| Project | Proposed Temporary Warehouses (Storage of <br> Timber and Ancillary Uses) at Various Lots in <br> D.D. 86 and D.D. 90 and Adjoining Government <br> Land, Lin Ma Hang Road, Sha Ling | Date | 8 January 2024 |
| :--- | :--- | :--- | :--- |
| Note | Preliminary Traffic Impact Assessment |  |  |$\quad$ Page $\quad 1$ of 5

## 2 <br> The Proposed Development

### 2.1 The Application Site

2.1.1 As shown in Figure 2-1, the Application Site locates at various lots in D.D. 90 and D.D. 86 and adjoining government land at Lin Ma Hang Road, Sha Ling, New Territories.
2.1.2 The Application Site is situated on both sides of Lin Ma Hang Road, comprising of East Site (Site A and B) and West Site (Site C, D and E).
2.1.3 A planning application $[\mathrm{A} / \mathrm{NE}-\mathrm{MKT} / 17]$ at the Application Site (includes Site A, B and C) was previously approved with conditions in 2021. With the approved schemes remain unchanged, the new application is made due to a site extension to add Site D and E (whose current sites were also affected by the land resumption in Kwu Tung).

### 2.2 Development Proposal

2.2.1 The Applicant proposes to convert the Application Site into a Temporary Warehouses (Storage of Timber and Ancillary Uses) for a period of 3 years. The Application Site has an area of about $20,512.5 \mathrm{~m}^{2}$.
2.2.2 The key parameters of the proposed development are summarized in Table 2-1.

Table 2-1 Summary of Development Parameters

| Site Location | East Site |  | West Site |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Site A | Site B | Site C | Site D | Site E |
| Uses | Temporary Warehouses (Storage of Timber and Ancillary Uses) |  |  |  |  |
| Site Area <br> (approx.) | $20,512.5 \mathrm{~m}^{2}$ |  |  |  |  |
|  | $9,019.5 \mathrm{~m}^{2}$ |  |  | $11,493 \mathrm{~m}^{2}$ |  |

and Adjoining Government Land, Lin Ma Hang Road, Sha Ling

| Site Location | East Site |  | West Site |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Site A | Site B | Site C | Site D | Site E

2.2.3 Similar to the current site at Ma Tso Lung, eight operators will only be used as storage of wood and other ancillary materials in the Application Site. In addition, the operation hours of the Application Site are between 08:00 to 18:00 from Monday to Saturday and there will be no operation on Sunday and public holidays.

### 2.3 Internal Transport Facilities

2.3.1 Since the requirements of provision of internal transport facilities for temporary Warehouses (Storage of Timber and Ancillary Uses) are not specified in the latest Hong Kong Planning Standards and Guidelines (HKPSG), provision of internal transport facilities is provided based on the existing operation and traffic generation provided by the Applicant.
2.3.2 The detailed internal layout is shown in Figure 2-2.

## 3

## Existing Traffic Situation

### 3.1 Existing Road Network

3.1.1 The existing Lin Ma Hang Road that serves the Application Site is a two-way Rural Road.
3.1.2 Man Kam To Road is a district distributor which provides major access for traffic commuting to/from Man Kam To Boundary Control Point ("BCP") and other areas of North East New Territories.
3.1.3 Heung Yuen Wai Highway, a dual 2-lane Connecting Road links up the Heung Yuen Wai Boundary Control Point and Fanling Highway, and it has been commissioned since May 2019. Upon the commission, the overall transport network in North East New Territories has been improved and enhanced. and Adjoining Government Land, Lin Ma Hang Road, Sha Ling
3.1.4 The Application Site can be accessed directly by Lin Ma Hang Road and further connect to Man Kam To Road in the west and Heung Yuen Wai Highway in the east.

### 3.2 Public Transport

3.2.1 Public transport facilities are provided along Man Kam To Road and Lin Ma Hang Road within 500 m catchment area. Franchised bus KMB 73K is available to connect Sheung Shui Town Centre and Man Kam To. GMB 59K is serving between Sheung Shui Town Centre and Lin Ma Hang, which will run via Lin Ma Hang Road and would pass by the Application Site. Staff / visitors can take Public Transport to/from the Application Site.

### 3.3 Existing Peak Hour Traffic

3.3.1 To gain an understanding of the existing traffic condition of the Application Site, traffic count surveys were undertaken at the key locations for both AM and PM peaks on a neutral weekday in 2020.
3.3.2 Based on the observed peak hour traffic flows, the performances on the Lin Ma Hang Road could be assessed. The results are summarized in Table 3-1.

Table 3-1 2020 Weekday Peak Hour Road Link Performance

| Ref No. | Road Link | Peak Hour Flow <br> (in Veh.) |  | V.C. Ratio(1) |  |
| :---: | :--- | :---: | :---: | :---: | :---: |
|  |  | AM | PM | AM | PM |
| L1(2) | Lin Ma Hang Road (East Bound) | 168 | 111 | 0.47 | 0.31 |
| L2 $^{(2)}$ | Lin Ma Hang Road (West Bound) | 98 | 130 | 0.27 | 0.36 |

Notes: (1) The Capacity Index for Road Links is Peak Hourly Flows/Design Flow Ratios
(2) Design Capacity of the Link according to TPDM, reduction considered due to high proportion of Heavy Goods Vehicles:
Lin Ma Hang Road (Rural road with 6.3m 2-lane single carriageway) $=720$ veh/hr (2-way)
3.3.3 As shown in Table 3-1, that the V/C ratio of Lin Ma Hang Road is less than 0.85 , which means the Lin Ma Hang Road operates satisfactorily during the peak hour of weekday.

## 4 Future Traffic Situation

### 4.1 Traffic Generation from the Application Site

4.1.1 For Site A, B, C, according to the information provided by the Applicant, there will be not more than 40 trips daily for transporting the goods by the container vehicles and other goods vehicle, which is in the same profile as the current operation site. Trips for staff / visitors would be less than 12 trips. The detailed trips generation are tabulated in Table 4-1.

Table 4-1 Daily Average Trips Generation of Application Site (Site A, B, C)

|  | Daily Average No. of Trips |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Container Vehicle | HGV | MGV | PV |
| Site A | 2.2 | 5.2 | 5 | 4 |
| Site B | 0 | 6.6 | 10.5 | 5 |
| Site C | 1.8 | 3 | 5 | 3 |
| Total (I) | $\mathbf{4}$ | 14.8 | $\mathbf{2 0 . 5}$ | $\mathbf{1 2}$ |

4.1.2 For Site D and E , as the provision of loading / unloading bays are in a similar profile as Site C (one bay for container vehicle and one for HGV), thus, the estimated trips of Site $D$ and $E$ are estimated based on the trips of Site $C$. The detailed trips generation are tabulated in Table 4-2.

Table 4-2 Daily Average Trips Generation of Application Site (Site D,E)

|  | Daily Average No. of Trips |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Container Vehicle | HGV | MGV | PV |
| Site D | 1.8 | 3 | 5 | 3 |
| Site E | 1.8 | 3 | 5 | 3 |
| Total (II) | 3.6 | $\mathbf{6}$ | $\mathbf{1 0}$ | $\mathbf{6}$ |

4.1.3 Therefore, the estimated daily average trips generations of the Application Site are listed as in the following table.

Table 4-3 Daily Average Trips Generation of Application Site

|  | Daily Average No. of Trips |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Container Vehicle | HGV | MGV | PV |
| Total (I+II) | 7.6 | 20.8 | 30.5 | 18 |

4.1.4 Since the daily trips would be distributed through the whole working day, the trips over the peak traffic hour would be much less than the total daily trips. As a conservative method, one fourth of the daily trips would be considered as the peak hour trips generation as shown in Table 4-4.

Table 4-4 Estimated Peak Hour Trips Generation of Application Site

|  | AM and PM Peak Hour No. of Trips |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Container Vehicle | HGV | MGV | PV | Total |
|  | 2 | 6 | 8 | 5 | $\mathbf{2 1}$ |

4.1.5 According to Table 4-4, it is estimated that 21 vehicles per hour would be attracted, correspondingly, less than 21 vehicles per hour would be generated since some vehicle may parked longer than one hour for some operation activities. However, we would still use 21 vehicle/hr as the trips attracted for a more conservative consideration.

### 4.2 Traffic Impact from the Application Site

4.2.1 The 2024 traffic flow data is derived by using the observed 2020 traffic flow. An annual growth factor of $0.80 \%$ from 2020 to 2024 has also been adopted by making reference to the population and employment data obtained from 2019-based Territorial Population and Employment Data Matrices (TPEDM) planning data in Fanling / Sheung Shui District published by Planning Department.
4.2.2 By applying the estimated trips of both generation and attraction i.e. $21+21=42$ vehicle/hr onto the Lin Ma Hang Road, the performance would be indicated as the following

Table 4-5 Peak Hour Road Link Performance Affected by the Application Site

| Ref No. | Junction Location | Without the Application Site [v/c ratio] |  | With the Application Site [v/c ratio] |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | AM | PM | AM | PM |
| L1 ${ }^{(2)}$ | Lin Ma Hang Road (East Bound) | $\begin{gathered} 173 \\ {[0.48]} \end{gathered}$ | $\begin{gathered} 115 \\ {[0.32]} \end{gathered}$ | $\begin{gathered} 215 \\ {[0.60]} \end{gathered}$ | $\begin{gathered} 157 \\ {[0.43]} \end{gathered}$ |
| L2 ${ }^{(2)}$ | Lin Ma Hang Road (West Bound) | $\begin{gathered} 101 \\ {[0.28]} \end{gathered}$ | $\begin{gathered} 134 \\ {[0.37]} \end{gathered}$ | $\begin{gathered} 143 \\ {[0.40]} \end{gathered}$ | $\begin{gathered} 176 \\ {[0.49]} \end{gathered}$ |

[^0]4.2.3 As shown in Table 4-3, the impact on Lin Ma Hang Road from the small number of daily trips by the Application Site would be insignificant, and Lin Ma Hang Road would perform satisfactorily after introducing of the Application Site.

## 5 <br> Management and Crowd Measures

5.1.1 To ensure no queuing on Lin Ma Hang Road due to the Application Site, a staff would be arranged for communicate the drivers and appointment will be needed for goods vehicles, such that blockage at the access road and runin/out can be avoided.

## 6

Summary and Conclusion

### 6.1 Summary

6.1.1 Due to the land in Kwu Tung is to be redeveloped by the Government for Kwu Tung North New Development Area in the coming years, the Applicant intents to relocate their current rural workshop from Kwu Tung to the Application Site which locates at various lots in D.D. 90 and D.D. 86 and adjoining government land at Lin Ma Hang Road, Sha Ling.
6.1.2 Similar to the current site, the operators will mainly process with the same operation activities, so the trips generated would also be in the same profile as the existing site. Reference is made to the information provided by the Applicant, not more than 60 daily trips for goods transporting would be generated, and less than 18 daily trips generated by staff and visitors. To be more conservative, it is estimated that the about 21 vehicles would be generated and about 21 trips would be attracted due to the Application Site during peak hour.
6.1.3 By applying the peak hour trips by the Application Site to the peak hour traffic flow on Lin Ma Hang Road, it is found that the v/c ratio of Lin Ma Hang Road is less than 0.85 . In other words, the impact on Lin Ma Hang Road from the Application Site would be insignificant, and Lin Ma Hang Road would perform satisfactorily after introducing of the Application Site.

### 6.2 Conclusion

6.2.1 Based on the findings of this traffic review, it is anticipated that the traffic trips related to the proposed Temporary Warehouses (Storage of Timber and Ancillary Uses) would be small and hence the potential traffic impact to be induced by the Application Site would not pose adverse traffic impacts to road in the vicinity.












[^0]:    (1) The Capacity Index for Road Links is Peak Hourly Flows/Design Flow Ratios
    (2) Design Capacity of the Link according to TPDM, reduction considered due to high proportion of Heavy Goods Vehicles:
    Lin Ma Hang Road (Rural road with 6.3m 2-lane single carriageway) $=720 \mathrm{veh} / \mathrm{hr}$ (2-way)

