

## **RAISING COMPETENCIES AND ENHANCING SAFETY IN OUR BUILDING CONTROL REGULATORY REGIME – PROPOSED ENHANCEMENTS TO SPECIALIST BUILDERS’ LICENSING SCHEME**

### **AIM**

1 As part of Building and Construction Authority (“**BCA**”)’s regular reviews and enhancements of the provisions in the Building Control (“**BC**”) Act, BCA is inviting feedback on the following enhancements to the builders’ licensing scheme for Specialist Builders:

- a) to require Specialist Builders’ licences for all sub-contractors of Specialist Builders who are carrying out specialist building works;
- b) to regulate any person who supplies any structural pre-cast concrete and structural steelwork used in building works in Singapore; and
- c) to impose accreditation/ certification of Specialist Builders by a professional or technical body or organisation as part of licensing requirements

### **BACKGROUND**

2 The Builders’ Licensing Scheme (“**BLS**”) was introduced in 2009 to ensure that builders have the required capabilities to undertake the building works safely. The scheme requires builders to be equipped with qualified personnel and with sound financial health (in the form of paid-up capital). Under the licensing framework, all builders carrying out building works regulated under Part 2 of the BC Act are required to hold a relevant builder’s licence.

3 Currently, there are two types of licences, the General Builder (“**GB**”) licence and Specialist Builder (“**SB**”) licence. The SB licences are required for builders

undertaking any of the following 6 types of specialist building works: (i) piling works; (ii) ground support and stabilization works; (iii) site investigation work<sup>1</sup>; (iv) structural steelwork; (v) precast concrete work; and (vi) in-situ post-tensioning work. Builders can be licensed in more than one category if they are qualified (Refer to **Annex A** for existing licensing requirements).

## **NEED TO ENHANCE CURRENT REGULATORY REGIME**

4 BLS requirements have largely remained unchanged since its inception in 2009. However, the conditions in the building industry have since evolved, with builders embarking on works that are increasingly complex and larger in scale over time. These complex building works would involve a high proportion of specialist building works, which have a high impact on public safety and require additional expertise, skills and resources for their proper execution. As such, it is important for these works to be carried by competent builders, including the SB sub-contractors carrying out the specialist building works.

5 Furthermore, with some of the specialist building works (e.g. fabrication of concrete precast structural elements and structural steelwork) being carried out overseas, there is a need to ensure that the structural elements supplied from overseas meet the required standards, accreditation requirements and are in accordance with plans approved by the CBC.

## **PROPOSED ENHANCEMENTS TO REGULATORY REQUIREMENTS**

6 To ensure that the specialist building works are carried out by competent builders and that the structural elements procured from overseas sources are constructed according to the required standards, we propose the following regulatory changes:

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<sup>1</sup> With effect from 15 June 2024, the specialist building works category for “site investigation work” is replaced by a new category “instrumentation and monitoring work” in the BC (Amendment) Act 2020

- a) to require ALL sub-contractors of SBs responsible for carrying out the specialist building works to hold SB licences. Sub-contractors do not refer to suppliers providing labour, material and/or equipment for the SB because these activities do not fall under the definition of specialist building works (refer to **Annex B** for the list and scope of specialist building works);
- b) Any party who supplies pre-cast structural concrete and structural steelwork used in building works in Singapore would be required to obtain pre-cast structural concrete and structural steelwork from a source that is accredited or registered with a prescribed professional or technical body or organisation; and
- c) As part of the licensing requirement, any SBs applying for a SB licence would have to be accredited or registered with a prescribed professional or technical body or organisation. The accreditation details are shown in **Annex C**.

## CONSULTATION DETAILS

7. The consultation to the proposed regulatory changes will start on 20 August 2024 (0900 hours) and end on 20 October 2024 (0900 hours). Please note that the proposed changes to regulatory requirements are released solely for the purpose of public consultation and may be subject to further changes. Accordingly, the proposed changes should not be used or relied on by any person including industry stakeholders, adjudicators or authorised nominating bodies.

8. Members of the public can send their feedback through: -

By Post:  
Building Engineering Group  
Building and Construction Authority

An MND Statutory Board

52 Jurong Gateway Road  
#10-01 Singapore 608550

By FormSG:



<https://go.gov.sg/feedbackonspecialistbuilderslicence>

9. Thank you.

# ANNEX A

## CURRENT LICENSING REQUIREMENTS FOR GENERAL BUILDERS AND SPECIALIST BUILDERS

Builder License Class	Min. Paid-Up Capital	Approved Person (AP)		Technical Controller (TC)	
		Qualifications	Practical Experience	Qualifications	Practical Experience
GB1	\$300,000	Any degree	3 years after attaining qualifications	Construction-related Degree	5 years after attaining qualifications
		Construction-related Diploma	5 years after attaining qualifications		
GB2	\$25,000	Construction-related Diploma or Any Degree	3 years after attaining qualifications	Construction-related Diploma or Construction-related Degree	5 years after attaining qualifications
SB	\$25,000	Construction-related Diploma or Any Degree	3 years after attaining qualifications	Recognised Civil or Structural Engineering Degree from a recognised institution	5 years in class of specialist works after attaining qualifications

## ANNEX B

### SCOPE OF SPECIALIST BUILDING WORKS

Specialist Builder License Class	Definition of work <i>(Provision of labour, material and/or equipment for the SB do not fall under the definition of specialist building works)</i>	Scope of work <i>(include but not limited to)</i>
Piling works	Installation and testing of any of the following: <ol style="list-style-type: none"> <li>I. pre-cast reinforced concrete or pre-stressed concrete piles;</li> <li>II. steel piles;</li> <li>III. bored cast-in-place reinforced concrete piles;</li> <li>IV. caissons;</li> <li>V. special pile types like micro-piles, barrettes piles and composite piles;</li> <li>VI. embedded retaining wall piles like diaphragm walls, contiguous bored piles and secant piles;</li> </ol>	Scope of work for installation <ul style="list-style-type: none"> <li>• Boring/driving of piles</li> <li>• Install reinforcement cage/kingpost</li> <li>• Casting the concrete</li> <li>• Welding of pile joints</li> </ul> Scope of work for testing <ul style="list-style-type: none"> <li>• Setting up testing apparatus</li> <li>• Setting up instrumentation for taking readings</li> <li>• Engaged competent specialist testing firm to carry out specialized tests (e.g. Rapid Load Test, Bi-directional test)</li> </ul>
Ground support and stabilisation works	Ground support and stabilisation works, including installation and testing of ground anchors, soil nails, rock bolts, ground treatment like chemical grouting and jet-grouting, reinforced-earth, shotcreting and tunnel supports;	Scope of work for installation <ul style="list-style-type: none"> <li>• Boring/driving of DSM/anchors/soil nails</li> <li>• Install reinforcement cage/stressing cables</li> <li>• Ground treatment for reinforced fill/wall/slope</li> <li>• Laying reinforcement/geosynthetics for reinforced fill/wall/slope</li> <li>• Grouting/Casting</li> <li>• Shotcreting of walls/tunnel supports</li> <li>• Install tunnel supports</li> </ul> Scope of work for testing <ul style="list-style-type: none"> <li>• Setting up testing apparatus</li> <li>• Carry out the tests</li> <li>• Install/Setting up instrumentation for taking readings</li> </ul>

<p>Site investigation work<sup>2</sup></p>	<p>Site investigation work comprising field investigations, exploratory drilling or boring, logging, sampling, coring, in-situ plate-loading tests, pressure meter tests, penetration tests, vane shear tests, probing tests, permeability tests, geological mapping and geophysical surveys, and installation and monitoring of instruments measuring forces, deformation, displacements, pore and earth pressures, and ground water levels;</p>	<p>Scope of work for installation and monitoring</p> <ul style="list-style-type: none"> <li>• Drilling/boring of boreholes</li> <li>• Install/setting up instrumentation devices</li> <li>• Taking readings</li> </ul>
<p>Structural steelwork</p>	<p>Structural steelwork consisting of any of the following:</p> <ol style="list-style-type: none"> <li>I. fabrication of structural steel elements;</li> <li>II. site erection of structural steel elements involving the cutting, welding or tightening of high-friction grip bolts;</li> <li>III. installation or removal of steel supports for geotechnical building works</li> </ol>	<p>Scope of work for fabrication</p> <ul style="list-style-type: none"> <li>• Execution of steel structures involving cutting, shaping, holing, assembly, welding, bolting, undertaken in a factory or on site.</li> </ul> <p>Scope of work for erection work</p> <ul style="list-style-type: none"> <li>• Cutting, welding and tightening of high-friction grip bolts, and any other fabrication activities undertaken on-site</li> </ul> <p>Scope of work for installation of steel supports for GBW</p> <ul style="list-style-type: none"> <li>• Execution of steel structures involving installation of steel supports (waler, strut, vertical supports and bracing system) including cutting, welding and bolting.</li> <li>• Execution of steel structures involving installation of structural steelwork for tunnel supports including cutting, welding and bolting.</li> </ul>
<p>Pre-cast concrete work</p>	<p>Pre-cast concrete work comprising fabrication of pre-cast structural elements</p>	<p>Scope of work for fabrication</p> <ul style="list-style-type: none"> <li>• Install reinforcement cage</li> <li>• Casting the concrete</li> <li>• Install steel section members</li> <li>• Welding of steel connections</li> <li>• Install pre-stressed tendons</li> </ul>










<sup>2</sup> With effect from 15 June 2024, the specialist building works category for “site investigation work” is replaced by a new category “instrumentation and monitoring work” in the BC (Amendment) Act 2020 comprising the installation and monitoring of instruments measuring forces, deformation, displacements, tilt, convergence, pore and earth pressures or ground-water levels.

In-situ post-tensioning work	In-situ post-tensioning work consisting of any of the following: I. setting out of tendon profiles; II. laying of conduits, anchorages or bursting reinforcement; III. pulling or stressing of strands or bars; IV. pressure grouting of conduits	Scope of work <ul style="list-style-type: none"><li>• Install anchorages and bursting reinforcement</li><li>• Grouting of conduits</li><li>• Laying/install tendon cables</li><li>• Stressing of tendons</li></ul>
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# ANNEX C

## ACCREDITATION DETAILS FOR SPECIALIST BUILDING WORKS

Specialist Builder License Class	Accreditation Requirements
Piling works	 CT 31, 27 Apr 2023.pdf  CT 32, 27 Apr 2023.pdf
Ground support and stabilisation works	 CT-27-19Dec2022.pdf  CT-28-19Dec2022.pdf
Site investigation work <sup>3</sup>	 Technical Note I&M 01 -2022_SAC Mark.p
Structural steelwork	TBC
Pre-cast concrete work	 CT-29-19Dec202...  CT-30-19Dec2022.pdf
In-situ post-tensioning work	 CT-22-30Nov2021-In-requirements-for-cert  Situ-Post-Tensioning-lification-of-specialist-l

<sup>3</sup> With effect from 15 June 2024, the specialist building works category for “site investigation work” is replaced by a new category “instrumentation and monitoring work” in the BC (Amendment) Act 2020

## 拟议增强专科工程建筑商执照制度

### 目标

1 为配合建设局 (Building and Construction Authority, 简称 BCA) 对于建筑管制法令 (Building Control Act, 简称 BC Act) 条款进行定期审查和改进, 建设局将对专科工程建筑商执照制度做出以下的增强措施并向公众征求意见:

- a) 要求专科工程建筑商 (Specialist Builder, 简称 SB) 的所有分包商在进行专科建筑工程时必须持有专科工程建筑商执照;
- b) 监管任何供应本国建筑工程所使用的预制混凝土结构 (Structural Pre-cast Concrete) 及钢结构 (Structural Steelwork) 的人士; 及
- c) 规定专业或技术认证委员会对专科工程建筑商进行认证, 作为申请执照的要求之一。

### 背景

2 建设局于 2009 年推出建筑商执照制度 (Builders' Licensing Scheme, 简称 BLS), 以确保建筑商具备安全进行建筑工程所需的能力。该计划要求建筑商配备符合资格的人员和健全的财务状况 (以已付资本 (Paid-up Capital) 的形式)。在执照制度下, 所有从事有关建筑管制法令里第二部分所规定的建筑工程的建筑商都必须持有相关的建筑商执照。

3 目前, 建筑商执照分为一般普通建筑商 (General Builder, 简称 GB) 执照和专科工程建筑商 (SB) 执照制。专科工程建筑商的工程范围分别为以下六类: (i) 打桩工程 (SB

(Piling))；(ii) 地面支护与加固工程 (SB (Ground Support & Stabilization))；(iii) 现场勘查工程<sup>4</sup> (SB (Site Investigation))；(iv) 钢结构工程 (SB (Structural Steelwork))；(v) 预制混凝土工程 (SB (Pre-cast Concrete))；以及 (vi) 预应力张拉工程 (SB(Post-tensioning))。如符合条件，建筑商可获得一个以上类别的执照（有关现行执照要求，请参阅附件 A）。

## 加强现行的监管制度的必要性

4 建筑商执照制度自 2009 年实施以来，其要求基本保持不变。然而，随着建筑业的情况不断演变，建筑商所展开的工程日趋复杂，规模亦日趋庞大。这些复杂的建筑工程涉及高比例的专科建筑工程，对公众安全影响甚大，并需要额外的专业知识、技术和资源才能安全妥善的进行。因此，这些工程必须由能胜任的建筑商与分包商负责。

5 此外，由于部分专科建筑工程，例如混凝土预制结构构件和钢结构工程的制造在海外进行，因此有需要确保海外供应的结构构件符合规定的标准和认证要求，并与建设管制专员批准的图纸相符。

## 拟议加强监管要求

6 为确保专科建筑工程由合格的建筑商进行，并确保从海外采购的结构构件按照规定的标准建造，我们建议修改以下法规：

- a) 规定负责进行专科建筑工程的所有分包商必须持有专科工程建筑商执照。这里所指的分包商不包括为专科工程建筑商提供劳工、物料及 / 或设备的供应商，

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<sup>4</sup> 自 2024 年 6 月 15 日起，《2020 年建筑管制（修订）法令》中的 "现场勘查工程 (Site Investigation work)" 专科工程建筑类别将由新类别 "仪器和监测工程 (Instrumentation & Monitoring work)" 取代。

因为这些活动并不属于专科建筑工程的定义范围。有关专科建筑工程的类别及范围，请参阅附件 B；

- b) 任何供应新加坡建筑工程中使用的预制混凝土结构和钢结构的一方，必须从经指定的专业或技术认证委员会认证的来源获得预制混凝土结构和钢结构；
- c) 作为执照规定的一部分，任何申请专科工程建筑商执照的建筑商，必须经专业或技术认证委员会认可或注册。有关的认证详情载于附件 C。

## 咨询详情

7 监管要求拟议变更的咨询将于 2024 年 8 月 20 日早上 7 点开始，并截止于 2024 年 10 月 14 日早上 7 点。请注意，监管要求的拟议变更仅为公众咨询目的而发布，可能随时调整。因此，行业利益相关者、评审员或授权提名机构在内的任何人都不应使用或依赖上述（第 6 段）的拟议变更。

8 公众可透过以下途径提出意见：

通过邮寄：

建筑工程组（Building Engineering Group）

建设局 (BCA)

52 Jurong Gateway Road

#10-01 Singapore 608550

通过 FormSG：



<https://go.gov.sg/feedbackonspecialistbuilderslicence>

9 谢谢。

## 附件 A

### 现行一般普通建筑商 (GB) 执照和专科工程建筑商 (SB) 执照要求

建筑商 执照级 别 / Builder License Class	最低已 付资本 / Min. Paid-Up Capital	核准人士 / Approved Person (AP)		技术控制员 / Technical Controller (TC)	
		资格 / Qualifications	实际经验 / Practical Experience	资格 / Qualifications	实际经验 / Practical Experience
一般普 通建筑 商(一级) GB1	\$300,000	任何领域学位 Any degree	三年(获得学位 后) 3 years after attaining qualifications	建筑相关领域学 位 Construction- related Degree	五年(获得学位 后) 5 years after attaining qualifications
		建筑相关领域文 凭 Construction-related Diploma	五年(获得文凭 后) 5 years after attaining qualifications		
一般普 通建筑 商(二级) GB2	\$25,000	任何领域学位或 建筑相关领域文 凭 Construction-related Diploma or Any Degree	三年(获得资格证 书后) 3 years after attaining qualifications	建筑相关领域学 位或文凭 Construction-related Diploma or Construction-related Degree	五年(获得资格证 书后) 5 years after attaining qualifications
专科工 程建筑 SB	\$25,000	任何领域学位或 建筑相关领域文 凭	三年(获得资格证 书后) 3 years after	认可院校结构工 程领域的学士学 位	五年(从事相应类 别的专门建筑工 程)

		Construction-related Diploma or Any Degree	attaining qualifications	Recognised Civil or Structural Engineering Degree from a recognised institution	5 years in class of specialist works after attaining qualifications
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## 附件 B

### 专科建筑工程的范围

专科工程 建筑商的 工程类别 / Specialist Builder License Class	工程定义 / Definition of work (提供劳工、物料及 / 或设备并不属于专科建 筑工程的定义范围)	工程范围 / Scope of work (包括但不限于)
打桩工程	以下任何一项的安装和测试： <ol style="list-style-type: none"> <li>I. 预制钢筋混凝土桩或预应力混凝土桩；</li> <li>II. 钢桩；</li> <li>III. 钻孔现浇钢筋混凝土桩；</li> <li>IV. 沉箱；</li> <li>V. 微型桩、巴氏桩和复合桩等特殊桩型；</li> <li>VI. 地下连续墙、连续钻孔灌注桩和咬合桩等嵌入式挡土墙桩。</li> </ol>	安装工作范围 <ul style="list-style-type: none"> <li>• 钻孔/打桩</li> <li>• 安装钢筋笼/立柱</li> <li>• 浇注混凝土</li> <li>• 焊接桩接缝</li> </ul> 检测工作范围 <ul style="list-style-type: none"> <li>• 安装检测仪器</li> <li>• 安装读数仪器</li> <li>• 聘请合格的专业测试公司进行专门测试（如快速载荷测试、双向测试等）</li> </ul>
地面支护与加固工程	地面支护与加固工程，包括地锚、土钉、岩栓的安装和测试、化学灌浆和喷射灌浆等地面处理、加固土方、喷浆和隧道支撑；	安装工作范围 <ul style="list-style-type: none"> <li>• 深层混合土/锚杆/土钉的钻孔/打入</li> <li>• 安装钢筋笼/应力索</li> <li>• 加固填料/墙体/斜坡的地面处理</li> <li>• 为加固填土/墙/斜坡铺设钢筋/土工合成材料</li> <li>• 灌浆/浇注</li> <li>• 墙壁/隧道支撑的喷浆处理</li> <li>• 安装隧道支架</li> </ul> 测试工作范围 <ul style="list-style-type: none"> <li>• 安装测试设备</li> <li>• 进行测试</li> <li>• 安装/设置读数仪器</li> </ul>










<p>现场勘查工程<sup>5</sup></p>	<p>现场勘查工作包括实地调查、勘探钻井或钻孔、钻孔记录、取样、取芯、原位平板加载试验、贯入试验、渗透试验、十字板剪力试验、探测试验、旁压试验、地质绘图和地球物理勘测，以及安装和监测测量力、变形、位移、孔隙水压力、土压力以及地下水位的仪器；</p>	<p>安装和监测工作范围</p> <ul style="list-style-type: none"> <li>• 钻孔</li> <li>• 安装/设置仪器设备</li> <li>• 读取数据</li> </ul>
<p>钢结构工程</p>	<p>由以下任何一项组成的钢结构工程：</p> <ol style="list-style-type: none"> <li>I. 钢结构部件的制造；</li> <li>II. 涉及切割、焊接或拧紧高摩擦抓紧螺栓的钢结构构件的现场安装；</li> <li>III. 为岩土建筑工程安装或拆除钢支架</li> </ol>	<p>制造的工作范围</p> <ul style="list-style-type: none"> <li>• 在工厂或现场对钢结构进行切割、整形、开孔、组装、焊接和栓接。</li> </ul> <p>安装工作的工作范围</p> <ul style="list-style-type: none"> <li>• 切割、焊接和拧紧高摩擦抓紧螺栓，以及在现场进行的任何其他制造活动。</li> </ul> <p>为岩土建筑工程安装钢支撑的工作范围</p> <ul style="list-style-type: none"> <li>• 涉及钢支撑（围檩、支柱、垂直支撑和支撑系统）安装的钢结构施工，包括切割、焊接和螺栓连接。</li> <li>• 执行钢结构工程，包括隧道支架钢结构安装，包括切割、焊接和螺栓连接。</li> </ul>
<p>预制混凝土工程</p>	<p>预制混凝土工程，包括预制结构件的制作</p>	<p>制造工作范围</p> <ul style="list-style-type: none"> <li>• 安装钢筋笼</li> <li>• 浇筑混凝土</li> <li>• 安装型钢构件</li> <li>• 焊接钢连接件</li> <li>• 安装预应力筋</li> </ul>
<p>预应力张拉工程</p>	<p>包括以下任何一项的原位后张法施工：</p> <ol style="list-style-type: none"> <li>I. 张拉钢筋；</li> <li>II. 铺设导管、锚具或爆破钢筋；</li> <li>III. 对钢绞线或钢筋进行拉伸或施加应力；</li> <li>IV. 导管的压力灌浆。</li> </ol>	<p>工作范围</p> <ul style="list-style-type: none"> <li>• 安装锚固件和爆破加固件</li> <li>• 导管灌浆</li> <li>• 铺设/安装筋缆</li> <li>• 对钢筋施加应力</li> </ul>

<sup>5</sup> 自 2024 年 6 月 15 日起，《2020 年建筑管制（修订）法令》中的“现场勘查工程”专科工程建筑类别将由新类别“仪器和监测工程”取代。新类别包括安装和监测测量力、变形、位移、倾斜、会聚、孔隙和土压力或地下水位的仪器。



## 附件 C

### 专科建筑工程的认证详情

专科工程建筑商的工程类别	认证要求
打桩工程	 CT 31, 27 Apr 2023.pdf  CT 32, 27 Apr 2023.pdf
地面支护与加固工程	 CT-27-19Dec2022.pdf  CT-28-19Dec2022.pdf
现场勘查工程 <sup>6</sup>	 Technical Note I&M 01 -2022_SAC Mark.p
钢结构工程	待确定
预制混凝土工程	 CT-29-19Dec202...  CT-30-19Dec2022.pdf
预应力张拉工程	 CT-22-30Nov2021-In-requirements-for-cert  Situ-Post-Tensioning-lification-of-specialist-l

<sup>6</sup> 自 2024 年 6 月 15 日起，《2020 年建筑管制（修订）法令》中的“现场勘查工程”专科工程建筑类别将由新类别“仪器和监测工程”取代。