

**Letterhead of Route 3 (CPS) Company Limited**

CB(1)235/01-02(03)

Our Ref : R3/A220/010/VY/sk/L011111

6 November 2001

The Honourable Mrs Miriam LAU Kin-ye, JP  
The Chairman  
Panel on Transport, Legislative Council  
Legislative Council Building  
Hong Kong  
Dear Chairman,

**Re: Invitation for public submission on Route 10,  
Shenzhen Western Corridor and Deep Bay Link**

Further to the letter dated 23rd October 2001 to you from our Chairman Mr. Thomas Kwok which set out the representation of our Company, we are pleased to enclose herewith the following in support of our representation:-

1. Shenzhen Western Corridor Traffic Study (in English & Chinese) prepared by our Traffic Consultants.
2. Design for an under-pass for Hung Shui Kiu New Town.
3. Design for a fly-over for Hung Shui Kiu New Town.

We shall address you on the need for an immediate connection between the Deep Bay Link and Route 3 CPS and why construction of this connection should start as soon as possible.

We shall also address you on the need for a comprehensive review of the traffic pattern of the northwest New Territories in order to achieve a balanced utilization of the highway system.

With best regards

Yours sincerely  
ROUTE 3 (CPS) COMPANY LIMITED

Winston K.S. Chu  
Vice-Chairman

Encl

## **Letterhead of Wilbur Smith Associates Limited**

### **Shenzhen Western Corridor Traffic Study**

#### **Background**

The Shenzhen Western Corridor will have a significant impact on road network conditions in the Northwest New Territories. As recently reported, Government forecasts of opening day traffic volumes are approximately 44,000 vehicles per day. By 2011, the new crossing is expected to be carrying more than 50,000 vehicles per day — almost 60% of total cross-boundary vehicular traffic. As currently planned, the new crossing will be connected to the HKSAR's major road network via the proposed Deep Bay Link — a new facility extending from the Hong Kong end of the new bridge near Ngau Hom Shek, through Yuen Tau Shan to Yuen Long Highway near Lam Tei.

the proposal will channel cross-boundary traffic to the congested Tuen Mun Road/Castle Peak Road corridor increasing through traffic volumes in the Tuen Mun urban area. As a result, there is pressure from District Councils and others for early construction of the proposed tunnel section of Route 10 between Yuen Long Highway and the proposed Tsing Lung Bridge at Tsing Lung Tau in order to relieve Tuen Mun Road.

#### **Function of Route 10**

While Route 10 may partially meet the above objective, it is important to note that it provides a direct connection only between the Shenzhen Western Corridor and Lantau Island. However, only about 5% of forecast traffic using the Shenzhen Western Corridor will be destined for Lantau. Approximately 80% of forecast traffic will have destinations in the Eastern New Territories, the Kowloon Peninsula or Hong Kong Island. Access from Route 10 to these areas will involve use of the proposed Siu Lam Link and Tuen Mun Road eastward to Ting Kau.

#### **Traffic Congestion on Tuen Mun Road**

The section of Tuen Mun Road between Siu Lam and Ting Kau is constructed as a dual 3-lane road. However, lane widths vary between 3.3 m and 3.5 m, rather than the 3.67 m standard for expressway lanes. The undulating terrain requires almost continuous changes in horizontal and vertical alignment. Its characteristics are consistent with a design speed of 80 km/hr compared with the 110 km/hr design speed adopted for expressway design on most new roads in Hong Kong. It is congested in peak periods and its average daily volume has reached its practical capacity of approximately 100,000 vehicles per day.

These considerations, combined with the high proportion of goods vehicles, makes it unsuitable as the major connection from the new crossing to the container terminals and the major urban centres of Kowloon and Hong Kong Island.

Moreover, it is doubtful whether Route 10 will relieve traffic congestion, created by the Deep Bay link, through Tuen Mun. The travel time saving will likely be modest and, if as expected, the tunnel section of Route 10 is subject to a toll, many drivers may chose to use the slower but free route through Tuen Mun. Alternatively, if Route 10 is not subject to toll, it will attract more local traffic from Yuen Long and Tin Shui Wai away from Route 3CPS and will increase traffic volumes on the congested section of Tuen Mun Road east of Tsing Lung Tau.

## **Route 3CPS Spare Capacity**

We have recently analysed future traffic demand in the Northwest New Territories. This analysis indicated that Route 3CPS will not approach its practical capacity until the middle of the next decade. Clearly there is an opportunity to use the spare capacity on Route 3 to improve traffic conditions on Tuen Mun Road while reducing travel times for drivers between the Shenzhen Western Corridor and major traffic generators in Hong Kong.

## **The Third Comprehensive Transport Study**

This Study recommended widening Yuen Long Highway to dual 3-lane standard by 2006 and to dual 4 by 2016. The widening to dual 3 is scheduled for completion before the planned opening of the Shenzhen Western Corridor.

The Study also recommended construction of a new "East-West Link" from Yuen Long Highway to Tai Po with an interchange with Route 3CPS.

## **The Western Highway**

Adopting parts of the proposed East-West Link and the Yuen Long Highway widening, we have developed an alternative proposal — the "Western Highway" — to connect the Shenzhen Western Corridor to Route 3CPS. This will provide a direct high-quality route from the new boundary crossing to Ting Kau. This involves adding a new road from the Deep Bay Link through Hung Shui Kiu to Yuen Long Highway, widening Yuen Long Highway and constructing the western section of the proposed New Territories East-West Link. The new proposal is shown on the attached plan.

The proposed alignment through Hung Shui Kiu would lie within the same right-of-way as one of the new town's major roadways in a two-level cross-section. The Western Highway could either be sunk below the local roadway or constructed as an elevated road above the local roadway. The precise horizontal and vertical alignment, and the interchange/intersection layouts would be finalised at the detailed design stage.

The proposed Western Highway will provide immediate benefits to cross-boundary traffic and immediate relief to Tuen Mun Road. In the long term, it will complement Route 10 by providing high quality access from the Shenzhen Western Corridor to Route 3CPS for southbound traffic and to the Northeast New Territories via the East-West Link. Route 10 would provide access from the Shenzhen Western Corridor to the Northwest New Territories, Lantau Island and, possibly, a new container port near Tuen Mun.

## **Comparative Advantages**

The timing of the two schemes should be determined through more detailed analysis. However, our preliminary study indicates that the proposed Western Highway provides a number of clear advantages over Route 10 as currently proposed. These are:

1. It provides a more direct and higher quality continuous connection for traffic between the Shenzhen Western Corridor and major traffic generators.
2. It provides greater time and distance savings which should attract more traffic from all sections of Tuen Mun Road.

3. It allows time to resolve outstanding planning issues affecting the alignment and detailed design of Route 10 such as the location of new container terminals, new cross-boundary links, crossings to Lantau Island, and the future of Tuen Mun Road.

### **Recommendations**

1. Planning and design work be undertaken immediately on the proposed Western Highway to assess the detailed feasibility and financial viability of the scheme and confirm our preliminary findings.
2. Funds be allocated allowing the Western Highway to be completed by the planned opening day of the Shenzhen Western Corridor.

## 施偉拔有限公司的信頭

### 深港西部通道交通研究

#### 背景

深港西部通道對新界西北的道路網絡情況有很重要的影響。最近的報導指出，政府預期在深港西部通道通車初期的交通流量約為每日 44,000 架次。至 2011 年，估計車流會增至每日超過 50,000 架次——即跨境車流的百分之六十。另外，最近的政府規劃亦指出這條深港西部通道將會透過後海灣幹線連接香港的主要公路網。這後海灣幹線以位於鰲磡石的大橋終點作為起點，經過圓頭山伸延至元朗公路近藍地。

政府建議的後海灣幹線會將跨境交通引入現時已相當擠塞的屯門公路及青山公路，增加屯門市區內的交通流量。因此，已引起當地的區議會及其他團體關注，促請提早興建計劃中的十號幹線元朗公路至青龍頭段，以減輕對屯門公路的負擔。

#### 十號幹線的功能

十號幹線或能解決以上所提的部份問題，然而值得注意的是十號幹線是一條聯繫深港西部通道及大嶼山的直接通道，但估計大約只有百分之五經深港西部通道的交通是以大嶼山作為目的地，而約百分之八十的交通是以新界東、九龍或香港島為目的地。經由十號幹線到以上區域是需要使用建議中的小欖支路及屯門公路東行往汀九方向。

#### 屯門公路的交通擠塞情況

屯門公路〔小欖至汀九段〕是一條每方向有三條行車線的雙程路。每條行車線的闊度約為 3.3 米至 3.5 米，而不是一般高速公路行車線的標準 3.67 米。因為地勢起伏關係，沿路都需要不段作出橫向及縱向的線位調整，這正是屯門公路的速度限制（每小時 80 公里）低於香港其他新高速公路〔每小時 110 公里〕的原因。現時屯門公路在繁忙時間是非常擠塞，每日的平均交通流量已達到實際的飽和容量，即大約每日 100,000 架次。

基於以上因素，與及屯門公路現在已有大量貨車使用，屯門公路是不適合作為連接新建跨境通道與貨櫃碼頭和香港其他地區的主要幹道。

再者，十號幹線是否真正能減輕由后海灣幹線所帶來對屯門區交通流量的負擔亦是未知之數。倘若十號幹線是一條收費公路，對使用者來說，由於行車時間只是有限度的改善，有很多駕駛者仍會選擇較慢但較便宜經屯門的路線。相反，若十號幹線是免費的話，會吸引很多從元朗及天水圍出發而原本使用三號幹線郊野公園段的交通使用十號幹線，因而增加原來已非常擠塞的屯門公路青龍頭以東一段的負荷。

### **三號幹線郊野公園段的剩餘容量**

根據我們分析新界西未來的交通需求的結果，三號幹線郊野公園段的交通流量要到十數年後才會達到實際的飽和容量。明顯地，三號幹線郊野公園段的剩餘容量可用作改善現時屯門公路的交通情況及同時縮短深港西部通道與香港的主要地區的行車時間。

### **第三次整體運輸研究**

第三次整體運輸研究建議元朗公路需要在 2006 年及 2016 年分別擴闊至每方向有三條及四條行車線。計劃中深港西部通道落成前，元朗公路的三線擴闊工程將會完成。

第三次整體運輸研究亦建議興建一條「新界東西連接路」，一條由元朗公路伸延至大埔並與三號幹線相交的通道。

### **西部高速公路**

我們採納上述新界東西連接路的部份建議及擴闊元朗公路的建議，議定另一個方案——「西部高速公路」——以連接深港西部通道及三號幹線郊野公園段。這個方案能提供一條高質素的直接通道連接新跨境通道及汀九，內容包括加建一條新路連接后海灣幹線經洪水橋至元朗公路、擴建元朗公路及興建新界東西連接路的西段。這個方案的詳細資料可參閱附件。

建議方案內經洪水橋的垂直線位會與新市鎮內其中一條主要通道一樣，形成一個兩層的橫切面。西部高速公路可以建在區內主要通道的上邊或下邊。詳細的橫向及縱向線位與交叉口的分佈可再作仔細設計。

這個建議的西部高速公路可對跨境的交通提供即時效益及即時舒緩屯門公路的擠塞。長遠來說，更可與十號幹線互補，提供高質素的通道經由深港西部通道南行至三號幹線郊野公園段，及經東西連接路通往新界東區。而十號幹線則連接深港西部通道至新界西、大嶼山及可能在屯門興建的貨櫃碼頭。

### **西部高速公路的比較優勢**

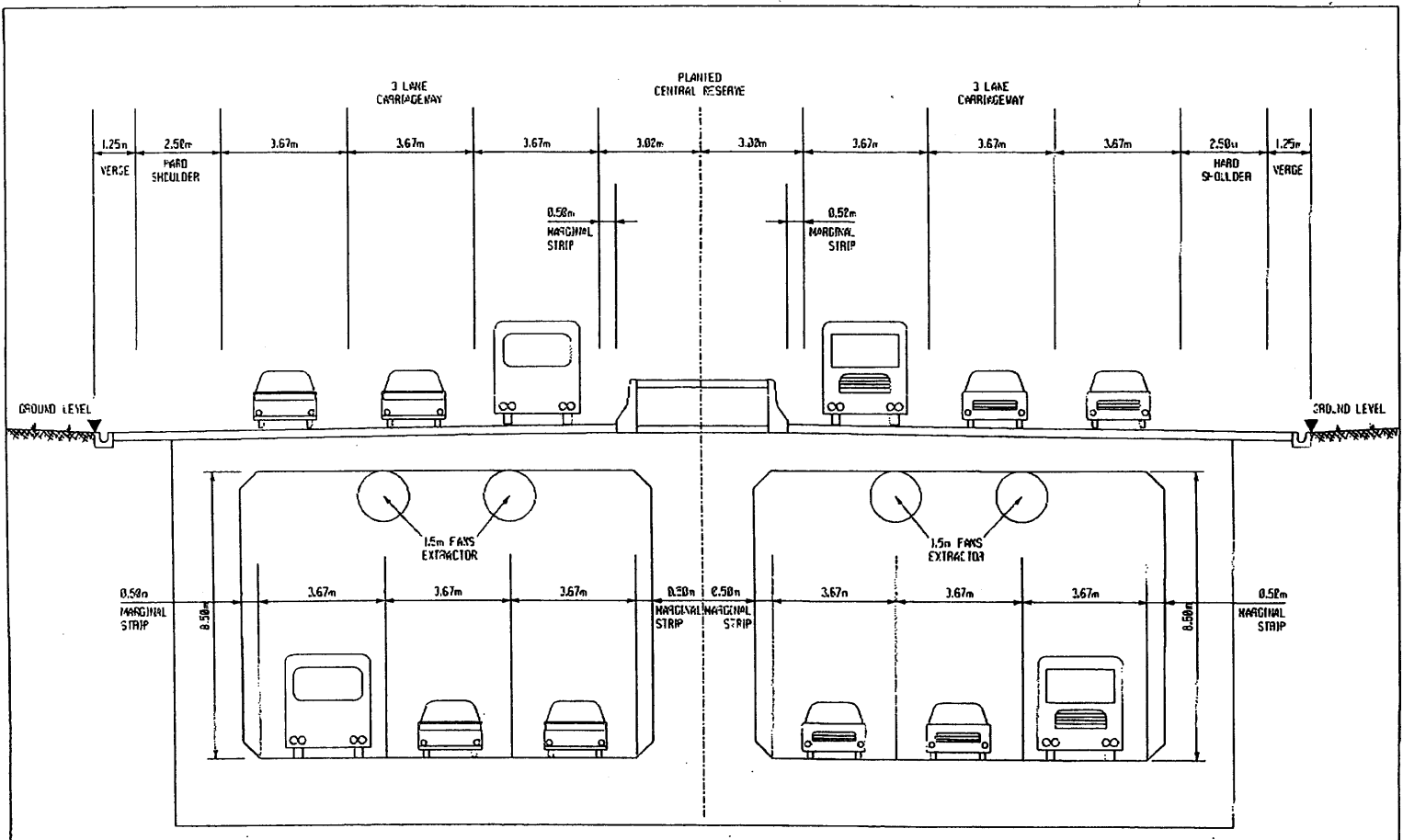
以上兩個方案的興建時間需要更詳細的研究及分析才能確定，但我們的初步研究指出建議的西部高速公路比現時的十號幹線建議有以下幾個優勢：

1. 能提供一個直接、高質素及延續不斷的連接路，連接深港西部通道與香港主要地區。
2. 能縮短實際的行車距離及時間，因此能吸引更多行走屯門公路的交通使用。
3. 能提供更多時間解決影響十號幹線設計但尚未完成的規劃問題，包括：新貨櫃碼頭的位置、新跨境通道、與大嶼山的連接及屯門公路的未來情況等。

### **建議**

1. 建議的西部高速公路的規劃及設計工作需立即動工，以詳細評定財務及其他方面的可行性及確定我們初期的研究結果。
2. 必需盡快撥款使西部高速公路得以在深港西部通道落成前完成。

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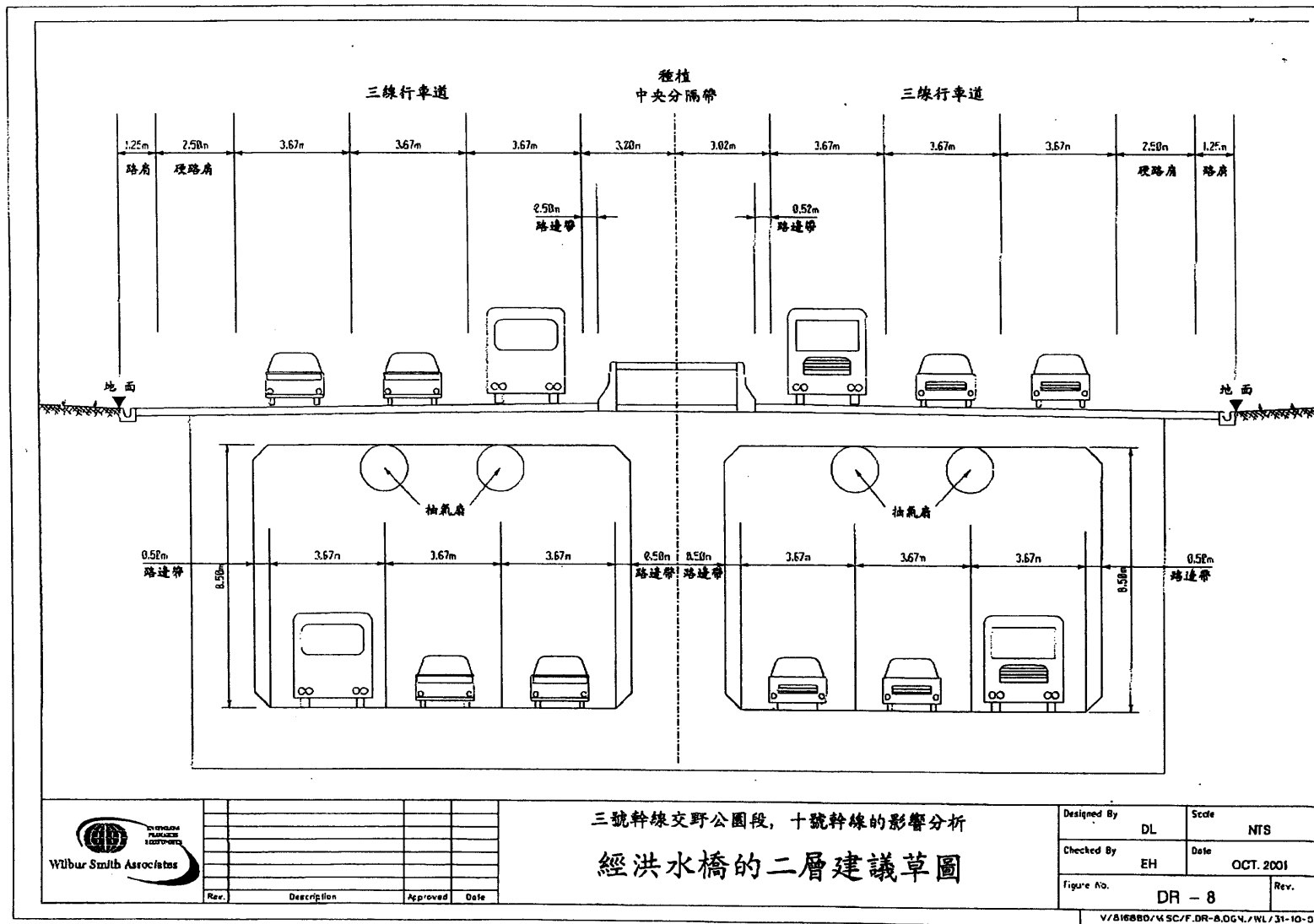
Rev.	Description	Approved	Date

Route 3 Country Park Section  
 Analysis of the Impacts of the Proposed Route 10  
**SKETCH OF TWO-LEVEL  
 PROPOSAL THROUGH HUNG SHUI KIU**

Designed By <b>DL</b>	Scale <b>NTS</b>
Checked By <b>EH</b>	Date <b>OCT. 2001</b>
Figure No. <b>DR - 6</b>	Rev.

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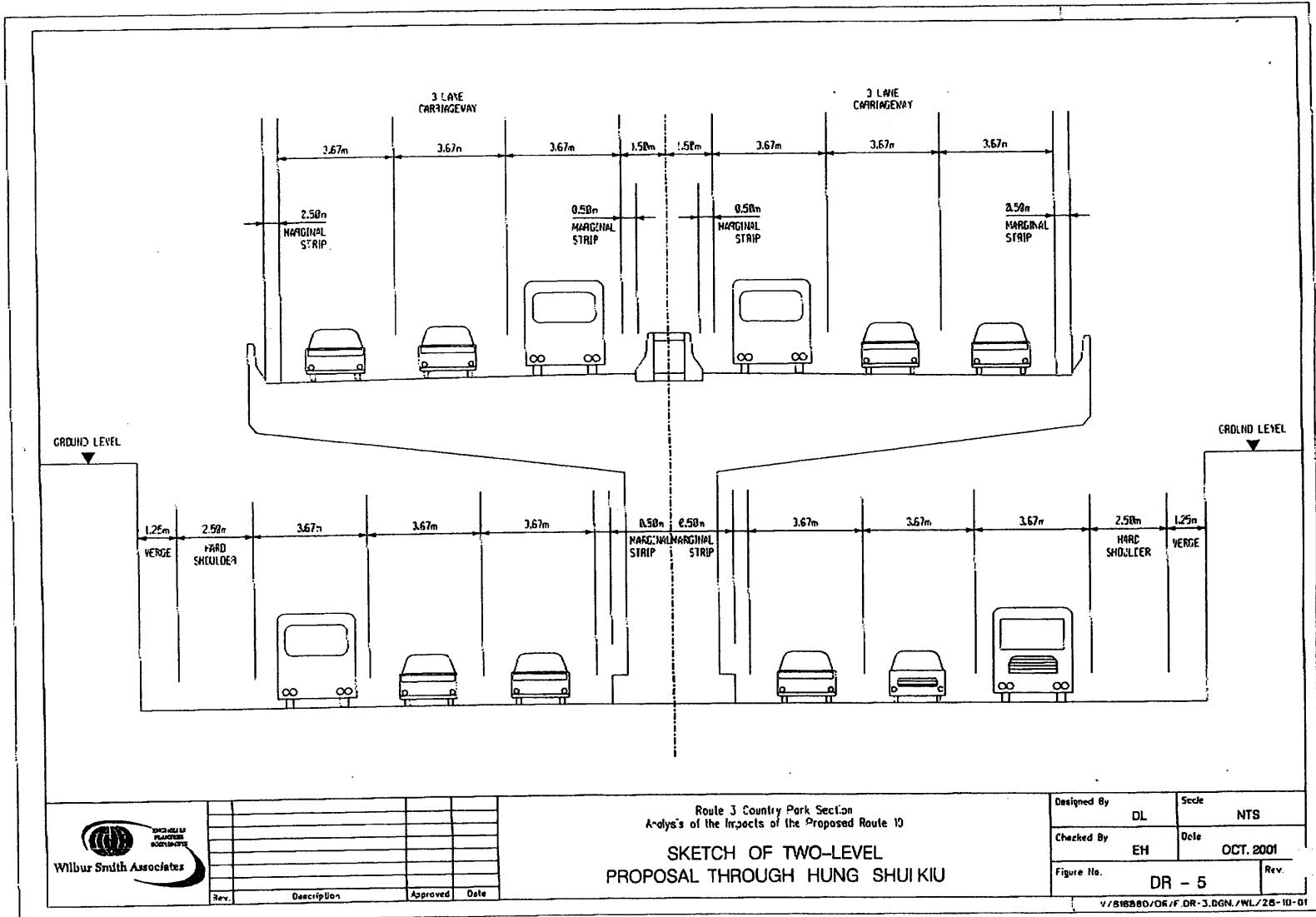


Rev.	Description	Approved	Date

三號幹線交野公園段，十號幹線的影響分析  
 經洪水橋的二層建議草圖

Designed By	DL	Scale	NTS
Checked By	EH	Date	OCT. 2001
Figure No.	DR - 8		Rev.

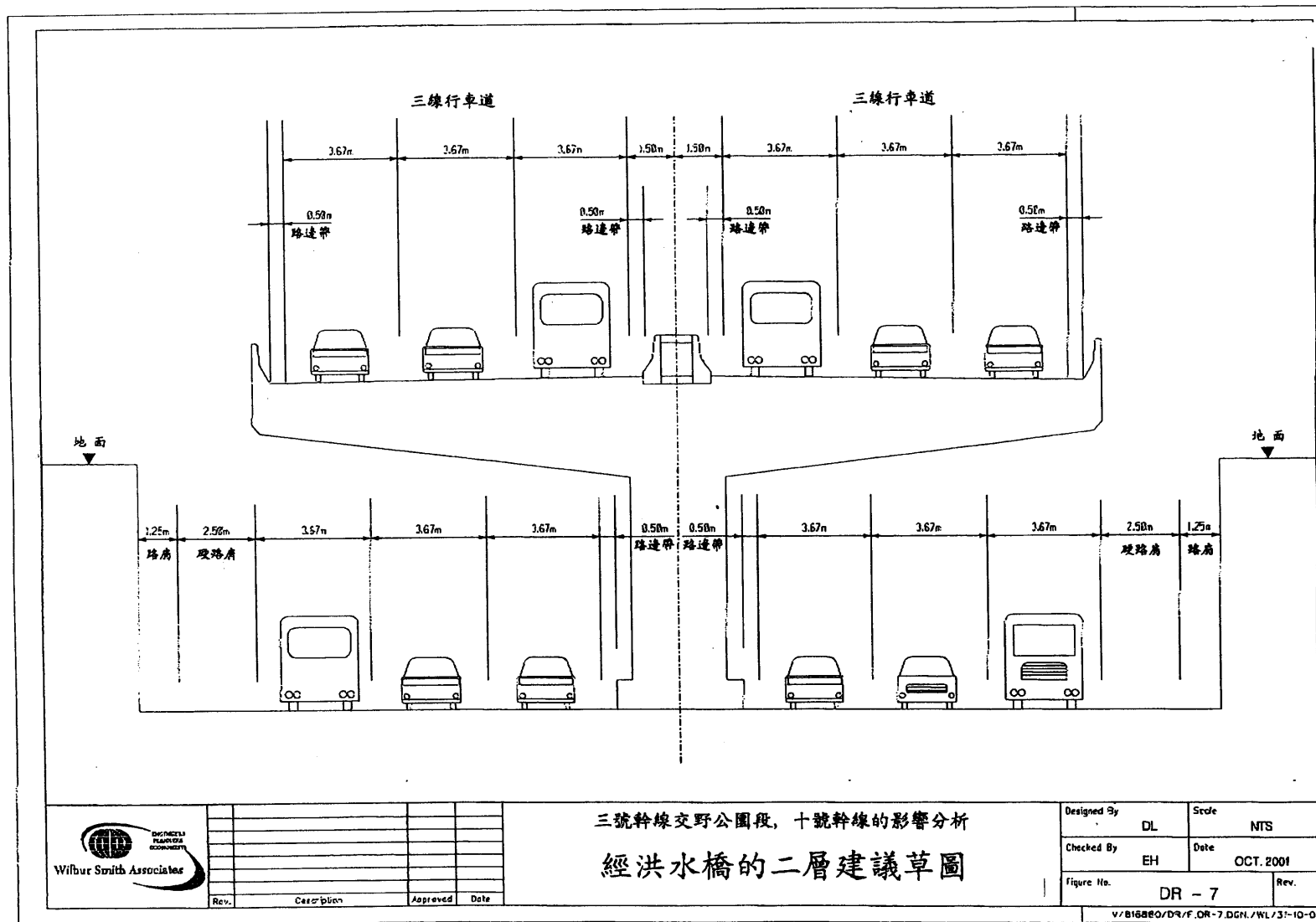
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Rev.	Description	Approved	Date

Route 3 Country Park Section  
 Analysis of the Impacts of the Proposed Route 10  
**SKETCH OF TWO-LEVEL  
 PROPOSAL THROUGH HUNG SHUI KIU**

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Figure No.	DR - 5		Rev.



三號幹線交野公園段，十號幹線的影響分析  
經洪水橋的二層建議草圖



Rev.	Description	Approved	Date

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Figure No.	DR - 7	Rev.	

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