

LEGISLATIVE COUNCIL BRIEF
REPORT OF
THE CONSTRUCTION INDUSTRY REVIEW COMMITTEE

INTRODUCTION

At the meeting of the Executive Council on 5 June 2001, the Council ADVISED and the Chief Executive ORDERED that -

- A
- (a) establishment of an industry co-ordinating body (ICB) should be agreed in principle and pending its formation, a provisional body should be set up;
 - (b) Works Bureau should be appointed as the lead agency within the Government to co-ordinate with relevant bureaux and departments on all construction-related matters, and to co-ordinate the implementation of the recommendations of the Construction Industry Review Committee (CIRC) as shown at Annex A; and
 - (c) the remaining 107 recommendations of the CIRC should be taken forward along the line as proposed in paragraphs 10 and 11.

BACKGROUND AND ARGUMENT

General Background

2. In April 2000, the Chief Executive appointed the CIRC, under the chairmanship of the Honourable Henry Tang, to examine the current state of the construction industry and to identify specific measures to improve its overall performance in terms of quality, efficiency, productivity, site safety, environmental friendliness and customer satisfaction. The CIRC completed the review and submitted its report entitled “Construct for Excellence” to the Chief Executive on 18 January 2001.

3. The report recommended 109 improvement measures, covering the whole spectrum of activities in the construction industry, to lift its quality and cost-effectiveness. Emphasis has been placed on a major culture change in order to achieve an integrated construction industry that is capable of continuous improvement towards excellence in a market-driven environment. Clients, in particular public sector clients, are expected to play an important role in this respect.

The Administration's Views

4. We welcome the CIRC report and agree to its objective to improve the quality and cost-effectiveness of the construction industry. Having carefully studied the findings and recommendations of the CIRC and consulted relevant Government bureaux and departments, including the Housing Authority, on the recommendations, we consider that the recommended improvement measures will enable the industry to continuously improve its overall performance and are worth pursuing. As such, a strategy in taking forward the 109 recommendations has been worked out.

The Proposal

5. Details of the proposed strategy are set out in the following paragraphs.

Industry Co-ordinating Body

6. To foster better co-ordination within the industry, the CIRC has recommended the setting up of a statutory ICB to deliberate on industry-wide issues and to communicate the industry's needs and aspirations to the Government. The proposed body will have a broad membership consisting of all industry stakeholders and independent members. The Government will be represented on the body as clients. It is envisaged that the ICB will carry out executive functions such as carrying out self-regulatory functions; administering registration schemes for construction workers, subcontractors, renovation contractors and decorators, and other types of construction personnel; promoting good practices and innovative technologies; overseeing manpower development and training; co-ordinating construction-related research; and devising performance indicators and incentive schemes to encourage continuous improvements towards excellence. Given the wide scope of its intended functions, the CIRC has also recommended that the ICB should be supported by a permanent secretariat and funded by industry levy. There is a broad support from

major industry stakeholders for the setting up of the ICB. We support this improvement measure and recommend that establishment of the ICB should be agreed in principle. There are also views from the industry that to facilitate the early establishment of the ICB and enable some of its intended functions to be carried out as early as possible, a provisional body should be established first. As the proposed ICB will involve legislation and a lot of preparatory work, it will take some time before it can be established. As such, we support the proposal to establish a provisional body pending formation of the ICB. We consider that experience gained from the setting up of the provisional ICB will facilitate effective and efficient development of the framework and legislation for the establishment of the permanent ICB. To achieve early establishment of the provisional ICB, Works Bureau will immediately consult industry stakeholders and relevant bureaux and departments in order to thrash out details of its composition and functions. We aim to establish the provisional ICB within this year. A diagrammatic representation of the proposed co-ordination framework comprising the ICB and Works Bureau as a lead agency within the Government (see paragraphs 7-9 below) is at Annex B.

B

Works Bureau as a Lead Agency

7. Currently, construction-related responsibilities within the Government are dispersed among several bureaux and departments. There is lack of a mechanism to co-ordinate difference of views and to resolve complicated issues in a timely manner. This has sometimes led to conflicting regulatory requirements and ineffective communication between the Government and the industry. To overcome the current state of fragmentation within the Government, the CIRC has recommended the appointment of a lead agency to maintain an overview of all matters concerning the construction industry and to foster better co-ordination among Government bureaux and departments on construction-related matters.

8. We support this recommendation and consider that Works Bureau, being a bureau responsible for all public works related policies, with close involvement in the delivery of capital works projects and with long-established relationship with different sectors of the industry through activities of the

Construction Advisory Board¹, is most suitable to become the proposed lead agency and is best placed to steer the change programme proposed by the CIRC.

9. To co-ordinate with relevant Government bureaux and departments on all construction-related matters effectively and efficiently, the lead agency must be very familiar with the industry's operations and possess extensive knowledge of the entire construction delivery process. Engagement of an entirely neutral body to steer through the change programme is considered not appropriate because it is difficult, if not impossible, to identify such a body that is more familiar with the industry's operations than the Works Bureau and employs professionals of all disciplines including civil, structural, geotechnical, building services, electrical and mechanical engineers; maintenance and quantity surveyors; architects and landscape architects. By engaging a neutral body, it is bound to delay the rollout of the recommendations, which is against the expectation of the industry and the general public. We wish to note that subsequent to the release of the CIRC report, there is support across the industry for the Works Bureau to take up the lead role and there is also consensus among members of the CIRC on the matter.

Remaining CIRC Recommendations

10. To achieve early visible improvements in the construction industry, we agree to take forward the remaining 107 recommendations of the CIRC. Depending on complexity of the issues and availability of additional resources, we will endeavour as far as possible to implement these recommendations. Works Bureau, as the lead agency, will closely monitor the progress of their implementation and regularly review the recommended implementation timeframe having regard to practical circumstances. The recommended timeframe as shown in Annex A has incorporated comments from various bureaux and departments. Indeed, some of the recommendations are being implemented or on which actions have already been initiated. Examples are the proposed implementation of a construction worker registration scheme, employment of a specified percentage of trade-tested workers by contractors, and

¹ The Construction Advisory Board (CAB) is an advisory committee set up under the Works Bureau to advise the Government on a wide range of construction-related issues, including R&D; education and training; safety, health and welfare; construction standards; quality management; management of lists of approved contractors; tendering procedures, forms and conditions of contract and dispute resolution for public works contracts; resource capacity of the industry; promotion and development of the industry; environmental protection; and code of practice, etc.

wider use of value management techniques.

11. For those recommendations which have far-reaching implications, Works Bureau will work proactively with the provisional ICB, industry stakeholders and relevant bureaux and departments with a view to deciding on the best ways in taking them forward as soon as possible. Examples of these recommendations include -

- (a) consideration of practical means to address the effect of high land cost on construction quality;
- (b) review of the need for introducing a mandatory subcontractor registration scheme;
- (c) introduction of a mandatory supervisor registration scheme;
- (d) review of the composition of the Construction Industry Training Authority (CITA) Board;
- (e) consideration of the feasibility of bringing public housing projects within the ambit of the Buildings Ordinance; and
- (f) introduction of security of payment legislation.

PUBLIC CONSULTATION

12. No public consultation on the proposed strategy is considered necessary because the CIRC has, during its review exercise, conducted extensive consultation with industry stakeholders, and in drawing up the recommendations, has taken into account written views submitted by the industry and members of the public.

BASIC LAW IMPLICATIONS

13. The Department of Justice advises that the decisions set out in paragraph 1 above do not conflict with those provisions of the Basic Law carrying no human rights implications.

HUMAN RIGHTS IMPLICATIONS

14. The Department of Justice advises that the decisions set out in paragraph 1 above are consistent with the human rights provisions of the Basic Law.

FINANCIAL AND STAFFING IMPLICATIONS

15. As many of the CIRC recommendations do not fall within the current portfolio of the Works Bureau and given the wide scope of the recommended improvement measures and the target timeframe for implementation, additional resources will be needed in the Works Bureau if we are to achieve timely progress in the implementation. It is proposed to set up a new division (Industry Review Division) within the Works Bureau to perform the additional functions. An annual provision of \$9.2 million, including the staff cost of 12 additional posts, will be allocated to the Works Bureau for three years to oversee and co-ordinate the implementation of the CIRC recommendations, and to implement those recommendations under Works Bureau's purview. The financial implications arising from those recommendations of which implementation details are being finalised will be examined at a later stage.

ECONOMIC IMPLICATIONS

16. The recommended improvement measures will enhance the efficiency, productivity, cost-effectiveness, quality and standard of the construction industry, a strategic sector for materialising fixed asset investment in buildings and infrastructure in Hong Kong and for their upkeep. This will in turn facilitate growth and development of the economy and well-being of the wider community.

ENVIRONMENTAL IMPLICATIONS

17. The recommendations would in general improve the environmental performance of the construction industry.

PUBLICITY

18. A press release will be issued and a spokesman will be available to answer media enquiries.

ENQUIRIES

19. For any enquiries, please contact Mr Matthew Leung, Secretariat Press Officer (Works) at 2848 2002.

Works Bureau
7 June 2001

LEGISLATIVE COUNCIL BRIEF

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ANNEXES

Annex A - List of CIRC recommendations

Annex B - Proposed co-ordination framework for local construction

List of CIRC Recommendations

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe	
Fostering a Quality Culture			
<i>I. A knowledgeable and involved client</i>			
1.	Clients to develop a better understanding of the different facets of the construction delivery process, to set clear project requirements and to maintain close involvement in project implementation. Project managers to promote clients' knowledge of the project delivery process through regular feedback on implementation progress. [paragraph 4.7]	Clients, consultants and contractors	
Start immediately (Within 1 year for public works projects)	<i>II. Importance of the planning and design stages</i>		
2.	Clients to ensure more integrated input from different disciplines at the outset of a project. [paragraph 4.10]	All clients in collaboration with their project teams	
Start immediately	3.	Wider use of value management techniques in local construction. [paragraphs 4.10-4.11]	
All clients, with public sector clients taking the lead	Start immediately	<i>III. Realistic project programming</i>	
4.	Clients to allow sufficient time for proper consideration of all relevant factors at the outset of a project and to mobilise the necessary resources to deliver projects to a good standard. [paragraph 4.14]	All clients	
Start immediately			

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
5.	Government to consider practical means to address the effect of high land cost on construction quality. [paragraph 4.14]	Planning and Lands Bureau	Within 3 years
IV. Clear accountability			
6.	Regulators to ensure that legislation allocates responsibilities clearly and fairly and that appropriate sanctions are in place. Whenever appropriate, regulators should explore with the industry ways for industry participants to assume greater responsibility over their behaviour through self-regulation so that the regulatory authorities can focus on enforcement against those particularly at risk. [paragraphs 4.16-4.17]	Government departments with regulatory authority over the construction industry	Within 5 years (Within 2-3 years for private building works)
7.	Clients to ensure appropriate allocation of responsibilities among project participants and to enforce a clear accountability structure within their own organisations. [paragraph 4.18]	Clients	Start immediately
8.	Professional institutions and other industry bodies to instill a greater sense of accountability among industry participants by stipulating acceptable standards of behaviour and putting in place an effective disciplinary mechanism. [paragraph 4.21]	Industry co-ordinating body, professional institutions and other industry bodies	Within 1 year

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe	
V. Subcontracting			
9.	<p>(a) Set up a voluntary subcontractor registration scheme, to be administered by the industry itself, to raise the standard of local trade subcontractors. The scheme should build on the Organized Specialist Subcontractors System initiative. [paragraphs 4.24-4.26]</p> <p>(b) Government to review in due course the need for introducing a mandatory registration scheme in the light of practical experience in implementing the voluntary scheme. [paragraph 4.25]</p>	<p>Industry co-ordinating body in consultation with stakeholders and Government departments</p> <p>Government</p>	<p>Within 3 years</p> <p>Three years after the implementation of the voluntary registration scheme</p>
10.	Provide training to enhance the skills and competence of subcontractors. [paragraph 4.27]	Industry co-ordinating body and training institutions	Start within 1 year
11.	<p>(a) Clients and the main contractors to prohibit total subletting and exercise tighter control over the performance and management of subcontractors. [paragraph 4.28]</p> <p>(b) Works Bureau and the works departments to exercise more effective control over subcontractors working on public works projects. [paragraph 4.29]</p>	<p>Clients and contractors</p> <p>Works Bureau and the works departments</p>	<p>Start immediately</p> <p>Start immediately</p>

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
14.	Clients to rigorously enforce acceptance standards and to consider designating site supervision proposals as a critical criterion for tender evaluation. For consultant-managed projects, clients to require consultants to demonstrate that they have satisfactorily carried out their supervisory role in all project activities. [paragraph 4.36]	Clients	Start immediately (Within 1 year for public works projects)
15.	Clients, consultants and contractors to critically examine their site supervision systems with a view to streamlining bureaucratic procedures. Documentation to be maintained at a suitable level sufficient to clearly establish accountability. [paragraph 4.37]	Clients, consultants and contractors	Start within 1 year (Within 1 year for public works projects)
16.	Independent technical audits to be carried out on a regular basis as work progresses. Malpractices identified should be sanctioned. [paragraph 4.38]	Clients and project teams	Start within 1 year (Within 1 year for public works projects)
17.	Works Bureau to regularly review the findings of the audit teams under the Independent Audit Scheme in consultation with the works departments and to identify common improvement areas. [paragraph 4.38]	Works Bureau	Start within 1 year (Within 1 year for public works projects)

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
18.	The Government and the Housing Authority to consider the feasibility of bringing public housing projects within the ambit of the Buildings Ordinance, and put in place appropriate and practical independent auditing arrangements to uphold the quality standards of public housing ² . [paragraph 4.39]	Government and Housing Authority	Ongoing action
19.	Employers and project teams to improve on current arrangements for quality control tests to safeguard quality. [paragraph 4.41]	Clients and project teams	Start immediately (Within 1 year for public works projects)
<i>VII. Raising the quality standard of renovation contractors and decorators</i>			
20.	Establish a voluntary registration scheme for renovation contractors and decorators. [paragraph 4.44]	Industry co-ordinating body	Start within 3 years
Achieving Value in Construction Procurement			
21.	Housing Authority to keep the new arrangements for consultant selection under review with the objective of promoting better performance among consultants. [paragraph 5.13]	Housing Authority	Ongoing action
22.	AACSB* to review its listing criteria and shortlisting arrangements with a view to encouraging new entrants and driving continuous improvement in performance. [paragraphs 5.15-5.16]	Finance Bureau, Works Bureau and Architectural Services Department	Within 2 years

² The second part of this recommendation has been implemented. The Housing Department established the Independent Checking Unit in November 2000 to parallel the Building Authority's regulatory checking.

* AACSB : Architectural and Associated Consultants Selection Board

	Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
23.	<p>The marking schemes for public works consultancies to adequately reflect all quality aspects critical to a project with appropriate weightings. Introduce past performance as one of the quality criteria for prequalification and bid assessment for public works consultancies, and develop a quantitative means for measuring the past performance of consultants. Failure of consultants to adhere to their staffing proposals made at the tender stage with a demonstrably adverse impact on performance should be reflected in the performance assessment on the consultant.</p> <p>[paragraphs 5.17-5.19]</p>	Finance Bureau, Works Bureau, AACSB and EACSB*	Within 2 years
24.	<p>Support the objectives of Housing Authority's recent initiatives to improve its contractor listing and tendering practices and its contractor performance appraisal system. Housing Authority to proceed quickly with the implementation of these initiatives in close consultation with the industry.</p> <p>[paragraph 5.28]</p>	Housing Authority	Ongoing action
25.	<p>(a) Improve the contractor selection system for public works projects.</p> <p>[paragraphs 5.33-5.36]</p> <p>(b) Works Bureau to consider the merit of allowing only those with consistently good performance to take part in the pre-qualification exercise for major public works projects.</p> <p>[paragraph 5.37]</p>	<p>Finance Bureau and Works Bureau</p> <p>Finance Bureau and Works Bureau</p>	<p>Within 1 year</p> <p>Within 3 years</p>

* EACSB : Engineering and Associated Consultants Selection Board

	Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
26.	Housing Authority to review and further refine the Performance Assessment Scoring System 2000 in the light of industry feedback. [paragraph 5.39]	Housing Authority	Ongoing action
27.	(a) Enhance the transparency of the performance assessment arrangements for consultants and contractors for public works projects. [paragraph 5.41(a)] (b) Works Bureau to provide the industry regularly with benchmark scores from the Public Works Contractors' Performance Index System and other quantitative performance indicators that may be developed in future in respect of different categories of works and for different performance attributes. [paragraph 5.41(b)]	Works Bureau and works departments Works Bureau	Within 2 years Within 3 years
28.	Works Bureau to improve the objectivity of the performance assessment system for consultants and contractors for public works projects and consistency in the application of evaluation standards. [paragraph 5.42]	Works Bureau and works departments	Within 2 years
29.	Clients to offer debriefing to unsuccessful bidders and to make known the quality score of the winning bidder as well as the highest score attained for each quality attribute in addition to the winning bid price. [paragraph 5.46]	All clients, with public sector clients taking the lead	Within 2 years

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
30.	Public sector clients to conduct post-completion reviews with consultants and contractors. [paragraph 5.46]	Public sector clients	Within 2 years
31.	To develop an effective disciplinary mechanism to tackle non-performers – (a) Public sector clients to consider sharing information among themselves on the performance of their consultants and contractors. [paragraph 5.47] (b) Buildings Department to consider taking disciplinary action under the Buildings Ordinance against those Registered General Building Contractors and Registered Specialist Contractors who perform poorly in public sector projects. [paragraph 5.47]	Public sector clients Buildings Department	Within 1 year Completed
32.	(a) Public sector clients to take a lead in promoting wider adoption of systematic risk management to improve project performance. [paragraph 5.51] (b) Develop guidance notes on integrated and systematic risk identification and management. [paragraph 5.51]	Public sector clients Professional institutions and client organisations	Within 2 years Within 2 years
33.	Clients should be prepared to reject exceptionally low bids which have not taken full account of the risks involved, while tenderers should make adequate provisions in tender prices for statutory and contractual responsibilities. [paragraph 5.54]	All client organisations, consultants, contractors and subcontractors	Start immediately

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
34.	<p>Clients to exercise robust change control, with particular emphasis on comprehensive project planning and risk assessment at project outset. Promulgate systematic change control procedures for adoption by client organisations. [paragraph 5.52]</p>	All client organisations	Start immediately (Within 1 year for public works projects)
35.	<p>Reconsider the recommendations of the consultancy study on the General Conditions of Contract for Public Works Projects with the objective of achieving a more equitable allocation of risks between the contracting parties and of arriving at a contract document that –</p> <ul style="list-style-type: none"> ● carries clear definitions of risks and their allocations; ● is designed for effective contract management of time, cost, safety and quality; ● is designed to be simpler to read and understand; and ● contains an effective means to settle disputes as risks materialise. <p>[paragraph 5.59]</p>	Works Bureau in consultation with the industry	Within 1 year
36.	<p>Review the Standard Form of Building Contract, Private Edition with a view to achieving the same objectives as set out in Item 35 above. [paragraph 5.59]</p>	Industry co-ordinating body in consultation with concerned stakeholders	Within 2 years

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
<p>37. (a) Employers, consultants and contractors to adopt a proactive approach in resolving claims and disputes as they arise. Training for the project team and other resources to be provided to ensure the effective implementation of this approach. [paragraph 5.64(a)]</p> <p>(b) Encourage proactive and collaborative ways of dispute resolution by providing in contracts alternative dispute resolution methods, in addition to formal and binding adjudication means. [paragraph 5.64(b)]</p>	<p>All client organisations, consultants and contractors</p> <p>All client organisations, consultants and contractors</p>	<p>Start immediately (Within 1 year for public works projects)</p> <p>Start immediately (Within 1 year for public works projects)</p>
<p>38. Public sector clients and progressive clients in the private sector to take a lead in the wider adoption of a partnering approach in implementing construction projects. [paragraph 5.69]</p>	<p>All stakeholders</p>	<p>Within 1 year</p>
<p>39. Government and other major clients to consider a new form of contract which integrates a partnering approach into the contractual relationship. [paragraph 5.70]</p>	<p>Major clients in consultation with stakeholders</p>	<p>Start within 2 years</p>
<p>40. Clients and project teams to secure teamwork, good practice and commitment from all parties at a project level through a jointly developed project pact. [paragraph 5.71]</p>	<p>Clients and all stakeholders</p>	<p>Start immediately</p>

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
41.	Government and other major clients to consider the wider adoption of the milestone payments approach. [paragraph 5.76]	Works Bureau and other major clients	Within 3 years
42.	Works Bureau to consider the merits of and the need for enacting security of payment legislation [paragraph 5.80]	Works Bureau	Within 3 years
43.	Client organisations and others in the project delivery chain to improve the security of project payments to parties engaged by them. [paragraph 5.80]	Clients and other paying parties	Start immediately
44.	Major clients to consider the wider adoption of alternative procurement approaches (such as target cost contracting) to achieve better value for money in construction procurement. [paragraph 5.85]	Major clients	Within 5 years
Nurturing a Professional Workforce			
45.	Local tertiary institutions, in consultation with the professional institutions and others in the industry, to review and enhance the curricula of construction-related undergraduates and postgraduate courses. More opportunities, preferably in the form of a structured programme, to be provided for undergraduates to acquire site experience through summer job placements or sandwich course arrangements. [paragraphs 6.5 and 6.7]	Relevant tertiary institutions, professional institutions and industry bodies	Within 3 years

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
<p>46. (a) Encourage teaching staff of local tertiary institutions to acquire practical experience in the industry. [paragraph 6.7]</p> <p>(b) Promote part-time direct involvement of experienced construction professionals in the teaching process of undergraduate and postgraduate courses, where appropriate. [paragraph 6.7]</p>	<p>Relevant tertiary institutions</p> <p>Relevant tertiary institutions and industry co-ordinating body</p>	<p>Within 3 years</p> <p>Within 3 years</p>
<p>47. Mandatory participation in Continuing Professional Development (CPD) activities as a pre-requisite for renewal of membership of professional institutions in the construction field. Appropriate CPD programmes to be developed. [paragraph 6.9]</p>	<p>Professional institutions</p>	<p>Within 2 years</p>
<p>48. Draw up a structured training framework based on practical training for site supervisors to supplement institutional training. Training institutions to improve on the curricula of diploma courses for site supervisors. Top-up courses to be organised for supervisors without formal training to acquire the necessary competencies. [paragraphs 6.11-6.12]</p>	<p>Industry co-ordinating body, relevant training institutions and other concerned stakeholders</p>	<p>Within 2 years</p>

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
49.	Professional institutions to consider the introduction of a new class of membership for site supervisors. Co-ordination among concerned institutions and industry bodies to devise a common platform for professional recognition for site supervisors as far as possible. [paragraph 6.13]	Professional institutions and other concerned industry bodies	Within 2 years
50.	Review the need for introduction of a mandatory supervisor registration scheme in 3 years. [paragraph 6.14]	Industry co-ordinating body and other concerned stakeholders	Noted
51.	Professional institutions to consider the introduction of a new class of membership for technicians in their respective disciplines, similar to the Associate Membership for engineering technicians in HKIE*. [paragraph 6.15]	Professional institutions	Within 2 years
52.	Support in principle the Construction Advisory Board's proposal to implement a construction worker registration scheme. Works Bureau to consult the industry widely on the proposed scheme and the implementation details. The scheme should take account of the more refined skill definition framework proposed for construction workers. [paragraphs 6.18 and 6.27]	Works Bureau	As soon as possible

* HKIE : The Hong Kong Institution of Engineers

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
53.	Support the initiatives taken by public sector clients to contractually require their contractors to employ a specified percentage of trade-tested workers and to increase such percentage over time. [paragraph 6.18]	Works Bureau and Housing Authority	Ongoing action
54.	CITA* to enhance the scope and content of its basic craft courses, and to review the duration of such courses. [paragraphs 6.20-6.22]	CITA and Education and Manpower Bureau	Within 1 year
55.	Revamp the apprenticeship scheme for the construction industry. [paragraphs 6.24-6.25]	Works Bureau, Education and Manpower Bureau, industry co-ordinating body, VTC* and CITA	Within 2 years
56.	(a) Encourage multi-skill development for construction workers. [paragraph 6.26]	Industry co-ordinating body, employers and training institutions	Within 2 years
	(b) Develop a craft skill qualification framework to provide a career path for tradesmen. [paragraph 6.27]	Industry co-ordinating body, Education and Manpower Bureau and CITA	Within 2 years

* CITA : Construction Industry Training Authority

* VTC : Vocational Training Council

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
57.	Review the composition of the CITA Board. [paragraph 6.28]	Education and Manpower Bureau, industry co-ordinating body and CITA	Within 1 year
58.	Foster an ethical culture by the following means – (a) ICAC* to sustain its efforts in rigorous enforcement and corruption prevention education (including dissemination of case study materials to the industry for training purpose). [paragraphs 6.29-6.30] (b) Employers to issue clear guidelines to frontline site supervisory staff and those responsible for accepting completed works on prohibitions against acceptance of advantages and excessive entertainment offered by contractors and subcontractors. [paragraph 6.30] (c) Public sector clients to take a lead in requiring their consultants and contractors to pledge for probity, promulgate a code of conduct and provide probity training for their staff. [paragraph 6.30]	ICAC Works Bureau and ICAC in collaboration with industry Public sector clients and ICAC	Ongoing action Within 1 year Within 1 year

* ICAC : Independent Commission Against Corruption

	Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
	<p>(d) Professional institutions and other industry bodies to maintain an effective sanction mechanism against those who have breached the rules of conduct or codes of practice (see Item 8 above). [paragraph 6.30]</p> <p>(e) Tertiary institutions and other construction training institutions to make professional ethics a compulsory subject in construction-related courses. [paragraph 6.30]</p> <p>(f) Enhance training on professional ethics for practitioners through continuing development programmes and refresher courses. [paragraph 6.30]</p>	<p>Industry co-ordinating body, professional institutions and other industry bodies</p> <p>ICAC, tertiary institutions and other construction training institutions</p> <p>ICAC and construction training institutions</p>	<p>Within 1 year</p> <p>Within 1 year</p> <p>Within 1 year</p>
59.	<p>Education and Manpower Bureau to improve on the methodology for collating and compiling construction manpower statistics to facilitate manpower planning. [paragraph 6.31]</p>	<p>Education and Manpower Bureau, Works Bureau and other concerned parties</p>	<p>Within 2 years</p>
60.	<p>Client organisations to promote wider use of direct labour through contractual requirements. [paragraph 6.34]</p>	<p>Client organisations</p>	<p>Within 2 years</p>

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
An Efficient, Innovative and Productive Industry		
<i>I. Process re-engineering to achieve better integration</i>		
61.	Facilitate better integration in the delivery of construction projects through wider adoption of alternative procurement approaches (e.g. design and build and prime contracting) in both the public and the private sectors. [paragraph 7.11]	Client organisations, industry co-ordinating body, tertiary institutions, professional institutions and training institutions
<i>II. Wider use of standardisation in component design and processes</i>		
62.	Public sector clients to take the lead in promoting wider use of standardised and modular components in local construction. [paragraph 7.15]	Public sector clients with other industry stakeholders
63.	Clients, with public sector clients taking the lead, to work with stakeholders to improve construction efficiency by judicious standardisation and rationalisation of construction processes and practices. [paragraph 7.17]	Client organisations and other stakeholders
64.	Support the proposed establishment of a central construction standardisation body in Hong Kong. [paragraph 7.19]	Works Bureau and industry co-ordinating body

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
III. Wider use of prefabrication		
65. Public sector clients, in particular the Housing Authority, to take the lead in promoting wider use of prefabrication and other buildability measures in Hong Kong. Enhance private sector capability in this regard through training, promulgation of guidelines and codes and R&D. [paragraphs 7.24-7.25]	Public sector clients, industry co-ordinating body in collaboration with other stakeholders	Start within 2 years
IV. Wider application of information technology (IT) in project implementation		
66. Raise the IT literacy of the construction industry through IT training for the management and the construction workforce at all levels. [paragraph 7.28]	Industry stakeholders, professional institutions, tertiary institutions and training institutions	Start within 1 year
67. Major clients and other key stakeholders to lead in the wider adoption of IT and to commit resources for the successful implementation of various IT initiatives. [paragraph 7.28]	Major clients and key stakeholders	Start immediately
68. Buildings Department to closely monitor the development of artificial intelligence technology with a view to testing the feasibility of introducing electronic checking of building plans when the necessary technology becomes available. [paragraph 7.29]	Buildings Department	Ongoing action

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
69.	Government to expedite the development of a common platform for electronic communications within the local construction industry. Exemptions made under the Electronic Transactions Ordinance for construction-related legislation to be withdrawn as soon as possible. [paragraphs 7.29-7.30]	Works Bureau and concerned regulatory authorities	As soon as possible
70.	Industry co-ordinating body, in consultation with industry stakeholders, to identify priority areas for software development to help tackle those areas where performance is lagging and to communicate the industry's requirements to software developers. Works Bureau to work with the industry on its electronic service delivery initiatives. [paragraphs 7.31-7.34]	Works Bureau, industry co-ordinating body, academia and other industry stakeholders	Start within 1 year
V. <i>Investment in construction-related R&D</i>			
71.	Public sector clients and other progressive clients in the private sector to commit adequate resources for the carrying out of research activities beneficial to their corporate and project objectives. [paragraph 7.37]	Public sector clients and progressive private sector clients	Start within 2 years
72.	Encourage the industry to make more use of the Innovation and Technology Fund to finance construction research activities. [paragraph 7.38]	Works Bureau, Innovation and Technology Commission, industry co-ordinating body and research bodies	Start within 1 year

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
73.	Establish better collaboration between industry and local research bodies on construction-related R&D. Set clear objectives, directions and priorities for such R&D efforts. [paragraphs 7.39-7.40]	Works Bureau, industry co-ordinating body and research bodies	Start within 1 year
VI. <i>Facilitating regulators</i>			
74.	Planning and Lands Bureau and Buildings Department to proceed with the comprehensive review of the Buildings Ordinance and its subsidiary regulations at full speed in consultation with the industry. Lands Department and Planning Department to be closely involved in the review to facilitate more imaginative land use and innovative building designs. [paragraph 7.43]	Planning and Lands Bureau, Buildings Department, Lands Department and Planning Department	Within 1 year
75.	(a) Government to designate Buildings Department to assume the lead role in resolving any conflicting requirements among public authorities that may arise during the building plan approval process, and eventually to develop a more condensed and integrated processing system so as to minimise the time required for plan approval. [paragraph 7.46]	Government	Within 2 years

	Recommended Implementing Parties	Recommended Implementation Timeframe
(b) All Government departments involved in the building plan approval process to pledge a time limit for tendering their advice, and adopt a forthcoming and proactive approach to help clients address their difficulties in meeting various regulatory requirements. [paragraph 7.46]	Concerned Government departments	Within 1 year
76. Government regulators to respond promptly and constructively to the industry's requests for assistance and to draw up codes and guidelines, whenever appropriate, to help the industry better understand the intentions behind legislation and acceptable conduct to satisfy legislative requirements. Legislative requirements to be kept under regular review. [paragraphs 7.47-7.48]	All regulatory authorities	Ongoing action
<i>VII. More reliable records of underground utilities</i>		
77. (a) Highways Department to take the lead in developing an efficient system to facilitate access to information on existing and proposed underground utilities by contractors and project proponents. [paragraph 7.51] (b) Highways Department, in consultation with other concerned bureaux and departments, to draw up measures to require utility undertakings and the relevant Government departments to improve the accuracy of as-built records of underground utilities. [paragraph 7.51]	Highways Department (lead) Highways Department (lead)	Within 2 years Within 2 years

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
(c) Highways Department, together with other concerned Government departments, to streamline the existing procedures for processing road excavation permits and to consider the feasibility of one-stop service. [paragraph 7.51]	Highways Department (lead)	Within 2 years
<i>VIII. Lowering the cost of ready-mixed concrete</i>		
78. Works Bureau and the Housing Authority to consult other concerned bureaux and departments, industry stakeholders and the ready-mixed concrete industry in studying the feasibility of the suggested improvement measures to promote competition in the prices of ready-mixed concrete. [paragraph 7.54]	Works Bureau, Housing Authority, concerned industry stakeholders and the ready-mixed concrete industry	Within 1 year
<i>IX. Export potential of the construction industry</i>		
79. Works Bureau, the Hong Kong Trade Development Council (TDC), the industry and other related professional sectors to examine critically the strategy and action plan for more proactive promotion of Hong Kong's construction services in other markets. [paragraph 7.57]	Works Bureau, TDC, industry stakeholders and other relevant professional sectors	Within 2 years

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe	
A Safer Workplace and an Environmentally Responsible Industry			
<i>I. A safer workplace</i>			
80.	Labour Department to review the methodology for collating construction safety statistics with a view to developing a more reliable mechanism for calculating the site accident rate. [paragraph 8.8]	Labour Department and Census and Statistics Department	Within 1 year
81.	Government to review the need for introducing legislation similar to the UK's Construction (Design and Management) Regulations in five years. [paragraph 8.13]	Labour Department in consultation with stakeholders	Within 5 years
82.	Works Bureau and the Housing Authority to take a lead in incorporating practicable features of the UK's Construction (Design and Management) Regulations into the safety planning and management systems for public works projects and public housing projects. [paragraph 8.14]	Works Bureau and Housing Authority	Within 2 years
83.	Industry bodies, professional institutions and the local research community to draw up a code of practice or designers' guide to assist design professionals in evaluating safety risks and hazards and to provide guidelines on known hazardous activities and procedures on site, safe work sequences, precautionary measures and determination of the reasonable time-frame for the safe conduct of construction activities. [paragraph 8.14]	Professional institutions, relevant industry bodies and research bodies	Within 3 years

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
84.	Promote wide adoption of integrated site management systems with site safety being an integral part of line managers' overall site management responsibility. [paragraph 8.15]	Clients and contractors	Within 1 year
85.	Safety training and promotional efforts to be strengthened by the following means –		
	(a) Provision of safety training to construction professionals as an integral part of the undergraduate curriculum and CPD programmes. [paragraph 8.16]	Tertiary institutions and professional bodies	Within 1 year
	(b) Providing site safety training to line managers and site supervisors to achieve effective management. [paragraph 8.16]	Clients, contractors, relevant training institutions	Within 1 year
	(c) Requiring safety officers in the construction industry who have been trained as general safety officers to receive training more specifically related to construction safety before working on site. [paragraph 8.16]	Labour Department and contractors	Within 1 year

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
<p>(d) Promoting site-specific safety briefings and training. Major clients to lead by requiring their contractors to conduct such training. Assistance to be provided to contractors and subcontractors on how to develop and conduct in-house safety training. [paragraph 8.16]</p> <p>(e) Enhance green card safety training for construction workers by including hands-on training. More advanced safety training to construction workers who have attended basic green card training. Safety content in skill testing to be increased. [paragraph 8.16]</p>	<p>Labour Department to provide necessary training framework with the assistance of CITA and OSHC*. Major clients to lead by stipulating site-specific safety training as a contractual requirement</p> <p>Labour Department with the assistance of CITA, OSHC and other relevant training bodies</p>	<p>Start within 1 year</p> <p>Within 1 year</p>
<p>86. Top management of major public and private sector clients to drive improvements in safety performance through procurement and contractual arrangements. [paragraph 8.17]</p>	<p>Major clients</p>	<p>Within 1 year</p>

* OSHC : Occupational Safety and Health Council

	Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
87.	Labour Department to work with the construction industry and the insurance industry to explore the feasibility of developing incentive schemes for construction insurance policies to encourage better safety performance. [paragraph 8.18]	Labour Department	Within 2 years
88.	<p>Enhanced enforcement through the following means –</p> <p>(a) Labour Department to be more vigilant in taking enforcement action against those sites with unacceptably high accident records and blatant offenders of statutory safety requirements. [paragraph 8.21]</p> <p>(b) To make statutory provision for prosecution to be brought against subcontractors for non-compliance with safety requirements in operations under their direct control. [paragraph 8.22]</p> <p>(c) Labour Department to secure the co-operation of contractors and subcontractors in enforcement action against workers who do not comply with statutory site safety requirements. [paragraph 8.23]</p>	<p>Labour Department</p> <p>Education and Manpower Bureau and Labour Department</p> <p>Labour Department, contractors and subcontractors</p>	<p>Ongoing action</p> <p>Within 2 years, allowing time for the legislative process</p> <p>Ongoing action</p>

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
91.	Develop costing models and tools for calculating life-cycle costs, a database on the life-cycle costs and performance of materials and components, and a common set of accepted performance-based specifications for materials and components. [paragraph 8.33]	Works Bureau, major clients, professional institutions and research bodies	Start within 2 years
92.	Strengthen defects liability warranty for new buildings. [paragraph 8.33]	Buildings Department, REDA* and developers	Within 3 years, subject to enactment of legislation
93.	Government to encourage green designs by the following means – (a) Exempting extra floor areas required for the installation of green features and facilities from the calculation of gross floor area (GFA). [paragraph 8.35]	Planning and Lands Bureau, Buildings Department, Lands Department and Planning Department	Ongoing action

* REDA : Real Estate Developers Association

Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
<p>(b) Providing additional GFA necessary to offset the extra cost incurred in the use of green construction methods and materials as well as the provision of building services, devices and systems which would improve the environmental performance of a building. The same incentive also applies to cases where a developer proposes to set back his building at street level for trees and greenery or provide a roof garden for common use. [paragraph 8.35]</p> <p>(c) Government to charge no premium for modifying existing restricted leases for the provision of green features (particularly balconies, noise barriers and extra space for prefabricated external walls) and to keep the processing time for such lease modification to the absolute minimum. [paragraph 8.35]</p>	<p>Planning and Lands Bureau, Buildings Department, Lands Department and Planning Department</p> <p>Planning and Lands Bureau, Buildings Department, Lands Department and Planning Department</p>	<p>Within 1 year</p> <p>Within 1 year</p>
<p>94. Housing Authority to take a lead in the wider use of green designs in its housing estates. Encourage progressive developers in the private sector to see their proactive engagement in this area to be essential to business success. [paragraph 8.36]</p>	<p>Housing Authority, REDA and other major clients</p>	<p>Within 1 year</p>
<p>95. Stakeholders and the local research community to jointly develop necessary design tools and databases to promote the development of environmentally friendly designs. [paragraph 8.37]</p>	<p>Buildings Department, industry co-ordinating body and research bodies</p>	<p>Start within 2 years</p>

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
96.	<p>Electrical and Mechanical Services Department to work closely with Buildings Department in promoting public awareness of energy efficiency and wider adoption of energy efficient designs. Develop and disseminate guidelines and design tools for analysing the energy consequences of design options. Also develop guidelines to help clients and occupiers to assess life-cycle energy cost of construction and to carry out self-audits of energy consumption. [paragraph 8.38]</p>	<p>Electrical and Mechanical Services Department, Buildings Department, industry co-ordinating body and research bodies</p>	<p>Start within 2 years</p>
97.	<p>Public sector clients to take a lead in abating environmental nuisance during construction by the following means –</p> <p>(a) Giving appropriate weight to the environmental performance of contractors in tender assessment and ongoing performance assessment. [paragraph 8.41]</p> <p>(b) Considering allowing a separate account in construction contracts for measures taken to address pollution prevention and control during the construction stage, which will be withheld from payment in case of non-compliance with environmental requirements. [paragraph 8.41]</p>	<p>All clients</p>	<p>Start within 1 year</p>

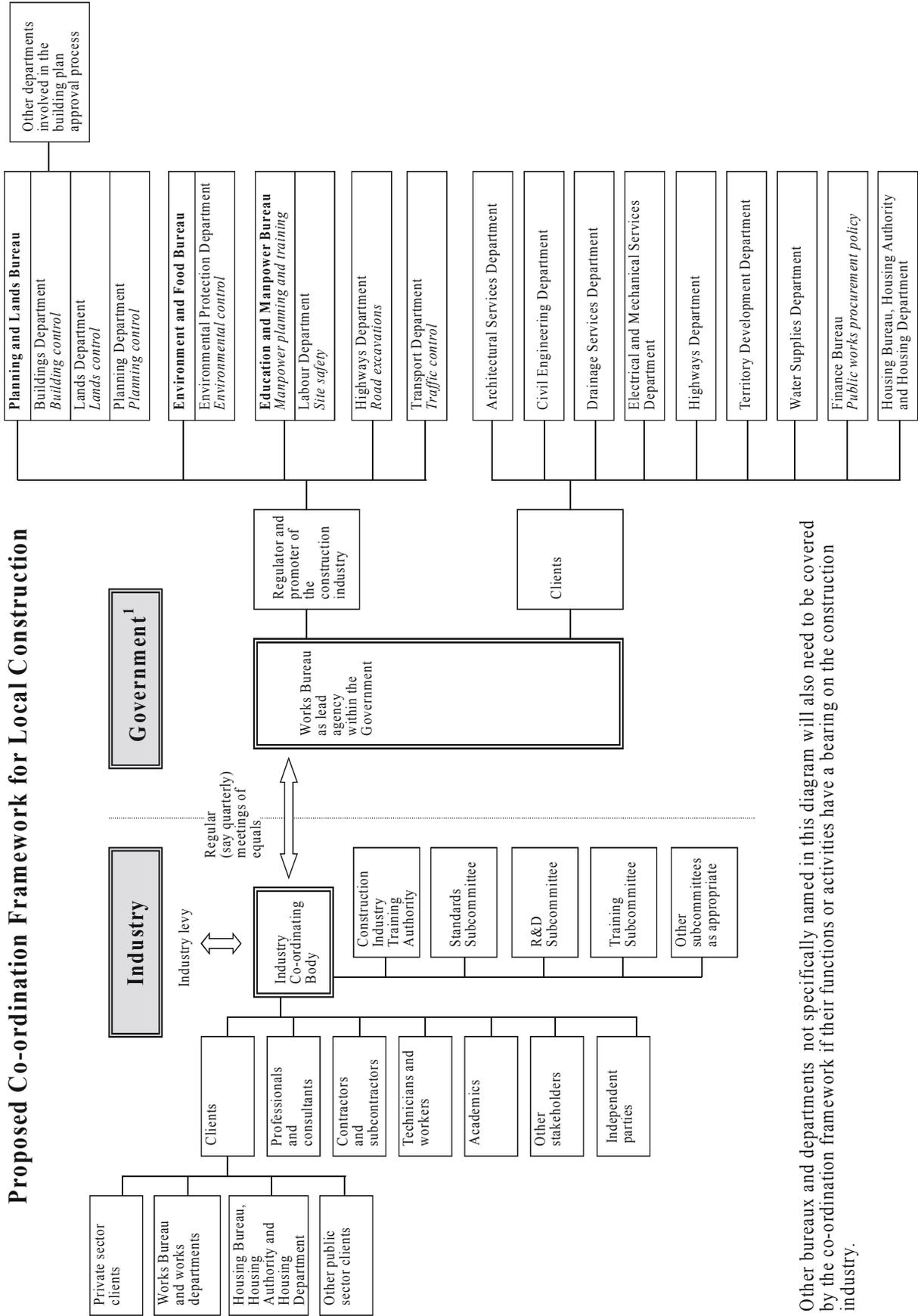
Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
(c) Encouraging contractors to employ dedicated personnel on-site to assist line managers in managing the environmental aspects of construction activities, adopt environmental management systems to systematically identify the environmental impacts arising from construction, and take appropriate steps to mitigate any adverse impact. [paragraph 8.41]		
98. Environment and Food Bureau and Environmental Protection Department to conduct a regulatory impact assessment on the cumulative impact of the environmental legislation on the construction industry vis-à-vis the community. [paragraph 8.41]	Environment and Food Bureau and Environmental Protection Department	Start within 1 year
99. Environmental Protection Department to continue to promote partnership with the construction industry to improve the latter's environmental performance. [paragraph 8.41]	Environmental Protection Department	Ongoing action
100. Support Government's plan to introduce charges for waste disposal facilities (such as landfills) to motivate contractors to separate and sort C&D material or to seek alternative disposal outlets. [paragraph 8.44]	Environment and Food Bureau and Environmental Protection Department	As soon as possible

	Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
101.	<p>Government to identify and provide suitable sites for –</p> <p>(a) temporary and permanent off-site sorting facilities;</p> <p>(b) temporary and permanent barging points for public fill;</p> <p>(c) setting up of “fill banks” for stockpiling surplus fill materials; and</p> <p>(d) establishing recycling and prefabrication facilities. [paragraph 8.44]</p>	<p>Environment and Food Bureau, Planning and Lands Bureau, Environmental Protection Department, Lands Department, Planning Department and Civil Engineering Department</p>	<p>Start within 1 year</p>
102.	<p>Public sector clients to take a lead in the wider use of recycled materials (such as recycled aggregate and reclaimed bituminous material) in their projects by suitably revising the general specifications for public works projects and public housing projects and carrying out trial projects. [paragraph 8.45]</p>	<p>Public sector clients</p>	<p>Within 2 years</p>
103.	<p>Government to encourage more durable buildings to minimise the generation of demolition materials. Support the early implementation of the Government’s proposals announced recently to educate and encourage building owners to take better care of their properties. [paragraph 8.45]</p>	<p>Buildings Department</p>	<p>As soon as possible</p>

	Recommendations	Recommended Implementing Parties	Recommended Implementation Timeframe
104.	Government to consider appropriately extending the incentive scheme intended to promote the construction of new environmentally friendly buildings to also cover existing buildings so as to encourage the upgrading of existing buildings and an urban renewal process by private initiatives. [paragraph 8.45]	Planning and Lands Bureau, Buildings Department, Lands Department and Planning Department	Within 2 years
105.	Buildings Department and other industry participants to work together on a common, comprehensive environmental assessment scheme with appropriate incentives (e.g. in the form of financial incentives and/or public recognition) for local use, capitalising on the work that has gone into the formulation of HK-BEAM, the Hong Kong Energy Efficiency Registration Scheme for Buildings and similar assessment schemes. The assessment scheme should cater for different building types and separate scores should be given for different environmental aspects. [paragraph 8.48]	Buildings Department and other industry stakeholders	Within 3 years
Institutional Framework for Implementing the Change Programme			
106.	Government to appoint a lead agency to co-ordinate with relevant bureaux and departments on construction-related matters. [paragraph 9.8]	Government	Immediately upon endorsement
107.	To establish an industry co-ordinating body for the construction industry. [paragraphs 9.9-9.13]	Government and all stakeholders	As soon as possible, subject to enactment of necessary legislation

Recommendations		Recommended Implementing Parties	Recommended Implementation Timeframe
108.	Government to consider the need and the timeframe for a comprehensive review of the entire development process. [paragraph 9.15]	Government	Noted
Review of Implementation Progress of the Change Programme			
109.	To review the implementation progress of the recommendations arising from the current review in three years' time. [paragraph 10.7]	Government	Noted

Proposed Co-ordination Framework for Local Construction



¹ Other bureaux and departments not specifically named in this diagram will also need to be covered by the co-ordination framework if their functions or activities have a bearing on the construction industry.