ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS Recreation, Culture and Amenities – Open spaces 429RO – Open space in Area 117, Tin Shui Wai

Members are invited to recommend to Finance Committee the upgrading of **429RO** to Category A at an estimated cost of \$232.3 million in money-of-the-day prices for the development of an open space in Area 117, Tin Shui Wai.

PROBLEM

There is a need to provide more public open space and sports facilities in Tin Shui Wai to meet the needs of the community and to promote sports development.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **429RO** to Category A at an estimated cost of \$232.3 million in money-of-the-day (MOD) prices for the development of an open space in Area 117, Tin Shui Wai.

/ **PROJECT**

PROJECT SCOPE AND NATURE

3. The project site covers an area of around 2.5 hectares (ha) at the junction of Tin Wah Road and Wetland Park Road, Tin Shui Wai. The scope of works under **429RO** includes—

- (a) an artificial turf pitch suitable for 11-a-side football or 15-a-side rugby with a covered spectator stand;
- (b) a jogging trail;
- (c) landscaped areas with sitting-out facilities;
- (d) a service building with toilets, changing rooms and other ancillary facilities; and
- (e) car parking spaces, and a loading and unloading area.

Site plans showing the conceptual layout of the proposed open space and the artist's impressions of the proposed development are at Enclosures 1 to 5. Subject to the funding approval by the Finance Committee, we plan to start construction in August 2012 for completion in August 2014. The tentative project commissioning date is September 2014.

JUSTIFICATION

4. Yuen Long District (including Tin Shui Wai) has a current population of about 586 500, which is expected to increase to about 662 900 by 2019. As a reference, the Hong Kong Planning Standards and Guidelines recommend a provision of about 117.3 ha of public open space for Yuen Long with the current population. There are currently about 103.3 ha of public open space in the district. The proposed project will add 2.5 ha of open space to the existing provision. Together with two District Minor Works projects currently under construction in Pat Heung and Ping Shan that will provide a total of 0.2 ha of open space, the project will help alleviate the current shortfall of public open space.

5. The public open space will include an artificial turf pitch suitable for 11-a-side football or 15-a-side rugby. In his 2010-11 Policy Address, the Chief Executive announced that the Government would strengthen support for the development of football in Hong Kong and build new pitches and upgrade existing venues. The proposed project will contribute to this objective.

6. Currently, there are only two full-sized natural turf football pitches in Yuen Long District, one each at the Tin Shui Wai Sports Ground and the Yuen Long Stadium. The utilisation rate of these two venues has consistently reached 100% over the past three years. As these pitches are within sports grounds, they are frequently used for schools' sports days and inter-school and inter-district athletics matches. This limits the number of sessions that may be released for booking for football. Yuen Long District has a relatively large number of young people, and there is very keen demand for football training facilities in the district amongst various local sports groups (e.g. one professional Hong Kong Football Association (HKFA) First Division Team (Tin Shui Wai Pegasus), one HKFA Second Division Team sponsored by the Yuen Long District Council (YLDC) and four youth teams formed by the Yuen Long District Sports Association playing in the HKFA Youth Leagues). The proposed artificial turf pitch will provide 270 sessions per month¹, which will help meet local demand and promote the further development of football in Yuen Long District.

7. The proposed artificial turf pitch will also be suitable for rugby training and matches. At present, there is no public pitch designed specifically for rugby event uses in the New Territories. The closest public rugby pitch is in Tai Hang Tung Recreation Ground in Kowloon which has a utilisation rate of 100% over the past three years. At present, rugby training and demonstrations for Yuen Long residents are organised in school playgrounds and at the football pitches in Tin Shui Wai Park, Tin Shui Wai Sports Ground and Yuen Long Stadium. Each year, over 70 rugby events are organised in the district, which are popular with the local community. The proposed project will help meet the demand for rugby pitches in Yuen Long and the New Territories.

8. The proposed public open space (with the artifical turf pitch and other recreational facilities) will be situated at the junction of Tin Wah Road and Wetland Park Road in northern Tin Shui Wai, which is conveniently located for use by students and local residents. It is within walking distance of the Tin Sau Light Rail Station, and there are four secondary schools, two primary schools and two residential estates (Tin Ching Estate and Kingswood Villas) nearby.

/ FINANCIAL

¹ Artificial turf pitches can provide more sessions (270 sessions per month) for public use than natural turf pitches (about 60 sessions per month) as they require less frequent maintenance.

FINANCIAL IMPLICATIONS

9. We estimate the capital cost of the project to be \$232.3 million in MOD prices (please see paragraph 10 below), broken down as follows –

		\$	million	
(a)	Site works ²		12.4	
(b)	Building		34.7	
(c)	Building services		12.3	
(d)	Drainage		15.2	
(e)	External works ³		85.3	
(f)	Soft landscaping works		7.1	
(g)	Additional energy conservation measures		3.2	
(h)	Furniture and equipment ⁴		3.5	
(i)	Consultants' fees (i) contract administration (ii) management of resident site staff (RSS)	2.4 0.6	3.0	
(j)	Remuneration of RSS		5.4	
(k)	Contingencies		17.9	
	Sub-total		200.0	(in September 2011 prices)
(1)	Provision for price adjustment		32.3	2011 prices)
	Total		232.3	(in MOD prices)
				/We

² Including works for minor temporary road closure and diversion of footpaths.

³ Including an artificial turf pitch at an estimated cost of \$46.8 million.

⁴ The estimated cost is based on an indicative list of furniture and equipment required.

We propose to engage consultants to undertake contract administration and site supervision for the project. A detailed breakdown of the estimate for consultants' fees and resident site staff costs by man-months is at Enclosure 6. We consider the estimated project cost comparable to that of similar projects built by the Government.

10. Subject to approval, we will phase the expenditure as follows –

Year	\$ million (Sept 2011)	Price adjustment factor	\$ million (MOD)
2012 - 13	10.6	1.05375	11.2
2013 - 14	87.1	1.11171	96.8
2014 - 15	66.8	1.17285	78.3
2015 - 16	14.2	1.23736	17.6
2016 – 17	12.9	1.30541	16.8
2017 – 18	8.4	1.37721	11.6
	200.0		232.3

11. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2012 to 2018. We will deliver the construction works through a lump-sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustments.

12. We estimate the annual recurrent expenditure arising from this project to be \$6 million. The capital and recurrent cost of the project would be partly recovered from the relevant users, and would be taken into account in conducting future fee setting and review exercises.

/ **PUBLIC**

PUBLIC CONSULTATION

13. We consulted the District Facilities Management Committee of the YLDC on the scope of the project in May and September 2008, and on the conceptual layout in March 2011. Members supported the proposed project and requested its early implementation.

14. The construction phases of the project may require temporary road closure and diversion of the footpaths leading to the Church of Christ in China Fong Yun Wah Secondary School and Chiu Yang Por Yen Primary School nearby. We have consulted the schools, which have raised no objection. We will liaise with the schools to ensure the safety of students during the construction of this project.

15. We circulated an information paper on the project to the Legislative Council Panel on Home Affairs on 10 January 2012. Members did not raise any objection to this project.

ENVIRONMENTAL IMPLICATIONS

16. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project will not cause long-term environmental impact. We have included about \$1.5 million in the project estimates to implement suitable mitigation measures to control short-term environmental impacts.

17. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of silencers, mufflers, acoustic lining or shields, and the building of barrier wall for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

/18.

18. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁵. We will encourage the contractor to maximise the use of recycled/ recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

19. At the construction stage, we will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

20. We estimate that the project will generate in total about 20 566 tonnes of construction waste. Of these, we will reuse about 14 836 tonnes (72.1%) of inert construction waste on site and deliver 3 897 tonnes (19%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 1 833 tonnes (8.9%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$0.3 million for this project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne⁶ at landfills).

/ HERITAGE

⁵ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

⁶ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90 per m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

21. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/ buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. The project does not require any land acquisition.

ENERGY CONSERVATION MEASURES

23. This project has adopted various forms of energy efficient features, including –

- (a) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors and daylight sensors; and
- (b) light-emitting diode (LED) type exit signs and feature lights.

24. For renewable energy technologies, we will adopt solar hot water system and solar park lighting for environmental benefits.

25. For greening features, we will provide greening on the appropriate roofs and facades of the building for environmental and amenity benefits.

26. For recycled features, we will adopt a rainwater recycling system for landscape irrigation.

27. The total estimated additional cost for adoption of the energy conservation measures is around \$3.2 million (including \$11,000 for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 1.7% energy savings in the annual energy consumption with a payback period of about 3.9 years.

/ BACKGROUND

BACKGROUND INFORMATION

28. We upgraded **429RO** to Category B in October 2009. We engaged an architectural consultant in December 2009 to undertake site investigation and detailed design, and a quantity surveying consultant in October 2011 to prepare tender documents. The total cost of the consultancy services and works is about \$4.2 million. We have charged this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The architectural consultant has completed the site investigation and detailed design, and the quantity surveying consultant is finalising the tender documents.

29. Of the 250 trees within the project boundary, 25 trees will be preserved. The proposed works will involve the removal of 225 trees, including 60 trees to be felled and 165 trees to be replanted within the project site subject to finalisation of design. All trees to be removed are not important trees⁷. We will incorporate planting proposals as part of the project, including the planting of about 90 trees, 14 200 shrubs, 68 700 ground covers, 250 climbers and 3 900 m² of grassed area.

30. We estimate that the proposed works will create about 145 jobs (131 for labourers and another 14 for professional/technical staff) providing a total employment of 2 490 man-months.

Home Affairs Bureau January 2012

⁷ "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

⁽a) trees of 100 years old or above;

⁽b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;

⁽c) trees of precious or rare species;

⁽d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or

⁽e)trees with trunk diameter equal or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.







東南面鳥瞰圖 AERIAL VIEW FROM SOUTH-EASTERN DIRECTION (ARTIST'S IMPRESSION)

			•		
TITLE 項目名稱	DRAWN BY 繪畫	DATE 日期	DRAWING NO. 編號	SCALE 计例	
429R0	WINNIE HUI	25.11.2011	AB/7819/XA103	N.T.S.	
OPEN SPACE IN AREA 117,	APPROVED 覆核	DATE 日期			
TIN SHUL WAL	ANTHONY LAM	25 11 2011			
王水围第117回休憩田县		20.11.2011			
八小圍第111迴怀思用地	OFFICE 辦事處		ARCHITECTURAL		
	PROJECT MANAGEMENT BRANCH	工程策劃管理處	DEPARTMENT		

PWSC(2011-12)46 附件4 Enclosure 4 to PWSC(2011-12)46



從西北面望向觀眾看台構思透視圖

PERSPECTIVE VIEW OF SPECTATOR STAND FROM NORTH-WESTERN DIRECTION (ARTIST'S IMPRESSION)



公園服務大樓構思透視圖 PERSPECTIVE VIEW OF SERVICE BLOCK(ARTIST'S IMPRESSION)

Line Line of Service Beoch(Artist's Imit Ression)						
TITLE 項目名稱 420-D-0	DRAWN BY 繪畫	DATE 日期	DRAWING NO. 編號	SCALE 比例		
429R0	WINNIE HUI	25.11.2011	AB/7819/XA104	N.T.S.		
OPEN SPACE IN AREA 117, TIN SHUL WAL	APPROVED 覆核	DATE 日期				
工业图第117回仕韵田址	ANTHONY LAM	25.11.2011	建築署			
大小圍另117區怀想用地	OFFICE 辦事處		ARCHITECT	URAL		
	PROJECT MANAGEMENT BRANCH	工程策劃管理處	DEPARTMENT			



從西南面望向階梯式綠化區構思透視圖 PERSPECTIVE OF LANDSCAPE TERRACE FROM SOUTH-WESTERN DIRECTION (ARTIST'S IMPRESSION)

TITLE 項目名稱	DRAWN BY 繪圖	DATE 日期	DRAWING NO. 編號	SCALE 比例	
429R0	WINNIE HUI	25.11.2011	AB/7819/XA105	N.T.S.	
OPEN SPACE IN AREA 117,	APPROVED 覆核	DATE 日期			
lin Shui wai	ANTHONY LAM	25 11 2011			
王水围第117回休憩田地		20.11.2011	建築著		
入小圍另111@怀想用地	OFFICE 辦事處		ARCHITECT	URAL	
	PROJECT MANAGEMENT BRANCH	工程策劃管理處	DEPARTMENT		

429RO – Open space in Area 117, Tin Shui Wai

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2011 prices)

			Estimated man- months	Average MPS [*] salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fee for	Professional	_	_	_	1.6
c a	contract administration ^(Note 2)	Technical	-	_	_	0.8
					Sub-total	2.4
(b)	Resident site staff	Professional	8	38	1.6	0.8
c	costs ^(Note 3)	Technical	153	14	1.6	5.2
					Sub-total	6.0
	Comprising -					
	(i) Consultants' fees for management of resident site staff				0.6	
	(ii) Remuneration of resident site staff				5.4	
					Total	8.4

* MPS = Master Pay Scale

Notes

- 1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of resident site staff supplied by the consultants. (As at now, MPS salary point 38 = \$62,410 per month and MPS salary point 14 = \$21,175 per month.)
- The consultants' fees for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **429RO**. The construction phase of the assignment will only be executed subject to Finance Committee's funding approval to upgrade **429RO** to Category A.
- 3. The actual man-months and actual costs will only be known after completion of the construction works.