NZTA T24: 2025

Determination of the Plateau Dry Density for Pavement Layers

NZ TRANSPORT AGENCY
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Te Kāwanatanga o Aotearoa
New Zealand Government

1 Scope

This specification describes the procedure to determine the Plateau Dry Density for unmodified, chemically modified, bitumen stabilised or bound granular pavement layers, excluding subgrades and subgrade improvement layers.

The aim of the Plateau Density Test (PDT) is to establish the maximum in-field dry density for comparison with the laboratory Maximum Dry Density (MDD-Lab), for potential use as Target Dry Density (TDD) for construction Lot compliance testing.

The two outcomes of the Plateau Density Test are to establish:

(a) Roller Pattern – the combination of rolling pattern and compaction equipment (type and weight) required to achieve close to or above the laboratory Maximum Dry Density; and

(b) Plateau Dry Density (PDD) – the maximum achievable Dry Density (PDD) for the Test Section, which has been compacted using the roller pattern established.

This procedure establishes the collaborative processes required, in which both sampling and testing are carried out by an IANZ accredited laboratory, while the Contractor directs resources to ensure overall construction processes and quality. The Contractor is accountable for the entire process.

2 Referenced Documents

The following referenced documents are applicable to this pro. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

2.1 NZ Transport Agency

Reference	Title
NZTA B02	Specification for the Construction of Unbound Granular Pavements.
NZTA B05	Specification for the In-Situ Stabilisation of Modified Pavement Layers
NZTA B06	Specification for In-situ Stabilisation of Bound Sub-base Layers
NZTA B07	Specification for the Manufacture and Construction of Plant Mixed Modified Pavement Layers
NZTA B08	Specification for the Manufacture and Construction of Plant Mixed Bound Sub-Base Pavement Layers
NZTA T19	Procedures for Design and Indirect Tensile Strength of Modified and Bound Pavement Materials.
NZTA T28	Test Method for the Determination of the Dry Density and Water Content Relationship of Aggregate.
NZTA Z01	Minimum Standard for Quality Management Plans
NZTA Z08	Standard for Inspection, Sampling and Testing

2.2 Standards New Zealand

Reference	Title
NZS 3910	Conditions of Contract for Building and Civil Engineering Construction.
NZS 4407	Methods of Sampling and Testing Road Aggregates.
NZS ISO/IEC 17025	General Requirements for the Competence of Testing and Calibration Laboratories.

2.3 Other

(a) Project-specific Quality Management Plan (QMP) as per the Contract requirements and NZTA Z01.

(b) Project-specific Inspection and Test Plan (ITP) as per Contract requirements and NZTA Z08.

(c) CCNZ, NPTG, CETANZ Unconfined Compressive Strength (UCS) Industry Guidance for Cement Bound Aggregates.

3 Definitions

Term	Definition
CBR	California Bearing Ratio test as in NZS 4407 test 3.15.
Final Compaction (FC-Max)	Compaction effort required to achieve maximum dry density using static compaction plant.
ITS	Indirect Tensile Strength as in NZTA T19.
Laboratory Maximum Dry Density (MDD-Lab)	Maximum dry density of a granular pavement material established in the laboratory using the procedure of NZTA T28.
Maximum Primary Compaction (PC-Max)	Compaction effort required to achieve maximum dry density using primary compaction plant.
Maximum Secondary Compaction (SC-Max)	Compaction effort required to achieve maximum dry density using secondary compaction plant.
NDM	Nuclear density meter calibrated in a manner traceable to national standard of mass and volume and operated in accordance with NZS 4407 test 4.2 or 4.3 as appropriate.
Pass of roller	A Pass is one complete coverage of the Test Section with the required compaction equipment. Four passes means that the roller covers an area four times, not four trips back and forth.
Plateau Density Test (PDT)	Field-based test procedure defined by this document to establish the maximum dry density for a granular pavement material achievable in the field.
Plateau Dry Density (PDD)	the maximum dry density achieved in the field using the Plateau Density Test.
Target Dry Density (TDD)	Dry density value used for determining compliance of compacted granular pavement materials in the field. It is derived from either the Plateau Dry Density or the Laboratory Maximum Dry Density.
UCS	Unconfined Compressive Strength testing as in CCNZ, NPTG, CETANZ Unconfined Compressive Strength (UCS) Industry Guidance for Cement Bound Aggregates

4 Quality Management Requirements

4.1 General

All sampling and testing shall be undertaken by a Laboratory accredited to NZS ISO/IEC 17025, with the following test methods included in their Schedule of Accreditation:

(a) NZTA T28, Test Method for the Determination of the Dry Density and Water Content Relationship of Aggregate.

(b) NZS 4407, Part 2 not excluding clauses 2.4.7 and 2.4.8.

(c) NZS 4407, Test 3.1, Testing water content of aggregate.

(d) NZS 4407, Test 4.2, The field water content and field dry density of compacted materials – method using a nuclear moisture-density gauge – direct transmission.

(e) NZS 4407, Test 4.3, The field water content and field dry density of compacted materials – method using a nuclear moisture-density gauge – backscatter mode.

4.2 Frequency of testing

The Plateau Density Test procedure shall be carried out at the test frequencies stated in the contract specifications.

4.3 Hold Points

The Quality Management Plan (QMP) shall state the name and position of the delegated Certifier named in the Contract for the release the Hold Points as these differ by form of contract e.g. the Principal (NZTA or their Agent), Independent Certifier (NZS 3910), or Authorised Person (NZTA Z08).

The Inspection and Testing Plan shall include all Hold Points listed in Table 1, as a minimum.

The Certifier shall verify the Z08 Hold Points, and no work shall proceed beyond the Hold Point until the release of the Hold Points in Table 1.

Records of the test site location/s, conditions and test results shall be submitted to the Certifier for their review and approval of the ITP, as required in Table 1.

Table 1: Hold Points

	Z08 Hold Point Type	Certifier on-site attendance	Release conditions	Hold Point after the following Test Method steps
1	Surveillance (S)	Not required	Contractor's review and signature required on the ITP and backup documentation.	6.3 Preconditioning and sampling.
2	Surveillance (S)	Not required	Contractor and Laboratory joint review and signature required on the ITP and backup documentation.	6.3 Mixing, preconditioning and sampling, Sub-clause i)
3	Witness (W)	Attendance at site *expected*, but not mandatory.	Certifier's signature is *required* on ITP and its backup documentation but is not necessarily present on site. Follow-on work may proceed only after documentation is completed *and* the Hold Point document(s) signed and released.	(d) PDD Validation 6.6 Setting TDD

5 Apparatus

The following information, apparatus and equipment is required prior to starting the procedure:

(a) The apparatus and equipment as required in NZS 4407 Test 4.2 and Test 4.3.

(b) Power drill and 19 mm drill bit, approximately 300mm long.

(c) Compaction equipment for each stage of the Plateau Density Test (PDT), as required in the Quality Management Plan or pavement construction methodology.

(d) A paper or electronic copy of the laboratory MDD results determined prior to construction e.g. MDD-Lab value from stabilisation optimisation testing or quarry tested MDD for virgin aggregate.

6 Procedure

6.1 General

(a) The PDT will take approximately one hour to complete if the rollers are heavy enough. Where stabilising agents are added, it shall be completed in the time required in the construction specifications, e.g. B02 or B05 specifications.

(b) The PDT compaction methodology shall match the compaction process at all stages. For instance, if a 12 tonne vibratory drum roller is used for secondary compaction, it should be included in the PDT process.

(c) Rollers must have sufficient static and dynamic mass to compact the full layer depth uniformly in density and appearance.

(d) Compaction rolling shall be done at optimal speed, around 4 km/hr (walking speed).

(e) Where the layer has a stabilising agent added, the laboratory MDD shall be carried out on site, or at a facility close enough that laboratory compaction is completed within the specification time limits set for primary compaction (e.g. NZTA B05, B06, B07 and B08).

6.2 Test Section location

After preparation as per Project Specifications and/or the QMP Methodology, the Test Section must meet the following requirements:

(a) It must be part of the permanent contract works.

(b) It must not be in the same location as previous PDT for underlying layers.

(c) It must exclude pavement thickness transition or tie-in areas.

(d) It must represent the test Lot as defined in the relevant specification.

(e) It must be constructed to meet specification requirements (materials spreading, layer thickness, etc.).

The Test Section must meet the dimensions in Figure 2 for in-situ recycling or stabilisation, or Figure 1 for grader worked lane, or full-width construction, starting at the beginning of the representative Test Section.

6.3 Mixing, preconditioning and sampling

(a) Add the stabiliser, if applicable, mix and ‘iron’ the test Section using up to two passes of the primary compactor in static mode. These passes are not included in the final rolling pattern but noted on the report.

(b) After pre-conditioning, the Laboratory and Contractor, and, if available, the Principal or their agent must do a joint inspection to ensure it is uniform and meets specification requirements. Take a photo prior to inspection. This is a **HOLD POINT.**

(c) If there is disagreement as to whether the layer meets specifications or methodology, the Contractor shall decide whether to continue, terminate, or if further preparation is needed. If the Contractor continues without further preparation, this shall be noted in the test report.

(d) The Laboratory will test point X0, about 25m from the start of the Test Section with supplementary test points, X1 and X2, about 10m on either side of X0, as shown in Figure 2 and Figure 1. Record the test point locations in the test report.

(e) Mark the NDM test points (X1, X0, and X2) using a spray paint outline of the nuclear density gauge (NDM) or a template.

(f) Sampling points, marked as “a” to “e” in Figure 2 and Figure 1 shall be chosen and recorded on the test report, and the following sampling and testing shall be undertaken:

i. NDM Backscatter (60 second count) testing for wet density, dry density and water content at all five sample points “a” to “e”.

ii. Sampling and testing, as per contract specifications, with all testing completed within the specified time limits, taken from time of adding stabiliser to completion of testing:

a. Water content samples for NDM water correction purposes (as per NZS 4407) taken from points “a” to “e”.

b. The MDD-Lab, CBR, UCS and ITS samples may be taken at the same time or distributed throughout the Lot.

iii. The sample holes shall be backfilled using similar processed material.

(g) All subsequent nuclear density testing shall be made with the nuclear density meter (NDM) pointing in the same direction as these initial tests.

(h) Water should ideally not be added during the Plateau Density Test. However, if water needs to be added on a hot day, care must be taken not to increase it beyond Optimum Water Content, or to create uneven moisture conditions, and additional water correction samples and testing should be taken.

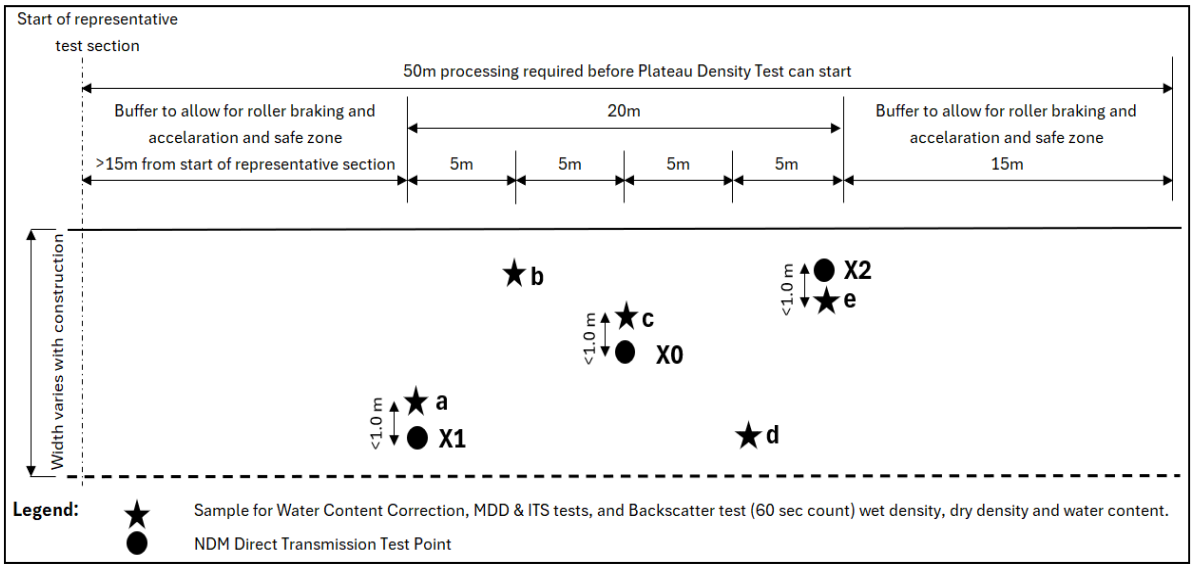


Figure 2: Test Section minimum dimensions for a grader, lane width or full road width process (generally NZTA B02, B07 or B08 specification).

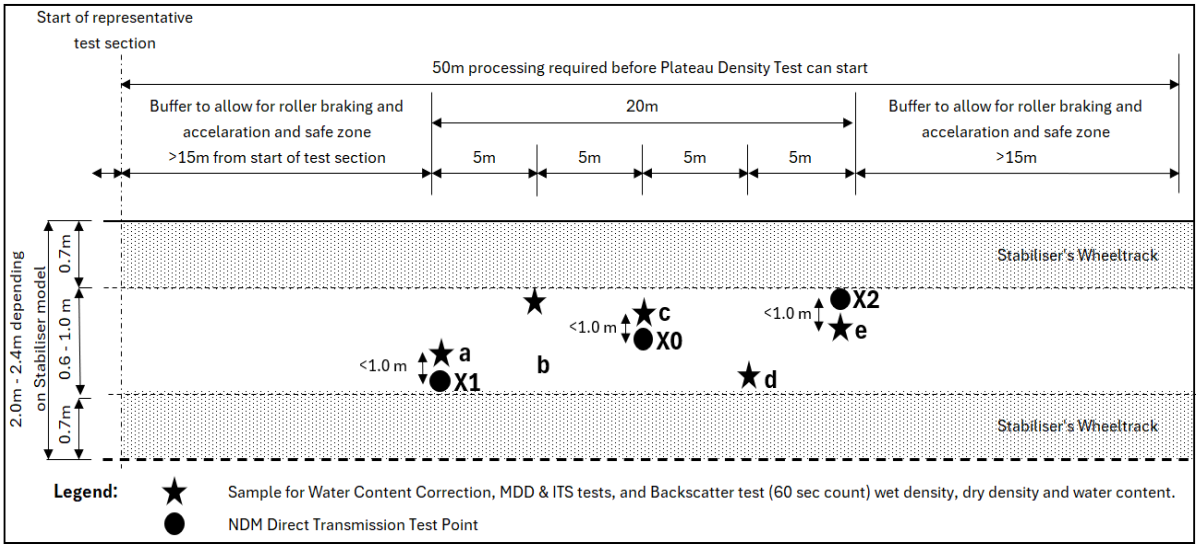


Figure 1: Test Section minimum dimensions for a stabilisation type process (generally NZTA B02, B05 or B06 specification)

(i) On completion of the pre-conditioning, the Laboratory and Contractor shall jointly inspect pad and agree it represents the specified requirements, i.e. the materials spreading, layer thickness, before continuing the test. This is a **HOLD POINT.**

6.4 Compaction and Testing Procedure

6.4.1 Determining Maximum Primary Compaction (PC-Max)

(a) The Laboratory must record the compaction equipment in the PDT report, including model, type, weight, and vibration setting.

(b) The Contractor shall perform the first set of 4 roller passes over the full 50m Test Section surface as per the QMP methodology, generally in High Amplitude, taking the following into consideration:

i. *Layer Monitoring*: During compaction, the Contractor shall monitor for signs of pavement deformation as per Table 5, with the Laboratory noting any observations on the test report. If the layer mobilises or deforms, compaction shall be stopped to determine the cause.

ii. *Use of pad foot rollers*: If a pad foot roller is used as primary compactor, the surface shall be trimmed for testing and roll two passes with a static smooth drum roller, before testing. Trimming may be done with a spade or grader.

iii. *Safety*: On completion of the sets of roller passes, all plant shall be moved at least 10m away to avoid presenting a safety hazard to the Laboratory staff.

(c) Prior to NDM full-depth Direct Transmission testing using 15 seconds count time, i.e. DT (15 seconds), at X0 after each set of roller passes, the Laboratory shall:

i. Ensure that the test surface is fit for testing, i.e. clear of loose material, flat and free of depressions.

ii. Prepare the pre-marked test points for testing at X0, using the guide plate and drive pin (or drill) to form the test hole to the full layer thickness plus 50mm.

iii. Re-form the same test hole using the guide plate and drive pin or drill, if necessary.

iv. Drill a new test hole if the test hole is damaged and unusable, moving the location minimally onto the NDM test surface.

v. Respray test points intermittently to maintain visibility.

(d) Record the depth of testing. If the depth of testing is less than the full depth of the layer due to NDM limitations, record this depth as well. For example, if full depth for a 180mm layer can't be tested because the probe locks in at 25 mm or 50 mm increments depending on model, record that the layer was tested at 175mm or 150mm respectively.

(e) Test the uncorrected dry density and water content using full-depth DT (15 seconds count) at X0, ensuring:

i. The probe is pulled back against the hole for maximum contact with the layer.

ii. Results are reported to the nearest 1 kg/m³ (0.001 t/m³).

iii. The uncorrected dry density results are continuously plotted against the number of roller passes on the test report graph, or a digital equivalent (see Appendix B).

(f) Subsequent roller pass sets may be reduced to 2 roller passes before the full-depth DT (15 seconds count) is carried out at X0.

(g) This pattern of rolling and testing shall continue until the difference between three consecutive uncorrected dry density test results at X0 is within 60kg/m³, considering the following:

i. Challenges to identify the maximum density point as the layer material and compaction method will determine how quickly the density increases, decreases, or fluctuates.

ii. When dry density decreases, it may be due to a false peak. Inspect the layer material for crushed or fractured aggregate particles, and if none are found, continue rolling and testing until the above conditions are met.

(h) Compaction shall halt at this point, and the Laboratory shall test at X0, X1 and X2, using a full-depth DT (60 seconds), recording each result, while taking Table 2 into account:

Table 2: Assessing PC-Max.

Condition	Action required by the Contractor
All test results within 60 kg/m^3	PC-Max reached. Calculate and record PC-Max as the average of the revised uncorrected dry densities at X0, X1 and X2.
Variance of 1 result > 60 kg/m^3	i. Retest the uncorrected dry density within 0.5m of that point, using full-depth DT (60 sec). ii. If the retest still remains >60 kg/m^3, carry out two extra passes and repeat the testing at only X0 as per Step (e). If the density increases, repeat step (f) and (g). iii. If dry density still remains below 60 kg/m^3, record result but exclude from analysis.

(i) Plot the uncorrected dry density at X0 and uncorrected PC-Max as indicated in Figure 2 in Appendix A.

(j) Check and relevel the Test Section to line and level regularly to avoid layer lamination at any time during the process.

Note: If re-levelling is required, it should be done early enough in the process such that lamination is not likely, the Contactor shall scarify to rework enough material to avoid thin laminate at the surface.

6.4.2 Procedure for determining Maximum Dry Density for Secondary Compaction (SC-Max) and Final Compaction (PDD)

After changing the roller type, mass and/or vibratory mode as per the QMP methodology determine the secondary or final compaction maximum dry density achievable using a procedure similar to PC-Max, with the following changes:

(a) Inspect and clean the roller drum between phases as it affects the Test Section surface and therefore test results.

(b) Remove any layer of fines on top of the test point to expose the underlying mosaic prior testing.

(c) Reduce the variance conditions Table 2 to 50kg/m^3.

(d) When all conditions are met, record SC-Max (or FC-Max) test results and plot the uncorrected dry densities.

6.5 PDD Validation

Validate the dry density achieved as PDD dependent on the conditions in Table 3 below:

Table 3: Validating Plateau Dry Density

Condition	Action required by the Contractor
(a) SC-Max < PC-Max or SC-Max < MDD-Lab	i. Continue with one or more sets of roller passes, reviewing SC-Max > PC-Max and test variation < 50 kg/m^3. Exclude extra sets in roller pattern if no higher density is achieved; OR ii. Consult with the Designer or Principal about ceasing compaction or continuing to FC-Max; OR iii. Consider another test section.
(b) SC-Max ≥ PC-Max	i. FC-Max may be excluded. ii. Where all results are within 50 kg/m^3, PDD = average of all 3 results or iii. Where only 2 results are within 50 kg/m^3, PDD = average of 2 closest results.

The rolling pattern established should be incorporated into the site work instructions to the construction crews.

6.6 Setting the Target Dry Density

The Target Dry Density (TDD) for compliance shall be calculated by the Laboratory in accordance with the contract specifications. Where no direction is given in the specifications, it shall be established using Table 4.

Table 4: Setting the Target Dry Density (TDD) in the absence of specification guidance.

Condition	Calculation for Target Dry Density TDD
PDD ≥ MDD-Lab	TDD = PDD
PDD < MDD-Lab	Agreement to be reached between Contractor and Principal to accept either the MDD-Lab or the PDD as the TDD.

This is a **HOLD POINT**.

6.7 Nuclear Densometer Water Correction Factor

(a) Determine the laboratory oven-dry Water Content of the five field samples (“a” to “e”) collected.

(b) Correct the measured field Dry Density and Water Content as required by NZS 4407 test 4.2 clause 4.2.6 or test 4.3 clause 4.3.6, as appropriate.

(c) This water correction may be used for correcting the field Dry Densities of the representative Lot during compliance testing, unless otherwise specified.

Note to Laboratory: This is a client specified change to the New Zealand Standard test method and should be recorded as such on the test report and compliance test reports, where used.

6.8 Monitoring of Visual Condition

(a) During the test procedure, the Laboratory and Contractor shall monitor the Test Section surface in accordance with Table 5 to identify and manage issues related to either materials or construction methodology.

(b) The Laboratory shall report any issues identified on the Plateau Dry Tensity test report in accordance with NZS ISO/IEC 17025 clause 7.8.7, *Reporting opinions and interpretations*.

Table 5: Factors or signs of degradation for carrying out the visual assessment.

Degradation Mode	Visual assessment
Aggregate crushing	Larger aggregates splitting or breaking down, or areas where aggregate has been crushed fine.
Shearing of the compacted material	Exhibited as jagged, semi-parallel cracking patterns, generally perpendicular to the direction of rolling. This usually occur when the final density is achieved and the extent to which the shearing occurs needs to be assessed.
Segregation	Layer appears variable with loose or segregated i.e. bony or fine areas.
Dedensification	Areas where the material appears loose, generally in shallow layers on the top.
Biscuit layers / caking / interlayers	Compacted thin layers of fine aggregate which are delaminating from the layer and in limited areas. These

Degradation Mode	Visual assessment
	must be removed during the final rolling and slushing, generally by means of a mechanical broom.
Weaving or mobilisation	Mobilisation of underlying layers or subgrade, generally due to moisture. Stop work immediately to determine cause.

7 Reporting

The Laboratory shall include the following as a minimum in the test report:

(a) Project details, including name and road location.

(b) Weather conditions.

(c) Description of aggregate material, with photographs of Test Section – prior and post compaction.

(d) Layer thickness or in-situ mixing depth.

(e) If applicable binder(s) type and content; and the time lapse from time of mixing with binder(s) to finishing the Primary Compaction.

(f) Compaction equipment details for each compaction stage – Make and Model (including type and mass) and Licence Plate or fleet no.

(g) Nuclear density meter manufacturer, model and serial number.

(h) Nuclear density test method and timing

(i) Method used to form the nuclear density meter test hole (drive pin or drill).

(j) Laboratory optimum water content (OWC) and Maximum Dry Density (MDD-Lab), if known.

(k) Water content, water content correction, and Plateau Dry Density.

(l) Plateau Density Test validity assessment.

(m) Comments from either the Laboratory or the Contractor during the process.

Appendix A: Abbreviated Plateau Testing Procedure

This is not the full procedure. It is a prompt for Laboratory and Contractor.

1. Choosing and preparing the Test Section (6.2 - 6.3)

(a) Choose a representative test section of at least 50m, ensuring that it is smooth and constructed to line and level, and outside of any areas where the thickness tapers.

(b) Add stabilising agent, if applicable, and mix and pre-compact (iron) using 2 passes with a static roller.

(c) **HOLD POINT** – Inspect test section. If there is disagreement and contractor continues, note of report.

(d) Choose test point X0 about 25m from the start and X1 and X2 about 10m on either side as per Figure 2 or **Error! Reference source not found.**. Record and mark out test point outlines with paint.

(e) As per Figure 2 or Figure 1, choose the 5 sample points “a” to “e”, with three points (a, c and e) within 1m form NDM test points (X0, X1 and X2).

(f) Test points “a” to “e” in Backscatter (60 sec.) for wet density, dry density and water content, and record.

(g) Sample for water content as per NZS 4407. MDD-Lab and specified tests, i.e. CBR, UCS or ITS may be sampled or distributed throughout the Lot. Sample compaction to be completed within specified limits. Fill the sample holes with similar material.

2. Compaction and testing procedures ((i))

(a) Record the roller details, type, mass and mode for each compaction stage.

(b) Compact layer in sets of 4 roller passes, testing after each set using full-depth DT (15 sec) at X0.

(c) Record the uncorrected Wet Density, Dry Density and Water Content for each and continuously plot these on the reporting sheet’s graph versus number of roller passes to track the compaction increase.

(d) If the layer mobilises during any set of roller passes, stop compaction to determine the cause.

(e) After 2 to 3 sets of 4 roller passes, reduce the roller passes to 2 passes per set before testing.

(f) When the full-depth DT (15 sec) dry density fluctuates within 60kg/m³, stop and test at X0, X1 and X2 using full-depth DT (60 sec). Be aware that a reduction in density may be due to a false break. Record all NDM readings.

(g) Stop compaction and test at X0, X1 and X2, using a full-depth DT (60 sec), recording each result, while taking Table 2: Assessing PC-Max. in account:

Condition	Action
i. All results within 60 kg/m^3	PC-Max reached. Calculate average of 3 readings as PC-Max.
ii. Variance of 1 result > 60 kg/m^3	Retest the uncorrected dry density within 0.5m of that point, using full-depth DT (60 seconds count). Carry out two extra passes and repeat the testing at only X0 as per Step (m). If the density increases, repeat step (m) and (n). If dry density remains low, record result but exclude from analysis.

(h) Record the PC-Max uncorrected dry density and continue to secondary compaction, repeating steps (m) to (n), and reducing the variability requirements to 50 kg/m3.

3. PDD Validation and determining Target Dry Density (6.5 - 6.6)

(a) Validate SC-Max for PDD as tabulated below.

Condition	Action required by Contractor
Where: SC-Max < PC-Max or SC-Max < MDD-Lab	*i. Continue one or more set of roller passes, reviewing SC-Max > PC-Max and test variation < 60 kg/m³. Exclude extra sets in roller pattern if no higher density is achieved; OR* *ii. Consult with the Designer or Principal about ceasing compaction or continuing to FC-Max; OR* *iii. Consider another test section.*
SC-Max ≥ PC-Max	*i. FC-Max may be excluded.* *ii. Where all results within 50 kg/m³, PDD = average of all 3 results or* *iii. Where 2 results within 50 kg/m³, PDD = average of 2 highest results.*

(b) Determine Target Dry Density (TDD) as per specification, or if not specified, as follows (from Table 4)

i. If PDD ≥ MDD-Lab, then TDD = PDD;

ii. If PDD < MDD-Lab, then agreement to be reached between Contractor and Principal to accept the MDD-Lab or the PDD as the Target Dry Density (TDD).

(c) On completion, send a picture or screen shot of the PDD to Contractor and Principal. This is a **HOLD POINT.**

(d) Correct and finalise PDT when water correction results are available. Use TDD and water correction for field compliance testing.

The following figures have been replicated with the same figure number for the abbreviated procedure.

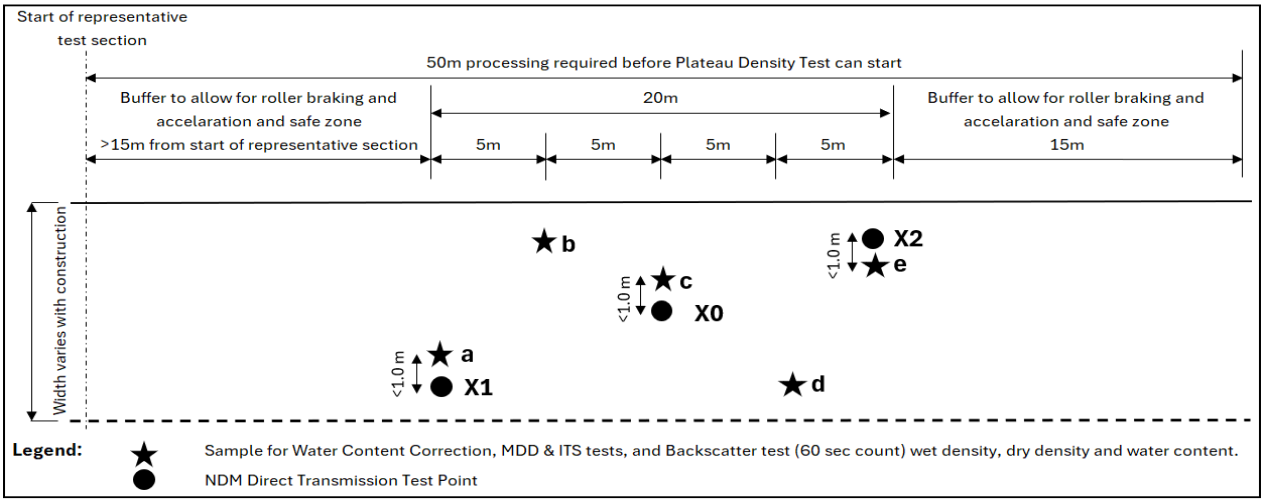


Figure 1: Test Section minimum dimensions for a grader, lane width or full road width process (generally NZTA B02, B05 or B07 specification).

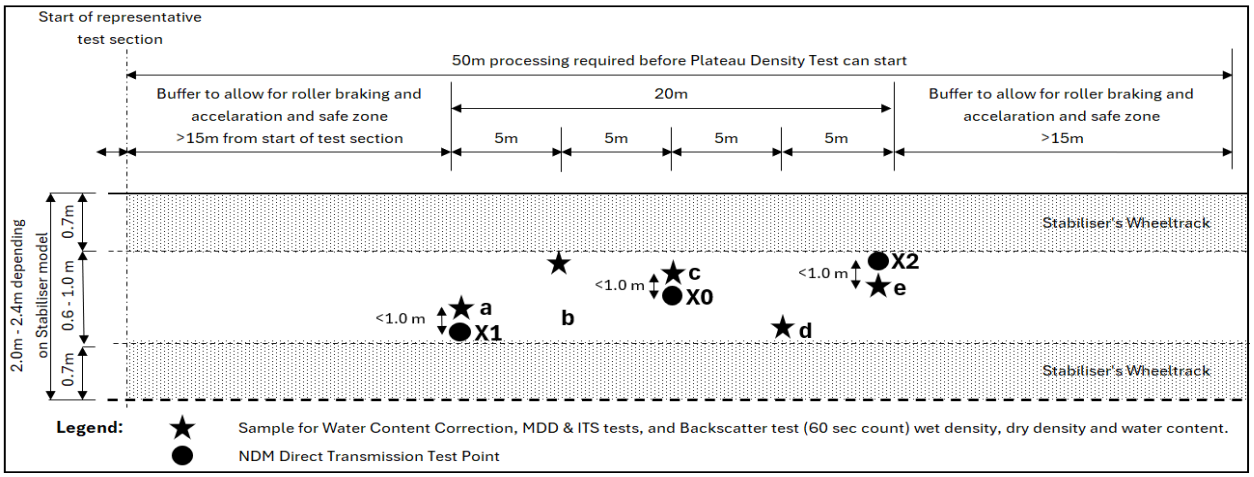


Figure 2: Test Section minimum dimensions for a stabilisation type process (generally NZTA B02, B05 or B07 specification).

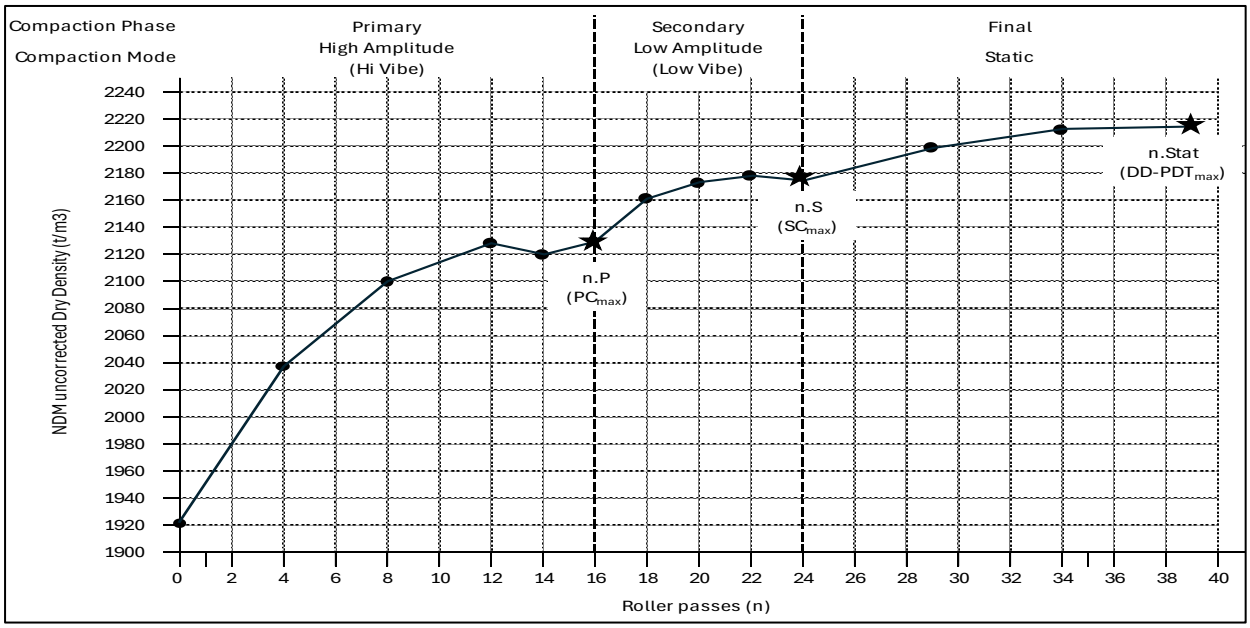
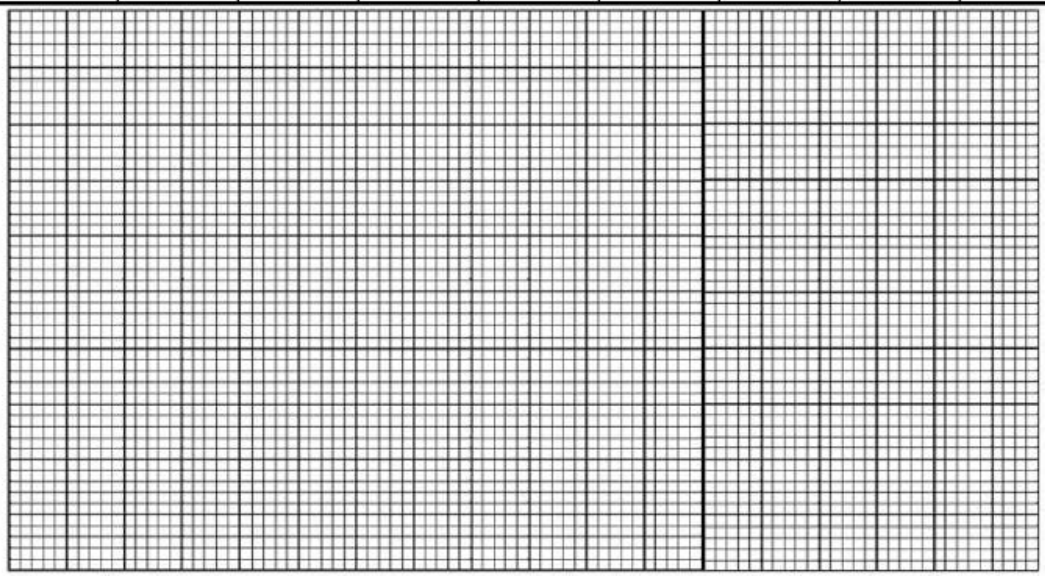


Figure 3: Example: PDT overview graph showing a schematic of the procedure for determining the Maximum Primary Compaction (PC-Max)

Appendix B: Example of Plateau Density Test Report

Contract							Date			
Project Site				Project manager / Supervisor						
Construction Lot										
SH:	RS:	RP from		RP to			Carriageway & Lane			
Weather: Sunny - - - - - - - Rainy - - - - - Icy/Snowy Circle. 				Air Temperature <10°C ±15°C ±20°C >20°C			Still - Gusty - Breezy - Windy 			
Layer thickness & Mix Depth		Material & Source					Binder & Content			
NDM Model & Identifier				Lab MDD			OWC			
4.2 & 4.3 Test Points		X1 (a)	(b)	X0 (c)	(d)	X2 (e)	Start time		Finish time	
RP / Chainage							Notes			
Offset										
BS (60sec) Bulk Density (t/m3)										
WC%										
Roller, Model, Identifier, Mass & Mode		Primary			Secondary			Final		
		Wet Densities & WC%						Corrections		
HV / LV / Static	*n* Passes	X1 (t/m3)	X1 WC%	X0 (t/m3)	X0 WC%	X2 (t/m3)	X2 WC%	WC% Average	Corrected WC%	X0 Corr DD
Note: One pass is the movement of the roller in one direction overa reference point.										

Project Site			SH:	RS:		RP from		RP to		
SH:	RS:		RP from		RP to		Carriageway & Lane			
HV / LV / Static	*n* Passes	Wet Densities & WC%						Corrections		
		X1 (t/m3)	X1 WC%	X0 (t/m3)	X0 WC%	X2 (t/m3)	X2 WC%	WC% Average	Corrected WC%	X0 Corr DD



%WC Correction							Water Correction may be used on Construction Lot			
	X1 SCMax	X0 SCMax	X2 SCMax	X1 DDMax	X0 DDMax	X2 DDMax	Is SCMax> DDMax	X0,X1, X2 within 30kg/m³	Valid PDD	@ WC%
Uncorrected										
Corrected										
4.5 Target DD	PDD > Lab MDD	Yes / No	Target Dry Density Agreed				@	% WC	Date	

Contractor PM | Principal / Certifier