

# WASTE MANAGEMENT PLAN (WMP) FOR OPERATIONAL WASTE

GENERAL WASTE AND RECYCLABLE WASTE  
DA SUBMISSION

**Arthur Phillip High School (APHS)**

112 – 116 Macquarie Street

**& Parramatta Public School (PPS)**

171 – 177 Macquarie Street

Parramatta (Parramatta Local Government)

DOCUMENT NUMBER

**WA - WAPPP - 01**

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Date: 24th August 2016

**Arthur Phillip High School**  
 112 – 116 Macquarie Street  
**& Parramatta Public School**  
 171 – 177 Macquarie Street

**WASTE MANAGEMENT PLAN**

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**Arthur Phillip High School**  
112 – 116 Macquarie Street  
**& Parramatta Public School**  
171 – 177 Macquarie Street

## **WASTE MANAGEMENT PLAN OPERATIONAL WASTE**

### **PART 1 GENERAL**

#### **.01 Executive Summary**

Arthur Phillip High School and Parramatta Public School are long running schools situated in the heart of Parramatta. The new Schools will accommodate up to 2,000 students in High School and 1,000 students in Primary School. The State's first high rise educational facility will provide a student-centered learning precinct at the heart of the suburb.

Parramatta has grown into a large city and the location of the Schools has become a very busy area. The amount of traffic in the area, the scale of waste volume estimated to be produced and the actual floor space available will need to be managed in order to facilitate the internal management of waste, as follows:

- Minimize the number of collections.
- Minimize the volume of waste to be collected
- Segregate the waste
- Recycle the waste

In line with the type of development being proposed, being one High School and one Primary School, there will be two separate waste management systems in place.

#### **Arthur Phillip High School**

Waste (both general and recyclable/ comingled waste) will be initially collected in small bins placed throughout the school. The caretaker will collect and transport this waste to the central waste bins located on school grounds and off Barrack Lane. The loading area will be level. The internal driveway access off Barrack Lane will suit the collection trucks. The waste will be collected from there by private collection contractors on a regular basis. Any other waste will be taken away in a large 4500 L bin in a yearly clean up by separate arrangement.

#### **Parramatta Public School**

Waste (both general and recyclable/ comingled waste) will be initially collected in small bins placed throughout the school. The caretaker will collect and transport this waste to the central waste bins located on school grounds and off Little Street. The loading area will be level. The waste will be collected from there by private collection contractors on a regular basis. Any other waste will be taken away in a large 4500 L bin in a yearly clean up by separate arrangement. This is as per current procedure

Basic requirements for waste handling facilities are as follows:

- To be of adequate size.
- Integrated with building design and site landscaping.
- Suitably screened from public areas.
- With appropriate access for collection.
- Assurance that OH&S requirements for waste contractors are met.

All waste stores will be fitted out to meet Building Code of Australia and Council requirements.

This report describes the waste management system proposed for the project, including:

- Estimates of waste quantity
- Waste space allocation & equipment
- Management of waste
- Waste segregation and minimization procedures
- Access

### **Regulations**

This report has been prepared based on the Parramatta DCP 2011 Section 3.3.7, the Parramatta City Council Waste Management Guidelines for new Development Applications.

It also makes reference to the NSW Office of Environment & Heritage "Model Waste Not DCP Chapter 2008" for waste and recycling generation rates.

It also makes reference to the Department of Environment & Climate Change "Better Practice for Waste Management in Multi-Unit Dwellings" published June 2008.

## **PART 2**

### **ARTHUR PHILLIP HIGH SCHOOL**

#### **.01 Access**

Waste (both general and recyclable/ comingled waste) will be initially collected in small bins placed throughout the school. The caretaker will collect and transport this waste to the central waste bins located on school grounds and off Barrack Lane.

The loading area will be level. The internal driveway access off Barrack Lane will suit the collection trucks. The waste will be collected from there by private collection contractors on a regular basis.

Any other waste will be taken away in a large 4500 L bin in a yearly clean up by separate arrangement.

## .02 Waste Generation Schedule & Estimate of Waste Volumes

### Background

- Number of students – current = 1600
- Number of students – proposed = 2000 (25% larger)
- As Council does not provide waste rates for schools, discussions were held with the incumbent waste collection provider to verify the current operation.
- A site visit was conducted to view the waste management arrangements
- An estimate was made on likely future waste volumes based on the above parameters

### Findings

- Small bins used throughout, some bins provided for comingled waste
- Caretaker collects waste regularly and transports it on trolleys to main waste bins
- Main general waste bin size = 3,000 L collected 5x per week (15,000L)
- Located next to driveway and off Macquarie Street
- Paper & cardboard bins = 2x 240 L bins collected 1x per week (480L)
- Located next to the large bin
- Recyclable waste bins = 12x 240L bins collected 1x per fortnight (2880L)
- Located near driveway and off Macquarie Street

### Recommendations

- The school to be encouraged to adopt more wide ranging recycling practices
- Colour coded bins to be provided throughout to collect general waste
- Separate colour coded bins to be provided at strategic locations for comingled waste.
- Caretaker to collect this waste on a regular basis and transport it on a trolley to the main waste bins. As the school is larger more bins will be required.
- Main general waste bin size = 6x 1100 L bins collected 3x per week (18,000L)
- Paper & cardboard bin = 1x 1100 L bin collected 1x per fortnight
- Recyclable waste bin = 3x 1100 L bin collected 1x per week
- Although cheaper to collect, the 3000 L bins are too cumbersome, they cannot be moved by hand and are restrictive in terms of truck access.
- The largest bin (4500 L in size) requires a separate bin loading frame, due to its height. The collection provider has indicated that they have met with much resistance from other schools when they were suggested due to the additional handling required.
- Note that the waste truck will collect the bins from the rear
- The bin parking area to be level
- Bin parking area located off a private driveway off Barrack Lane and to the north of the site
- The driveway and access to be designed to suit the collection truck
- The collection truck to enter from Macquarie Street and leave from Barrack Lane

- This report is part of the development application process. The final sizing of waste stores and frequency of waste collection will be made once final agreements are in place.

### **PART 3 PARRAMATTA PUBLIC SCHOOL**

#### **.01 Access**

Waste (both general and recyclable/ comingled waste) will be initially collected in small bins placed throughout the school. The caretaker will collect and transport this waste to the central waste bins located on school grounds and off Little Street. The loading area will be level. The waste will be collected from there by private collection contractors on a regular basis. Any other waste will be taken away in a large 4500 L bin in a yearly clean up by separate arrangement. This is as per current procedure.

#### **.02 Waste Generation Schedule & Estimate of Waste Volumes**

##### **Background**

- Number of students – current = 600
- Number of students – proposed = 1000 (70% larger)
- As Council does not provide waste rates for schools, discussions were held with the incumbent waste collection provider to verify the current operation.
- A site visit was conducted to view the waste management arrangements
- An estimate was made on likely future waste volumes based on the above parameters

##### **Findings**

- Small bins used throughout to collect waste, some bins provided for comingled waste
- Caretaker collects this waste on a regular basis and transports it on a trolley to the main waste bins
- Main general waste bin size = 3,000 L collected 2x per week (6000 L)
- Located next to driveway and off Little Street
- Recyclable waste bins = 10x 240L bins collected 1x per week (2400 L)
- Located near driveway and off Little Street

##### **Recommendations**

- The school to be encouraged to adopt more wide ranging recycling practices
- Colour coded bins to be provided throughout to collect general waste
- Separate colour coded bins to be provided at strategic locations for comingled waste.

- Caretaker to collect this waste on a regular basis and transport it on a trolley to the main waste bins. As the school is larger more bins will be required.
- Main general waste bin size = 3x 1,100 L bin collected 4x per week (12,000 L)
- Paper & cardboard bin = 1x 1,100 L bin collected 1x per week
- Recyclable waste bin = 3x 1,100 L bin collected 1x per week
- Although cheaper to collect, the 3000 L bins are too cumbersome, they cannot be moved by hand and are restrictive in terms of truck access.
- The largest bin (4500 L in size) requires a separate bin loading frame, due to its height. The collection provider has indicated that they have met with much resistance from other schools when they were suggested due to the additional handling required.
- Note that the waste truck collects bins from the rear
- The bin parking area to be level
- Bin parking area located off Little Street
- The access to be designed to suit the collection truck
- The collection truck to enter and leave in a forward direction
- This report is part of the development application process. The final sizing of waste stores and frequency of waste collection will be made once final agreements are in place.

#### **PART 4 MISCELLANEOUS**

##### **.01 Waste Segregation and Minimisation – EPA policies**

The waste strategy for the development will be continually evaluated by the School Management, to improve the service provided and to achieve the NSW Government's waste reduction targets, through improved recycling methods and aiming to minimize waste. The School Management will prepare an Environmental Management System addressing the waste collection and recycling procedures. This will set out expectations and achievable objectives. The School will need to implement the following:

##### **Avoidance**

School to manage this to discourage the generation of waste, eg. kids lunches to be in reusable containers, use of suppliers with in-house sustainability policies, etc

##### **Resource Recovery**

School to manage this by encouraging recycling of every potential item, eg. paper, electronic equipment, furniture, etc.

##### **Disposal**

School to manage this by arrangement with waste company, eg. separation of recyclables and organic waste. Use of waste collection provider with in-house sustainability policies.

## .02 Waste Stores Requirements

Bin parking areas will be designed in line with Council requirements. The following requirements are also subject to the Council Conditions of Consent. Indoor areas will have slightly different requirements from outdoor areas.

### 1. Floor finish

The floor must be a washable, non-slip, smooth, even surface, coved at wall joints, finished in a light colour. In the main waste stores to be a sealed concrete slab, graded and drained to meet Sydney Water Guidelines.

### 2. Wall finish

The walls must be a solid, impervious material, cement rendered to a smooth washable surface, finished in a light colour.

### 3. Ceiling finish (not applicable)

Must be finishes in a rigid smooth, non-absorbent material, capable of being easily cleaned., finished in a light colour

### 4. Drainage

Stores are to be graded and drained to sewer and grease trap

### 5. Doors

Must be tight fitting to prevent the entry of vermin

### 6. Ventilation

All the waste stores must be ventilated by either natural ventilation (5 litres/ sqm) or be mechanically ventilated. The ventilation system will comply with AS 1668 Parts 1 & 2 and Council's ventilation guidelines.

### 7. Lighting

Waste stores must be suitably lit with artificial lighting.

### 8. Safety

All equipment must have safe operation procedures in place. Appropriate safety signage must be provided. Large 3000 L bins are too heavy to be moved by hand

### 9. Washing

Provide a trapped gully and hot and cold water mixer tap

### 10. Grease Trap

Refer to Sydney Water Guidelines for requirements

### 12. Path of travel – from bin holding areas and/ or waste stores to truck

- No steps or kerbs

- Maximum transfer distance = 50 metres

(note that 3000 L bins cannot be moved by hand due to weight)

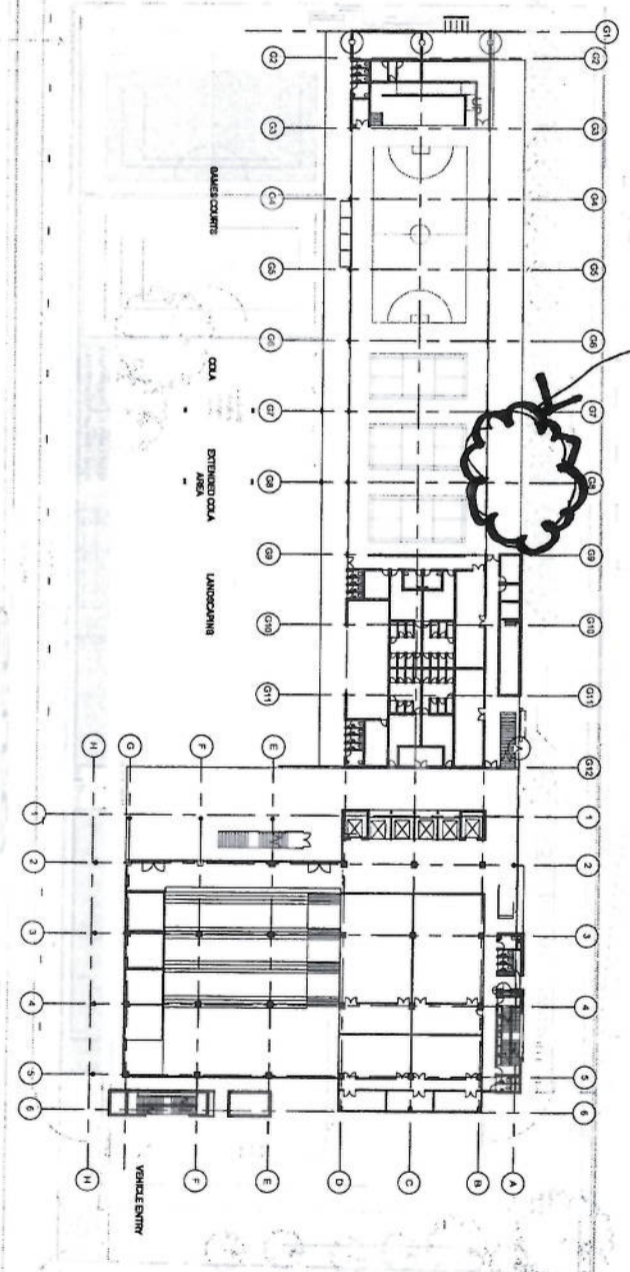
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#### Clinical Waste

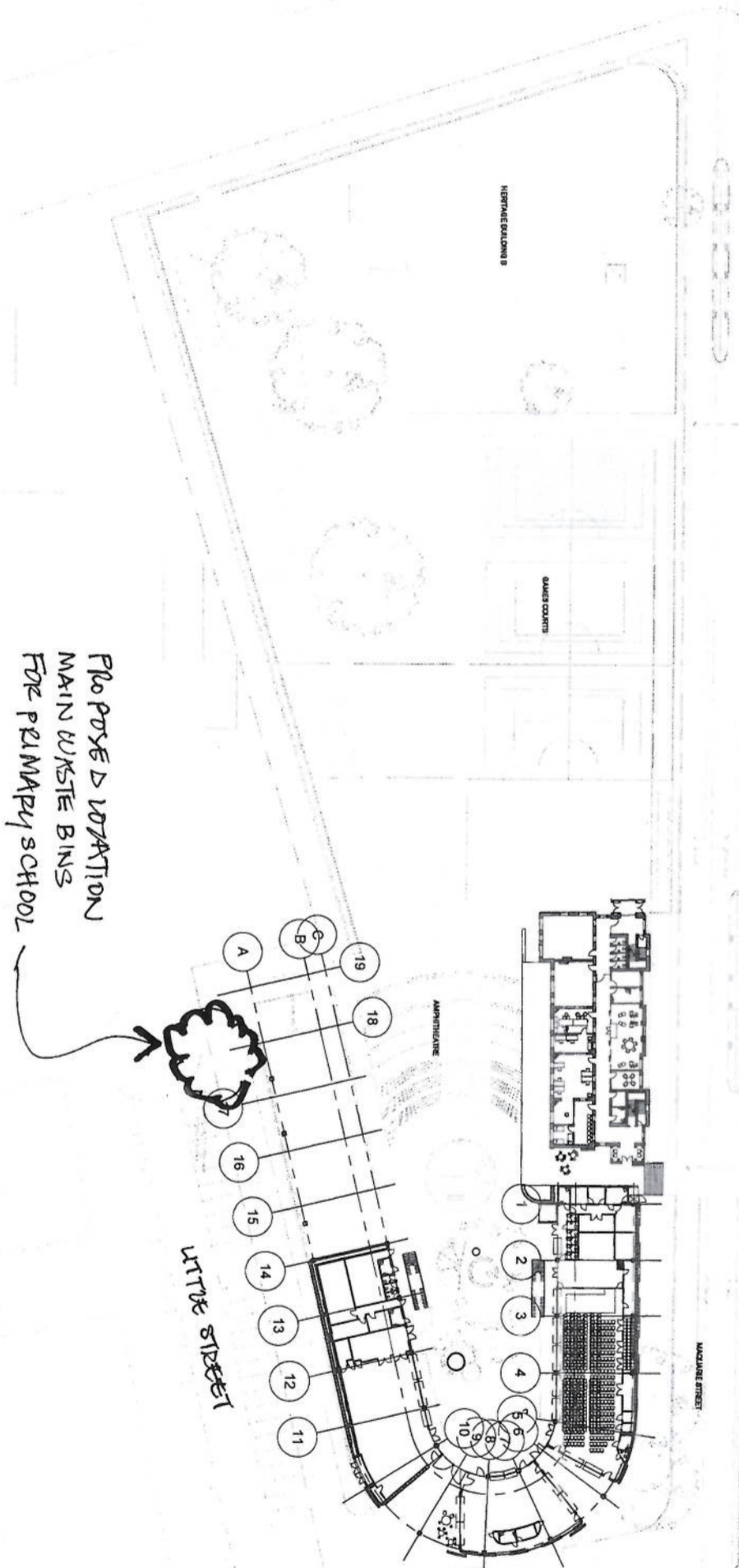
Chemical waste from the Science Laboratory and Materials Workshop and Visual Arts areas are to be stored in a dedicated store room within the preparation area or storage area of the workshops. The waste is to be collected from this point and disposed of by a specialist waste contractor

Sharps are also to be collected and disposed of by a specialist waste contractor

DRAFT



PROPOSED LOCATION  
MAIN WASTE BINS  
FOR HIGH SCHOOL



PROPOSED LOCATION  
MAIN WASTE BINS  
FOR PRIMARY SCHOOL

1 Ground Plane 500  
1:500

**GRIMSHAW**

**BVN**

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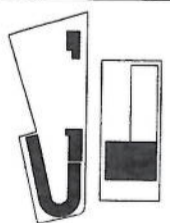
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1	11.03.16	DAE

CLIENT  
Department of Education

GRIMSHAW PROJECT NO.  
15091

DRAWING KEY



PROJECT  
Arthur Phillip High School  
and Parramatta Public School

ADDRESS  
(PPS) 171 - 177 Macquarie Street  
(APHS) 102-116 Macquarie Street  
Parramatta NSW 2150  
Australia

NORTH



SCALE 4:11  
1:500

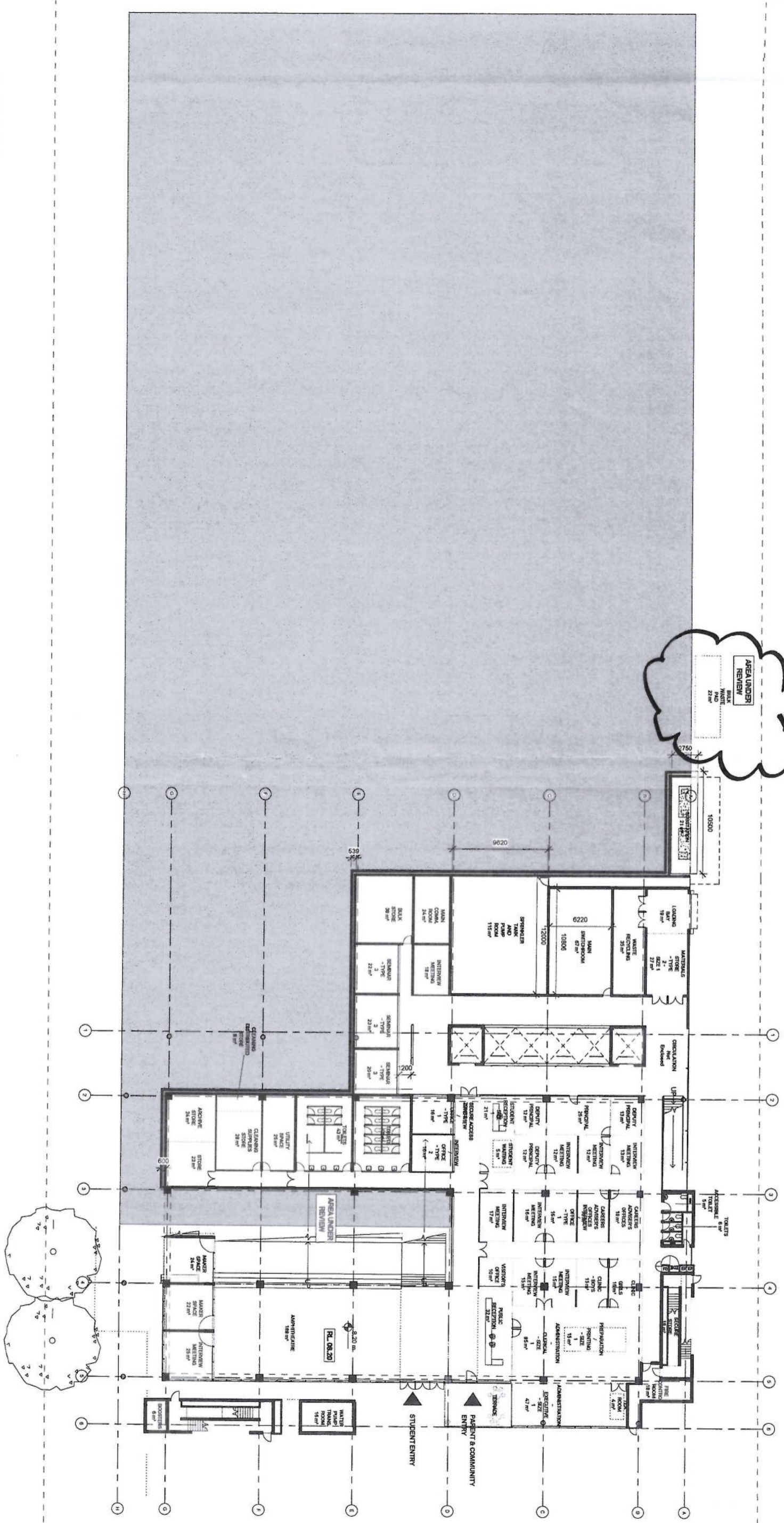
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DESIGN

DRAWING  
SITE PLANS CONTEXT PLAN  
UPPER GROUND

DRAWN GAS  
CHECKED EE/LJ  
AUTHORISED LB  
DRAWING NUMBER A02-1002  
REVISION 1

DRAFT

PROPOSED LOCATION  
MAIN WASTE BINS FOR HIGH SCHOOL



1 A03 APHS\_GA LOWER GROUND  
1:200

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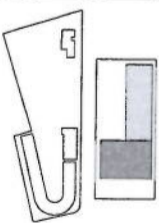
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Department of Education

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Arthur Phillip High School  
and Paramatta Public School

ADDRESS  
171 - 177 Macquarie Street  
(APHS)  
102-116 Macquarie Street  
Paramatta NSW 2150  
Australia

NORTH



SCALE 1:200

STATUS  
DRAFT 100% SCHEMATIC  
DESIGN

DRAWING  
GENERAL ARRANGEMENT  
FLOOR PLANS APHS - GA -  
LOWER GROUND

DRAWN  
GAS

CHECKED  
EE/LJ

APPROVED  
LB

DRAWING NUMBER  
A03-1201

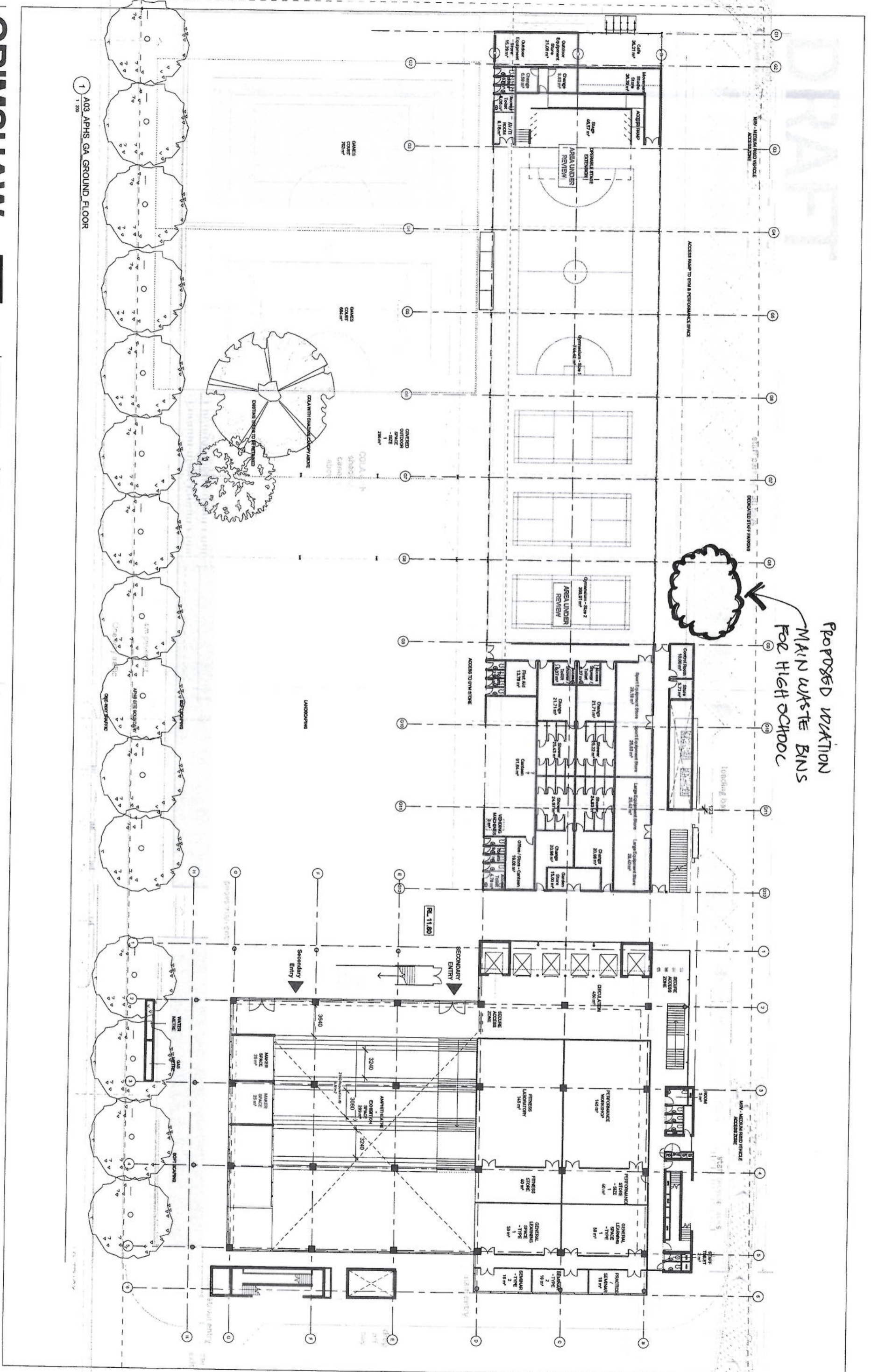
REVISION  
2

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DRAFT

PROPOSED LOCATION  
 MAIN WASTE BINS  
 FOR HIGH SCHOOL



1 A03 APHS GA GROUND FLOOR  
 1:200

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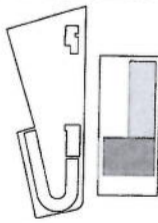
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PROJECT  
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 and Parramatta Public School

ADDRESS  
 (APHS)  
 102-116 Macquarie Street  
 Parramatta NSW 2150  
 Australia

NORTH



SCALE AT A1  
 1:200

STATUS  
 DRAFT 100% SCHEMATIC

DRAWING  
 GENERAL ARRANGEMENT  
 FLOOR PLANS  
 APHS-GA-GROUND FLOOR

DRAWN	CHECKED	APPROVED
GAS	EE/LJ	LB

REVISION  
 2