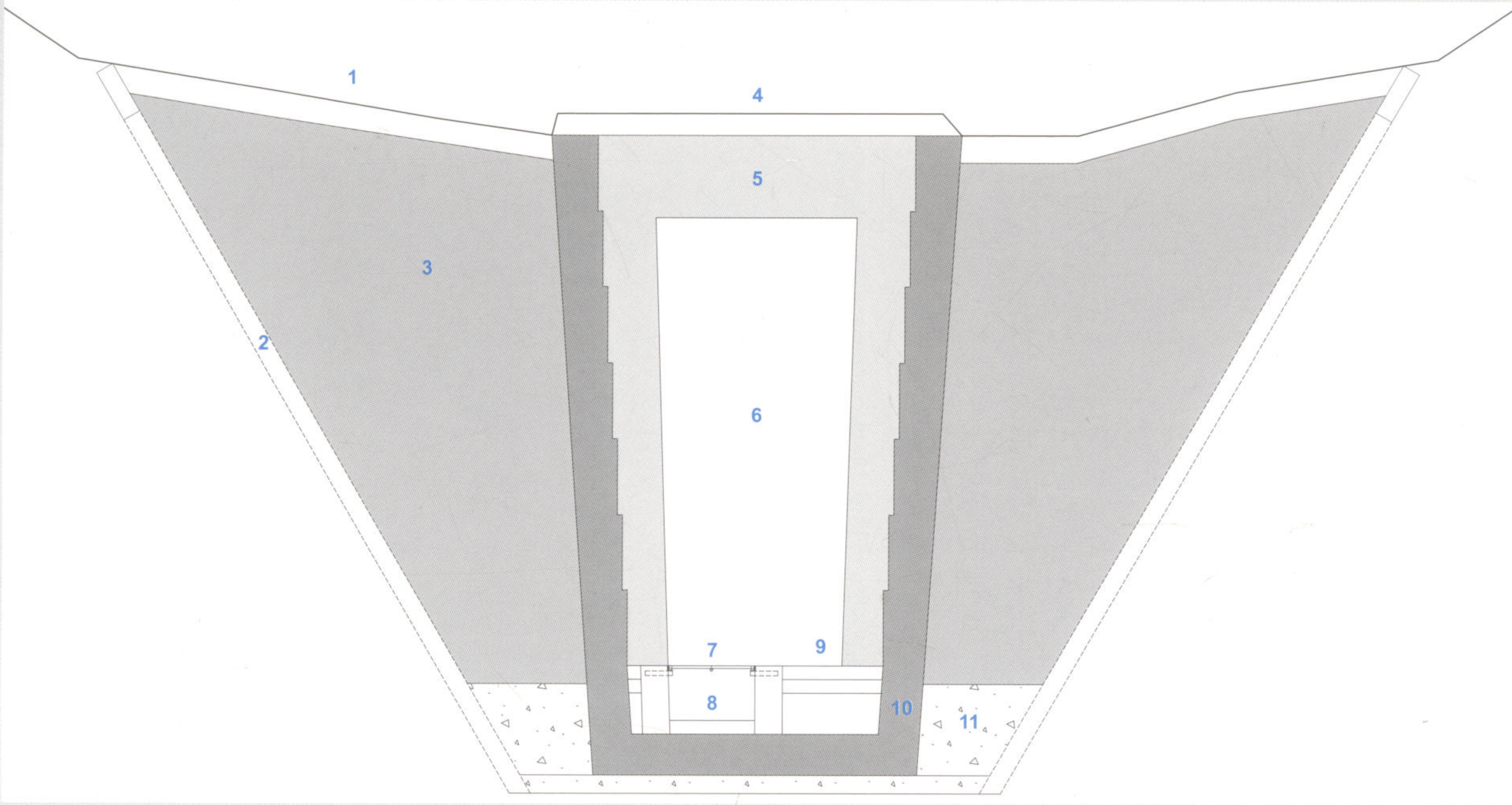
**02.02
Deer Moat Tunnel Plan
1:1000**
1 Upper Deer Moat
2 West portal
entrance to tunnel
3 Brick arched
tunnel
4 Existing Powder
Bridge
5 Recess leading to
views of the
original bridge pier
6 East portal entrance
to tunnel
7 Lower Deer Moat

**02.02
护城堤隧道平面图
1:1000**
1 地势较高的护城堤
2 西侧的隧道入口
3 砖制拱形隧道
4 现存的粉末桥
5 通往原来桥墩视点的
墙口
6 东侧的隧道入口
7 地势较低的粉末桥



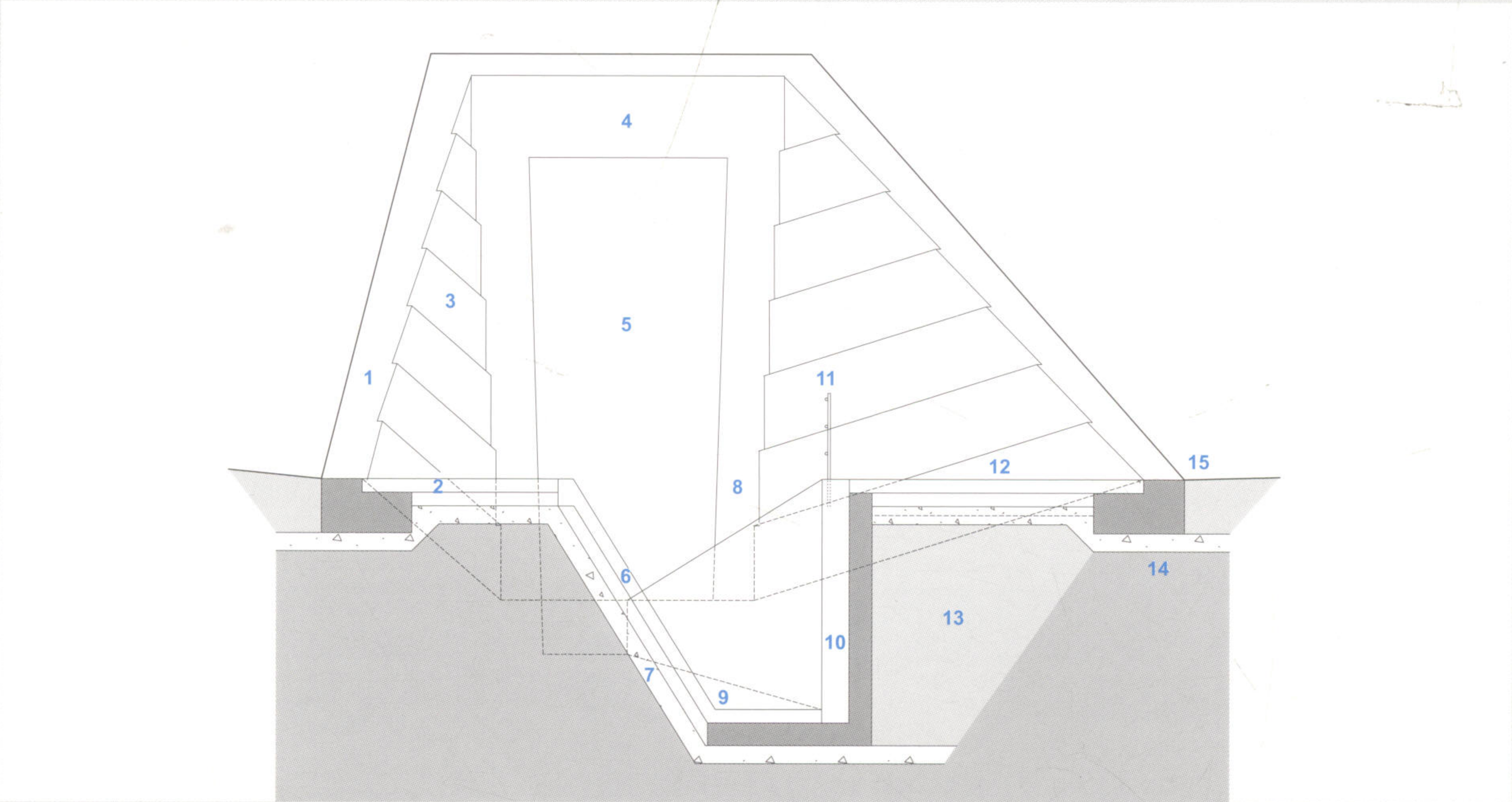
**02.03
Section A-A
1:1000**
1 West portal
entrance to tunnel
2 Brick arched
tunnel
3 Recess leading to
views of the
original bridge pier
4 Existing Powder
Bridge
5 East portal
entrance to tunnel

**02.03
剖面图A-A
1:1000**
1 西侧的隧道入口
2 砖制拱形隧道
3 通往原来桥墩视点的
墙口
4 现存的粉末桥
5 东侧的隧道入口



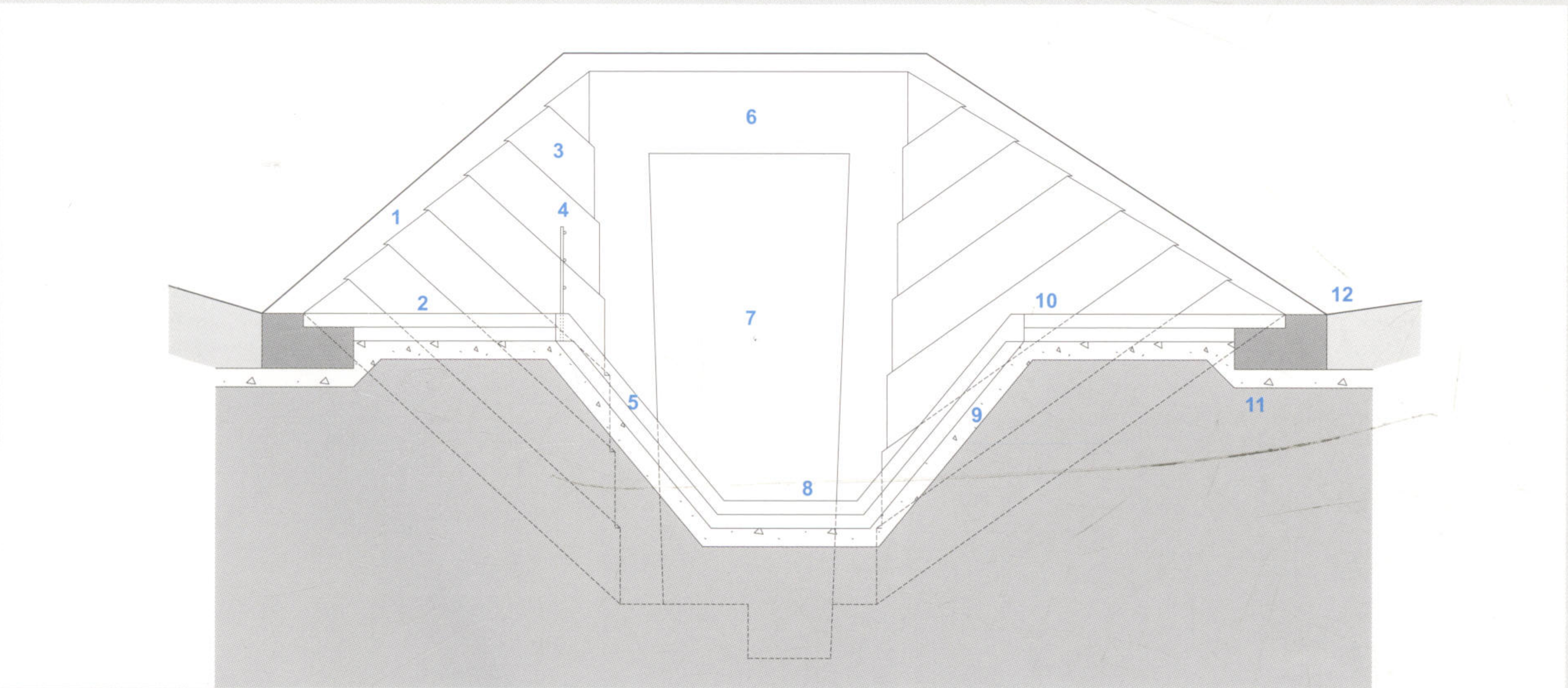
- 02.04
Tunnel Section B-B
1:100
- 1 Topsoil to landscape above tunnel
 - 2 Reinforced concrete retaining wall
 - 3 Back-fill between retaining wall and tunnel
 - 4 Top of reinforced concrete tunnel opening
 - 5 Reinforced concrete tunnel doorway
 - 6 Tunnel opening
 - 7 Steel mesh grille over stream bed
 - 8 Quarry stone finish to stream bed
 - 9 Quarry stone paving to tunnel path
 - 10 Reinforced concrete tunnel opening in section
 - 11 Reinforced concrete foundation

- 02.04
隧道剖面图B-B
1:100
- 1 隧道上方的表层土
 - 2 钢筋混凝土挡土墙
 - 3 挡土墙和隧道之间的填充物
 - 4 隧洞钢筋混凝土顶部
 - 5 钢筋混凝土隧道门口
 - 6 隧洞
 - 7 河床上的钢网盖板
 - 8 直达河床的石铺地
 - 9 通往隧道路径的石铺甬路
 - 10 隧洞钢筋混凝土顶部立面图
 - 11 钢筋混凝土地基



- 02.05
Tunnel Section C-C
1:100
- 1 Reinforced cast in-situ concrete supporting wall
 - 2 Quarry stone block paving
 - 3 Profiled fair-faced concrete to inclined wall
 - 4 Reinforced concrete doorway surround to tunnel entrance
 - 5 Tunnel opening
 - 6 Stone dressing to stream bank
 - 7 Reinforced concrete foundation to stream bank
 - 8 Stone wall edge to tunnel opening
 - 9 Quarry stone finish to stream bed
 - 10 Stone wall to stream bank
 - 11 Stainless steel handrail
 - 12 Quarry stone paving to tunnel path
 - 13 Back-fill
 - 14 Existing ground level
 - 15 New ground level

- 02.05
隧道剖面图C-C
1:100
- 1 在原处的加固铸件混凝土支撑墙
 - 2 石铺甬路
 - 3 具有层次的混凝土斜墙
 - 4 隧道入口的钢筋混凝土
 - 5 隧洞
 - 6 河床铺的石子
 - 7 河床钢筋混凝土基础
 - 8 隧洞的石墙边缘
 - 9 直达河床的石铺地
 - 10 河床边的石墙
 - 11 不锈钢扶手
 - 12 通往隧道路径的石铺甬路
 - 13 填土
 - 14 既存地平面
 - 15 新地平面



- 02.06
Tunnel Section D-D
1:100
- 1 Cast in-situ reinforced concrete supporting wall
 - 2 Quarry stone block paving
 - 3 Profiled fair-faced concrete to inclined wall
 - 4 Stainless steel handrail
 - 5 Stone dressing to stream bank
 - 6 Reinforced concrete surround
 - 7 Tunnel opening
 - 8 Quarry stone finish to stream bed
 - 9 Reinforced concrete foundation to stream bank
 - 10 Quarry stone paving to tunnel path
 - 11 Existing ground level
 - 12 New ground level

- 02.06
隧道剖面图D-D
1:100
- 1 在原处的铸件钢筋混凝土支撑墙
 - 2 石铺甬路
 - 3 具有层次的混凝土斜墙
 - 4 不锈钢扶手
 - 5 河床铺的石子
 - 6 钢筋混凝土
 - 7 隧洞
 - 8 直达河床的石铺地
 - 9 河床钢筋混凝土基础
 - 10 通往隧道路径的石铺甬路
 - 11 既存地平面
 - 12 新地平面