CODE OF PRACTICE FOR CITY INFRASTRUCTURE

& LAND DEVELOPMENT

ENGINEERING STANDARDS MANUAL

Section 3: Appendix A

USER GUIDE TO THE DESIGN GUIDELINE MATRIX

Transportation

User Guide to the Design Guidelines Matrix

1. Introduction

1.1. The purpose of this matrix is to allow the road corridor designer to externalise and record the many factors involved in reaching a decision about the final format and functional provision of a road section.

1.2. It is intended that the user would enter values in the cells to provide a record of the considerations. The cells can be expanded to accommodate the required text.

2. Format of the Matrix

2.1. The header contains space for the project name, author and date.

2.2. The ***Primary Design Guide*** references row contains cross-references to the design guide (in preparation), and hence to the relevant sections of the Engineering Standard (Section 3 Transport). The matrix contains some 'normal' standards however the design guide and engineering standard provide the primary reference for the range of supply provision the designer is seeking for each function.

2.3. The columns of the matrix are grouped into ***Static functions*** (property access, car parking, loading and bus stops) and ***Movement functions*** (pedestrians, cycles, buses, high occupancy vehicles, general traffic and freight).

2.4. The Matrix has three main horizontal sections ***Demand, Supply and Modifiers.***

2.4.1. The ***Demand*** and ***Supply*** sections are best considered strictly on an individual basis, ignoring any conflicts between functions.

2.4.2. The ***Modifiers*** section is where the expected 'supply' of the individual road functional elements are balanced across the table to arrive at an overall view of the mix of functions and capacity to be provided for in the final design.

3. Using the Matrix

3.1. Enter the project name, author and date in the header.

3.2. In the ***Demand*** row under each of the functions ender an indication of the demand for the function. This may be expressed in any relevant format (eg, 'Car parking > Very high day and evening' 'General traffic >23,000vpd' 'Freight> 20,000 tonnes per day' etc.) This is your appreciation of the basic <u>need</u> for the function on this road section or route.

3.3. On the ***Supply*** section highlight and if need be amend the relevant cells which correspond to the 'high', 'medium', 'low' or 'none' supply levels you feel the route should provide.

3.4. Under the ***Modifiers*** section you consider the relevant ***Policy, Urban design***, ***Network context*** and ***Terrain*** matters to arrive at a consensus for each function balanced across both the modifiers and desired range of functions:

3.4.1. ***Policy.*** The row requires recognition of the relevant policy documents in relation to the provision of the road function.

- for example a District Plan rule may deny off-street parking supply for some activities (using a 'minimum' rather than a 'maximum' rule in high density residential developments); this could lead to an increased demand off on-street parking that has to be accounted for.
- freight strategy may consider a location to be an important freight transfer node, and so the road design has to reflect the need to carry freight traffic perhaps in spite of a low current demand

3.4.2. ***Context Guide***. These rows provide a broad overview of the appropriate provision for each function base on the road classification. This is a slightly chicken-and-egg approach, as in a green fields design the classification name given to the road (arterial, cycle route etc.) is determined by the sum of its functions. However in most cases the designer will be working with an existing route, and the classification of the route is already established in the city and regional and national roading hierarchies.

4. CONCLUSION

4.1. The primary purpose of the Design Guide Matrix is to externalise and record the matters the designers are considering on the way to arriving at the final format for each road section. The aim is to enable, direct and facilitate the dialogue.