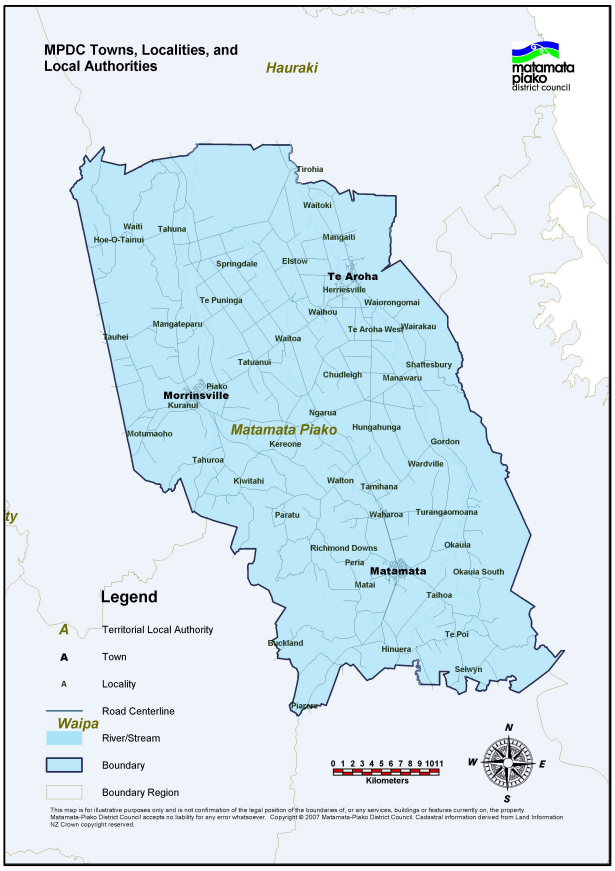
Matamata-Piako District Council

Volume 5: District Supplement
of
HCC Development Manual



Matamata-Piako District Council Supplement

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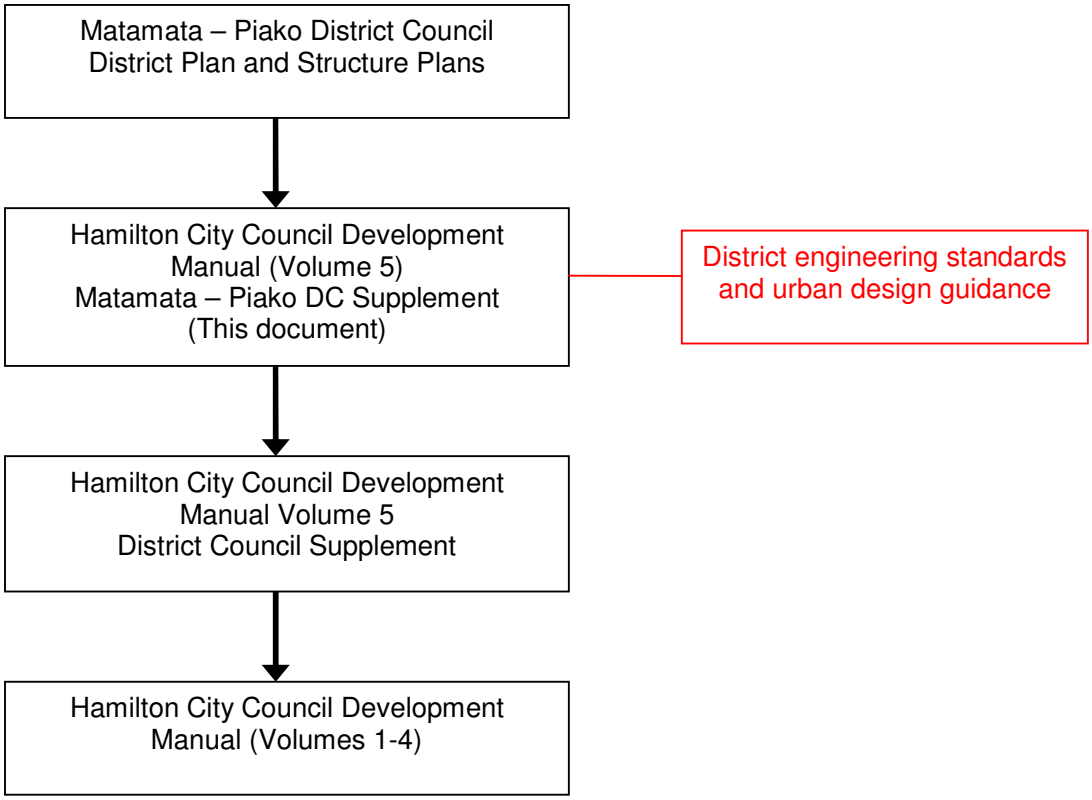
Matamata-Piako District Council Supplement

PART 1: GENERAL

1.1 This supplement is prepared integral to the Volume 5 : District Council Supplement, and provides guides and standards applicable to **Matamata-Piako District Council**.

1.2 Many standards and requirements are indicated in related documents which may conflict. Within these documents the following hierarchy applies:



1.3 This supplement follows the Part numbering system used in Volume 1:Subdivisional Processes, Volume 2: Design Guide, Volume 4: Quality Systems for Land Development and Volume 5 : District Council Supplement.

Part 1 : Planning and General
Part 2 : Earthworks and Land Stability
Part 3 : Road Works
Part 4 : Stormwater Drainage
Part 5 : Wastewater Drainage
Part 6 : Water Supply
Part 7 : Street Landscaping
Part 8 : Network Utilities

1.4 Matamata-Piako District Council encourages innovative and flexible solutions to achieve high quality design, where the solutions are able to meet best practice. Variation criteria provide the opportunity to consider alternatives to standard engineering solutions for some matters. The approach emphasises responsive and innovative design. Developers are encouraged to look beyond the minimum standards and consent requirements of the District Plan and Development Manual to explore opportunities that deliver improved community environments. Council offers a pre-application resource consent process in order to work with the developer to achieve high quality urban subdivision that will be successful in the short term and for generations to come.

1.5 Urban Design

Matamata-Piako District Council have made a commitment to achieving high quality urban design by becoming a signatory to the New Zealand Urban Design Protocol and incorporating the principles of the protocol – the seven C's - into the District Plan.

High quality urban design is about getting the building blocks of development right, designing them to get the best urban form practicable. High quality environments cannot be achieved without good subdivision. Subdivision cannot be measured as a product or a process simply being undertaken today, but has to be considered as a long term component of the urban form. Therefore new subdivisions shall be designed to be robust and flexible enough to also suit future generations.

Traditional approaches to land subdivision have emphasised lot yield efficiency, engineering, and surveying requirements. These elements are important but the primary objective of planning and design is ultimately to create liveable communities that are safe, sustainable, and rich in amenities for users.

Appendix 6 sets out how neighbourhoods can be structured and the layout of streets, lots, and networks designed, in ways that achieve maximum benefits to the subdivider, end-resident, and community. It is largely aimed at urban subdivision however most of the core design principles can also be applied to rural subdivision.

Appendix 6 is intended to illustrate high quality urban design by providing basic best practice principles of subdivision design. If a subdivider proposes that there is a divergence from the statutory requirements, Development Manual standards and levels of service, a very strong design rationale must be illustrated using the core design principles and those found in the New Zealand Urban Design Protocol.

PART 1: General (Planning and Physical Works Management)

Any reference made to the Planning Guidance Officer shall be replaced with Regulatory Planning Department.

VOLUME 1: SUBDIVISION PROCESS – Additions/Amendments

1.2.2 Resource Consent Application

The entire clause applies with the addition of the information requested below;

The information required is also broadly set out in the Matamata-Piako District Plan.

Plans submitted with the Resource Consent application must show accurate **existing** and **proposed** contours at a minimum of 0.5 metre intervals in terms of Moturiki Datum (an assumed datum will not be accepted).

Contours should extend outside the boundary of the subdivision where these are needed to show information relevant to stormwater flows and ponding. Proposals should take into account that Common Law requires that when natural water flows from higher land on to lower adjacent land, the owner of the inferior land is bound to receive the natural waters flowing from the higher land without any express grant or registered easement.

1.2.3 Evaluation Of Development Proposals - Design Criteria

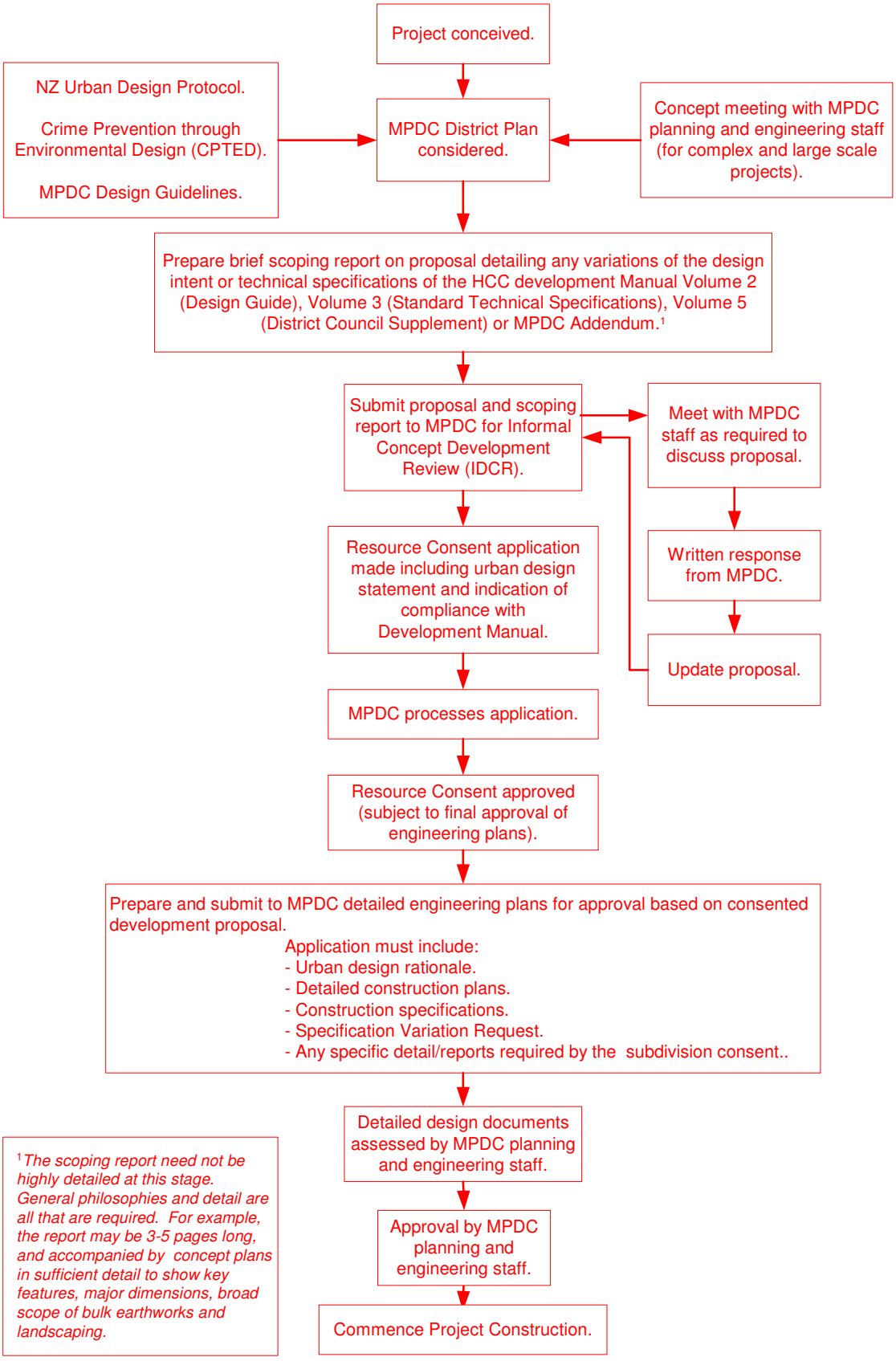
Where the applicant wishes to depart from any aspect of the Development Manual these matters need to be raised with MPDC through the Informal Development Concept Review ("IDCR"). That is, the need to offer an alternative detail or specification needs to be determined early in the design process to ensure a collaborative solution can be reached before the subdivision consent application is made, and before detailed construction plans have to be submitted for approval.

The overriding factors for evaluating alternatives to the Development Manual are:

a) The desire to achieve the "Seven C's" of the New Zealand Urban Design Protocol.
b) Safe and functional outcomes
c) Sustainability of alternatives
d) Economics in long term maintenance

To best achieve these outcomes, the process leading to approval of a development must be collaborative. At the very least it must involve the developer, their professional advisor's, MPDC Planning Staff and MPDC Engineering Staff.

The following flow chart illustrates the process to be followed when preparing and submitting a development proposal:


Project conceived.
NZ Urban Design Protocol.
Crime Prevention through Environmental Design (CPTED).
MPDC Design Guidelines.
MPDC District Plan considered.
Concept meeting with MPDC planning and engineering staff (for complex and large scale projects).
Prepare brief scoping report on proposal detailing any variations of the design intent or technical specifications of the HCC development Manual Volume 2 (Design Guide), Volume 3 (Standard Technical Specifications), Volume 5 (District Council Supplement) or MPDC Addendum.[1]
Submit proposal and scoping report to MPDC for Informal Concept Development Review (IDCR).
Meet with MPDC staff as required to discuss proposal.
Written response from MPDC.
Update proposal.
Resource Consent application made including urban design statement and indication of compliance with Development Manual.
MPDC processes application.
Resource Consent approved (subject to final approval of engineering plans).
Prepare and submit to MPDC detailed engineering plans for approval based on consented development proposal.
Application must include:
- Urban design rationale.
- Detailed construction plans.
- Construction specifications.
- Specification Variation Request.
- Any specific detail/reports required by the subdivision consent..
Detailed design documents assessed by MPDC planning and engineering staff.
Approval by MPDC planning and engineering staff.
Commence Project Construction.
[1] The scoping report need not be highly detailed at this stage. General philosophies and detail are all that are required. For example, the report may be 3-5 pages long, and accompanied by concept plans in sufficient detail to show key features, major dimensions, broad scope of bulk earthworks and landscaping.

Until the engineering plans and Specification Variation Requests are submitted for consideration, all previous correspondence and discussion will have been based on "proposed details". Consequently no guarantee is given that approval will be certain. Until the full detail is available to the Regulatory Planning Department and has been evaluated in the context of the full details of the wider development, no decision will be made. Ultimately the discretion to accept the variation lies with the Regulatory Planning Department.

Council anticipates consultation at the earliest possible stage where alternative engineering solutions are to be sought.

The Specification Variation Request form is attached as Appendix 7 to this supplement.

1.4.7 Road Names (Part 1: Planning)

The applicant shall select three names for each public or private road being constructed and forward them in order of preference to the Council with the application for engineering approval. A brief explanation of the reasons for the selection shall also be submitted. The Councils decision on the acceptance of the road name will be notified to the applicant. In general, road names that currently exist in the Matamata-Piako Council Roading network will not be permitted.

Council will arrange any necessary authority for the regulatory signage and marking. All costs associated with the gazetting and implementation of the traffic services shall paid by the consent holder.

2.4.3 As-Built Plans

Change the second sentence of clause 2.4.3.1 to read: Separate plans are required for earthworks, roading, wastewater, stormwater and water supply.

Add to the end of clause 2.4.3.1: All as-built plans must be certified as correct by a Registered Surveyor or a Chartered Professional Engineer with Public Indemnity Insurance, and shall show completed ground levels at a minimum interval of 0.5 metres in terms of Moturiki Datum.

VOLUME 2: DESIGN GUIDE – Additions/Amendments

PART 1: GENERAL

1.1 Introduction

The entire clause applies except in the last clause. Replace Planning Guidance Officer with the Regulatory Planning Department.

PART 2: EARTHWORKS AND LAND STABILITY

2.1 Introduction

In addition to the clause the following shall be added. “A comprehensive earth works plan shall be submitted with the engineering plans that shall include sediment control measures to be implemented in accordance with Environment Waikato Guidelines – ‘Erosion and Sediment Control for Soil Disturbing Activities’.

2.1A Variations: Earthworks

No variations from the Development Manual will be permitted in respect of earthworks.

7.1 As-Built Drawings

The As-built plans for earthworks shall show completed ground levels at a minimum interval of 0.5 metres in terms of Moturiki Datum.

PART 3: ROAD WORKS

3.1 General

Whilst the majority of additions or amendments in this Part refer to Volume 2, some changes have also been identified to Volumes 1, 3 and 5.

Where possible, references to the original clause that has been amended or added to are given.

VOLUME 2: DESIGN GUIDE – Additions/Amendments

3.1A Variations: Road Works

The way in which the roading and pedestrian networks are laid out, and the elements which contribute to them, are highly influential drivers of urban form and character and are key to how successful a place will be. The core design principles, context and site analysis and design elements referred to in the Appendix 6 (Urban Design Considerations) of this supplement are integral to establishing an appropriate design response and rationale for the road layout and its elements in individual subdivisions and within the context of the surrounding area in which they are located.

It is essential that the network of roads, lanes and footpaths are well connected and designed to ensure safety, comfort, efficiency, reduced energy use and improved amenity for a range of users. Infrastructure also needs to share the road space and any above ground landscape elements and infrastructure requirements need to be considered in tandem with below ground infrastructure needs. Careful consideration needs to be given to the block and street layout, block size, street orientation, level of connectivity and width of the road reserve or connection.

No change will be permitted to the requirements for sight distance, road pavement construction and testing, or to the luminance of street lighting.

3.4 Parking (On-Street)

All parking dimensions shall be in accordance with Standard Drawing MPDC Fig.5.
The surfacing of parking and loading areas shall meet either of the following standards – at Council's discretion where three or more carparks are required:

1. Such areas shall be formed and surfaced in accordance with the requirements of the Construction of New Concrete Vehicle Entrances; (Drawing TS 310)

2. The area shall be constructed on a well drained subgrade developed to give a CBR of not less than 12, with 200mm of compacted WHAP 40 basecourse. The area shall be

sealed with a two coat Grade 4/Grade 6 chip seal or 25mm of compacted Asphaltic Concrete.

All stormwater shall be controlled within the area, and discharge to approved outfalls. All parking areas shall be marked to define required staff and visitor parking spaces.

3.5.1 Road Width

The road reserve shall be increased where necessary to provide a minimum of 3 metres between the road boundary and tops of cuttings, and the toes of batters.

All non-urban road reserve boundaries shall be fenced before the 224 certificate will be issued.

3.6.2 Intersection Safety Audits

Add to existing clause the following statement: Safety Audits shall be carried out on all intersections involving a new public or private road or right-of-way vehicle entrance generating greater than 40 vehicles per day on an Arterial Route (as listed in Matamata-Piako District Council's District Plan – Section 9 of District Plan). Safety Audits shall be carried out by suitably experienced people and in accordance with Land Transport NZ's current NZ Safety Audit Policy and Procedures. Stage 3 and 4 audits will be required. A two person team shall be used. Recommendations from the audit report shall be implemented as part of the engineering design.

3.6.3 Gradients

Add the following clause for Turning Heads; The maximum longitudinal, or cross sectional slope in turning heads is 6.0%, with the desirable matching normal camber for the pavement type.

3.7.3 / 3.7.4 Pavement Design

For sealed pavements, basecourse aggregates for unbound pavement shall be TNZ M/4 only.

For sealed pavements, any proposed GAP material used for the sub-base for unbound pavements shall be replaced with WHAP.

Pavements of roads, private ways or access legs shall be constructed in accordance with Table 3.1 in Appendix 3, Road Classification Table for Matamata-Piako District Council, of the District Council Supplement.

3.7.8 NEW: Unsealed Pavements

Unsealed pavements shall be compacted with a minimum compacted thickness of 300mm of well graded granular material with a minimum soaked CBR of 20. This pavement material shall have sufficient fines to ensure that it does not unravel under the action of traffic. A typical material used on Matamata-Piako unsealed roads is a WHAP 40. A 50mm minimum compacted thickness wearing course shall then be constructed using WHAP20 or TNZ B/3 AP20. Normal camber of unsealed pavements shall be 5 to 6%.

3.9 Footpaths

Add; Chip seal footpaths will not be acceptable.

3.9.6 Pram Wheelchair Crossings

Replace the Pram/Pedestrian/Cycle Flush cutdown in drawing TS309 (Volume 3) with MPDC Figure 9, the Pram/Wheelchair crossing.

3.9.7 Fencing of Accessway

All fencing shall meet the principles of 'Crime Prevention Through Environmental Design' (CPTED).

3.11 Vehicle Crossings

Urban vehicle crossings shall be constructed in accordance with TS310 and TS309 (Volume 3, Part 3), all indicated GAP material shall be replaced with WHAP.
All urban vehicle crossings shall be set out in accordance with TS306 (Volume 3, Part 3), the following dimensions shall be used:

- Residential Crossings
  - Single width entrances shall use a crossing width and cut down length of 2.5m.
  - Double width entrances shall use a crossing width and cut down length of 5.4m

- Business/Industrial Crossings
  - Single width entrances shall use a crossing width and cut down length of 3.5m.
  - Double width entrances shall use a crossing width and cut down length of 6m.

3.11.1 Rural Vehicle Crossings

Shall be constructed and designed in accordance with Standard Drawings MPDC Fig. 1 to MPDC Fig.4.

3.13 Street Lighting

For Rural intersections where the total volume on all legs has an AADT > 500, intersection flag lighting shall be required.

In rural areas where design speeds are greater than 70km/hr or in areas where there is an obvious hazard, slip-base frangible approved lighting columns shall be used.

Alternative street lights may attract an additional whole-of-life cost charge.

3.13.2.3 Brymer Road Special Lighting Area

Delete clause

3.16.4 NEW: Right of Way Producer Statement

A Producer statement shall be provided for the design and construction of Rights-of-Way with a length of more than 20 metres. On completion of construction the applicant shall

provide the Matamata-Piako District Council with a producer statement signed by a suitably qualified engineer.

3.19 NEW: Road Design Quality Assurance

Matamata-Piako requires the following information to be submitted with the engineering drawings:

- A specific Roading Engineering Drawing Quality Assurance checklist (included in this document as Appendix 1) shall be completed.
- The name of the appointed representative experienced in development/construction work with whom all discussions and correspondence relating to engineering matters will be undertaken with Council staff shall be identified.
- A Quality Management Plan that shall be compiled to a level of sophistication appropriate to the nature and scale of the proposed works. In the case of minor works this may entail documentation of an inspection by a suitably qualified person. More extensive works will require an appropriate level of quality management.

7.1 Street Landscaping

7.3 Berm Planting

All planting is to be carried out in accordance with the HCC RRPS Appendix C provided that no trees are to be planted that will reach a height of 16 metres.

VOLUME 3: TECHNICAL SPECIFICATIONS – Additions/Amendments

1.3 Blue/Brown Rock Specification (Subgrade Improvement Layer)

Further to Clause 1.3 of Vol 3, Part 3, the following requirements shall also apply for the application of blue/brown rock.

In some places, the blue/brown rock material needs to be tapered to thicknesses less than the materials maximum size. Therefore an AP40 material may be used in the finishing of this subbase layer to ensure that this can be achieved.

The construction shall comply with TNZ B/2, however the Contractor shall carry out the compaction testing (may need to break up larger particles to perform the compaction curve and CBR test to replicate field conditions). The Contractor shall confirm that the target density will consistently satisfy the minimum CBR requirement.

Evidence of these properties will be required for approval by the Engineer prior to its use.

1.4 WHAP Aggregate Specification

Further to Clause 1.4 of Vol 3, Part 3, the following requirements shall also apply for the application of WHAP aggregate.

Tests to check compliance with this specification shall be carried out on representative samples of the aggregate. These will be selected from the stockpile, truck or insitu on site and will be required for approval by the engineer, prior to its use.

13 Road Openings and Reinstatement (Pt 3, Section 13 and Vol 5, Pt 3, Cl 17.0)

For all excavations and reinstatement on MPDC roads, Section 13 of Vol 3, Part 3 shall apply, except where amended as follows (clause numbers refer to those in Vol 3, Pt 3, Section 13):

- All references to the "Transportation Unit" and "Transportation Unit Manager" shall be interpreted as "Kaimai Consultants" and "Roading Project Engineer".

- Add new sentence as follows:
  No trenching of services is permitted across existing concrete carriageways, entrances or footpaths.

- No fees are payable with the Road Opening Notice (RON), or for the initial inspection of the work. However, where the initial inspection identifies a defect, and a defect notice is issued for the site, Council may charge an inspection fee for each and every subsequent visit required to ensure that the defect has been rectified.

  A charge may apply where a Principal Provider's Contractor does not submit a RON for approval before commencing any excavation work, other than emergency work that is notified within one day of the start of emergency work.

14 Road Signs and Street Furniture

14.1 Sign Design and Construction

All Stop (RG5), Giveway (RG6) are to be of Class 1 Wide Observation Angle Prismatic (VIP or similar) reflectorised sheeting.

All other regulatory, warning and information signs are to be Class 1 High Intensity Prismatic grade reflectorised sheeting.

All parking signs are to be Engineering Grade reflective sheeting instead of non reflective, and shall be installed by an experienced signage installation person.

14.3 Street Name signs

14.3.1 Design

Street name signs are to be designed in accordance with the following specification:

i) Letter Height : 125mm for all road name signs with a single line of legend plus 60mm for any second line of legend.
(except supplementary "No Exit" or "Rapid Numbering" Blades)

ii) Letter Style : TNZ 'Transport' Medium – signs to include both upper & lower case letters and positioned to allow lower case letters, such as 'a', 'c', 'e', etc. to be central on blade.

iii) Letter Spacing : Standard spacing up to 12 letters, over 12 letters to be condensed to 70% unless directed otherwise by the Consent/Roading Engineer. All lettering to have minimum 60mm clearance to the end of the sign.

iv) Blade Depth : 200mm for all road name signs or 225mm where 2 lines of legend are required. The depth of the "I" extrusion shall be the measurement of the flat surface available for the application of the sign background surface. This measurement is referred to as the "target/reflective depth".

v) Blade Profile : A purpose designed, one piece, "I" section aluminium extrusion manufactured from alloy 6106 – T6 or equivalent as referred to in the Aluminium Development Council of Australia Standard, with a 90° cut at each end.

vi) Colours : White reflectorised lettering on blue reflectorised background, except for "Rapid", number plates which shall be 60mm reflective red numerals on white reflective background. All reflectorisation to be High Intensity Prismatic.

vii) Arrows : White Reflectorised Triangular arrow at the end of name plates.

viii) "No Exit" and "Rapid" numbering supplements: separate plate mounted below the road name plate by means of a female extrusion which slides onto the base of the main sign and is crimped in place.

Rapid numbering numerals to be 60mm.

Signs shall be either T5 or T6 Tempered aluminium "I" extrusion 135mm target/reflective depth and attached to the underside of the road name plate. Letter to be 60mm upper and 40mm lower case transport medium to the same specification as the road name sign.

15 Roadmarking

15.3 Paint Types

All roads are to be marked using Long Life or Waterborne paint.

15.3.1 Alkyd Paint

Delete entire clause.

15.3.2 Waterborne

"The finished dry film thickness shall be 250 microns or greater as defined by the equation in TNZ P/12 : 2000"

15.3.3 Chlorinated Rubber

Delete entire clause.

15.3.5 New Markings

All new markings shall be waterborne and not acrylic paint.

15.3.6 Reflectorisation

Intermix Beads with an application rate of 280g/m^2 retained shall be used.

18 As Built Plans and Asset Details

The GST/Asset Register in Appendix 4 shall be completed for all Assets. All "As built" plans and associated data shall be sent to the following:

In the case of all consents -

Planning Administrator
Planning Department
Matamata-Piako District Council
PO Box 266
Te Aroha 3320

Electronic copies of plans shall be emailed to planning_admin@mpdc.govt.nz.

In the case of a Council contracts -

Send to the Principals Representative where it will be forwarded to the appropriate asset manager.

VOLUME 4: QUALITY SYSTEMS FOR LAND DEVELOPMENT – Additions/Amendments

3.2 Testing Guidelines

Matamata-Piako District Council require the following information to be submitted before 224 approvals:

- A specific Roading Physical Works Quality Assurance Checklist (included in this document as Appendix 2) shall be completed by the engineers representative and then submitted for approval to Councils Consents/Roading Engineer.

VOLUME 5: DISTRICT COUNCIL REQUIREMENTS – Additions/Amendments

3.18 Vehicle Entrances Dimensions and Sight Distance Requirements (Dwg DCS 301)

Replace Dwg DCS 301 with MPDC Fig. 1 to Fig. 4 attached.

PART 4: STORMWATER DRAINAGE

VOLUME 2: DESIGN GUIDE – Additions/Amendments

4.2 General

Add; Stormwater proposals must take into account the requirements of Council's current stormwater discharge consents from Environment Waikato. All proposals must be consistent with the conditions of this consent including requirements for low impact

design principles, stormwater management devices and best practicable options as per Auckland Regional Council Technical Papers TP10, and TP 124.

Where the discharge is to an existing Council pipe network, it is Council's responsibility to assess compliance with these requirements for all new connections to its pipe network, and it will require the same conditions as applying to any new municipal stormwater system diversion or discharge activities.

In particular it will require that the new diversion or discharge does not increase peak discharge rates to, or flow volumes in, receiving waters above that which would occur at the time of the application for Council's current discharge consents – unless it is demonstrated that there shall be no adverse effects on the environment or downstream properties as a result of such increase. Acceptance will also be subject to compliance with the requirements for connections to the municipal stormwater system.

Where the new stormwater will discharge to other than an existing Council pipe network, the sub-divider is required to obtain a Discharge Consent, and a Resource Consent for the work within the watercourse, from EW in their own name. Proof of this is required before the subdivision can be approved. Council will still need to approve the proposals and thus there needs to be full consultation during the EW Consent process.

If Council is to take over the finished product, it will need to add the discharge to its own consent at the time of transfer. The consent must therefore specifically state that the work will comply with the requirements for a new municipal discharge as set out in Councils Comprehensive Storm Water Discharge Consent.

Overland flow paths must be able to cater for a minimum of a 1 in 50 year return period storm. Flood paths must be protected by an easement registered against the titles affected.

Where flood paths are not feasible the piped system must cater for a minimum of a 1 in 50 year return period storm.

Where disposal is to ground soakage with no flood path, the soakage must cater for a 1 in 50 year return period storm.

However in both cases above, taking into account the forecast increase in the Building Code from 1 in 50 year protection to 1 in 100 year, it is recommended that proposals include, as best engineering practice, provision for a 1 in 100 year return period storm.

4.1A Variations: Stormwater Drainage

The management of stormwater has a functional role in the urban and rural environments. It also has important cultural, aesthetic and environmental implications. The core design principles, context and site analysis and design elements referred to in Appendix 6 (Urban Design Considerations) are important components of establishing an appropriate design response and rationale for the stormwater management systems chosen for individual subdivisions, within the overall context of the area.

Stormwater run-off within a catchment shall be carefully managed in order to avoid (often cumulative) problems of flooding, erosion and pollution of water bodies. If stormwater disposal is managed in a sustainable manner, the impact on the environment is less and longer-term maintenance costs are reduced.

Understanding the implications of future land use and its design elements, such as the extent of site coverage, including paved surfaces, is important and should be taken into account.

Swales, larger grass verges, and detention basins can allow groundwater recharge, slow the movement of water, and reduce pollutants in receiving water bodies. These areas may also be used to enhance the amenity and natural quality of the subdivision and adjacent areas, contributing more widely to the environmental quality of the towns and district.

4.3.1 Design Requirements

Add

- Auckland Regional Council TP 108 Guidelines for stormwater runoff modelling in the Auckland Region. (note: Temporal patterns and Daily Rainfall Depth curves will need to be developed for use in the MPDC area)
- HIRDS High Intensity Rainfall Data (latest version) available from NIWA.
- Climate Change Effects and Impacts Assessment "A Guidance Manual for Local Government in NZ – 2nd Edition" published by the Ministry for the Environment.

4.6.1.2 Replace the table in figure 4.1 with the table below;

TABLE 4.1

Zoning	Industrial	Commercial	Residential (flat terrain)	Residential slopes >5%
Rainfall Intensity Curve Return Period in Yrs	*10*	*10*	5	5
Runoff Coefficient (C)	*0.75*	*0.75*	*0.55*	*0.6*

Figure 4.1, Clause 2.2, Rainfall intensities; replace "figure 4.3 is a rainfall intensity curve etc" with the words "Rainfall intensities are to be derived from the High Intensity Rainfall Data Sets, latest version, available from NIWA". Rainfall intensities are to be modified as per the *Climate Change Effects and Impacts Assessment (A Guidance Manual for Local Government in NZ – 2nd Edition)"* published by the Ministry for the Environment).

4.6.3 Replace the rainfall tables with the following table;

Factors for Deriving Extreme Rainfall Information in Matamata-Piako District

(These percentage adjustments are to be applied to the relevant data from the latest version of HIRDS)

	ARI (years)						
Duration	**2**	**5**	**10**	**20**	**30**	**50**	**100**
<10 mins	16.8	16.8	16.8	16.8	16.8	16.8	16.8
10 mins	16.8	16.8	16.8	16.8	16.8	16.8	16.8
30 mins	15.1	15.5	16.0	16.4	16.8	16.8	16.8
1 hour	14.1	14.9	15.5	16.2	16.8	16.8	16.8
2 hours	13.0	14.1	15.1	16.0	16.8	16.8	16.8
3 hours	12.4	13.7	14.7	15.8	16.8	16.8	16.8

6 hours	11.1	12.8	14.3	15.5	16.8	16.8	16.8
12 hours	10.1	12.2	13.7	15.3	16.8	16.8	16.8
24 hours	9.0	11.3	13.2	15.1	16.8	16.8	16.8
48 hours	8.0	10.5	12.8	14.9	16.4	16.8	16.8
72 hours	7.4	10.1	12.4	14.7	16.2	16.8	16.8

4.8 The Hydraulic Design of Pipelines (Clause 4.8)

Replace the first bullet point with the following:

- No stormwater pipeline, other than connections to individual lots, shall be less than **300mm** diameter.

4.21 STORM WATER DISCHARGE FROM PRIVATE LAND

Replace the first bullet point with the following:

- Where soakage is not viable, storm water shall be retained in a storm water retention tank designed in accordance with NZ Building Code Compliance Document E1 Surface Water. The retention tank shall be fitted with a 25mm diameter restrictor on the connection to the stormwater system.

VOLUME 3: STANDARD TECHNICAL SPECIFICATIONS – Additions/Amendments

4.5 Acceptable Fittings and Materials (Section A)

Replace Section A with Appendix 2: Approved Products Lists (attached)

SECTION C: WORKS COMPLETION AND CLEARANCE

Entire Section (Clauses 1.0 to 5.0) shall be replaced with Appendix 4 of this supplement. All "As built" plans and associated data shall be sent to the following:

In the case of all consents -

Planning Administrator
Planning Department
Matamata-Piako District Council
PO Box 266
Te Aroha 3320

Electronic copies of plans shall be emailed to planning_admin@mpdc.govt.nz.

PART 5: WASTEWATER DRAINAGE

VOLUME 2: DESIGN GUIDE – Additions/Amendments

5.1A Variations: Wastewater Drainage

Where consideration is given to alternative wastewater systems, such as, for example, pressure sewer technology. Attention is drawn to the overriding factors that will be used in evaluating alternatives, particularly, but not restricted to, safe and functional outcomes, sustainability of alternatives and economics of long term maintenance.

5.13 Connections

Replace the last paragraph with:

"All connections, which are to be made directly to the line up to 150mm diameter, shall be cut into the main line using a PVC "wye" and approved rubber adapters. Larger diameter connections shall be designed using a factory manufactured "wye" or "London Junction". All connections shall be watertight."

5.19.5 Pump Station Storage

All pump stations shall have a minimum of 12 hours storage at Average Daily Flow.

VOLUME 3: STANDARD TECHNICAL SPECIFICATIONS – Additions/Amendments

1.0 Scope (Section A)

All information shall be addressed to the Resource Consents Engineer, Matamata-Piako District Council

5.2 Acceptable Fittings and Materials (Section A)

Replace Section A with Appendix 2: Approved Products Lists (attached)

4.0 Alarm System (Section B)

Note; MPDC use ABBEY telemetry systems

8.5.20 Level Control

Note; MPDC have used a variety of controllers with varying success and now prefers to use a system based on pressure control. A pressure sensor shall be connected to a small PLC with operator display showing the following information: Well level and the following alarms; High level, Overload fault pump 1 and 2, High Amps pump 1 and 2, Low Amps pump 1 and 2, Power fail, Well level sensor fault. The PLC with operator display will have the following indications and control functions; pump run hours, pump starts, stop level in millimetres, standby levels in millimetres, current duty pump, fault reset, hour and start counter resets and change set points.

8.5.23 Telemetry

MPDC uses an ABBEY based telemetry system. Replace the words Qtech Datran with the words ABBEY Systems. The ABBEY Swampfox RTU shall be used.

SECTION C: WORKS COMPLETION AND CLEARANCE

Entire Section (Clauses 1.0 to 5.0) shall be replaced with Appendix 4 of this supplement. All "As built" plans and associated data shall be sent to the following:

In the case of all consents -

Planning Administrator
Planning Department
Matamata-Piako District Council
PO Box 266
Te Aroha 3320

Electronic copies of plans shall be emailed to planning_admin@mpdc.govt.nz.

PART 6: WATER SUPPLY

VOLUME 2: DESIGN GUIDE – Additions/Amendments

6.1A Variations: Water Supply

Where it is proposed to provide a private water supply serving more than one property, attention is drawn to the requirements of the Health (Drinking Water) Amendment Act 2007. In particular the water supply shall be registered with the Director General (of Health) and shall comply with various requirements laid down in the Act where applicable.

6.1 General – Level of Service (Clause 6.2.3)

Replace 3rd paragraph with:

The Council reticulated working residual water pressure in other than fire fighting conditions shall in all areas be no less than 150 kPa (1.5 atmospheres, 15m head of water) at ground level at the building site in each lot in urban areas, and at the point of connection in rural and rural residential areas.

Where a proposed development is currently outside an Urban Fire District, Council will require all water mains will be vested with Council shall have hydrants affixed in accordance with the NZ Fire Service Code of Practice for Fire Fighting Water Supplies as applying within Urban Fire Districts.

Rural dwellings not served by a public supply shall install adequate water storage to meet the New Zealand Fire Service Fire Fighting Water Supplies Code of Practise SNZ PAS 4509:2008, Table 2 and Appendix B.

6.2 Pipe Working Pressures (Clause 6.4.6)

The minimum acceptable pipe class in Matamata-Piako District water supply areas is PN12.

6.3 Point of Supply to Consumer

The point of supply to the consumer is shown on Drawing No. WS 01.

The following practices should be followed for Matamata-Piako District Council:

- One connection per lot to be provided.
- No water supply pipes shall pass between one lot and another except where lots are amalgamated under one rating assessment.
- Services shall be located **against the boundary** at the centre of each front lot or close to one side boundary of the access ways to rear lots (refer to HCC Standard Drawings – Vol 3).
- Meter box shall be located clear of any vehicle movements.
- Easements for water supply through road frontage lots to back lots will require specific approval and generally will only be considered in “two-lots-from-one” type developments **in situations where it is impractical to locate the connection within the ROW or access lot boundary.**

6.4 Services in Access ways, Lots or Right of Ways (Clause 6.13.2)

Replace paragraph a) with the following:

"a) Urban Areas
One connection approved manifold including dual check valve, and standard meter box per lot to be provided."

Replace paragraph c) with the following:

"c) Rural and Rural Residential Areas
- One connection, approved manifold including dual check valve, gate valve, meter and standard meter box per lot to be provided.
- A rider main shall be provided if the ROW is greater than 40m length and services 2 or more lots.
- Rider mains pipe works shall be 63mm OD MDPE.
- Service pipes crossing the access shall be 25mm OD MDPE and shall be placed in 50mm internal diameter ducts.
- The supply shall be designed in the grass berm and clear of the invert of any swale drains.

VOLUME 3: TECHNICAL SPECIFICATIONS – Additions/Amendments

6.5 Acceptable Fittings and Materials (Section A)

Replace Section A with Appendix 2: Approved Products Lists (attached)

6.6 Section E - Valve and Hydrant Markers (Clause 9.0)

As per HCC requirements except that fire hydrants in all areas shall be indicated with blue raised reflective pavement markers.

6.7 Section F – Services up Access ways, Lots or Right of Ways (Clause 3.3)

Refer to Design Guide requirements in Clause 6.5 above.

6.8 Section F - Toby Boxes (Clause 3.8)

Polyethylene meter box shall be used for all water connections as per Drawing No's. WS 01and WS 03

6.9 Section H – General Requirements (Clause 1.0)

As per HCC requirements except that other approved chlorine-based disinfection agents may be used as an alternative to tablets

6.10 Section H – Disinfection (Clause 2.0)

As per HCC requirements except that the minimum free chlorine concentration allowed shall be 3 mg/litre (instead of 10) after 24 hours contact time.

6.11 Section I – Testing (Clause 4.0)
Replace clause 2 with the following clauses

For Cast Iron, Concrete Lined Spiral Steel, MPVC and OPVC pipes the following shall apply:
The test shall be carried out, and all necessary apparatus supplied, by the developer.

- Apply a test pressure of 1400 kPa measured at the lowest point of the section under test, or 1.5 times the working pressure at any point in the system, whichever is the greater.
- Maintain test pressure for a period of 15 min.
- Check for obvious leaks and during the period of the test, the leakage shall not exceed one litre per ten millimeters of pipe diameter per kilometer length of pipeline per hour.
- Before arranging connection to the existing reticulation, the Engineer or Council's representative may require a similar test after completion of backfilling and any other adjoining works which may affect the water reticulation.

After clause 2 insert

For HDPE and MDPE > 63 OD, the following shall apply:
The test shall be carried out, and all necessary apparatus supplied, by the developer.

- Ensure that all air is vented from the pipe to be tested
- apply a test pressure of 1100 kPa, or 1.5 times the rated pressure whichever is lower;
- maintain pressure for 30 minutes by additional pumping if required;
- check for obvious leaks;
- after 30 minutes reduce pressure rapidly by bleeding water from the system to a nominal pressure of 200 kPa;
- close control valve to isolate the installation;
- record pressure readings at convenient intervals for 50 minutes;
- If the pressure does not rise, or falls after an initial rise, a leak must be suspected.

The pressure shall be maintained for a period of 60 minutes without makeup pressure and during the period of the test, the test section should show no evidence of leaks and is allowed a max of 10% loss in pressure due to expansion of the pipe. Before arranging connection to the existing reticulation, the Engineer or Council's representative may require a similar test after completion of backfilling and any other adjoining works which may affect the water reticulation."

SECTION J: WORKS COMPLETION AND CLEARANCE

Entire Section (Clause 1.0 to 5.0) shall be replaced with Appendix 4 of this supplement. All "As built" plans and associated data shall be sent to the following:

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PART 7: STREET LANDSCAPING

Throughout Part 7 all reference to the Hamilton City Road Reserve Planting Strategy shall be replaced with the recommendation from Council's Community Facilities Manager. All reference to Bark shall be replaced with Tree Mulch.

The street landscape is the backbone of a high quality urban environment. The standard and appearance of street trees, plantings, paving, walls, fences, seats and other structures play an important role in establishing the identity, quality, safety, amenity, visual interest and ecological contribution of the subdivision. The core design principles, context and site analysis and design elements, referred to in Appendix 6 (Urban Design Considerations), are integral to establishing an appropriate design response and rationale for the street landscapes within individual subdivisions and in the context of the surrounding area in which they are located.

As densities and development increases there is more reliance on the street to provide public open space and amenity, contributing to the natural environment. Therefore, the quality and design of the street is very important in the overall context of urban development. ***However it is important that consideration be given to road widths, utility assets above and underground, on-going maintenance, the life-cycle, and the effects on adjoining building sites and properties.***

Street landscaping, and the nature of it, can play a role in Crime Prevention Through Environmental Design (CPTED).

In a rural environment the landscape elements are primarily located in private space alongside the road, or the public space tends toward a more naturalised character and low key environment. The rural character should be reflected through the simplicity of the design and a less structured approach.

VOLUME 2: DESIGN GUIDE – Additions/Amendments

7.1 Introduction

The reference to the The Manager, Parks and Gardens, or nominee, shall be replaced with the Community Facilities Manager.

VOLUME 3: TECHNICAL SPECIFICATIONS – Additions/Amendments

7.0 Mulch (Section 1)

Only Tree Mulch shall be used.

2.0 Fencing (Section 3)

Fencing is required for all work on esplanades.

32.0 NEW: Asset Details

Schedule of Assets to be registered with Council. The following data shall be presented in an electronic spreadsheet:

- Description
- Make/Model
- Quantity
- Quarry
- Rate
- Cost

A copy of the completed spreadsheet shall be emailed to planning_admin@mpdc.govt.nz

PART 8: NETWORK UTILITIES

8.1 Location of Above Ground Services (Vol 1, Part 2, Clause 2.2.1.3)

Utility location drawings shall be submitted to the Roading Manager for approval prior to any works commencing. Where the adjacent carriageway design speed is 80km/hr or greater, all new services to be placed above ground shall be outside the Clear Zone defined in MPDC Table 3.1, unless specifically authorised in writing by the Regulatory Planning Department. This shall include service poles (unless frangible or where AADT >1000 slip-base type installations shall be specified) and stays, as well as service cabinets and pedestals.

8.2 Waterway Crossings

Any services crossing drains or waterways within the road reserve shall do so without utilising Council road bridges or culvert crossings unless specifically authorised by the Regulatory Planning Department. Any such approval will be given at Councils pleasure and the services shall be relocated, at the service owners cost, at Councils request at any time.

8.3 Location of Underground Services (As-Built Drawings) (Vol 1, Part 2, Clause 2.4.3)

If Council requests, an electronic record shall be provided suitable for direct input to the Council GIS system, (i.e.: MapInfo Tables in NZTM) showing the location of all buried services within the road reserve. Depth and detailed (commercially-sensitive or otherwise) specifics of the services are not required (unless the stipulated minimum cover has not been achieved). This information is necessary for the management of the road reserve asset, including forward planning of future roading and services development.

8.4 Broadband

The developer shall make arrangements with a broadband network provider to provide for the supply and installation of broadband services. This shall involve the design and installation of appropriate ducting, in readiness for the installation of broadband cabling. Where a broadband network provider is not able to provide a suitable layout then the developer shall use a nominated Broadband designer to provide a suitable detailed design at his expense.

1. The reticulation shall be provided underground to a minimum final cover depth of 600mm below finished surface level.

2. The reticulation shall be installed in the road berm, parallel to property boundaries, where possible. All properties shall be serviced.

3. The reticulation shall not compromise or obstruct other infrastructure in the road corridor. The reticulation shall not be located within 250mm of any Council service. If this cannot be achieved, Council may require the developer to undertake post construction CCTV inspection of Councils services, at the cost of the developer to ensure that no damage has occurred to these Council services during installation and construction. The developer shall consider future access points to avoid conflict with other infrastructure.

4. The ducting shall have a minimum internal dimension of 100mm diameter.

5. The ducting shall be uPVC plain wall pipe with a minimum SN 4 rating.

6. The ducting shall provide for, the installation of, fibre optic cabling and shall adhere to minimum radii requirements for the cable on all changes of direction

7. The ducting shall be purple in colour.

8. The ducting shall be vested with Council who shall maintain control over who can install cabling within the ducting.

9. The layout of the ducting should be such as to minimise disruption and disturbance when cabling is installed.

10. The design of the ducting shall reduce and minimise the requirement for ongoing maintenance and ensure the maximised lifespan of the infrastructure.

11. Should an above ground cabinet or chamber be required, this shall comply with the relevant provisions of the District Plan. At least 20 working days notice shall be given to Council of the developers or Telecommunication operators intention to install a cabinet or chamber on Council owned or controlled land.

12. Due to the advancement of ducting materials and specifications, council will give consideration to alternative materials and specifications being offered on a case by case basis.

13. Council will not issue a 224 certificate under Section 224 of the Resource Management Act 1991 until the developer provides evidence that the ducting meets the above requirements and that working broadband infrastructure could be installed to meet the above outcomes.

14. As built records and drawings identifying the layout and, depth of the ducting, bends and joints shall be provided to Council.

ISSUES

1. Council's role.

2. Vesting of the ducting / cabling. (If with Council any on-going maintenance and costs associated

3. Minimum standard of the cabling - fibre optic, normal cable, copper analogue.

4. Standard of the ducting - diameter, connections, pipe thickness.

5. Minimum internet speed provided.
6. Location and layout – connections, road crossings.
7. Method of installation.
8. Access to the ducting
9. Above ground cabinets / underground chambers.
10. Layout that maximises signal coverage and reduces signal loss.
11. How the infrastructure is to be checked/verified for the Section 224 certificate.

VOLUME 5: DISTRICT COUNCIL SUPPLEMENT/AMENDMENTS – Additions/Amendments

PART 5: Wastewater Drainage

2.0 Reference to table 5.1 NZS 4404:2004 to be removed. Approval to be obtained from Matamata-Piako District Council.