

Field Sketches Legend



August, 2016

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Introduction

The present document was created in order to facilitate the reading process of the Dutch cadastral field sketches. Several field sketches were examined that were taken from 4 different provinces (Zeeland, Noord-Holland, Gelderland, Groningen) and about 10 communities.

The information is divided into 4 sections, the “Lines”, the “Points”, the “Measurements” and the “Other Information”, which is also important for the understanding of a field sketch. The legend-glossary contains parts from field sketches, a classification of the presented information, a description of its properties, an explanation of its meaning and the main source (field sketch).

Due to the fact that text is contained in the field sketches, the Appendix “Abbreviations and Translations” was created. The scattered text is sometimes presented with abbreviations and apart from what they stand for, apart from the translation, sometimes an explanation is also needed. In the 4 main sections of the document (Lines, Points, Measurements and Other Information) every word which is written in quotation marks (”) can be found in the related Appendix.

General Information

- Each colour that is used for the figures representation, has a specific meaning.
 1. The red colour is usually used to define new data, that were measured for the first time or/and specified firstly in the field sketch that they appear.
 2. The black colour is usually used to define old data, that were measured in the past or/and firstly specified in an old field sketch. This kind of data are old, but they are still valid. The black colour is also used for re-measured boundaries.
 3. The grey colour is usually used to define old data, that were measured in the past or/and firstly specified in an old field sketch. This kind of data are old, but they are still valid. In addition, the grey colour is used in the margins of a field sketch to define information that can be found in other field sketches, as well. Besides these, the grey colour is used for the representation of extra, helpful information (e.g. auxiliary lines, scattered text).
 4. The blue colour is usually used to define data that are not valid anymore.

However, exceptions are possible.

- The codes of the ground control points that are specified in the field sketches are the links between field sketches and the correct sets of coordinates in the former system.
- The 3 main types of lines are the parcels boundaries, the building lines and the measurement lines. A parcel boundary line is usually continuous and a building line is usually shaded and continuous or shaded, continuous with a connection sign or continuous with a parallel (grey) line and the text “mr”. The measurement lines can stand alone, but most of the times they overlap building lines or parcel boundary lines, in order to specify their length. The main characteristics of a measurement line is the arrow point that specifies its reference point and the dashed pattern. However, when a measurement line overlaps a boundary or a building line the dashed pattern is (most of the times) not visible. The arrow symbol along with the baseline of the measurements in the observed area are enough to describe a measurement line.

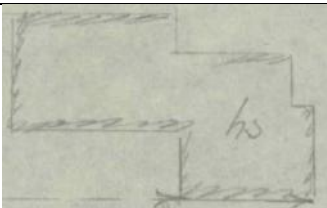
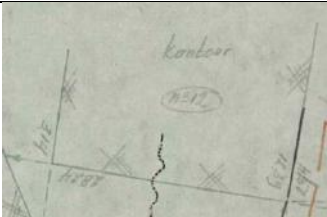
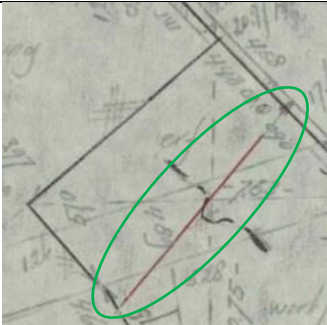
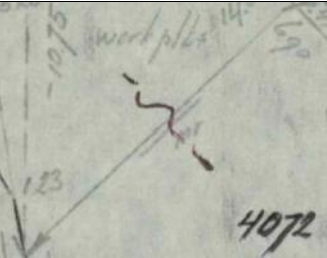
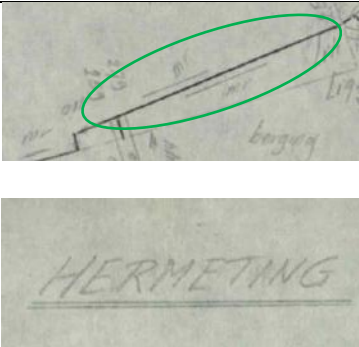
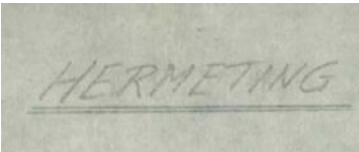
Abbreviations and translations

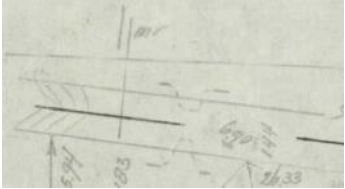
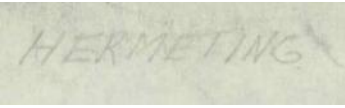

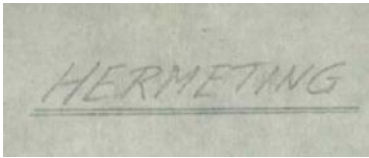
<i>(Possible) Abbreviation</i>	<i>Stand/s for</i>	<i>Translation</i>	<i>Description</i>
aang/aanh/aangeh	aangehouden/aanhouden	to continue/to keep	This text is usually used to show that something can be found in a connected field sketch as well. Usually it is placed below a measurement.
BP	Belemmeringenwet Privaatrecht	Impediment law of private rights	This description is used when a right of use (e.g. of wires, pipelines) belongs to a different person than the person who owns the parcel in which the right of use is applied.
c.f.	Conform	in accordance with	
ea	en anderen	and other	
eigR	eigenaar	owner	
gr.st/ gr.steen	grens steen	boundary point of which the mark is made from stone	
hersteld mbv	hersteld met behulp van	restored with the aid of	
hoogsp. leiding	hoogspanningsleiding	high voltage power line	
ht.pl	houten paal	wooden pole	
ij.bs/ ijzer/ ijz. bs	ijzeren buis	iron tube	
kant verhard	kant verharding	Asphalt or stones from "that" side	In the side of the line that this text is written, there is asphalt or stones.
lant pl	lantaarnpaal	lamppost	
m/mr	muur	wall	
ont/ontw/zie ontw	ontwikkeling /see ontwikkeling	development/expansion	
onz-baar/onz.	onzichtbaar	invisible	The boundary is not visible in the ground.
perkoen pl/perk.pl	perkoen paal	-	A pole made from a specific type of wood which has high resistance to water.

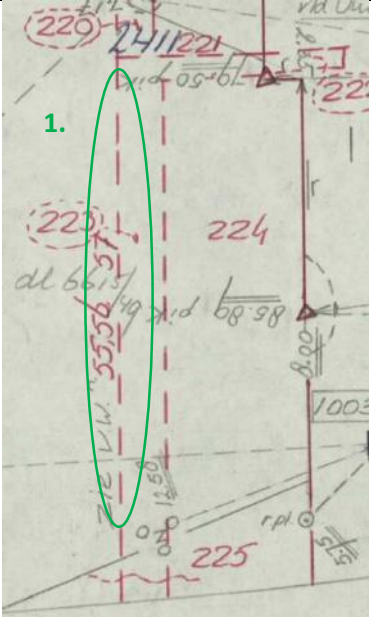
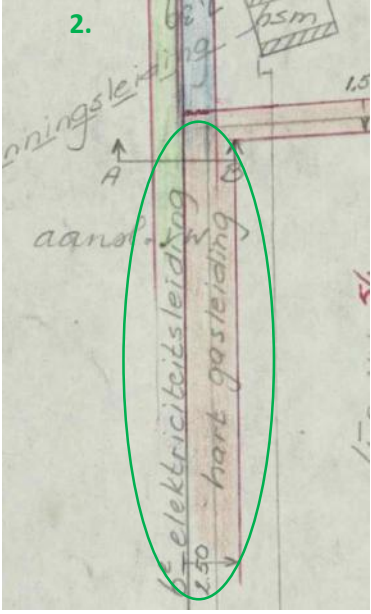
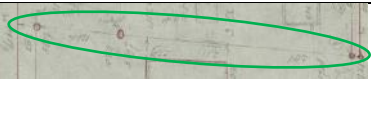
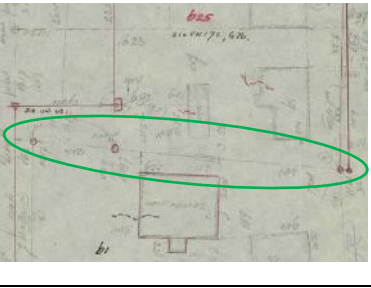
PW	Particulier Werk	Private work	A customer requests a boundary/ boundaries reconstruction.
r	rastering	fence	A fence, which may be constructed by wooden poles or iron rods with wires, barbed wire or by thin wire made from iron.
r pl.	raster paal	a pole in a fence	A wooden pole or iron rod which is a part of a fence. The poles are connected with wire, barbed wire or by thin wire made from iron.
recht/r	recht	straight	It is used to define that a line is straight.
RP	rioolput	sewage drain	
RVK	Ruilverkaveling	land consolidation	
s/sl	sloot	ditch	
schut	schutting	wooden fence	
shr	schuur	shed	
st./kad st	kadastral steen punt	cadastral point of which the mark is made from stone	
tegels	tegels	tiles	
verb.lijn	verbindingslijn	connection line	
verdwenen	verdwenen	disappeared	
verv.	vervallen	expired/not valid/not existing	
verworden	verworden	degenerate - become worse in quality	
vl. voet	verlengde voet	extended from base	The electricity line is extended from the concrete base.
vw	veldwerk	field sketch	
-	baak	leveling rod	
-	blad	sheet	
-	geen grens	not a boundary	
-	hart gas leiding	centerline gas main	
-	herkaartering	re-mapping	
-	hermeting	re-measurement	
-	hoogspanning mast	high-voltage pole/pylon	

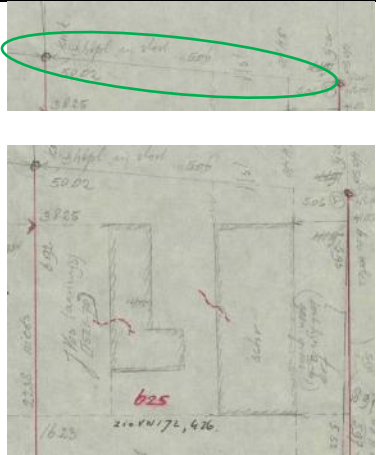
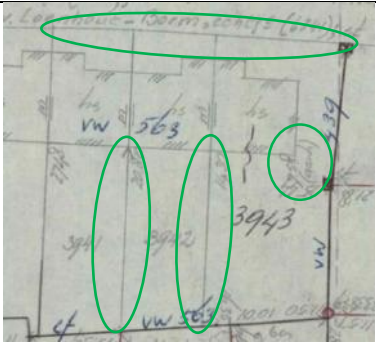
-	kantoor	office	
-	later	later	
-	muur met beertjes	retaining wall	
-	niet vernummerd	unchanged numbers	
-	niets	nothing	The boundary is not visible in the ground.
-	nieuwe nummers	new numbers	
-	put	well	
-	sectie overgang	section changeover	A changeover from one section to another one.
-	vereniging	joining/connection	
-	vroeger	former	
-	weg	road	
-	weiland	meadow	
-	verkoop	sale	

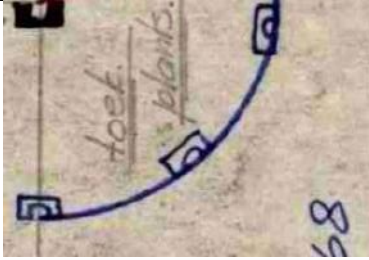
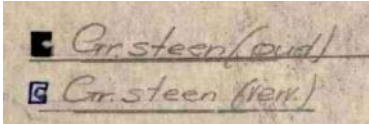
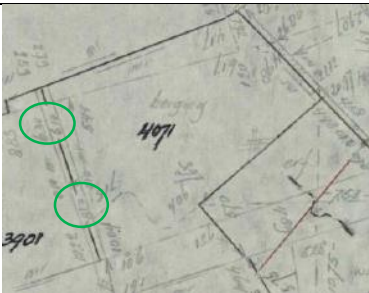
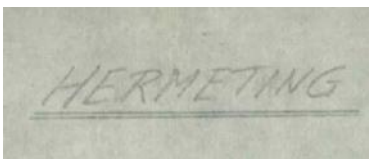
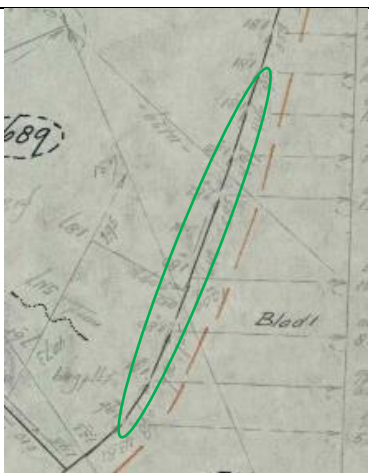
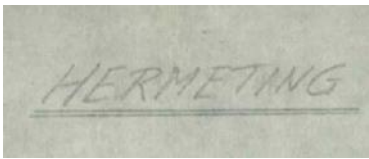
A. Lines

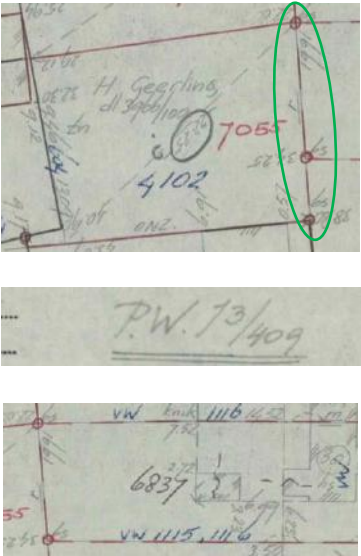
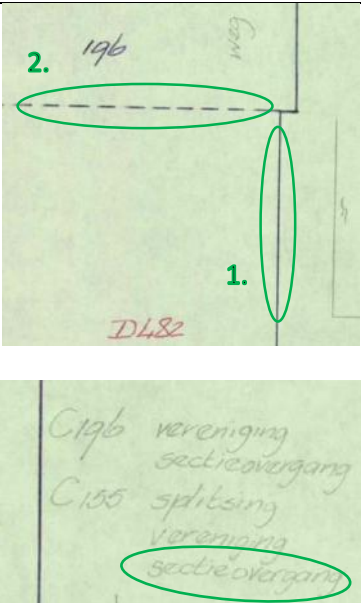

L#	Image	Line Classification	Properties & Description	Directory
L1		Building Line	a) Straight, b) Continuous and c) Shaded → Building lines. d) Grey → Not a new (building) line. Although they are not all of them shaded, they are all building lines, as they are part of the same polygon/building.	01 - Zeeland\ VWVKN00_D 00012__0000 23MD
L2		Building Line	a) Straight b) Continuous and c) Shaded with d) a connection sign (see OI 11) → Buildings lines. e) Grey → Not a new (building) line. This can be validated with the text information "kantoor", which lays between the building lines.	01 - Zeeland\ VWGOE00_D 00862__0018 95MD
L3		Building Line - Exemption Zeeland -	a) Straight b) Continuous, c) Shaded and with d) a Connection sign (see OI 11) → Building line. e) Red → new (building) line. <i>*Exemption1: It seems that the upper part of the red line is not attached to any other line. However this is not the case, because a measurement which lays between the reference point of the line (arrow) and the remaining part interrupts the continuity of the line.</i>	01 - Zeeland\ VWGOE00_D 00862__0018 95MD
L4		Building line	a) Straight b) Continuous with c) One small parallel line with a d) connection sign (see OI 11) and the line text e) "mr" → Building line. f) Grey → Not a new (building) line. c) One small parallel line and e) the text "mr" → <i>There is a wall only at the side that the small line is located.</i>	01 - Zeeland\ VWGOE00_D 00862__0018 95MD
L5	 	Building line & Parcel Boundary	a) Straight b) Continuous with c) two small parallel lines and the line text d) "mr" → building line and parcel boundary line. The parcel boundary is located in the middle of two walls. e) Black colour and the (scattered) text f) "hermeting" → The line is a boundary which was re-measured in this field sketch. The word "hermeting" exists as scattered text in the observed field sketch. Therefore all the lines which are black, represent re-measured parcel boundaries.	01 - Zeeland\ VWGOE00_D 00862__0018 95MD



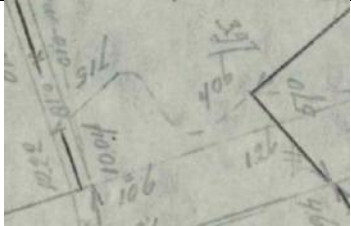
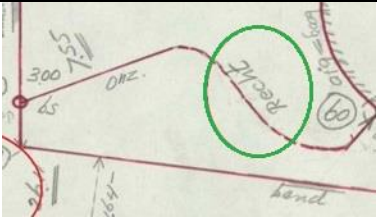
L6	 	<p>Building line & Parcel Boundary - <i>Exemption</i> Zeeland -</p>	<p>a) Straight b) Continuous (with a gap), the line is c) shaded in both sides → building line and parcel boundary line. e) Black colour and the text f) “hermeting” → The line is a boundary which was re-measured in this field sketch. The word “hermeting” exists as scattered text in the observed field sketch. Therefore all the lines which are black, represent re-measured parcel boundaries. <i>*The two parallel continuous dashed grey lines (building lines) specify the thickness of the wall and each connection sign connects the wall with the parcel that belongs to.</i> <i>*Exemption2: The fact that there is a gap on a boundary line is an exemption. Two measurements were placed on the direction of the black line and therefore it was decided to illustrate the boundary as a “broken” continuous line.</i></p>	<p>01 - Zeeland\ VWGOE00_D 00870__0019 11MD</p>
L7	 	<p>Building line & Parcel Boundary</p>	<p>a) Straight b) Continuous with c) shading → building line b) Continuous with d) black colour and the scattered text e) “hermeting” → The line represents a parcel boundary line, which was re-measured for the purpose of the creation of the current field sketch.</p>	<p>01 - Zeeland\ VWGOE00_D 00862__0018 95MD</p>

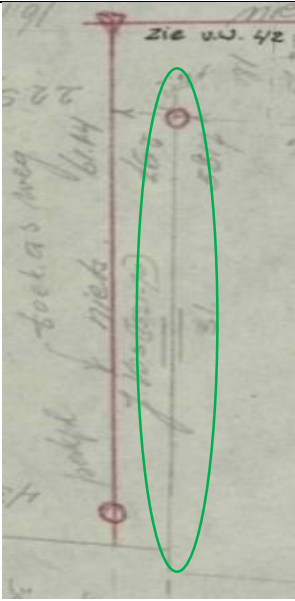
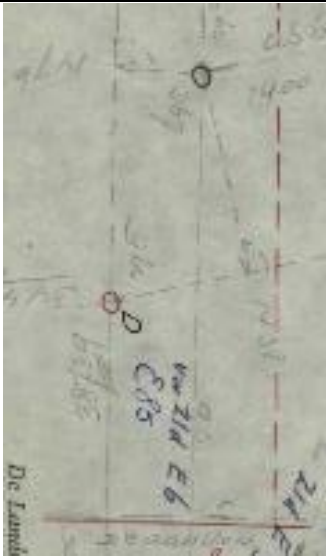
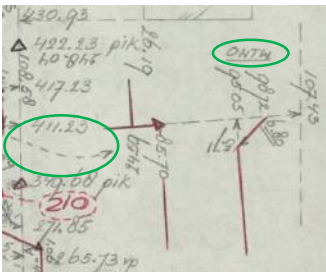
L8	 	Pipe lines	<p>1. a) Straight, b) Dashed, c) Red, d) There are no measurements on the observed lines, f) There is the scattered text “alle percelen herkaartering”. → There is not enough information in this field sketch to define the kind of the observed lines. But the presence of the word “herkaartering” means that there must be another field sketch which has the same information but with a different representation.</p> <p>Therefore, the connected field sketches (which are specified in one of the red dashed lines), are observed (vw 55,56,57).</p> <p>2. In those, the lines with the same geometry as the current field sketch are a) red and b) continuous, not dashed and the c) line text is “hart gas leiding/gasleiding”, “electriciteitsleiding” and “waterleiding”. → The lines represent pipe lines or cables. However they are defined in the sketch and the polygons which are created by those lines get a parcel number, because their owners are different from the parcels owners. This can be realised from the scattered text “BP” in both sketches.</p> <p>The difference between the observed and the connected field sketches is that the observed one has information about pipe lines, cables and parcels, but the connected field sketches have information only about pipe lines and cables. For the distinction of those two in the observed field sketch the boundaries are illustrated with continuous line and the pipelines and cables with dashed line. Those who are new, are represented with red. In the connected field sketches the pipelines and cables are represented with continuous line, since there are no parcels.</p>	03 - Gelderland \VWDTTC01_000054__000107AH , 03 - Gelderland\01 - VWDTTC01_000055__000109AH , 03 - Gelderland\01 - VWDTTC01_000057__000113AH
L9	 	Parcel boundary	<p>a) Straight b) Continuous with c) two small parallel lines, the line text d) “sl” and the line has e) grey colour. → The colour of the line means that it is either a parcel boundary (specified in a previous field sketch), either a measurement line which was used to facilitate the measuring procedure as it was visible in the ground (ditch).</p> <p>The surrounding area is observed in order to extract conclusions about the kind of the</p>	01 - Zeeland \VW VKN00_D00012__000023MD

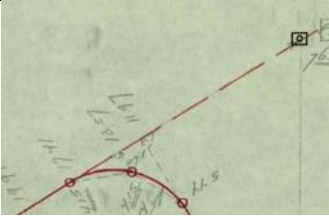
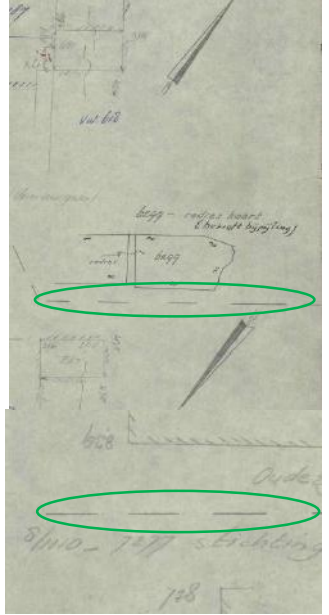
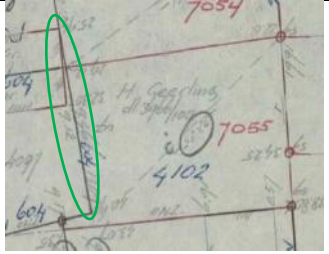
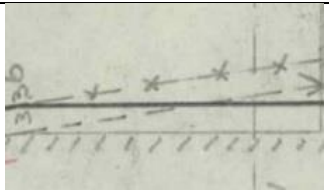
			line. →The examined line lays between buildings which belong to different parcels (two parcel numbers, 625 and 61). Therefore, the observed line represent a parcel's boundary which was firstly specified in a previous field sketch.	
L10		Parcel boundary	<p>a) Straight b) Continuous with c) two small parallel lines, the line text d) "sl" and the line has a e) grey colour.</p> <p>→The colour of the line means that it is either a parcel boundary (specified in a previous field sketch), either a measurement line which was used to facilitate the measuring procedure as it was visible in the ground (ditch).</p> <p>The surrounding area is observed in order to extract conclusions about the kind of the line. → The line is connected to other parcel lines (red continuous lines) and between those there is a parcel number. Thus, the line represents a parcel's boundary which was firstly specified in the field sketches archive in a previous period of time.</p>	01 - Zeeland\VW VKN00_D000 12_000023 MD
L11		Parcel boundary	<p>a) Straight b) Continuous with c) grey colour d) without measurements (the measurements which are closed to the observed lines do not referred to them but to the building lines) e) with the text "aanh" in a close distance from the lines and below a measurement. Also, the observed lines are located close to the field sketch's margins. → The properties of the lines reveal that they can be found in a connected field sketch so they can be identified as lines which were drawn in the current field sketch to help the reader (auxiliary lines).</p> <p>If the surrounding area is observed, it can be seen that there are houses and different parcel numbers (3941, 3942, 3943) (see OI1, OI2) between those lines. →</p> <p>As a result, the observed lines are parcel lines which are common data in a connected field sketch. Their measurements can be found in the connected one.</p>	03 - Gelderland \VWHDW00_D01149_00 2331AH

L12	 	Former/ Not valid Parcel boundary	<p>a) Curved b) Continuous with c) blue point symbols d) and the line is e) blue. f) The same point symbol is accompanied with the Scattered text “Gr.steen (verv)”.</p> <p>→ The colour of the point symbols, the colour of the line and the scattered text with the same point symbol, reveal that the line (and the symbols) are not valid. Although the line is continuous (used to be a parcel boundary in the past) is not a parcel boundary anymore.</p>	02 - Groningen \\VWASN00_ W00103__00 0205AS
L13	 	Parcel boundary - Exemption Zeeland -	<p>a) Straight b) Dashed with line colour and the scattered text d) “hermeting” e) measurements exists in the gaps of the line.</p> <p>→ A continuous black line in a fieldsketch with the word “hermeting” represent a re-measured boundary (see L7), but the line in this case is dashed. However, by definition a black line in a sketch with the word “hermeting”, can only be a boundary. If considered the broader area, it can be seen that the black line lies between two parcels (3901 and 4071). Therefore the line is a parcel boundary, but it should be a continuous line. However, because some of the measurements were located in the lines direction, the result is a dashed line.</p>	01 - Zeeland\\ VWGOE00_D 00862__0018 95MD
L14	 	Parcel boundary - Exemption Zeeland – DIRECTION Changing	<p>a) Dashed with b) Black colour and the (scattered) text d) “hermeting”.</p> <p>→ A continuous black colour in a sketch with the word “hermeting” represent a re-measured boundary (see L7), but the line in this case is dashed. However, by definition a black line in a sketch with the word “hermeting”, can only be a boundary. If considered the broader area, it can be seen that the examined line is connected with continuous black lines and a parcel number lays between them. Therefore the line is a parcel boundary and it should be a continuous line. The reason why the line is dashed and not continuous is related with the fact that it is actually a polyline as it is consisted of many small fragments of lines. Thus, it was decided that the boundary should have small spaces between the segments of the line.</p>	01 - Zeeland\\ VWGOE00_D 00862__0018 95MD

L15		(Re-constructed) Parcel boundary	<p>a) Straight, b) Dashed, c) Red → Usually represents a reconstructed boundary. d) Scattered text “PW”. → A red dashed line in a field sketch with the text “PW”, describes a reconstructed parcel boundary.</p> <p>Another way to checked if the red dashed line represents a reconstructed line is to check if the parcel number is illustrated with black colour. If this is true, then it means that the parcel number didn’t change and this happens after a reconstruction.</p>	03 - Gelderland \\VWHDW00_D01149__002331AH
L16		<p>1. Parcel boundary (not valid) 2. (Administrative) parcel boundary (not valid)</p>	<p>1. a) Straight, b) Continuous → The line represents a parcel boundary c) Blue line → Usually the blue colour is used for the representation of objects which are not valid. c) Scattered text: “sectie overgang” → That text, along with the blue colour indicate that the continuous line used to be a parcel boundary but not anymore.</p> <p>2. a) Straight, b) Dashed, c) Blue → Boundaries which are not visible in the ground and divide parcels that belong to the same owner can be displayed with dashed lines. Usually, this happens for the parcels of which the owner is a community. c) Scattered text: “sectie overgang” → That text along with the blue colour indicate that the dashed line used to be a boundary, but not anymore.</p>	04 - Noord Holland \\VWLGD00_C00035__000069AM
L17		Sheet boundary	<p>a) Straight, b) Dashed, c) Orange →</p> <p>The orange dashed line indicates that the information which lays close to the field sketch’s margin (right side of orange line), was represented in another sheet (“blad”) of the cadastral map. In the digital cadastral map the sheets are not used anymore, therefore those boundaries are not important to be recognised, but they can be useful for the understanding of the information in a field sketch.</p>	01 - Zeeland \\VWG0E00_D00862__001895MD

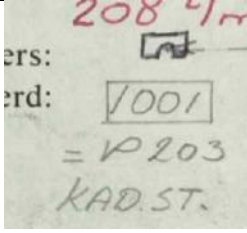
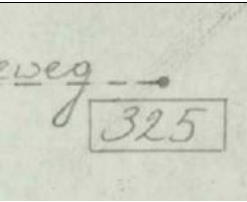
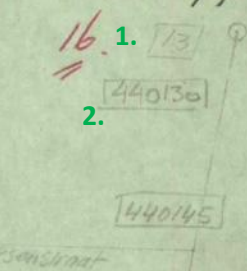
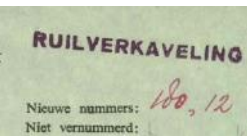

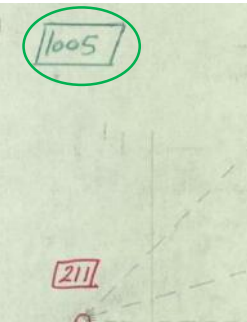
L18	 	<p>1. Section boundary and 2. auxiliary line</p>	<p>1. a) Straight, b) Dashed, c) Green, d) One small parallel line and the line text e) "r". → The green dashed line implies that the information located at the 2 sides of the line come from different sections of the cadastral map. The small line which is parallel to the examined line and the note "r" which stands for "rastering", reveal that this line represents a fence. 2. a) Straight, b) Dashed or continuous, c) Grey → Below the green dashed line there is also a grey line, although it is not obvious if it is a continuous or dashed line, due to the presence green line. If a broader area is examined, it is noticeable that the points on the observed line are not connected with boundary lines, but only with measurement line. Therefore that line represent a measurement line.</p>	<p>01 - Zeeland\VW VKN00_D000 20_000039 MD</p>
L19		<p>Measurement Line</p>	<p>a) Curved b) Dashed, c) Grey, d) There is a measurement that refers to the line, e) There is an arrow symbol. → Although the line is curved, it represents a straight measurement line because there is a measurement related to its arrow symbol and its first part. The observed line was drawn this way, because a straight line would not represent the real geometry of the line. The real geometry of the line is constituted from the first (straight) part and the last (straight part of the line). The measurement that belongs to that line can be found by examining the measurements which are close to the ending point of the curved line and its reference point (3.97).</p>	<p>01 - Zeeland\VWGOE00_D 00862__0018 95MD</p>
L20		<p>Parcel boundary</p>	<p>a) Curved, b) Dashed, c) Red line, d) which is connected with two straight continuous lines and the text "recht" which is written parallel to a part of the curved line. → The line represents a (new) parcel's boundary and the line should be straight. However, it was drawn this way, because a straight line would not represent the real geometry of the line. The real geometry of the line is constituted of the two straight continuous lines.</p>	<p>03 - Gelderland \VWAPD03A D01400__00 2807AH.JPG</p>

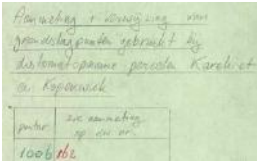
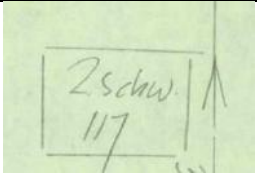
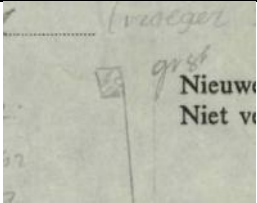
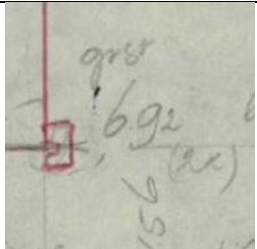
L23		Auxiliary line	<p>a) Straight b) Continuous with c) two small parallel lines, the line text d) "sl" and the line has a e) grey colour.</p> <p>→ The line properties reveal that the line it is either a parcel boundary (firstly measured in an old field sketch), either a measurement line which was used to facilitate the measuring procedure, because it was visible in the ground (middle of a ditch).</p> <p>→ Examination of the surrounding area: In a close distance from the observed line there is a boundary line (continuous red line) and there is not a parcel number between the 2 of them. Therefore the parcel boundary illustrated in red is the only boundary that should be existed is this "area". → The observed line represents only a measurement which was used because it was visible in the ground.</p>	01 - Zeeland\VW VKN00_D000 12_000023 MD
L24		(Administrative) parcel boundary	<p>a) Straight, b) Dashed, c) Red</p> <p>→ A red dashed line can be a re-constructed parcel boundary or an administrative parcel boundary. The surrounding area is observed but there is no text in the field sketch to reveal that the line created after reconstruction. Therefore the red dashed line represents a boundary which was created for administrative reasons. In particular, the line represents a boundary which is not visible in the ground and separates parcels that belong to the same owner. Usually, the owner is a community. The red colour of the observed line reveals that the line is new.</p>	01 - Zeeland\VW VKN00_D000 20_000039 MD
L25		Auxiliary line	<p>a) Waved, b) Dashed, c) Grey line and the d) Scattered text "ontw" in the nearby area.</p> <p>e) The arrow of the line points out to a small sketch which is not attached to the main drawing, f) that sketch has the same geometry as the part of the drawing that the line starts from. → The line is not a measurement line because it is waved. It is just an auxiliary line which was used to point out to a magnified part of the main drawing and this can be confirmed with the text "ontw" (see OI34). Therefore, the line has not a special meaning. <i>*Those kind of lines can also be grey, waved and continuous.</i></p>	03 - Gelderland \VWDT01_000054_00 0107AH


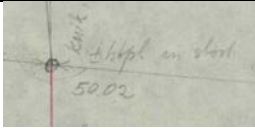
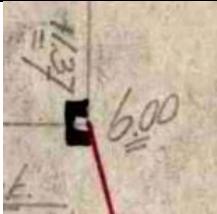
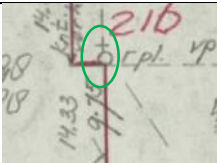
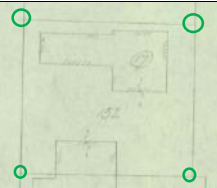
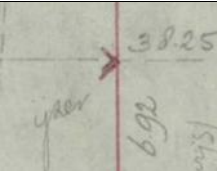
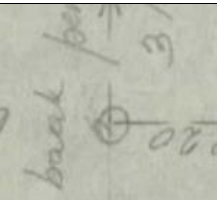
L26		(Administrative) parcel boundary – not visible	a) Straight, b) Dashed, c) Red → A red dashed line can be a re-constructed parcel boundary or an administrative parcel boundary. The surrounding area is observed but there is no text in the field sketch to reveal that the line created after reconstruction. Therefore the red dashed line represents a boundary which was created for administrative reasons. In particular, the line represents a boundary which is not visible in the ground and separates parcels that belong to the same owner. Usually, the owner is a community. The red colour of the observed line reveals that the line is new.	02 - Groningen \\VWASN00_ W00082__00 0163AS
L27		Auxiliary line	a) Straight, b) Dashed, c) Grey line, d) Without a reference point (arrow), e) There are two north signs. The one lays above and the other below the observed line. f) There are no measurements referring to that line. → The observed line represents just an auxiliary line which was drawn in order to divide two different areas in the same field sketch. Therefore, the line has not a special meaning.	04 - Noord Holland \\VWASD05_ G01060__00 2229AD
L28		Parcel boundary	a) Straight, b) Continuous, c) Black line → The line represents a parcel boundary which was created in the past, but is still valid.	03 - Gelderland \\VWHDW00_ D01149__00 2331AH
L29		Not valid line	a) Straight, b) Dashed, c) Grey line → The line could be a measurement line or an auxiliary line. d) There are “x” symbols on the line → The line is a mistake on the sketch, therefore the line is not valid.	03 - Gelderland \\VWWEH00_ H00873__00 1813AH

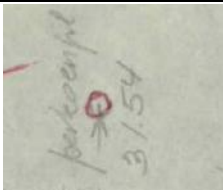
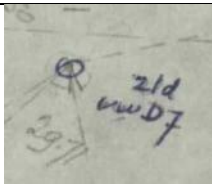
B. Points

P#	Image	Point Classification	Properties & Description	Directory
P1		Ground control point	a) Point symbol, b) A code number enclosed in a rectangle → The point represents a ground control point of which the identification code is 614. c) Text close to the point symbol “ij.bs” → the point is marked in the ground with an iron tube. d) The point’s symbol colour is black → The colour of the symbol reveals the time period that the point was marked in the ground. In particular, the black colour indicates that the point was marked before the current field sketch’s creation (black point symbol = old).	01 - Zeeland\VWGO E00_D00862__0 01895MD
P2		Ground control point	a) Point symbol, b) A code number enclosed in a rectangle c) Text close to the point symbol “Kad.st” → The point represents a ground control point which is marked in the ground with stone. Its identification code is kad614. d) The point’s symbol colour is black → The colour of the symbol reveals the time period that the point was marked in the ground. In particular, the black colour indicates that the point was marked before the current field sketch’s creation (black point symbol = old).	01 - Zeeland\ VWVKN00_D00 012__000023M D
P3		Ground control point	a) Point symbol, b) A code number enclosed in a rectangle → The point represents a ground control point of which the identification code is 1845. c) Text close to the point symbol “verdwenen” and d) The point’s symbol colour is blue → The blue colour of the point along with the text indicate that the observed point is missing/cannot be found in the ground.	01 - Zeeland\ \VWVKN00_D00 020__000039M D
P4		Ground control point	a) Point symbol, b) A code number enclosed in a rectangle → The point represents a ground control point of which the identification code is R2203. d) The point’s symbol colour is black → The colour of the symbol reveals the time period that the point was marked in the ground. In particular, the black colour indicates that the point was marked before the current field sketch’s creation (black point symbol = old).	02 - Groningen\ VWASN00_W0 0101__000201A S

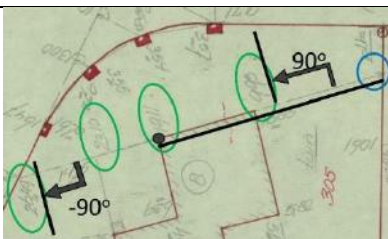
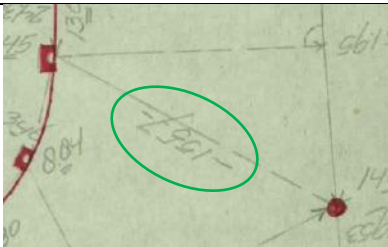
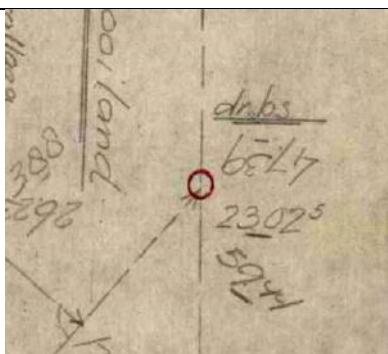
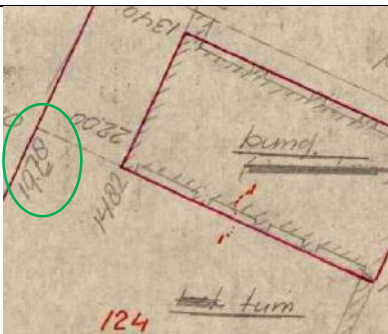
P5		Ground control point	<p>a) Point symbol, b) A code number enclosed in a rectangle</p> <p>c) Text close to the point symbol “Kad.st” → The point represents a ground control point which is marked in the ground with stone. Its identification code is kadst1001.</p> <p>d) The point’s symbol colour is black → The colour of the symbol reveals the time period that the point was marked in the ground. In particular, the black colour indicates that the point was marked before the current field sketch’s creation (black point symbol = old).</p> <p>e) Text close to the point symbol “VP203” → That means that the observed point was also measured from the water board of the Netherlands. The text “VP203” is the code given to the point by them.</p>	03 - Gelderland \\VWDTC01_000 054__000107A H
P6		Ground control point	<p>a) There is no specific point symbol, just a dot to define the position of the point, b) There is a code number enclosed in a rectangle</p> <p>→ The point represents a ground control point.</p>	03 - Gelderland \\VWDTC01_000 054__000107A H
P7	  	Ground control points	<p>1. a) Point symbol, b) A code number enclosed in a rectangle of which the identification code is 13. → The point represents a ground control point which can be found in the former system (not in Langedijk, but in Zuid Scharwoude due to the Land Consolidation project).</p> <p>2. a) Point symbol, b) A code number enclosed in a rectangle of which the identification code is 440130 c) Scattered text “Ruilverkaveling”. → The code refers to the same point symbol as the other code (13). The difference is that the code 440130 was generated from a land consolidation project. In those projects some of the ground points are measured, but with less accurate methods. These codes and their coordinates cannot be found in the ground control points lists.</p>	04 - Noord Holland \\VWLGD00_C00 016__000031A M
P8		Ground control point	<p>a) There is no point symbol, b) A code number is enclosed in a parallelogram, c) The colour of the code is green, d) The scattered text in the field sketch refers to points from tachymeter, e) There are no coordinates with the code 1005 in the corresponding coordinates’ list.</p> <p>The connected field sketch 168 is observed as well. → The code 1005 refers to the point</p>	04 - Noord Holland \\VWLGD00_D00 170__000173A M

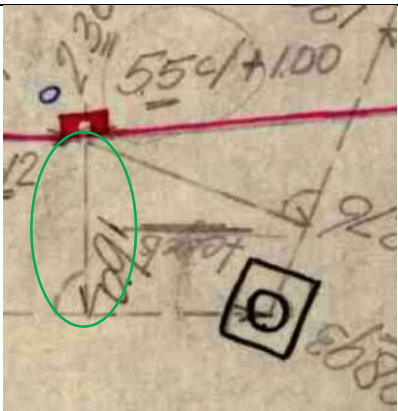
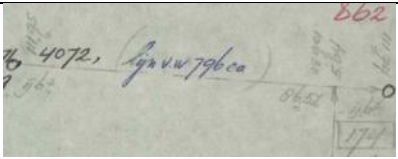
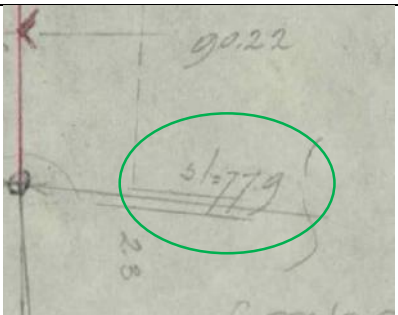
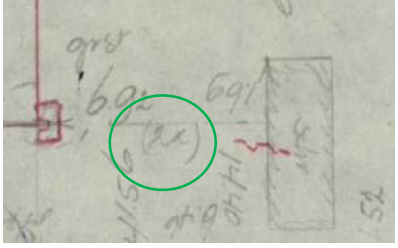

			<p>symbol which is close to the code 211, as well. The code 1005 was generated after measuring the point with the tachymeter. In the coordinates lists only the code 211 can be found.</p> <p>f) The point symbol is red which is an indication that the point is new (was firstly measured and specified in the present field sketch).</p> <p>2. a) There is a point symbol, b) A code number is enclosed in a rectangle/ parallelogram, c) The colour of the code and the point is red → The point symbol represents a new ground control point of which the code to the former system of the coordinates is 211.</p>	
P9		Ground control point -Exemption Noord Holland-	<p>a) There is an arrow, b) Nearby the arrow there is a rectangle in which the code "Z.schw117" is enclosed. → The presence of the arrow, reveals that a point should have been illustrated there, as well. Therefore the code in the rectangle refers to that (invisible) point. As a result, a ground control point is illustrated. The difference from the usual cases is the first part of the code which is an abbreviation of the community "Zuid Scharwoude". Although, the observed field sketch is from the community Langedijk, the ground control points can be found in the old community Zuid Scharwoude.</p>	04 - Noord Holland \\VWLGD00_C00 030__000059A M
P10		Parcel boundary	<p>a) Point symbol, b) Text close to the point symbol "gr.st" → The point represents a boundary point which is marked in the ground with stone.</p> <p>c) The point's colour is grey which means that the point is either an old point or it's grey because it can be found also in a connected field sketch and there is more information about it in that one. This cannot be determined only by using the observed field sketch.</p>	01 - Zeeland\ VWVKN00_D00 012__000023M D
P11		Parcel boundary	<p>a) Point symbol, b) Text close to the point symbol "gr.st" → The point represents a boundary point which is marked in the ground with stone.</p> <p>c) The red colour indicates that the boundary was specified for the first time in the current field sketch.</p>	01 - Zeeland\ VWVKN00_D00 012__000023M D

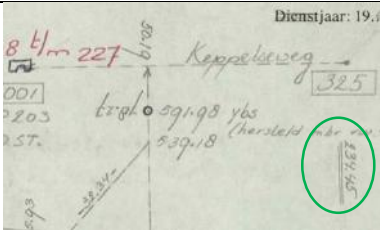
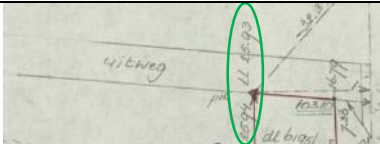
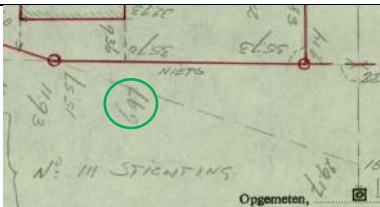
P12		Parcel boundary	a) Point symbol, b) in a continuous red line → Parcel's boundary point. c) Red colour symbol → new point.	02 - Groningen\VWA SN00_W00054_000107AS
P13		Auxiliary ground point	a) Point symbol, b) in a continuous red line → Parcel's boundary point. c) Black colour of the point symbol → The point was measured in the past. d) Text "+/- ht pl en sloot": reveals that the point is not measure accurately and is marked in the ground with a wooden pole which is located in a ditch. e) Text "knik": indicates that the lines in which the point is located are not collinear.	01 - Zeeland\VWVK N00_D00012_000023MD
P14		Parcel boundary	a) Point symbol, b) in intersections of continuous lines → Parcel's boundary point. c) Black colour of the point symbol → The point was measured in the past.	02 - Groningen \VWASN00_W00103_000205AS
P15		Parcel boundary	a) Point symbol, b) in intersections of continuous lines → Parcel's boundary point. c) Grey colour of the point symbol → The point was measured in the past. d) Text "r pl.": the point is marked in the ground with a wooden pole or an iron rod. It is a part of a fence of which the poles are connected with iron wire or barbed wire or iron with electricity.	03 - Gelderland \VWDT01_000054_000107AH
P16		Parcel boundary	a) Intersections of continuous lines, b) The continuous lines surround 2 polygons made from building lines → The intersections constitute parcel boundaries. c) Grey colour of the lines: The boundaries/points were measured in the past.	04 - Noord Holland \VWLG00_C00035_000069AM
P17		Parcel boundary	a) Point symbol, b) in a continuous red line → Parcel's boundary point. c) Red colour symbol → new point. d) Text "ijzer": The point is marked in the ground with an iron tube.	01 - Zeeland\VWVK N00_D00012_000023MD
P18		Auxiliary point	a) Point symbol, b) in intersections of dashed lines, c) text "baak" → The point does not represent a ground control point or a boundary point, because it lies on dashed grey lines which are just measurement lines. Also, according to the	01 - Zeeland\VWVK N00_D00012_000023MD

			text, the point was marked in the ground with a levelling rod which can only be a temporary mark. Therefore, the point represents an auxiliary point which was created to help the measuring procedure.	
P19		Auxiliary ground point	a) Point symbol, b) which lays on a dashed line, c) text “perkoen pl” → The point does not represent a ground control point or a boundary point, because it lays on a dashed grey line which is just a measurement line. The symbol represents an auxiliary point which was created to help the measuring procedure and it was marked in the ground with a pole made from a specific type of wood which has high resistance to water.	01 - Zeeland\ VWVKN00_D00 012__000023M D
P20		Auxiliary ground point	a) Point symbol, b) in intersections of dashed lines → Auxiliary ground point which was created in order to help the measuring procedure. c) Blue colour of the point symbol → the point is not valid.	01 - Zeeland \VWVKN00_D00 020__000039M D

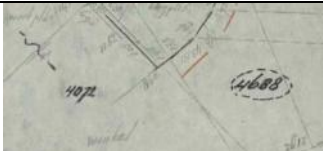
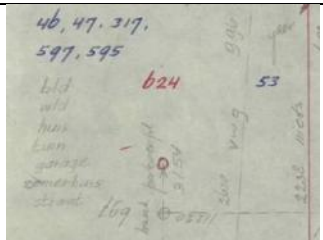
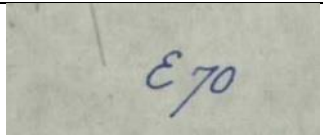
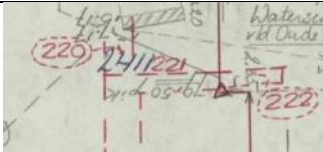
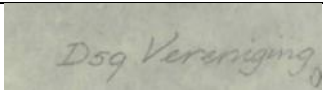
C. Measurements

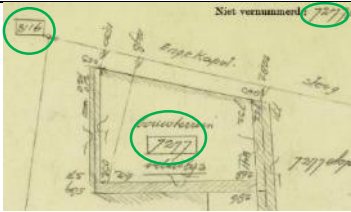
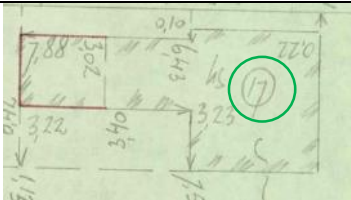
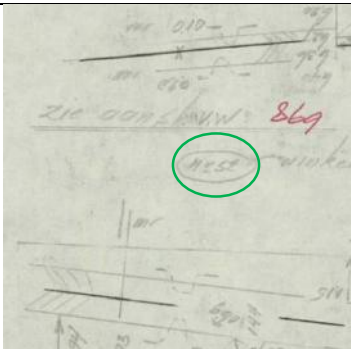
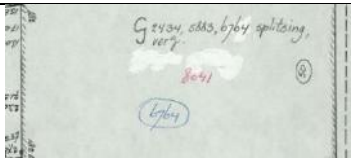
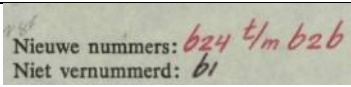
M#	Image	Classification	Properties & Description	Directory
M1		Measurement type 1	<p>The measurement's baseline (invisible horizontal line below the measurement) is orientated 90° (or -90°) from an arrow symbol which is the line's reference point. In addition the measurement is located in a "close" distance from each line's ending point.</p> <p><i>*The points that have the same reference point, are collinear points.</i></p> <p><i>*Measurement type 1 is the most usual.</i></p>	02 - Groningen\V W VWASN00_W 00105__0002 09AS
M2		Measurement Type 2	<p>The measurement is located between the two points that constitute the line. The measurement's baseline is parallel to the corresponding line. In addition, no arrow symbol that refers to that line exists. Furthermore, there is one small line before the first digit and one after the last digit of the number, which are parallel to the line that the measurement is based on.</p>	02 - Groningen\V W VWASN00_W 00105__0002 09AS
M3		Measurement type 1	<p>When a measurement is underlined, it refers to intersections of measurement (dashed) lines.</p>	02 - Groningen\V W\VWASN00_W00054__0 00107AS
M4		Measurement type 1	<p>When a measurement is double underlined, it refers to the last measurement (point) of a line.</p>	02 - Groningen\V W\VWASN00_W00054__0 00107AS

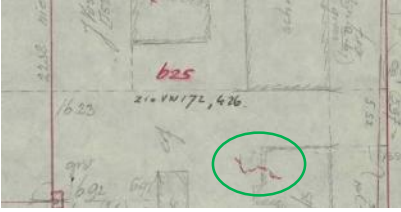
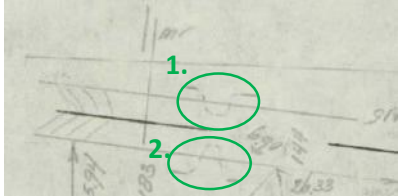
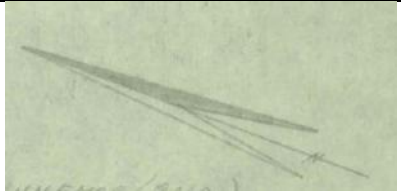
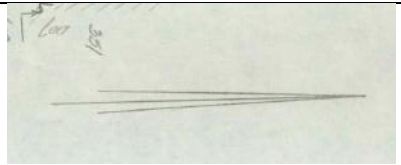
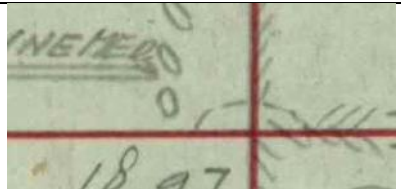
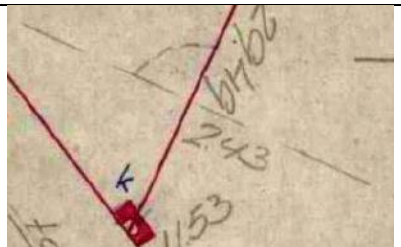
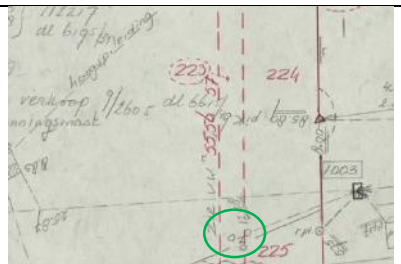
M5		Measurement type 1 - <i>special case</i> Groningen -	The measurement that refers to the circled line is 5.54 + 1.00 and not 5.54.	02 - Groningen\VW\VWASN00_W00054__000107AS
M6		Measurement type 1	Measurements 5.64 and 106.30 belong to the same point. The difference is that the one refers to the line that located on the left of the measurements and the other to the line on the right.	01 - Zeeland\VW GOE00_D00862__001895MD
M7		Measurement type 1 – <i>special case</i>	According to the orientation and position of the measurement 77.9 and the surrounding lines, there is no line that the measurement is referred to. This measurement is taken from a connected field sketch and is used here as an auxiliary information for the field sketches connection. (Those measurements sometimes can be accompanied with the note “aang.”).	01 - Zeeland\VW VKN00_D00012__000023MD
M8		Measurement's symbol	The indication “2x” reveals that the nearby line had been measured twice.	01 - Zeeland\VW VKN00_D00012__000023MD
M9		Radius Measurement	When a boundary is consisted of an arc, then there are arrows pointing on the curve and measurements that define the radius. This measurement is easy to be separate from the others, as there is the indication “R=” (radius) before the number. If not, the measurements which define the radius of an arc, are those who are parallel to the lines which are pointing on the curve.	02 - Groningen \VWASN00_W00054__000107AS

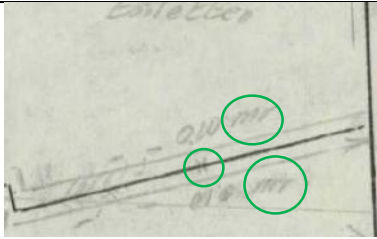
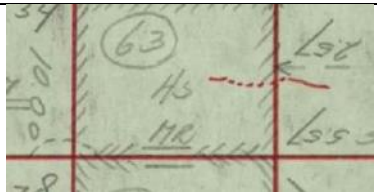
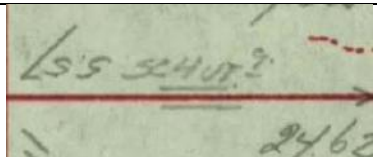
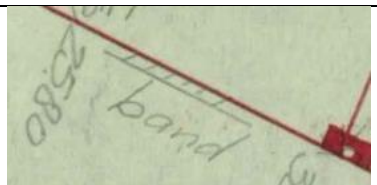
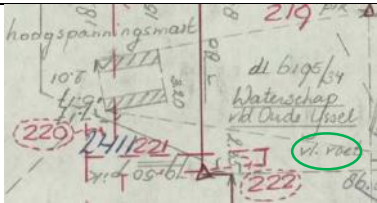
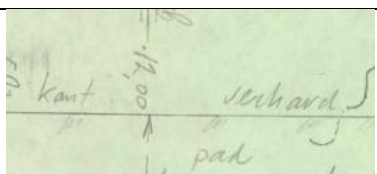
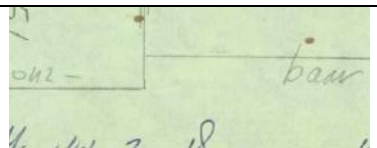
M10		Measurement type 1 – <i>special case</i>	The location of the measurement which is double underlined is not close to any line (point). The number's baseline is orientated 90° from the upper horizontal line. There is no measurement close to the point in the right side of the upper horizontal line and it should be one because there is a measurement's reference symbol (arrow) in the other side of the line. → Therefore the observed measurement belongs to the upper horizontal line.	03 - Gelderland \\VWDTC01_ O00054__00 0107AH
M11		Measurement type 1 – <i>special case</i>	There are 3 measurements circled. According to their location and the existing surrounding points and lines, all of them referred to the same point. The numbers 25.93 and 25.94 have approximately the same orientation and this happens because the two possible lines that the measurements might belong to, have a very small difference in their slope. The baseline of the number 25.94 forms 90° with the upper (dashed) line, thus it belongs to that. The baseline of the number 25.94 forms 90° with the lower (red-grey) line. It is possible that the measurement 77 belongs to the line which lays at the left of the observed point because of its particular baseline. However, this cannot be confirmed because there is a lack of data (which can be found in a connected filed sketch).	03 - Gelderland \\VWDTC01_ O00054__00 0107AH
M12		Measurement type 1 – <i>special case</i>	The location of the circled measurement can be confusing since it is very close to the diagonal line. However, there is no intersection or a point symbol in that line and the measurement cannot belong to that line since its baseline does not comply with the measurements rules. The measurement is related to the intersection of the red horizontal continuous line and the grey dashed line.	02 - Groningen \\VWASN00_ W00082__00 0163AS

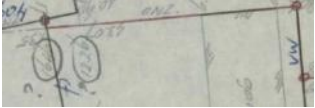
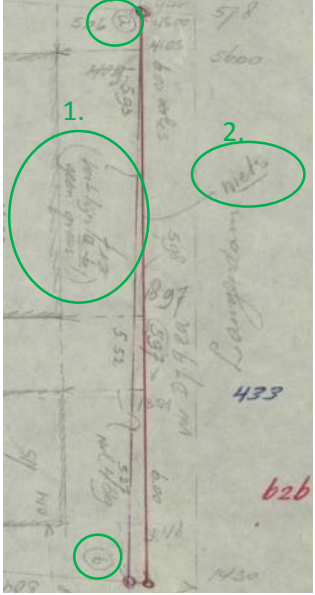
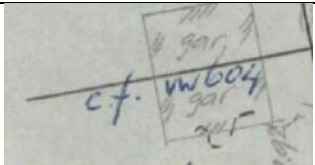
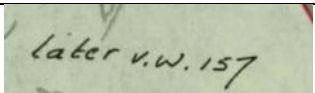
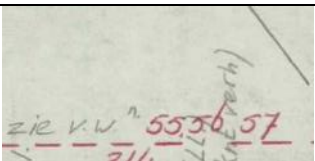
D. Other Information

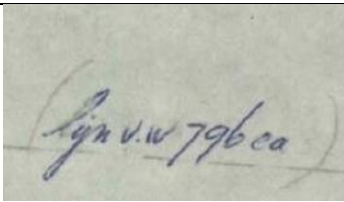
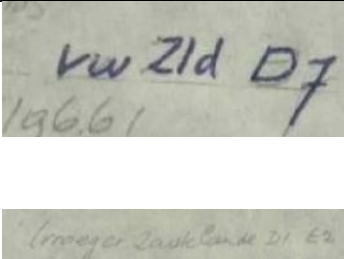
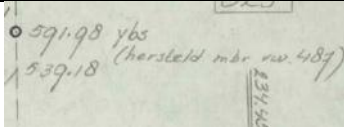
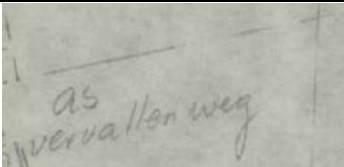
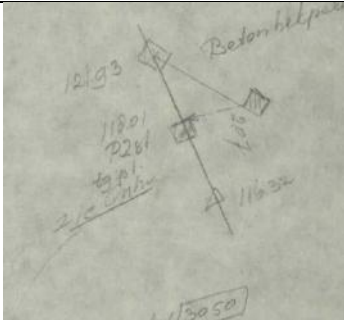
Ol#	Image	Classification	Properties & Description	Directory
O11		Parcel identification - Drawing area	a) Numbers in the drawing area written in black, b) numbers written in black and circled with a dashed line → represent parcel numbers created in the past, but remained the same after the creation of the present field sketch, because nothing had changed on them. <i>*Usually the parcel numbers are not circled with a dashed line.</i>	01 - Zeeland\ VWGOE00_ D00862__0 01895MD
O12		Parcel identification - Drawing area	a) Numbers in the drawing area written in blue, b) number in the drawing area written in red and c) the blue numbers are a bit smaller than the red number. → The blue numbers represent old parcel numbers and that means that they are not valid. The red number represents the new parcel number. <i>*All the blue numbers (46, 47, 53, 317, 597, 595) were part of the current parcel (number 624).</i>	01 - Zeeland\ VWVKN00_ D00012__0 00023MD
O13		Parcel identification - Drawing area	a) Number in the drawing area written in blue, b) A letter is written in front of the number. → That means that the old parcel number at the observed area, can be found in a different section (E), that the one of the observed field sketch (D).	01 - Zeeland\ VW VKN00_ D00 020__00003 9MD
O14		Parcel identification - Drawing area	a) Numbers which are circled with a dashed line, b) there is a small dashed line that connects the number with the internal part of a polygon. The circled numbers represent parcel numbers of parcels with small areas. Thus, the parcel number is written outside the parcel and circled this way. Also the small dashed line is used to connect the number with the parcel that it belongs to. c) Numbers written in red → represent new parcel numbers.	03 - Gelderland \VWDTC01_ O00054__0 00107AH
O15		Parcel identification - Drawing area	a) A number in the drawing area is written in grey, b) A letter is written in front of the number, c) Text: "vereniging" → Especially the colour and the text indicate that connected information can be found if the parcel 59 in section D is examined.	01 - Zeeland\ VW VKN00_ D00 020__00003 9MD

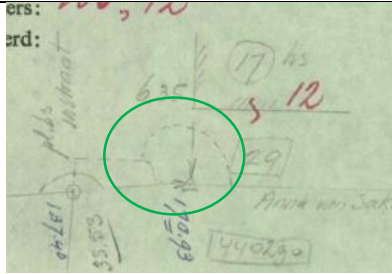
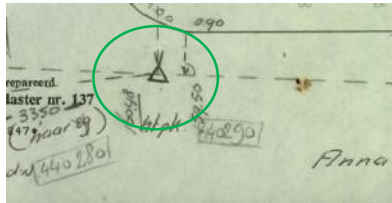
OI6		Parcel identification and ground control point - Exception Noord Holland-	a) The number 7277 is enclosed in a rectangle just like the ground control points (see point 8116 in the present image and P1) and b) is surrounded by continuous shaded lines which represent building lines. → Therefore the number 7277 is a parcel number or a building number, although is enclosed by a rectangle (and this is an exception). The same number is mentioned at the header information of the field sketch (see OI10). As a result, the number 7277 is a parcel number.	04 - Noord Holland \VWASD05_G00800_0 01675AD
OI7		Building identification	a) Circled number, b) Surrounded by building lines → Building address number.	04 - Noord Holland \VW LGD00_C00 030_00005 9AM
OI8		Building identification	a) Circled number (No2), b) There is a building line above and below the circled number. → Building address number. <i>*It is not necessary for a circled number to be completely surrounded by building lines to represent a building address number.</i>	01 - Zeeland \VWG0E00_D00870_0 01911MD
OI9		Parcel identification and building address number	a) There are two numbers which are circled (see OI7) and b) they are both between building lines (see L1). c) The number 6764 is written in blue and d) is a bit smaller than the number 8041, e) which is written in red (see OI2). → Due to the last mentioned characteristics, it can be realised that the number 6764 is an old parcel number, although it is circled. The number 50 is the one that represents the building number.	04 - Noord Holland \VWASD05_G01460_0 03107AD
OI10		parcels identification - Header Information	a) Information on the header of a field sketch about the parcels that had received new numbers ('nieuwe nummers') and b) the unchanged parcel numbers ("niet vernummerd"). In a case of a modification (division, merged with another parcel), a parcel gets a new number. The information in this part of a field sketch can be used	01 - Zeeland \VW VKN00_D00 012_00002 3MD

			(most of the times) to validate the parcel numbers in the drawing part.	
OI11		Connection sign	a) (Red) dashed curved small line, b) which intersects a building line. → The symbol represents a connection sign. This symbol is used to describe, which building(s) belongs to a parcel. In the observed image the building with the connection sign belongs to the parcel 625.	01 - Zeeland\ VVVKNO0_ D00012__0 00023MD
OI12		Connection sign	1. a) Grey dashed curved small line, b) which intersects a building line. → The symbol represents a connection sign, which connects the shaded part (wall) with the upper parcel. 2) Likewise, the symbol beneath the black line represents a connection sign, which connects the shaded part (wall) with the lower parcel.	01 - Zeeland\ VWGOE00_ D00870__0 01911MD
OI13		Symbol	a) A big arrow symbol is illustrated in the observed field sketch. → The symbol represents the North sign, which is used for the field sketch's orientation.	02 - Groningen \VWASN00_ W00101__0 00201AS
OI14		Symbol	a) A big arrow symbol is illustrated in the observed field sketch. → The symbol represents the North sign, which is used for the field sketch's orientation.	04 - Noord Holland\VW ASD05_G01 270__00269 3AD
OI15		Symbol	a) A small curved dashed (grey) line, which b) is adjacent to two lines that could form a 180-degrees angle. → The line represents a 180-degrees symbol, which indicates that the two lines are collinear.	02 - Groningen \VWASN00_ W00054__0 00107AS
OI16		Symbol	a) A small curved dashed (grey) line, which b) is adjacent to two lines that could form a 90-degrees angle. → The line represents a 90-degrees symbol, which indicates that the two lines form a right angle.	02 - Groningen \VWASN00_ W00054__0 00107AS
OI17		Symbol	a) Three small circles, which interrupt a continuous line and are connected with a dashed grey line, b) the line's text "hoogspanningsleiding" in another dashed grey line. → The symbol represents the base of the electricity lines in the area.	03 - Gelderland \VWDT01_ O00054__0 00107AH

OI18		Line's symbol and text	a) The black continuous line which is shaded in both sides, b) with the two parallel grey shaded lines, c) the note "mr" in both sides and d) the symbol that looks like an "x" in the black line → indicate that the black continuous line is a boundary that lays in the middle of a (2 x 0.10m) wall. <i>*If the text "mr" was written only once and the symbol in the black line was absent, the result would be the same since the black is shaded in both sides.</i>	01 - Zeeland\ VWGOE00_ D00870_0 01911MD
OI19		Line's symbol and text	a) The continuous red line which is shaded in both sides, b) the text "mr" and c) the two small grey lines which are parallel to the red line → indicate that the red continuous line is a boundary that lays in the middle of a wall.	02 - Groningen\ VWASN00_ W00082_0 00163AS
OI20		Line's symbol and text	a) The continuous (red) line, b) the text "schut" and c) the two small grey lines which are parallel to the continuous line → reveal that the boundary is a wooden fence.	02 - Groningen\ VWASN00_ W00082_0 00163AS
OI21		Line's symbol and text	a) The (red) continuous lines, b) the parallel text "band" and c) the parallel grey line with the small diagonal lines → reveal that the boundary lies after a row of asphalt, stone and concrete.	02 - Groningen\ VW VWASN00_ W00105_0 00209AS
OI22		Line's text	a) The text "vl. voet", which is parallel to a dashed grey line, b) that is connected to a small building and c) the text "hoogspanningsmast", which is close to the small building → reveal that the electricity line is extended from the concrete base.	03 - Gelderland\ VWDTTC01_ O00054_0 00107AH
OI23		Line's text	a) The text "kant verhard" which is parallel to a grey continuous line → reveals that in the side of the line (boundary) that the text is written, there is asphalt/stones.	04 - Noord Holland\ VWLGD00_ C00030_00 0059AM
OI24		Line's text	a) The word "onz-" and b) the word "baar" that lay on the same line → stand together for the word "onzichtbaar". → This note is used to specify that there is nothing in the ground to make the boundary visible. <i>*Whenever a word has a "-", that means that it is related with another word that lays on the same direction.</i>	04 - Noord Holland\ VWLGD00_ C00030_00 0059AM

OI25		Line's text	a) The word "onz", which is parallel to a continuous (red) line (boundary) is used to specify that the boundary is invisible in the ground.	03 - Gelderland \\VWHDW0 0_D01149_ _002331AH
OI26		Line's text	1. a) There is a text "Verb.lijn a-b geen grens", which b) is connected with a small waved line to the first from left red continuous line and c) is parallel to it. d) There is a letter "a" close to the upper red point symbol and e) the letter "b" close to the lower point symbol which is first from left. → These features indicate that the line that connects the point "a" with the point "b" is not a boundary line. 2. a) The note "niets" which b) is connected with a small waved line to the red continuous line in the right → indicates that the boundary is invisible in the ground.	01 - Zeeland\\ VWVKN00_ D00012_0 00023MD
OI27		Line's text	The text "c.f vw 604" which is parallel to the black continuous line (boundary) indicates that the boundary is the same as it was on the field sketch 604 (see OI30).	03 - Gelderland \\VWHDW0 0_D01149_ _002331AH
OI28		Scattered Text: Connected field sketch	a) The note "vw" → indicates that there is connected information in another field sketch of which the code is 157. b) The note "later" → reveals that the connected field sketch created after the construction of the present field sketch. c) The fact that only a number is specified, but in order to identify a field sketch the Cadastral Community and Section are needed → means that the connected field sketch belongs to the same community and same section as the examined one.	02 - Groningen \\VWASN00 _W00082_ 000163AS
OI29		Scattered Text: Connected field sketches	a) The text "vw" → indicates that there is connected information in other field sketch(es). b) All the numbers that follow (55, 56, and 57) represent the field sketches in which the connected information can be found. c) The red colour of the numbers → indicate that the connected field sketch is a "neighbouring" field sketch	03 - Gelderland \\VWDT01 _O00054_ 000107AH

			that was created in the same time period as the observed one.	
OI30		Scattered Text: Connected Field sketches	a) The text “vw” → indicates that there is connected information in the field sketch 796. b) The blue colour → indicates that the connected field sketch is a field sketch which was constructed in a previous period of time. c) The indication “ea”, reveals that connected information can be found not only in field sketch 796, but also in other field sketches.	01 - Zeeland\V WGOE00_D 00862__00 1895MD
OI31		Connected Field sketch and Scattered text	a) The text “vw” → indicates that there is connected information in another field sketch. b) The text “Zld D” → reveals that the connected field sketch belongs to another Cadastral Community (Zld) and another section (D). c) The scattered text “vroeger Zoutelande” → indicate that the text “Zld” stands for the community Zoutelande and therefore this is the community that the previous connected field sketches are coming from. Although, it's cadastral community code is “ZTLxx” and not “ZLDxx”.	01 - Zeeland\V WVKN00_D 00020__00 0039MD
OI32		Scattered text	a) The text “hersteld mbv vw 487”, which is close to a point (symbol) → indicates that the point's location had been restored with the aid of the field sketch 487.	03 - Gelderland \VWDT01 _000054__ 000107AH
OI33		Scattered text	The note “as vervallen weg” indicate that a boundary was located on the centreline of a road, which does not exist anymore.	01 - Zeeland\V WVKN00_D 00020__00 0039MD
OI34		Scattered text	a) The text “zie ontw”, b) the small drawing which is not attached to the main drawing and c) the waved line (see L25) which is connected with the text “zie ontw” → reveal that this drawing is an enlargement of a part of the main drawing, which was created due to the density of the information. The waved line lead to the part of the drawing which was magnified. The text “ontw” is used to indicate that the extra drawing provides more information about the area at the left.	01 - Zeeland\V WVKN00_D 00020__00 0039MD

OI40	 	<p>Symbol and curved dashed line Scattered text</p>	<p>a) The symbol which is circled represents a 180 degrees symbol (see OI15), although it is not illustrated as usual (as it doesn't connect two lines which are collinear). b) The small curved dashed line that connects the picket (triangular symbol) with the left side (intersection) of the 180 degrees symbol, represents a straight line (see L19). However, the conclusions above can be confirmed, only by checking the related field sketch.</p>	<p>04 - Noord Holland \VLGD00_C00016_000031AM, 04 - Noord Holland \VLGD00_C00003_000005AM</p>
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