Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences
**Graduation Plan: All tracks**
The graduation plan consists of at least the following data/segments:

<table>
<thead>
<tr>
<th><strong>Personal information</strong></th>
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<tbody>
<tr>
<td>Name</td>
<td>Jan Bolhuis</td>
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<tr>
<td>Student number</td>
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</tbody>
</table>
| Private e-mail address    | j.bolhuis@student.tudelft.nl  
|                           | jan.bolhuis@outlook.com  |

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<tr>
<th><strong>Studio</strong></th>
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<tbody>
<tr>
<td>Name / Theme</td>
<td>Heritage &amp; Design</td>
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</table>
| Teachers / tutors | Lidy Meijers  
|               | Frank Koopman  |
| External examiner | Peter Koorstra  |
| Argumentation of choice of the studio | Interest and relevant study- and work experience in conservation, restauration and refurbishment of architectural heritage.  |

<table>
<thead>
<tr>
<th><strong>Graduation project</strong></th>
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<tr>
<td>Title of the graduation project</td>
<td><strong>De Gracht</strong></td>
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<th><strong>Goal</strong></th>
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| Location: | Former Prinsengracht Hospital  
|           | Prinsengracht 769, Amsterdam  |
| The posed problem, | The Prinsengracht hospital has always been regarded as a very pleasant one, and is situated beautifully along the prestigious Prinsengracht, right in the UNESCO World Heritage Site of Amsterdam.  
|           | The complex was designed to provide care, but has been rigorously and deficiently modified to become a cure-providing institute. There is a mismatch between the buildings and their use.  |
| main research question, | To which extent did architectural aspects contribute to the positive experiences and user-friendly atmosphere of the Prinsengracht Hospital, and how can they be of use in the redevelopment of the complex?  |
| secondary research questions and | How has the Prinsengracht Hospital developed and how does this relate to developments in the medical world?  
|           | What determines *user experience* and how can the effects be measured?  |
To which extent does the building meet contemporary demands for care-related use, and which types of healthcare could be accommodated?

| design assignment in which these result. | My intention is to get the building and its use back on the same track. More concrete, the building will regain its original function as a safe place for vulnerable people, and play a role in the forensic healthcare provided in the Amsterdam region. |

My research has led to a number of starting points that I use to start my design project. I have started on the design, although it is very likely to change a lot even before P2. A quick overview of my project:

![Figure 1 - The Prinsengracht Hospital and part of the garden inside the complex](image)

The project is located along the Prinsengracht, a relatively calm part of the crowded inner city of Amsterdam. For over 150 years, the hospital has offered its patients a quiet, green, bright place to recover and to prepare for re-entering society. This is a quality that the complex still possesses and that I want to maintain. By housing a centre for forensic care (part clinical, part guided living for former detainees), the hospital can regain its original function as a safe place for people who cannot make it on their own. Moreover, it addresses the rising sense of insecurity in the city centre, by properly guiding the people that are responsible for most of the small crimes reported.

The design consists of three layers. First of all, there are the existing buildings on either side of the plot. The complex is divided in two parts, one of which (along the Prinsengracht) houses the guided living. The other part, located on the Kerkstraat and containing a relatively large amount of new construction, is designed as a low-security clinic.

![Figure 2 - The first 'layer': Existing buildings (left) and proposed situation (right).](image)
The area in between will be cleared of cluttering building parts and will be used as the complex garden, the second layer of the design. It is divided into several parts, all with their own character and with different levels of publicness/privacy.

![Figure 3 - The second layer (left) is divided into four gardens/courtyards (middle) by the third layer (right).](image)

The third layer is a new, added structure, which has a double function. It separates the courtyards/gardens from each other, and connects the different building parts where necessary. In doing so, a new circulation system is introduced, which also features the new main entrance for the complex.

For P2, I will base a sound design proposal on these starting points. Between P2 and P4, the design will be elaborated.

### Process

#### Method description

I have conducted my research using library books, articles and recorded fragments from TV- and radio shows from local channels (see also the list of references included below). Moreover, I have studied the Prinsengracht hospital itself, from historic and recent drawings, pictures and by taking measurements and making sketches on site.

An additional part of the research involves the new function for the premises, forensic care. Apart from reading books and articles about the subject (including research by TNO and Stagg), I have arranged meetings and interviews with several people that are active in the field of forensic care:

- Jeroen Veth, Senior Architect at de Jong Gortemaker Algra architecten ingenieurs. Veth is specialised in designs for forensic and psychiatric care, and has been responsible for several projects in the Netherlands and abroad. We spoke about several of the office’s designs and the role of architecture in forensic treatment. We also briefly looked at the Prinsengracht case. (Visited 29-5-2015)

- Jan Willem Viergever, property manager at Altrecht (an organisation that provides psychiatric and forensic care in the Utrecht region). Together with Viergever and a colleague, I visited the Willem Arntsz Huis in Utrecht, an inner city clinic that was designed by VMX Architects and was opened in 2007. We did a tour of the buildings and spoke about the use of the building, the on-going renovation, and how that relates to the architect’s original idea. (Visited 5-6-2015)

- Jeroen Vervoort (project manager at Arkin) and Lodewijk van Grasstek (business manager at Mentrum). This visit is planned after P2, due to absence of one of the two. Vervoort and Van Grasstek will show me the Mentrum clinic at the Eerste Constantijn Huygensstraat in Amsterdam, and clinic ‘De Meren’, also in Amsterdam. They have also agreed to provide information about the different kinds of treatment and guided living that they offer.
Until P2, my analytical and design drawings will mainly be made by hand. I have also built several rough models of the area (1:500) and the Prinsengracht Hospital itself (1:200), both of the existing situation and several design possibilities.

During summer, I intend to make a digital model of the building and direct surroundings, that I can use to visualise my design and to make more accurate drawings on various scale levels. During MSc4, computer drawings will play a larger role, but I will still make hand drawings and physical research models.

**Literature and general practical preference**

As mentioned above, I have not only used literature from the libraries and online articles, but I have also contacted several people active in the field (see list of literature at the end of the document, and list of visited sites and interviews above).

I have used several reference projects, including a number of clinics that I was able to visit, but also projects with an entirely different programme that are interesting because of their architecture.

![Figure 4 – Reference projects. Top left: Transferium Jeugdzorg, Heerhugowaard, dJGA. Top right: W.A.H., Utrecht, VMX. Bottom left: Mentrum Clinic, Amsterdam, v.Panhuys & Bais, dJGA. Bottom right: Tilburg University, J. Bedaux.](image)

Part of my research is based on assessment methods developed by TNO and Stagg. This includes their OAZIS tool, which is very useful for determining which architectural aspects are important to patient experiences in healthcare environments.
**Reflection**

**Relevance**
In psychiatric and forensic care, there is a clear trend from large, open institutes in the countryside to smaller clinics and ambulatory care facilities in the cities and towns themselves. The patient residences are designed to be as ‘normal’ as possible, in order to facilitate an easy re-integration of the patient into society. My design approach fits in that trend and takes it one step further, to the point where care is integrated so well in the existing urban tissue that it is hardly recognisable.

The project addresses several interesting issues:
- the adapting of an existing building to house a quickly evolving medical function;
- the integration of a ‘high-profile’ function into an existing district and the interaction it should have with its surroundings and neighbours;
- the consequences of building in the protected UNESCO World Heritage Site;
- the relation between the large, introvert building and function, and the strictly determined urban structure of Amsterdam.

**Time planning**

I can be quite short about my planning, as I have finished all courses from MSc1 and MSc2, and do not intend to retake any exams.
- The course ‘Lecture Series Research Methods’ is the only course I need to take during my MSc3 programme. As of today (June 10th) I have submitted my final paper for the project.
- My Research Report has been handed in.
- My Analysis Report (group work) is nearly finished.

I do have a part time job in the evenings and weekends, and will keep working there one to two days a week during my graduation process. I’ve had this job for years and do not expect it to pose conflicts in my planning. If needed, I can work less hours (or none at all) for several weeks when a deadline or presentation requires more preparation. However, I should be able to spend 40+ hours per week on my graduation.

<table>
<thead>
<tr>
<th>Week</th>
<th>What to do</th>
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<tr>
<td>4.8</td>
<td>Hand in Graduation Plan, Position Paper, Analysis Report. Prepare P2</td>
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<tr>
<td>4.9</td>
<td>Prepare P2. June 18th: P2 Presentation.</td>
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<tr>
<td>4.10</td>
<td>Work on comments from P2</td>
</tr>
<tr>
<td><strong>Summer</strong></td>
<td>Work on the project without tutoring for ca. 20 -30 hours a week (with a few small breaks). Work part time job for 2-3 days a week.</td>
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<tr>
<td>1.1</td>
<td>Tutoring starts again in September</td>
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<tr>
<td><strong>Q1</strong></td>
<td>Work towards P3. Work part time job 1 day a week.</td>
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<tr>
<td><strong>Oct 2015</strong></td>
<td>P3 Presentation</td>
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<tr>
<td><strong>Q2</strong></td>
<td>Work towards P4. Work part time job 1 day a week.</td>
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<tr>
<td><strong>Dec 2015</strong></td>
<td>P4 Presentation</td>
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<tr>
<td><strong>Jan 2016</strong></td>
<td>P5 Presentation</td>
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</table>
Literature and other sources

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