

Memo

Project Name: Design requirements for waste collection points in buildings
 Project Number: 359854
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 design requirements OAT.docm
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1 Design requirements waste collection points

As part of the preparation of the OAT Sluisbuurt contract the design requirements for the locations of the OAT waste collection points were discussed by stakeholders. This memo is a summary of the current standings with regard to the requirements for the location and basic design of the collection points for the Sluisbuurt.

2 Definitions

Following definitions are used:

Term:	Definition:
OAT	Underground waste collection system (from Dutch 'Ondergronds Afvaltransportsysteem')
Collection point	Location for the separate collection of waste. A collection point has a minimum of four inlets for the basic waste fractions. Any collection point can be expanded with space for waste collection containers (2/4 wheels) for other fractions (like glass, textile,...).
Primary collection point	The designated collection point for any resident or service. Usually in the same building as the house or apartment of the user.
Secondary collection point	A back-up facility if or when the primary collection point is not functional. Most likely situated in a neighboring building.
Residents	People living in the Sluisbuurt (formally registered). In Dutch we refer to 'particulieren'.
Services	Companies, schools, restaurants and other (non) commercial activities housed in Sluisbuurt.
'Woning' (dwelling)	Formal function of a building (as defined by the Dutch Building Decree) for a dwelling for residential purpose. A building can house several dwelling (like apartments).
'Voorziening' (service building)	Buildings used for other purposes than housing..
'Woontoren' (tower)	Residential building, higher than 30 meter above groundlevel
'Woonfunctie'	Function of use for dwelling. (Dutch Building Decree art. 1.1. lid 2).
'Woongebouw' (Dutch Building Decree)	'Building or a part thereof with only dwelling or supporting functions, with more than one house and dependent on a communal access. (Dutch Building Decree art. 1.1 lid 3).
'Toegankelijkheidssector' (Dutch Building Decree)	Area in a building independently accessible for persons with a physical disability. (Dutch Building Decree art. 1.1. lid 1).
(building) lot	Land to be developed and build upon within the requirements for urban planning and planning permission.

3 Factors for location definition

The following factors and starting points have been taken into account when defining the various collection points (location and configuration) within the Sluisbuurt area.

3.1 Collection point

- Collection points will be situated indoors.
- Any dwelling (~resident) has a designated collection point for disposing of waste. This collection point is part of the OAT system and is situated within the same building as the dwelling.
- All building towers receive their own collection point.
- For a dwelling at ground level (with their own access) – and therefore not part of a 'woongebouw' a collection point in the vicinity will be appointed.
- Basic start points for the location of any collection point:
 - per building lot at least one collection point;
 - preferred location for an indoor collection point is part of or adjacent to the communal access (max. 10 meter detour);
 - max. 50 meter walking distance between the front door of a separate dwelling (outside of 'woongebouw') and the designated collection point;
 - for reaching the designated collection point it is not acceptable to cross a road, bridge or canal.
- When more than one collection point is required for a building lot, the locations should be such that an even distribution (nr. of users or amount of waste) is achieved.
- A collection point is only meant for the designated residents and/or services.
- Residents have precedence over service with regard to practical accessibility to their designated collection point.
- Per building lot a collection point should be available when the first residents get access to their dwelling¹.

3.2 Services to be supplied by the collection points

- The configuration of the collection points (e.g. number of inlets and/or containers) is determined by the number of dwellings and services to which it is designated (table 1):
 - maximum of 240 dwellings per collection point;
 - any collection point is designated to at least 50 dwellings.
- Waste collected must be separated in following fractions:
 - collection via OAT System, four fractions:
 - food and other organic waste;
 - plastic and metal packaging;
 - paper and cardboard (small size);
 - other waste.
 - collection of other fractions by means of waste containers (EN 840-1 / EN 840-2):
 - textile, glass, cardboard (larger sizes), small appliances.
- Collections points for services:
 - Joint use of a collection point by both residents and services is not acceptable unless specifically pointed out (e.g. in case of smaller services).

¹ In order to prevent building waste disrupting the OAT system the formal date for giving access to the OAT system can be delayed (till a certain amount of the dwellings is occupied).

- It is acceptable that two adjacent collection points (e.g. technically) use the same connection on the OAT system.

3.3 System access to the collection point

- It is not acceptable that OAT ducts run under buildings. This includes the same building lot.
- Access to the collection point should be inside the building. (leaving the building should not be necessary for residents).
- In order to collect the full waste containers an outdoor access door and paved access road to public area should be available of suitable dimensions and a finishing.
- Preferred access to collection point for services:
 - #A access door in street facing façade;
 - #B access to indoor collection point via a separate access road (either public or private use).
 - Option #B is preferred, in order to prevent 'technical doors' in the front elevation of the buildings.

4 Technical starting points

Basic starting points with regard to technical and functional aspects for collection points:

- A collection point is located indoors with indoor access for residents.
- A collection point should be accessible for persons with a physical disability: it is part of the so-called 'toegankelijkheidssector'.
- Preferably an electronic key is required for accessing the collection point and/or inlets.
- The room(s) of a collection point have air ventilation (not to be closed or shut off) with a capacity of at least 10 dm³/s per m² (to be determined according to NEN 1087).
- A collection point should meet the requirements set by general legislation, e.g. the Dutch Building Decree (Bouwbesluit 2012), H&S regulations and environmental regulations. This does apply to both the building of the collection point and the maintenance of the area and installations.
- The technical room(s) of a collection point should be designed in such way that it cannot be considered a confined space with regard to occupational health and safety regulations.
- All pipes and ducts of the OAT System must protruded (basement) walls perpendicular (on a right angle), both vertically and horizontally. The protrusion must be water tight (dependent of the ground water pressure).

5 Additional points

Following aspect will be addressed separately:

- Configuration of collection points combining facilities for both residents and services.
- The technical and legal conditions for the connection of the OAT inlets to the overall OAT Systeem (e.g. system integration).
- Collection of large size cardboard (e.g. shredding or compressing).

Authorisation

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Date	13/07/2018
Author	Hans de Vrij
E-mail address	hans.devrij@sweco.nl
Controlled by	Nick Huibers
Signature controlled	
Approved by	Ronald Koning
Signature approved	

Bijlage 1 – Allocation of collection points

All collection should be configured to collect waste in separate fractions. For the configuration of the collection points following allocation is used.

Table 1 *Number of inlets per collection point (residential)*

Number of dwellings	food organic	packaging (metal/plastic)	paper cardboard	'rest' waste	other fractions
$50 < n \leq 80$	p	p	p	p	waste containers
$80 < n \leq 160$	p	p	p	p p	waste containers
$160 < n \leq 240$	p	p	p	p p p	waste containers

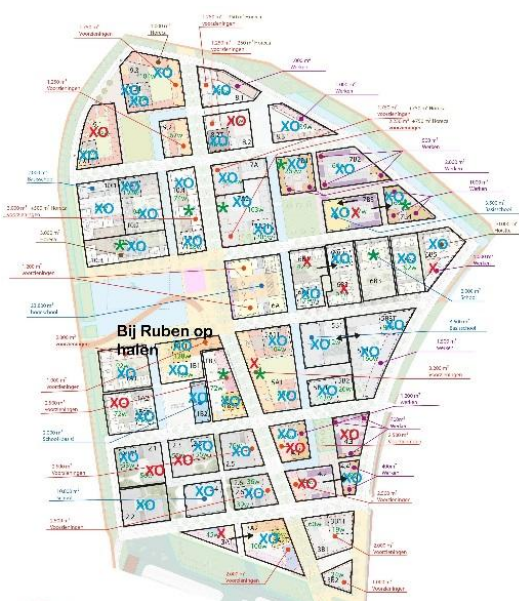


Figure 1 *Allocation of collection points (situation per 23-03-2018, status concept)*

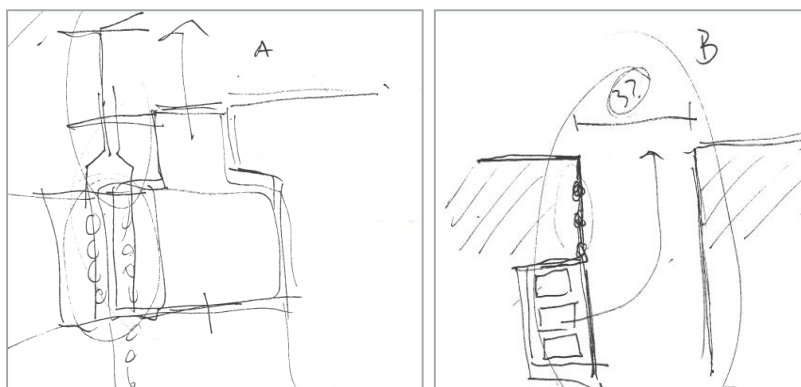


Figure 2 *Collection points for services (left option #A, right #B)*