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Addendum to Revised Response to Submissions dated October 2020
Release Date: January 2021

The Revised Response to Submissions was submitted to the Department of Planning, Industry and Environment (DPIE) in October 2020 to address the matters raised in all submissions received by Bulk Recovery Solutions Pty Ltd (BRS) as a result of the exhibition of the Environmental Impact Statement (EIS). The EIS exhibition ended on 10 July 2019. A response to submissions was requested by DPIE on 19 July 2019 and 21 October 2019.

A response to submissions dated December 2019 was prepared by KDC Pty Ltd and submitted to DPIE in January 2020. A revised EIS was also submitted with that response to submissions. Following review of the December 2019 RtS, several submissions were received by BRS about March 2020. First Revised Response to Submissions was submitted by BRS to DPIE in June 2020. Submissions were received by BRS about August 2020. A Second Revised Response to Submissions was submitted by BRS to DPIE in October 2020.

The submissions received by BRS in December 2020 are:

1. Department of Planning, Industry and Environment - dated 11 December 2020
2. Campbelltown City Council – dated 30 November 2020
3. Environment Protection Authority – received December 2020

To enable BRS to provide responses to these submissions, its management sought and received advice from the following:

1) John O'Grady – Urban Planner,
2) Mathew McNamarra – DRB Consulting Engineers Pty Ltd
3) Jeff Garry - Intersect Traffic Pty Ltd
4) Tony Armstrong – Armstrong Design Creative Practical Solutions

<u>This Addendum addresses the matters raised in the December 2020 submissions.</u>

BRS management believes that this document should address the matters raised by the Authorities. However, if any clarification or additional information is required, this can be included as a condition in the Development Consent.

1 - Department of Planning, Industry and Environment submission dated 11 December 2020

1.1 General

- *Given the extent of changes, a request to amend the DA in accordance with Clause 55 of the Environmental Planning and Assessment Regulation 2000 is required.*

  In accordance with DPIE request, a request to amend the DA in accordance with Clause 55 of the Environmental Planning and Assessment Regulation 2000 has been prepared by a highly qualified Urban Planner. A copy of the request is attached to this addendum as Attachment 1.

- *The summary of the proposed amendments to the original development is not comprehensive, numerous components have been left out. Please provide a detailed list which includes all changes proposed subsequent to the exhibition of the EIS (including the flaps on the noise wall, awning, removal of grease trap waste and hazardous waste and change of methodology for asbestos treatment). Please note that a processing capacity of 500,000 tonnes per annum was not part of the exhibited proposal.*

  The list of amendments is included in the request to amend the DA. Refer to Attachment 1 for details.

- *Table 1-1 of the RTS provides a list of wastes currently allowed to be processed under existing consent/licences and a list of additional waste proposed to be treated. It has never been clear whether you propose to continue treating all the wastes in column 1 noting that the Department prefers that the existing consents be surrendered, please address.*

  Table 1-1 of the second revised RTS was compiled following several comments received from the authorities that it was unclear what the waste types and streams currently received and proposed to be received on site. Column 1 of Table 1-1 includes the list of wastes that are permitted to be accepted on site. This list remains unchanged since it is lawfully approved by relevant authorities. It has always been made clear that these wastes will continue to be received on site. The list of additional wastes proposed to be received on site was previously confirmed and remains as is. It should be noted that depending of the market demand some waste may not be received for several weeks. This does not mean that they should not remain on the list of approved wastes.

1.2 Site Plans

- *It is noted that the site plans have been updated as requested, however, they still do not show all of the waste to be stored onsite. Please amend the plans and descriptions to include municipal waste and its components including timber, commercial waste and its components, slag, leachate, groundwater, fly ash, grit and crushed glass. Please also accurately label the external stockpiles.*

  Based on the last communications and teleconference between representatives from DPIE, EPA and BRS, it was agreed that due to the number of wastes that are permitted and proposed to be accepted on site, it is beneficial to all to prepare a compatibility table that will include all storage bays/pits/tanks and the compatible wastes that can be stored in the same bay/pit/tank. This will be implemented only if a certain waste stream is not received during a certain period, then a compatible waste stream can be stored in that bay/pit/tank. The table was presented as Table 15-2 on page 91 and it was included in Appendix H of the RRtS.

  The external storage bays and pits are clearly labelled and shown in Figures 15-1 and 15-3 as well as Appendix C of the RRtS.

  Attachment 2 includes Table 15-2 and Figures 15-1 and 15-3 for completeness.

- *It is noted that the site plans of the office and laboratory have not been provided and that Council advises that these components have not been approved. Please clarify whether a consent has been issued for the three-story office and lab and, if not, what you are seeking consent for.*

  The plans for the three-story office are included in this application in Attachment 3.
  In relation to the laboratory, this is so called for the internal use of BRS staff only. This is an approved office like several other offices in that building. BRS management decided to refer to that office as "Laboratory" to ensure that staff can distinguish the normal offices from this specific office. Refer to the plans in Attachment 3 showing the approved offices including the "Laboratory".

- *Appendix D of the October RTS contains tipping procedures for a range of wastes, as requested, please also provide waste process flow diagrams that match the relevant process descriptions.*

  As you may be aware, waste process flow diagrams were provided at the initial DA process. However, the assessing officer informed BRS in a meeting that these flow diagrams are very complex and that she prefers simple procedures. BRS went ahead and prepared and updated the waste process simple procedures. This matter was also raised and confirmed during the August 2020 teleconference. The request to prepare flow diagrams at this late stage of the DA process is unreasonable and cannot be accommodated. We still do not have justifications of the benefits of the flow diagram over the procedures already prepared and submitted in accordance with DPIE assessment officer request.

  In any case, Attachment 4 includes the updated Waste Tipping Procedures.

- *Please provide plans for the approved awning which shows the location of the footings and supports.*

  Copies of the awning plans and Determination Notice were sent to both DPIE and EPA in early December 2020 following their formal requests to do so.

  The awning was designed and approved to be constructed without any footings as it will be connected to and seating on the existing noise wall and the existing building.

  Despite the fact that the approved plans as well as the Determination Notice were previously sent, they are also included in Attachment 5 for completness.

1.3 Capacity

- *Appendix H provides a breakdown of the storage capacity of the facility. It is noted SB15 is listed as both the pre-crushing storage area and the Tip & Spread area, please note that these two areas should be separate, is there alternate pre-crushed waste stockpile?*

  As you may be aware, the EPA previously requested a detailed analysis of all storage structures within the site to ensure that any request for "*storage of waste at any one time*" can be accommodated on site. This information will also be used by the EPA to determine the "*Authorised Amount*" of waste that can be lawfully stored on site at any one time. This "*Authorised Amount*" includes processed and unprocessed wastes.
  SB15 which is the Tip & Spread Area will have certain quantity of wastes at most time. Therefore, it was included in the calculations of storage capacities.

1.4 Asbestos

- *The asbestos waste drop off procedure still indicates that the vehicle would be hosed out and the asbestos liquid waste would be sampled, please update this procedure in accordance with the description in the RTS.*

  The drop-off procedure has been updated following receiving comments from other

Authorities. It is presented below. It is still correct that the vehicle would be hosed out and the asbestos containing liquid could be sampled as outlined in the procedure.

Just for your information and to clarify certain aspects associated with vehicles transporting liquid waste. All vehicles transporting liquid wastes from and to reputable liquid waste treatment facilities, such as BRS will have the following:

- **An inlet fitted with dry coupling connection to prevent any spillages,**
- **An outlet fitted with dry coupling connection to prevent any spillages,**
- **A tap referred to as "Sampling Point" which is used to take samples from the liquid waste carried in the vehicle/tanker.**

Despite all above precautionary measures installed in the liquid waste vehicles, it is Best Industry's Practice to hose them down after unloading to prevent the tracking of that specific liquid waste outside the relevant unloading area.

- *Please confirm the type of asbestos containing waste to be received on-site. Is it Liquid Containing Asbestos or Asbestos Containing Liquid?*
  It is Asbestos Containing Liquid (ACL). This is used to avoid confusion with Asbestos Containing Material (ACM) which implies reference to solids.

- *Please describe the processing and treatment methods for the confirmed asbestos waste.*
  Details of the processing and treatment of asbestos Containing Liquid (ACL) was included in Appendix D of the BRS October 2020 RTS. Below is a refined proposed methodology to receive and treat the ACL.

  It should be noted that if the material considered to be soil (spadable) rather than liquid, it would not be accepted on site as it is considered as solid asbestos which is not permitted to be accepted on site.

  Once the paperwork is confirmed and signed off, the weighbridge operator communicates via the 2-Way Radio with operator within building of asbestos treatment room

  Truck is weighed on the weighbridge and proceeds to Asbestos Treatment Room. Once outside room driver calls processing operator via 2-way radio. A Signed document is confirmed noting the material type and quantity. Other details such as source of the materials, truck Rego, company, etc.… are kept with all other reports within the BRS record management system as per the EPA's record keeping requirements.

  If the waste has been tested off-site (preferably at the source) prior to delivery, the methodology outlined below will be followed. However, if the waste was not tested off-site (at the source), it would be stored at the BRS facility within a sealed bin hook lift in the asbestos room in preparation for processing after testing. If the testing confirms that it is Asbestos Containing Liquid (ACL), the methodology outlined below will be followed with a slight modification that in this case the waste will be pumped out from the bin into the pit using a dedicated pump and a flexible hose with suitable connections to prevent spills and leaks.

  Below is an outline of the methodology used for the tipping off and treatment of ACL which has been tested off-site. This methodology is consistent with the methodologies previously approved by the EPA on different licensed premises for the same waste stream.

Treatment Methodology

1. As you are aware, Asbestos Containing Liquid (ACL) is transferred to the BRS site in tankers like any other liquid waste.
2. The door at the ACL treatment room is always closed unless a tanker is entering or leaving.
3. When the tanker arrives, the door opens and the tanker enters the ACL treatment room as per the normal procedure and following clearance with all relevant parties within BRS site.
4. The operator engages the flexible hose via a dry coupling to the tanker's dry coupling pipe. The other end of the hose is inside the storage and treatment pit.
5. The ACL is emptied into the pit.
6. The hose is disconnected from the dry coupling.
7. The truck is washed down using high pressurized water hose with trigger nozzle.
8. The truck leaves the ACL treatment room as per normal procedure.
9. The door is closed.

Based on the above methodology, there is no contact of the ACL with any part of the tanker due to the use of dry couplings and suitable flexible hoses. The use of dry couplings prevents any leaks or spillages from the tanker or onto the tanker. If any solids are left within the tanker, the rear of the tank is lifted and these solids fall in the pit by gravity. Again there is no contact of the waste with any external part of the tanker.

When all unloading is completed, the tanker is washed out as an additional second level safety measure to give all stakeholders more confidence in the airtight procedure. This washout water drains directly into the pit.

In relation to the treatment methodology is simplified by the use of the mechanical auger whereby different suitable materials are fed to the ACL within the pit to solidify the ACL. This may take up to 24 hours to complete.

The small excavator will be used to transfer the solidified ACL to the hook lift bin for storage. When the bin is ready to be transported off site (i.e. near full, testing results are received), it will be transported to a lawfully licensed facility that can accept the asbestos waste.

The finished product of the batch is then sampled and sent for testing by accredited external contractors.

Please refer to SWMS Entry and decontamination documents for additional information as well as descriptive PI & D flow diagram labelled BRSLS-003.

Plant and Equipment

The described processing activity would require the use of the following indicative types of plant and equipment internal to room:

- Dedicated Excavator approx. 8T capacity manufacture model Kobelco SK55 or similar to be used solely for the process to avoid cross contamination
- Hook Lift Bins
- Auger

Construction Asbestos Room:

- ✓ **Installation of exterior materials, including a concrete panel at the base of building, with cool room panel metal wall cladding above and walls with fast shut roller door allowing access into asbestos treatment room.**
- ✓ **Construction of treatment pit in room 100m^3, requiring the removal of concrete and excavation of soil, as well as concrete pour to form the pits.**
- ✓ **Construction of steel mesh/grate on top of the pit so washed out water is drained directly into the pit,**
- ✓ **Construction of a catch drain along the extent of room doors leading outwards.**
- ✓ **Construction of a rumble grid near the exit door to assist in shaking any residues of water that may have been left after the truck being washed out.**
- ✓ **Installation of suitable IP65 rating lighting, HEPA filter air filtration to suck out room under negative pressure to remove all airborne matter, misting systems to aid in suppressing foreign airborne matter, flooring to be installed shall be food standards rating and radius beads throughout the room. This would require minor excavation to be built.**

Asbestos Liquid Soil Delivery Instruction to Drivers & Passengers

- **Ensure doors and windows are always closed and air conditioner is off or on recirculate mode.**
- **ensure that all PPE is on.**
- **Following the traffic management plan. Reverse into the asbestos treatment room. The door is then shut to avoid any airborne matter escaping into the atmosphere. Misting systems are used to help aid this process.**
- **Following direction from Treatment Operator, unload in location as directed.**
- **Do not leave vehicle at all except in case of emergency.**
- **Once unloaded proceed to doorway, for operator to inspect vehicle and wash down as appropriate to ensure all material is washed off vehicle prior to leaving room.**
- **Once approved by Treatment Operator, Roller door is opened, and the driver is to proceed to the weighbridge via the wheel wash in accordance with the traffic management plan. The operator shall then weigh off and once Weighbridge Operator has recorded weight, proceed off site.**

Curing and Disposal of Waste:

The time taken for treated waste material to cure (spadable) would depend on the nature and characteristics of the original materials including moisture and can range from 0.5 hours to a day. Prior to the disposal of any treated waste, BRS would engage a suitably qualified testing company to test the processed waste material to ensure it satisfies EPA criteria, and to classify the processed waste in accordance with the EPA's guidelines. This will be accompanied by a NATA accredited test certificate for Waste Tracking purposes.

Testing would typically include the following:

- **Chemical characterisation and physical analysis of the waste to be disposed of with sample results and figures,**
- **Chemical analysis of the material by an accredited NATA testing laboratory,**
- **Waste Classification certification from a suitably qualified person.**

1.5 Stormwater

- *It is noted trucks would be cleaned out at the individual unloading areas, please explain how the washout water is captured for each waste unloading area.*

  Not all trucks transporting wastes will be cleaned out at individual unloading areas. The trucks that will be cleaned out will be cleaned out where underground collection/storage pits are provided. These pits are covered with metal grates/grids to ensure that any non-clean water derived from the trucks clean out is drained to and collected at the relevant pit for that specific waste.

  As previously advised, most if not all liquid waste trucks use dry couplings to connect material transfer hoses to the pits to prevent spillages of liquid waste. The objective of trucks washout is to ensure that no residues of liquid waste are left on any part of the trucks. This is a very encouraged activity to prevent the tracking of any waste within the site and to reduce the contaminant load on the wheel wash.

- *The stormwater assessment in Appendix J describes the proposed stormwater management on site, including water to be released offsite in major storm events. Please clarify what is meant by a major storm event and please also characterise the water at the point of discharge.*

  The first 10mm of rainfall will be captured in the first flush tank, treated and reused internally. Any rainfall event larger than 10mm will overtop to the stormfilter chamber / OSD tank. This water will undergo a second treatment train (via the stormfilter chamber and ocean protect cartridges) before being released slowly back into the stormwater system. Runoff from the proposed development (>10mm) will be detained in the OSD tank to ensure post-development flows are less than predevelopment flows. The minor storm event (10%AEP) is released below ground whilst the major storm event (1%AEP) is released via both below and above ground. Once the pollutants from the site are removed via the first 10mm first flush device, any additional runoff would be characterised as 'clean', however, this is still treated via a secondary treatment train to ensure further compliance with Council's guidelines and requirements.

  The Stormwater Management Plan was previously included in Appendix J of the previous RRtS. It is also presented in Attachment 6 of this document. The SWMP included characterisation of water to be discharged from the site into the stormwater system.

  It is also noted that based on Best Industry Practice a Shut-off Valve (Isolation Valve) is installed at the final point of the site's internal stormwater system to ensure that any spills of chemicals or contaminated materials can be contained within the site's internal system. This approach was and continued to be accepted and encouraged by the EPA.

- *It is unclear whether flocculation tanks are to be used for water storage in large rain events as per the existing development if so, where would the liquid waste be treated while the water is being stored?*

  As advised previously, flocculation of the 120kL first flush storage tank will be undertaken prior to pumping the captured water to the reuse tanks. This is the reason for the recommended additional 120kL storage tank which will be used to store the rainwater in rain events. The flocculation

- *The stormwater assessment states that the proposed development does not impact the overland flow paths, however, this is untrue as the impact of the stockpiles in the easement has not been assessed. It is also noted that previous versions of the RTS, and pages 32, 37 and 53 of the October RTS, state that the stockpiles in the easement had been removed from the development. However, it would appear stockpiles*

are again part of the development. Please clarify whether stockpiles in the easement to drain water are proposed and if so, undertake an assessment of the off-site flood impact.

As previously advised the storage bays in the easement referred to above were approved by Campbelltown Council on 2 occasions and have been part of the operation of the site for many years. The General Terms of Approval (GTAs) issued by the EPA included the EPA's requirements for stormwater management on site. These requirements are well established and have been used for over 20 years on hundreds of similar sites across NSW. Since these GTAs were issued, there has been no change made to any activities or structures associated with the activities undertaken within the easement. In addition, with the approved awning over that area and the proposed large storage tank as part of the First Flush System, there will be significant improvements to the management of stormwater within that easement and the whole site as well as reduction of flooding risk.

In addition, based on Best Industry Practice a Shut-off Valve (Isolation Valve) is installed at the final point of the site's internal stormwater system to ensure that any spills of chemicals or contaminated materials can be contained within the site's internal system. This valve is kept in the open position unless there is a pollution incident such as chemical spill at which time it is shut. This approach was and continued to be accepted and encouraged by the EPA.

In relation to previous versions of the RTS, the changes to the initial DA have now been included in the request presented in Attachment 1.

The awning DA matter was a significant factor in the changes to the initial application in that part of the site. As you may be aware, even in recent months, Campbelltown Council changed its mind three (3) times on the DA awning determination.

1.6 Waste Management

- Please provide a breakdown of municipal waste and commercial waste to be stored onsite, please also indicate where it would be separated, and the components stored.

The municipal and commercial wastes are relatively small waste streams. These waste streams are normally sorted into recyclable and non-recyclable for efficient sorting. It is inefficient and time consuming to sort these relatively small waste streams into more specific wastes as the refined sorting is undertaken by other more specialized lawfully approved facilities. In general, these waste streams may have similar components to other solid waste streams such as plastics, carboard, paper, etc.….

All solid wastes that require processing will be unloaded in the Tip & Spread area. The materials will be sorted into recyclable and non-recyclable materials. The recyclable materials will be either re-used on site or stored in large bins to be transported to lawfully approved facilities that accept such waste for further and more refined processing. The non-recyclable materials will be stored in large bins to be transported to lawfully licensed facilities that accept such waste for landfilling.

- *Figure 15-1 provides the locations, names, dimensions and capacities of waste storage facilities. However, it is noted that there is no barrier between SB 8 and SB 7 or SB 9, please demonstrate how these stockpiles would kept separate and also how a truck would access SB 9 when SB7 is full.*

SB7 and SB8 are relatively very small stockpiles that take little spaces. They are also low use materials so it is anticipated they will be empty at most times. Again, we had to include them in the calculations as requested by the EPA. Barriers are not required between certain materials as long as there are sufficient spaces between them. Furthermore, these storage areas are compatible between each other. If required and

depending on the market demand these storage bays/areas can be used for the same materials.

Since only trucks less than 12.5m are permitted to enter the building, it is quite easy to reverse into SB9 without impeding on any other stockpiles. If considered necessary, smaller trucks can be used to access these bays.

- *Table 15-3 in the RTS shows the approximate quantities for existing and proposed waste streams, however, it does not include restricted solid waste as a solid waste stream, please clarify.*
  Restricted solid waste is permitted to be accepted on site for storage only purposes. The restricted solid waste stream could be made up of any combination of solid wastes that do not meet the General Solid Waste CT1 criteria but rather the General Solid Waste CT2 criteria. This stream is incorporated in other solid wastes in table 15-3.

- *Please demonstrate the tip and spread area is separate to the unprocessed C&D waste stockpile.*
  As you may be aware, the EPA previously requested a detailed analysis of all storage structures within the site to ensure that any request for "*storage of waste at any one time*" can be accommodated on site. This information will also be used by the EPA to determine the "*Authorised Amount*" of waste that can be lawfully stored on site at any one time. This "*Authorised Amount*" includes processed and unprocessed wastes.

  It is well known that the Tip and Spread area is used for the sorting and storage of unprocessed solid wastes. No new loads are unloaded in that area until the sorted waste is processed further (i.e. screening, crushing, etc.…) throughout the facility. SB15 will have certain quantity of wastes at most time. Therefore, it was included in the calculations of storage capacities.

- *Figure 15-1 provides the locations, names, dimensions and capacities of waste storage facilities. Please describe what would be stored in SB 4 - 6 and SB 19.*
  Table 15-2 on page 91 of the RRtS provides a list of finished materials that can be stored in SB4, SB5 and SB6. SB19 will be used for the storage of sewer grit the same with SB18. The relevant tables have been updated to reflect this omission. The updated tables are included in Attachment 2.

1.7 Traffic

- *Please provide a series of swept path analyses that:*
  - *demonstrates a vehicle can access the internal tip and spread area*
  - *demonstrates a heavy vehicle can navigate the awning support structures*
  - *shows two liquid waste vehicles operating internally.*

  Refer to Attachment 6 for updated traffic management plans and general site plans.
  As you are aware, the majority of liquid waste unloading pits are not inside the building but rather outside the building under cover. The scenario for having two (2) liquid waste operating internally is not a credible scenario and will never occur. Reference should be made to the updated Traffic Impact Assessment and relevant Timestep analysis chart to confirm this fact.

- *Drawing No. TURN02 in Appendix E indicates heavy vehicles would scrape against the existing noise barrier, please clarify.*
  The subject plans have been updated to show a vehicle accessing the internal tip and spread area without touching the noise barrier. Refer to Attachment 6.

- *The May 2020 traffic assessment states that Lancaster Street would be used in lieu of on-site stacking yet*

the recent version of the RTS states that there would be no stacking or queuing. Please clarify how the facility would avoid stacking while accepting greater traffic volumes than the current development.

It is unclear where in the May 2020 traffic assessment such a statement was made. This fact was also confirmed by the Traffic Engineer that no stacking in Lancaster street was suggested or recommended in his traffic assessment of May 2020.

Notwithstanding the above and based on the calculations of materials received on site and materials transported off site, the following facts have been taken into consideration:

- **Waste delivery is 225,000 (100,000 tonnes of solid wastes and 125,000 tonnes of liquid wastes) per annum,**
- **Waste removal based on 8,000 tonnes of storage on site (4,500 tonnes solid waste and 3,500 tonnes liquid waste) i.e. 217,000 tonnes per annum,**
- **Liquid Waste contains normally between 80-90% of water,**
- **Most treated liquid wastes are either re-used on site in different activities or discharged to sewer. As a conservative approach we have used the highest value of 20 % to be removed from site,**
- **Some solid wastes are used on site directly in different activities such as concrete blocks making,**
- **Some processed solid wastes are re-used on site in different activities such as concrete batching,**
- **We have used worst case scenario that no solid wastes are used directly or re-used on site,**
- **Each vehicle load (delivery and removal) represents an inbound and outbound trip that will occur in the same hour,**
- **Operating Hours 10 hours per day – weekdays and 5 hours on Saturdays,**
- **Facility is open 50 weeks of the year (Closed Christmas, New Year & Easter),**
- **Waste delivery provided in different sized trucks nominated in the calculations below,**
- **Waste removal undertaken using truck and dog combinations or semi-trailers or B-Doubles with an average haulage load of 28 tonnes operated by contractors,**
- **Staff numbers assumed to be 15 staff including drivers,**
- **Concrete Agi-trucks carry 15 tonnes of concrete per load (6 m^3 capacity),**

Therefore, the traffic generation calculations are;

1. **Solid Waste delivery – 100,000 tonnes per annum / 354 working days / 13.86 average hours per day / 28 tonnes per vehicle x 2 trips per vehicle = approximately 2 (1.40) vehicle trips per hour,**
2. **Liquid Waste and Muddy Waste Delivery – 125,000 tonnes per annum / 354 working days per annum / 13.86 average hours per day / average 12 tonnes per vehicle x 2 trips per vehicle = approximately 5 (4.2) vehicle trips per hour,**
3. **Solid waste removal – 95,500 tonnes per annum / 354 working days per annum / 13.86 average hours per day / 28 tonnes per vehicle x 2 trips per vehicle = approximately 2 (1.4) vehicle trips per hour,**
4. **Liquid waste removal - 24,300 tonnes per annum / 354 working days per annum / 13.86 average hours per day / 28 tonnes per vehicle x 2 trips per vehicle = approximately 1 (0.2) vehicle trip per hour,**
5. **Staff trips – Peak Hour considered to be arrival at work (AM) all inbound trips – 15 vtph and departure from work (PM) all outbound trips – 15 vtph,**
6. **Concrete trucks – Peak hour – 50000 tonnes/year/ 354 working days per annum / 19 hrs per day / 15 tonnes per load = 1 deliveries per hour maximum i.e. 1 inbound and 1 outbound trip. Assume maximum material delivery of 1 per day**

maximum in non-peak periods.

Therefore, Peak Hour and Daily Trips can be calculated as follows;

Weekday Daily Vehicle Trips = (2 + 5 + 2 + 1) x 13.86 + (1 + 1) x 19 + 15 x 2 = 207 (206.6) vtpd.

AM Peak hour = 7 inbound trips + 3 outbound trips (waste delivery and removal) + 15 inbound (staff)+ 1 inbound and 1 outbound (concrete batching plant) = 27 vtph (19 inbound and 8 outbound).

PM Peak hour = 7 inbound trips + 3 outbound trips (waste delivery and removal) + 15 outbound trips (staff) + 1 inbound + 1 outbound (concrete batching plant) = 27 vtph (8 inbound and 19 outbound).

Based on the above calculations, it is concluded that:

- **Solid Waste delivery generates 0.7 trucks per hour or 7 trucks every 10 hours,**
- **Liquid Waste delivery generates 2.1 trucks per hour or 21 trucks every 10 hours,**
- **Solid Waste removal generates 0.7 trucks per hour or 7 trucks every 10 hours,**
- **Liquid Waste removal generates 0.1 trucks per hour or 1 truck every 10 hours,**
- **Concrete trucks delivery generates 0.5 trucks per hour or 5 trucks every 10 hours.**

All staff members arrive before their normal activities commence and leave after their normal activities finish.

- *As the development needs to account for worst case scenario, please provide a plan showing stacking/queueing spots to be used if required noting that stacked vehicles are usually stationary.*
  Refer to Plan NoTURN07 in Attachment 6 showing the potential locations for queueing of vehicles as a worst-case scenario keeping in mind that:
  - **All jobs are pre-booked,**
  - **The facility is not open to the general public as "walk in individuals"**
  - **The queuing vehicles can be moved easily to give way to other vehicles, if required,**
  - **The queuing vehicles will proceed on their trip as soon as they have finished loading or unloading,**
  - **In an emergency of any kind, BRS management will re-direct all truck deliveries to other waste management facilities until the emergency has been resolved completely.**

- *The Department still has concerns that traffic has been underestimated, p 30 of the RTS states there will be 34 Heavy vehicles (HV) trips per hour (hr) which equates to 17 HV/hr, yet p 4 of the traffic assessment in Appendix F states there will be 4 vehicles per hour and the most recent time step analysis shows 7 vehicles in a standard hour. This current report appears to be an underestimation. Please clarify noting that the original traffic assessment was also based on the assumption 225,000 tonnes of waste would be accepted per annum.*
  The reference to page 30 is irrelevant as it presented the calculations incorrectly assumed by the previous consultant who fed the same incorrect information to the traffic engineer. The correct calculations are based on the following facts:

- Waste delivery is 225,000 (100,000 tonnes of solid wastes and 125,000 tonnes of liquid wastes) per annum,
- Waste removal based on 8,000 tonnes of storage on site (4,500 tonnes solid waste and 3,500 tonnes liquid waste) i.e. 217,000 tonnes per annum,
- Liquid Waste contains normally between 80-90% of water,
- Most treated liquid wastes are either re-used on site in different activities or discharged to sewer. As a conservative approach we have used the highest value of 20 % to be removed from site,
- Some solid wastes are used on site directly in different activities such as concrete blocks making,
- Some processed solid wastes are re-used on site in different activities such as concrete batching,
- We have used worst case scenario that no solid wastes are used directly or re-used on site,
- Each vehicle load (delivery and removal) represents an inbound and outbound trip that will occur in the same hour,
- Operating Hours 10 hours per day – weekdays and 5 hours on Saturdays,
- Facility is open 50 weeks of the year (Closed Christmas, New Year & Easter),
- Waste delivery provided in different sized trucks nominated in the calculations below,
- Waste removal undertaken using truck and dog combinations or semi-trailers or B-Doubles with an average haulage load of 28 tonnes operated by contractors,
- Staff numbers assumed to be 15 staff including drivers,
- Concrete Agi-trucks carry 15 tonnes of concrete per load (6 m^3 capacity),

Therefore, the traffic generation calculations are;

7. Solid Waste delivery – 100,000 tonnes per annum / 354 working days / 13.86 average hours per day / 28 tonnes per vehicle x 2 trips per vehicle = approximately 2 (1.40) vehicle trips per hour,
8. Liquid Waste and Muddy Waste Delivery – 125,000 tonnes per annum / 354 working days per annum / 13.86 average hours per day / average 12 tonnes per vehicle x 2 trips per vehicle = approximately 5 (4.2) vehicle trips per hour,
9. Solid waste removal – 95,500 tonnes per annum / 354 working days per annum / 13.86 average hours per day / 28 tonnes per vehicle x 2 trips per vehicle = approximately 2 (1.4) vehicle trips per hour,
10. Liquid waste removal - 24,300 tonnes per annum / 354 working days per annum / 13.86 average hours per day / 28 tonnes per vehicle x 2 trips per vehicle = approximately 1 (0.2) vehicle trip per hour,
11. Staff trips – Peak Hour considered to be arrival at work (AM) all inbound trips – 15 vtph and departure from work (PM) all outbound trips – 15 vtph,
12. Concrete trucks – Peak hour – 50000 tonnes/year/ 354 working days per annum / 19 hrs per day / 15 tonnes per load = 1 deliveries per hour maximum i.e. 1 inbound and 1 outbound trip. Assume maximum material delivery of 1 per day maximum in non-peak periods.

Therefore, Peak Hour and Daily Trips can be calculated as follows;

Weekday Daily Vehicle Trips = (2 + 5 + 2 + 1) x 13.86 + (1 + 1) x 19 + 15 x 2 = 207 (206.6) vtpd.

AM Peak hour = 7 inbound trips + 3 outbound trips (waste delivery and removal) + 15 inbound (staff)+ 1 inbound and 1 outbound (concrete batching plant) = 27 vtph

(19 inbound and 8 outbound).

PM Peak hour = 7 inbound trips + 3 outbound trips (waste delivery and removal) + 15 outbound trips (staff) + 1 inbound + 1 outbound (concrete batching plant) = 27 vtph (8 inbound and 19 outbound).

Based on the above calculations, it is concluded that:

- **Solid Waste delivery generates 0.7 trucks per hour or 7 trucks every 10 hours,**
- **Liquid Waste delivery generates 2.1 trucks per hour or 21 trucks every 10 hours,**
- **Solid Waste removal generates 0.7 trucks per hour or 7 trucks every 10 hours,**
- **Liquid Waste removal generates 0.1 trucks per hour or 1 truck every 10 hours,**
- **Concrete trucks delivery generates 0.5 trucks per hour or 5 trucks every 10 hours.**

All staff members arrive before their normal activities commence and leave after their normal activities finish.

- *Please use data from the weighbridge for the solid waste traffic estimation (you don't need make and model or capacity of trucks for the assessment) or demonstrate the solid waste trucks would always be at capacity.*
  Current vehicle movements were presented in the revised Traffic Impact Assessment dated October 2020 which was provided to DPIE in Appendix F of the October RRtS. The summary of the calculations is provided in the above responses.

- *Please provide a vehicle breakdown by hour to demonstrate that operational peaks have been assessed.*
  Current vehicles movements were presented in the revised Traffic Impact Assessment dated October 2020 which was provided to DPIE in Appendix F of the October RRtS. The summary of the calculations is provided in the above responses.

- *Describe what safety measures the development would have in place to prevent liquid waste trucks backing into tanks.*
  Best Industry's Practice is to install heavy duty steel posts as strategic locations around the tanks to prevent trucks from reversing into the tanks keeping in mind that most newish trucks will be equipped with either or both reverse parking camera and/or alarms.

  The posts will be constructed by either being fully concreted into the concrete slab or bolted into the concrete slab.

2 - Campbelltown City Council submission dated 30 November 2020

Campbelltown City Council (Council) lodged a submission with the DPIE in response to the RRtS submitted by BRS to the DPIE in October 2020.The matters raised by Council are included below and BRS responses are presented in the same order.

2.1 Traffic and Operational Issues

Council is still concerned with the potential traffic and operation of trucks to and from the site as well as access and manoeuvring on site. Appendix E - Revised Traffic Management Within Site states that trucks will not be required to queue within Kerr Road or other surrounding roads as previously proposed due to the pre-booking of all jobs and the turning away of trucks if the yard cannot accommodate them. It is also stated that truck drivers will be informed to avoid parking their vehicles in any streets within the vicinity of the site and where possible in dedicated truck parking/stopping bays to assist in traffic flow and minimise congestion. There has been no further information on where these dedicated truck parking/stopping bays are and how the trucks will be managed to ensure they will not be parking within the local streets.

In addition, the swept path diagrams submitted show that manoeuvring on site is very tight especially the Vehicle Turning Path truck and dog: C & D Tip and Spread plan which shows that the existing acoustic wall interferes with manoeuvring of trucks as they come through the wheel wash bay to the rear of the site.

If the Department is satisfied in regards to these matters, then it is requested that the conditions of consent require compliance with the revised Traffic Stacking and Queueing Procedure dated September 2020.
The parking and stopping bays are available in many locations on the Hume Motorway and are used regularly by truck drivers.

The swept paths have been amended to reflect the above comments noting that the trucks go through the wheel wash in one direction only after completing all required unloading and/or loading activities not before, and on their way of exiting the site.

BRS will commit to accept a Driver Code of Conduct condition in the consent similar to those used at quarries and many other facilities across NSW. It makes all drivers entering the site to read the rules and sign a document that they have read it. BRS can then enforce compliance and using the three strikes and you are out principal, will advise some drivers who disregard the rules that BRS will not accept their trucks in future. This approach has been used successfully in many other facilities across NSW.

2.2 Environmental Operations Management Plan

Council previously requested an overarching management plan that details the site's operations and provides detailed information regarding the means by which methods and equipment would be employed at the site to reduce its potential impacts on the local environment. This has not been submitted. This environmental operations management plan would tie in the operations and environmental outcomes described in consultant reports provided with the application. The submission of this report would ensure that the range of reports provided and operational management details either provided or implied are accounted for.

It is also requested that the Department ensure that the environmental matters raised in submissions from government agencies are satisfactorily addressed prior to the determination of the application. Further

Council's position remains that any unloading and loading of waste materials should occur within the building.

Under normal circumstance an Operational Environmental Management Plan is required to be prepared under a Consent condition. The OEMP will be prepared as part of the Construction Certificate or in accordance with relevant Consent conditions.

2.3 Work within the Easement

Whilst it is noted that there would no longer be and works other than the sound wall nor any storage within the rear easement, it is requested that a condition of any approval be applied prohibiting the storage of any material within the area of the easement in the rear portion of the site.

This is not correct. The storage bays SB4, SB5 and SB6 were previously approved by both Campbelltown Council and the Land & Environment Court as they are now. The approved and stamped plans clearly show the locations of these storage bays. Other than the storage of materials which includes loading and unloading activities, no other activities will be undertaken in that easement since the initially Tip & Spread Area has been moved to the inside of the building.

One of the main objectives of applying for the construction of the awning was to ensure that these activities are undertaken under cover for environmental reasons. These matters were included in the documents supporting the awning DA.

2.4 Unauthorised works

The office space inside the building is currently subject to separate investigation by Council as it has been constructed without approval. Further investigation may also need to be undertaken regarding the building's status as a 'fire isolated building' pursuant to the Building Code of Australia and the implications this has for structures (tanks) and bulk storage areas that are located on the southern and eastern sides.

Noted. We were waiting on Campbelltown Council to provide advice on this matter and the best way to move forward with formalising the approval for the office. We sought Council's advice on several occasions, but we received no response. The three-story office and laboratory have now been included in this Development Application.

2.5 Conclusion

There are limitations to the scale of the operation that can occur on the site without having impacts on neighbours and the public road system. The site of the proposed development is constrained by the location of the existing buildings, easements and the overall size of the site. Council requests that the Department ensure that the proposed development is limited to a scale, and to operational procedures, that prevent any unreasonable impacts from the proposed development on nearby residents, other industrial neighbours and on the environment.

Noted. We are confident that DPIE will take Campbelltown Council's comments on board and incorporate relevant conditions in the Development Consent.

3 - Environment Protection Authority submission received in December 2020

The Environment Protection Authority (EPA) lodged a submission with the DPIE in response to the RRtS submitted by BRS to the DPIE in October 2020.The matters raised by Council are included below and BRS responses are presented in the same order.

a. Water Management

i. Inadequate capacity of the harvesting/settling tank

The inadequate capacity of the harvesting/settling tank, which has been raised in the EPA's previous advices dated 6 March 2020 and 15 July 2020, has not been addressed.

The EPA has previously recommended that the applicant provides sufficient storage to manage any residual risks from the dirty water catchment area, with reference to relevant guidelines (Environmental Guidelines: Solid Waste Landfills – EPA 2016). The 120kL harvesting tank will only capture the first 10mm of rainfall which is significantly less than that required by the guidelines.

In the RRRtS, the applicant references General Terms of Approval included in the Land and Environment Court Orders 10527 of 2006, (with orders being made by the Court on 9 March 2007), when discussing the adequacy of the first flush stormwater management system. The EPA does not consider that these GTA's are relevant in relation to the current Proposal and advises that the Environmental Guidelines: Solid Waste Landfills – EPA 2016 are the most contemporary and appropriate reference in relation to the current proposal.

As previously advised, the applicable guidelines for the site being industrial has been those previously specified by the EPA in its General Terms of Approval (GTAs). Those requirements were considered the most appropriate for that site at the time of the Development Application for a Resource Recovery Facility. The facility has not changed negatively since these requirements were imposed by the EPA. On the contrary, the facility has been improved in many aspects since the issuing of the EPA's GTAs which should have a positive outcome on the management of stormwater. Despite the above, an additional storage pit has been designed and incorporated in the new stormwater first flush system to capture the first 10mm per m^2 of all relevant concreted and sealed areas.

The guidelines referred to in the EPA's letter are not relevant to this facility but rather to landfilling facilities where activities are undertaken mostly outdoors and the need to design and construct sedimentation basins to better manage stormwater runoff from unsealed areas. In the first page of these guidelines, it states: "*These guidelines provide guidance for the environmental management of landfills in NSW by specifying a series of "Minimum Standards".*

Therefore, with regard to our development, we agree with the original EPA's imposed requirements and approval of a minimum of 10mm being captured. There are many guidelines out there confirming this as an appropriate level for first flush sizing in similar industries with concreted/paved operating areas. The table below shows that our development falls within the top category, being 10mm of rainfall first flush needing to be contained. This table was extracted from the following documents:

Storing and Handling Liquids: Environmental Protection – Participant's Manual – DECC – May 2007,

First Flush and Water Management Systems: Guide and Principles – Cement Concrete & Aggregates Australia,

Table 2.1: Suggested Volume for First Flush Collection Pit

Catchment Surface	Pollutants	Examples of Areas	Rainfall level to be contained	Volume of storage required[1]
Sealed (impervious) Surfaces eg. concrete, bitumen etc.	Substances that are easily mobilised such as: (a) Soluble materials (eg inks and dyes); (b) fine materials (eg dusts, silts, plastic and wood particles)	Exposed surfaces at a dye works; any concrete surfaces where plastic or wood particles may accumulate	10 mm	10 l/m2
	Substances that are more difficult to mobilise or are hazardous such as: (a) oil & grease; (b) metal particles (c) hazardous substances.	Motor vehicle courtyards; any exposed surfaces at a chemical manufacturers; any waste collection areas	15 mm	15 l/ m2
Unsealed Surfaces eg. gravel or shale etc.	All types of pollutants ie. Pollutants that are either easy or difficult to mobilise	Any unsealed yard areas	20 mm	20 l/ m2

[1] *In litres per square metre of catchment area to be treated (1000 litres equals one cubic metre)*

ii. Exposed stockpiles

Appendix C of the RRRtS indicates that the Finished Goods Storage Bays, (labelled SB4 – Outside 1, SB5 – Outside 2 and SB6 – Outside 3 in Appendix H) located in the south-east corner of the site, are not wholly undercover of the awning that has been recently approved through a separate planning process, leaving part of the bays/stockpiles exposed.

These bays are described in Appendix C of the RRRtS as containing: Dust, 10mm, 20mm, Roadbase, Sand, Concrete Agg, Soils, Filtercake and C&D wastes.

Given the type of material to be stored in these bays, and the bays not being wholly covered, the EPA believes that they are likely to contribute pollutants to stormwater that will not be adequately treated prior to leaving the site.

The storage bays referred to in the EPA's submission namely SB4, SB5 and SB6 meant to be constructed within the footprint of the approved awning. This error has now been corrected. In addition, the noise barriers in combination with the high walls of the storage bays and the awning design should prevent any rainwater from entering these bays.

We have now moved the soil bays under the cover. The impact on any flood way is as per the originally approved plans and therefore there is no change in its impact by

moving them under cover.

b. Asbestos Containing Liquids

The EPA notes the method proposed to treat Asbestos Containing Liquid (ACL) has been revised in the RRRtS. Sufficient detail has not been provided about this waste and how it will be treated managed on site prior to removal.

The new method proposes to add a combination of cement, lime, fly ash, perlite, or vermiculite to the liquid waste slurry via an auger feeder to immobilise the liquid content contained within the soil or sludge. The waste would then be cured and tested against the EPA's waste classification guidelines.

Under the proposed methodology, vehicles would be washed down inside the asbestos treatment room before leaving the site via an external wheel wash. Asbestos transferred from vehicles to the wheel wash is a relevant asbestos transport pathway that may result in asbestos contaminated water being discharged to sewer.

The proposal should demonstrate the implementation of best practice controls and mitigation measures through all stages of receipt and handling and clarify how potential asbestos contamination in wheel wash waters will be managed.

The EPA recommends the proponent:

i. engage a suitably qualified expert to review all proposed asbestos control measures and the processes that will be implemented to maintain these.

ii. consider the potential for asbestos to impact wheel wash waters, and develop and propose appropriate management measures, consistent with best practice.

Details of the processing and treatment of asbestos Containing Liquid (ACL) was included in Appendix D of the BRS October 2020 RTS. Below is a refined proposed methodology to receive and treat the ACL.

Once the paperwork is confirmed and signed off, the weighbridge operator communicates via the 2-Way Radio with operator within building of asbestos treatment room

Truck is weighed on the weighbridge and proceeds to Asbestos Treatment Room. Once outside room driver calls processing operator via 2-way radio. A Signed document is confirmed noting the material type and quantity. Other details such as source of the materials, truck Rego, company, etc.… are kept with all other reports within the BRS record management system as per the EPA's record keeping requirements.

If the waste has been tested off-site (preferably at the source) prior to delivery, the methodology outlined below will be followed. However, if the waste was not tested off-site (at the source), it would be stored at the BRS facility within a sealed bin hook lift in the asbestos room in preparation for processing after testing. If the testing confirms that it is Asbestos Containing Liquid (ACL), the methodology outlined below will be followed with a slight modification that in this case the waste will be pumped out from the bin into the pit using a dedicated pump and a flexible hose with suitable connections to prevent spills and leaks.

Below is an outline of the methodology used for the tipping off and treatment of ACL

which has been tested off-site. This methodology is consistent with the methodologies previously approved by the EPA on different licensed premises for the same waste stream.

Treatment Methodology

10. **As you are aware, Asbestos Containing Liquid (ACL) is transferred to the BRS site in tankers like any other liquid waste.**
11. **The door at the ACL treatment room is always closed unless a tanker is entering or leaving.**
12. **When the tanker arrives, the door opens and the tanker enters the ACL treatment room as per the normal procedure and following clearance with all relevant parties within BRS site.**
13. **The operator engages the flexible hose via a dry coupling to the tanker's dry coupling pipe. The other end of the hose is inside the storage and treatment pit.**
14. **The ACL is emptied into the pit.**
15. **The hose is disconnected from the dry coupling.**
16. **The truck is washed down using high pressurized water hose with trigger nozzle.**
17. **The truck leaves the ACL treatment room as per normal procedure.**
18. **The door is closed.**

Based on the above methodology, there is no contact of the ACL with any part of the tanker due to the use of dry couplings and suitable flexible hoses. The use of dry couplings prevents any leaks or spillages from the tanker or onto the tanker. If any solids are left within the tanker, the rear of the tank is lifted and these solids fall in the pit by gravity. Again there is no contact of the waste with any external part of the tanker.

When all unloading is completed, the tanker is washed out as an additional second level safety measure to give all stakeholders more confidence in the airtight procedure. This washout water drains directly into the pit.

In relation to the treatment methodology is simplified by the use of the mechanical auger whereby different suitable materials are fed to the ACL within the pit to solidify the ACL. This may take up to 24 hours to complete.

The small excavator will be used to transfer the solidified ACL to the hook lift bin for storage. When the bin is ready to be transported off site (i.e. near full, testing results are received), it will be transported to a lawfully licensed facility that can accept the asbestos waste.

The finished product of the batch is then sampled and sent for testing by accredited external contractors.

Please refer to SWMS Entry and decontamination documents for additional information as well as descriptive PI & D flow diagram labelled BRSLS-003.

Plant and Equipment

The described processing activity would require the use of the following indicative

types of plant and equipment internal to room:

- **Dedicated Excavator approx. 8T capacity manufacture model Kobelco SK55 or similar to be used solely for the process to avoid cross contamination**
- **Hook Lift Bins**
- **Auger**

Construction Asbestos Room:

- ✓ **Installation of exterior materials, including a concrete panel at the base of building, with cool room panel metal wall cladding above and walls with fast shut roller door allowing access into asbestos treatment room.**
- ✓ **Construction of treatment pit in room 100m^3, requiring the removal of concrete and excavation of soil, as well as concrete pour to form the pits.**
- ✓ **Construction of steel mesh/grate on top of the pit so washed out water is drained directly into the pit,**
- ✓ **Construction of a catch drain along the extent of room doors leading outwards.**
- ✓ **Construction of a rumble grid near the exit door to assist in shaking any residues of water that may have been left after the truck being washed out.**
- ✓ **Installation of suitable IP65 rating lighting, HEPA filter air filtration to suck out room under negative pressure to remove all airborne matter, misting systems to aid in suppressing foreign airborne matter, flooring to be installed shall be food standards rating and radius beads throughout the room. This would require minor excavation to be built.**

Asbestos Liquid Soil Delivery Instruction to Drivers & Passengers

- **Ensure doors and windows are always closed and air conditioner is off or on recirculate mode.**
- **ensure that all PPE is on.**
- **Following the traffic management plan. Reverse into the asbestos treatment room. The door is then shut to avoid any airborne matter escaping into the atmosphere. Misting systems are used to help aid this process.**
- **Following direction from Treatment Operator, unload in location as directed.**
- **Do not leave vehicle at all except in case of emergency.**
- **Once unloaded proceed to doorway, for operator to inspect vehicle and wash down as appropriate to ensure all material is washed off vehicle prior to leaving room.**
- **Once approved by Treatment Operator, Roller door is opened, and the driver is to proceed to the weighbridge via the wheel wash in accordance with the traffic management plan. The operator shall then weigh off and once Weighbridge Operator has recorded weight, proceed off site.**

Curing and Disposal of Waste:

The time taken for treated waste material to cure (spadable) would depend on the nature and characteristics of the original materials including moisture and can range from 0.5 hours to a day. Prior to the disposal of any treated waste, BRS would engage a suitably qualified testing company to test the processed waste material to ensure it satisfies EPA criteria, and to classify the processed waste in accordance with the EPA's guidelines. This will be accompanied by a NATA accredited test certificate for

Waste Tracking purposes.

Testing would typically include the following:

- **Chemical characterisation and physical analysis of the waste to be disposed of with sample results and figures,**
- **Chemical analysis of the material by an accredited NATA testing laboratory,**
- **Waste Classification certification from a suitably qualified person.**

Attachment 1: Request to amend Development Application

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AUSTRALIA

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7 January 2021

Department of Planning, Industry and Environment
Attention: Emma Barnet
Via email: emma.barnet@planning.nsw.gov.au

Dear Ms Barnet,

State Significant Development Application Ingleburn Resource Recovery Facility (SSD8593) – Amendment Application under Cl.55 of the *Environmental Planning and Assessment Regulation, 2000*

The Ingleburn Resource Recovery Facility operates from premises at 16 Kerr Road, Ingleburn, NSW. In May 2019, State Significant Development Application 8593 (**SSD8593**) was lodged at the Department of Planning, Industry and Environment (**DPIE**). The SSD, which is currently under assessment, proposed the following development at the existing Facility:

- Increase in the volumes of waste that can be processed on site from a maximum of 30,000 tonnes per annum to a maximum of 225,000 tonnes per annum of liquid and solid waste.
- Storage of up to 30,000 tonnes of waste and / or waste for transfer at any one time.
- Variation in the waste types that can be accepted on site.
- Solid waste processing including screening, crushing and PASS/ASS treatment.
- Processing of liquid waste streams including oily water, grease, sewer, silt and debris.
- Solid and liquid waste transfer.
- 24 hour operation of liquid and muddy waste processes.
- Extended operation of concrete batching from 3am.
- Installation of new concrete batching structure and equipment to facilitate the currently approved production of 50,000 tonnes per annum of concrete.

The SSD was placed on exhibition and relevant Agencies were notified and requested to provide commentary on the potential impacts of the Proposal. Specific submissions from the Environment Protection Authority, SafeWork NSW and Campbelltown City Council and consequent negotiations between the Proponent and DPIE resulted in several amendments to the SSD. The outcome of these negotiations is that the Proponent is now lodging an application to amend SSD8593 pursuant to Cl.55 of the *Environmental*

Planning and Assessment Regulation, 2000. The proposed amendments to the SSD include:

- Additional specifications are provided for the proposed additional waste volumes – the proposed increase of wastes to 225,000 tonnes per annum is to be composed of the following capped quantities:
    - 100,000 tonnes of solid wastes,
    - 125,000 tonnes of liquid wastes.
- The proposed quantity of wastes to be stored at any one time is to be decreased from 30,000 tonnes to 8,000 tonnes.
- The following wastes streams are to be excluded from the initially proposed list of wastes to be received, processed and/or stored on site:
    - Hazardous Soil,
    - Acid Sulphate Soil,
    - Potential Acid Sulphate Soil,
    - Grease Trap Waste.
- The Tip & Spread Area has been moved from its proposed exterior location and is now proposed to be located inside the Crushing & Screening Building.
- The vehicles stacking & queuing procedure has been amended to prevent any vehicles from queuing and/or parking in any local street in the vicinity of the Resource Recovery Facility site.
- Traffic management within the site has been amended to reflect the actual number of truck movements to / from the site based on the revised and updated Traffic Impact Assessment.
- The bunded chemical storage structures are now proposed to be located inside the main building adjacent to the tank farm.
- The methodology for treating Asbestos Containing Liquid (ACL) has been changed to a more practical & realistic methodology which has been previously approved by the EPA at different sites.
- The existing noise barrier is to be modified to incorporate flaps in accordance with the latest revision of the Noise Impact Assessment (dated December 2019).
- Construction of the recently approved awning.
- Development approval is sought for the already constructed 3-storey office.
- Development approval is sought for the already established laboratory.
- External Storage Bays SB4, SB5 and SB6 are to be relocated to be within the footprint of the recently approved awning,
- The Tip and Spread area is to be relocated to be within the Crushing and Screening building.

These amendments have all been generated out of negotiations and consequent requests from DPIE. They will result in increased efficiencies in the operations of the Resource Recovery Facility, decreased impacts on the environment, improved management of hazards and more efficient management of traffic generated by the amended operation. The overall impacts on the environment resulting from implementation of the amended proposal will be decreased.

On this basis, we recommend that the above described amendments to SSD8593 be received and accepted by the Minister and the amended application be determined by Approval.

Yours sincerely,

John O'Grady
Urban Planner
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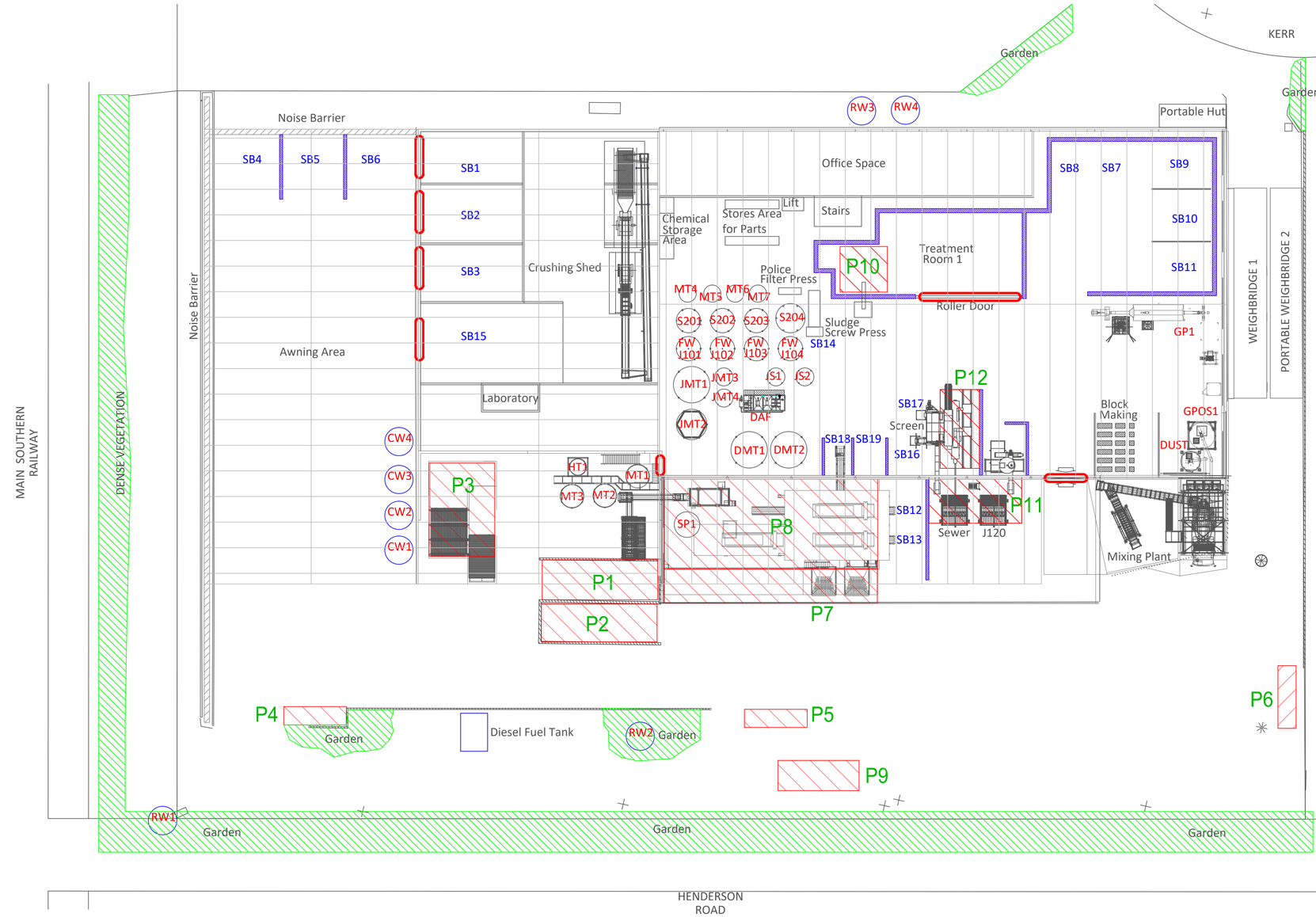
E: jmogrady1@optusnet.com

Attachment 2: Updated Tables of Waste Storage Capacities and Compatibilities



TANK DETAILS

Tank No	Description	Approx Volume
MT1	Mixing Tank 1	20m3
MT2	Mixing Tank 2	20m3
MT3	Mixing Tank 3	20m3
MT4	Universal Tank	10m3
MT5	Universal Tank	10m3
MT6	Universal Tank	10m3
MT7	Universal Tank	10m3
S201	Sewer Water Tank	30m3
S202	Sewer Water Tank	30m3
S203	Sewer Water Tank	30m3
S204	Sewer Water Tank	39m3
J101	DAF Clean Water Tank	56m3
J102	DAF Clean Water Tank	56m3
J103	DAF Clean Water Tank	56m3
J104	DAF Clean Water Tank	56m3
	(Note: Firewater can be substituted into any J1** Tank)	
JMT1	Oily Water Mixing (Receivables Tank 1)	50m3
JMT2	Oily Water Mixing (ph Correction Tank 1)	50m3
JMT3	Oily Water Mixing (Receivables Tank 2)	10m3
JMT4	Oily Water Mixing (ph Correction Tank 2)	10m3
	Total Volume (All Tanks)	**573m3**
	Total Weight (Assumed SG 1.1)	**630 tonne**

Roller Doors x 6

PIT DETAILS

Pit No	Description	Approx Size	Approx Volume
P1	Stormwater Pit	13500L x 4400w x 5500d at end of pit	327m3
P2	Drill Mud Pit	15010L x 4400w x 5500d at end of pit	363m3
P3	NDD and Drill Mud	12000L x 8000w x 5500d at end of pit	528m3
P4	South Pit	4400L x 1300w x 1000d	6m3
P5	Central Pit	3900L x 1700w x 1250d	8m3
P6	North Facing	2700L x 1300w x 1400d	5m3
P7	NDD Pits /Cement Slurry	16080L x 3000w x 3200d	154m3
P8	Surge /Firewater Pit (Below presses)	23380L x 11200w x 3200d	838m3
P9	Wheelwash	10100L x 3300w x 650d	22m3
P10	Asbestos Containing Liquids	5000 x 5000 x 4000d	100m3
P11	Pit	11900 x 5750 x 4650d	318m3
P12	Pit	9770 x 4860 x 2125d	101m3
	Total Volume (All Pits)		**2770m3**
	Total Weight (Assumed SG 1.1)		**3047 tonne**

STORAGE BAY DETAILS

Bay No	Dimensions	Product Volume
SB1	5.4x6.0x4.8h	108m3
SB2	6.0x6.0x4.8h	121m3
SB3	4.8x6.0x4.8h	97m3
SB4	14.4x5.4x4.0h	202m3
SB5	14.4x5.4x4.0h	202m3
SB6	14.4x5.4x4.0h	202m3
SB7	4.0x4.0x3.0h	16m3
SB8	4.0x4.0x3.0h	16m3
SB9	6.5x15.0x8.0h	546m3
SB10	5.6x15.0x8.0h	470m3

Bay No	Dimensions	Product Volume
SB11	6.4x15.0x8.0h	538m3
SB12	6.5x8.0x5.0h	182m3
SB13	6.5x8.0x5.0h	182m3
SB14	Hook Lift Bin	10m3
SB15	10.0x10.0x4.8	312m3
SB16	Bin	5m3
SB17	Bin	5m3
SB18	5.5x5.0x6.0h	84m3
SB19	5.5x5.0x6.0h	84m3
	Total Volume (All Tanks)	**3382m3**
	Total Weight (Assumed SG 1.8)	**6088 tonne**

PLEASE REFER TO TABLE OF COMPATABILITY OF MATERIALS FOR BAY USE

Total Volume (All Storage) **6725m3**
Total Weight **9765 tonne**

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By TB

Checked By

Title Storage Capacities

Scale

Date 10-01-21

Drawing Number and Revision BRS-Site-001A

Name	Type	Capacity m^3	Capacity Tonnes	Product Volume m^3	Product Weight Tonnes
SB1	< 5MM DUST	155.5	279.9	108	194.4
SB2	10MM AGGREGATES	172.8	311.04	121	217.8
SB3	20MM AGGREGATES	138.2	248.76	97	174.6
SB4	OUTSIDE 1	311	559.8	202	363.6
SB5	OUTSIDE 2	311	559.8	202	363.6
SB6	OUTSIDE 3	311	559.8	202	363.6
SB7	FOUNDRY SAND	48	86.4	16	28.8
SB8	ROADBASE	48	86.4	16	28.8
SB9	CONCRETE AGG	780	1404	546	982.8
SB10	SOILS (CT1 & CT2)	672	1209.6	470	846
SB11	SOILS (CT1 & CT2)	768	1382.4	538	968.4
SB12	FILTERCAKE BAY 1	260	468	182	327.6
SB13	FILTERCAKE BAY 2	260	468	182	327.6
SB14	HOOK LIFT BIN	10	18	10	18
SB15	Pre Crushing (Tip & Spread)	480	864	312	561.6
SB16	Bin	5	9	5	9
SB17	Bin	5	9	5	9
SB18	Grit Sand Sewer	165	297	84	151.2
SB19	Grit Sand Sewer	165	297	84	151.2
TOTAL		**5065.5**	**9117.9**	**3382**	**6087.6**
MT1	Mixing Tank 1	20	22		
MT2	Mixing Tank 2	20	22		
MT3	Mixing Tank 3	20	22		
MT4	Universal Tank	10	11		
MT5	Universal Tank	10	11		
MT6	Universal Tank	10	11		
MT7	Universal Tank	10	11		
S201	Sewer Water	30	33		
S202	Sewer Water	30	33		
S203	Sewer Water	30	33		
S204	Sewer Water	39	42.9		
J101	Treated DAF Water	56	61.6		
J102	Treated DAF Water	56	61.6		
J103	Treated DAF Water	56	61.6		
J104	Treated DAF Water	56	61.6		
JMT1	RECEIVABLES 1	50	55		
JMT2	PH CORRECTION 1	50	55		
JMT3	RECEIVABLES 2	10	11		
JMT4	PH CORRECTION 2	10	11		
TOTAL		**573**	**630.3**		
P1	Stormwater Pit	327	359.7		
P2	Dril Mud Pit	363	399.3		
P3	NDD & Dril Mud	528	580.8		
P4	South pit	6	6.6		
P5	Central pit	8	8.8		
P6	North facing	5	5.5		
P7	NDD Pits/Cement Slurry	154	169.4		
P8	Surge/Firewater pit	838	921.8		
P9	Wheelwash	22	24.2		
P10	Asbestos Containing Liquid	100	110		
P11	Pit	318	349.8		
P12	Pit	101	111.1		
TOTAL		**2770**	**3047**		
GRAND TOTAL					
CAPACITY				**8408.5 m^3**	**12795.3 tonnes**
PRODUCTS				**6725 m^3**	**9765 tonnes**

Bay	Type																					
	Dust	10mm	20mm	Roadbase	Sand	Concrete Agg	Soils	Filtercake	C&D	Oil Sludge	Sewer Grit	Sewer Grit<20mm	NDD	DRILL MUD	STORMWATER	CEMENT SLURRY	J120	K130	N205	N140	GROUNDW	ACL
SB1	X	X	X	X	X	X	X	X	X													
SB2	X	X	X	X	X	X	X	X	X													
SB3	X	X	X	X	X	X	X	X	X													
SB4	X	X	X	X	X	X	X	X	X													
SB5	X	X	X	X	X	X	X	X	X													
SB6	X	X	X	X	X	X	X	X	X													
SB7	X	X	X	X	X	X	X	X	X													
SB8	X	X	X	X	X	X	X	X	X		X											
SB9	X	X	X	X	X	X	X	X	X		X											
SB10	X	X	X	X	X	X	X	X	X		X											
SB11	X	X	X	X	X	X	X	X	X		X											
SB12								X														
SB13								X														
SB14										X												
SB15									X													
SB16											X	X										
SB17											X											
SB18											X											
SB19											X											
MT1													X	X	X	X					X	
MT2													X	X	X	X					X	
MT3													X	X	X	X					X	
MT4															X							
MT5															X							
MT6															X							
MT7															X							
S201																	X					
S202																	X					
S203																	X					
S204																	X					
J101										X							X					
J102										X							X					
J103										X							X					
J104										X							X					
JMT1										X							X					
JMT2										X							X					
JMT3										X							X					
JMT4										X							X					
P1															X						X	
P2													X	X								
P3													X	X								
P4															X							
P5															X							
P6															X							
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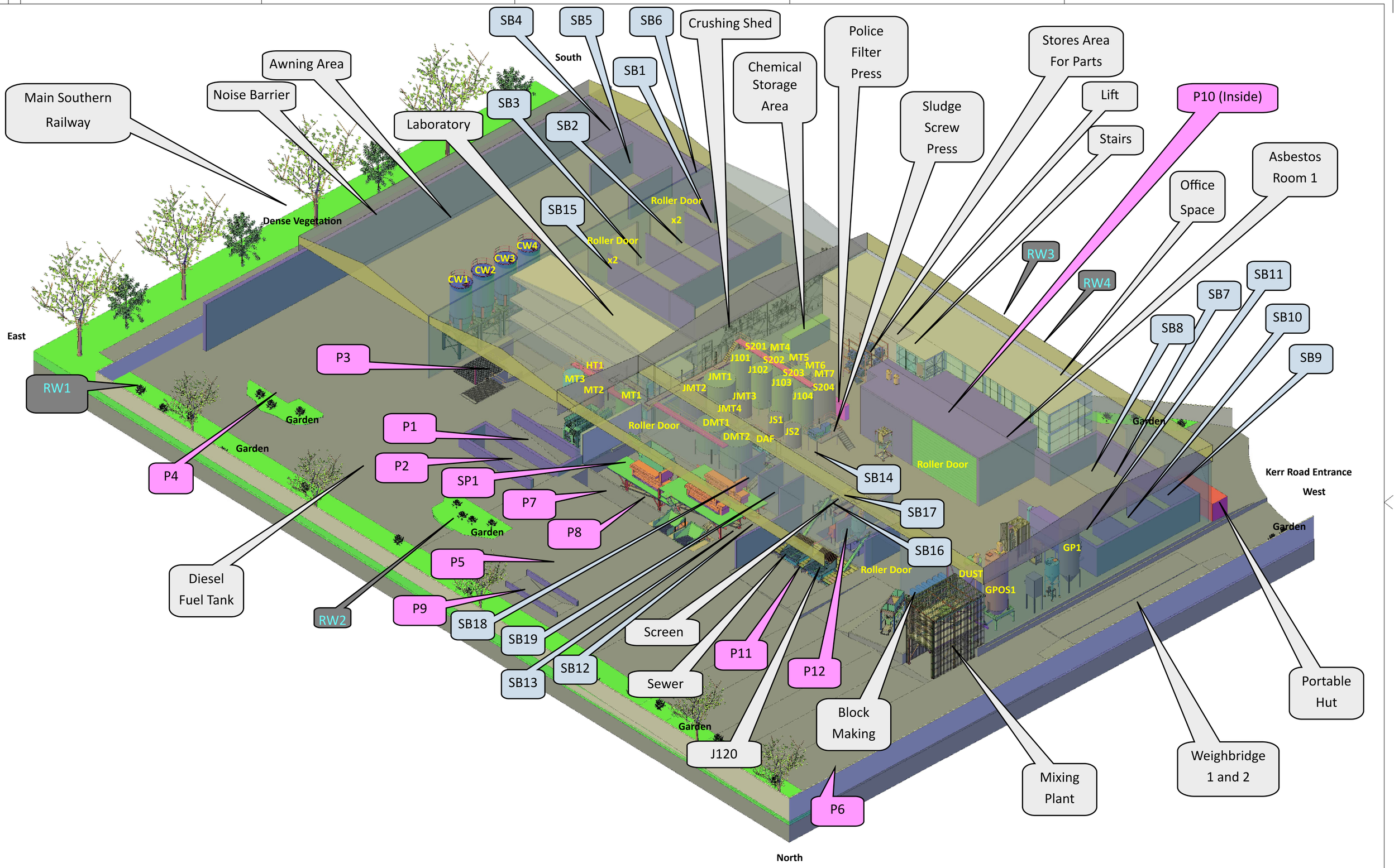
P11															X							
P12															X							



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

Checked By

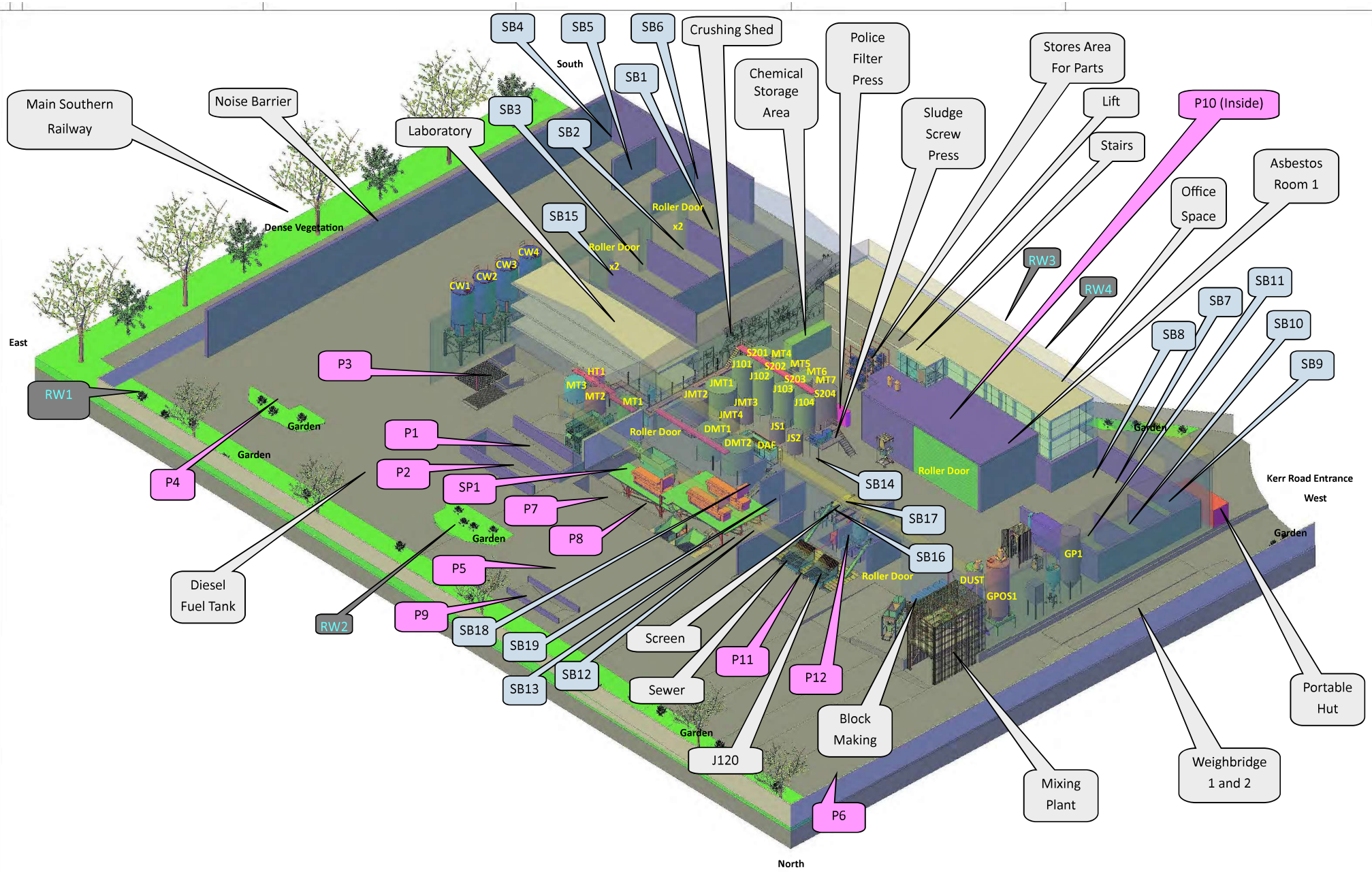
Title: 3D ID Drawing (North)

Scale

Date: 10-01-21

Drawing Number and Revision: BRS-Site-004 A

Attachment 3: Site Plans for Three-Story Office and Laboratory



Items Listing

Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues

Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

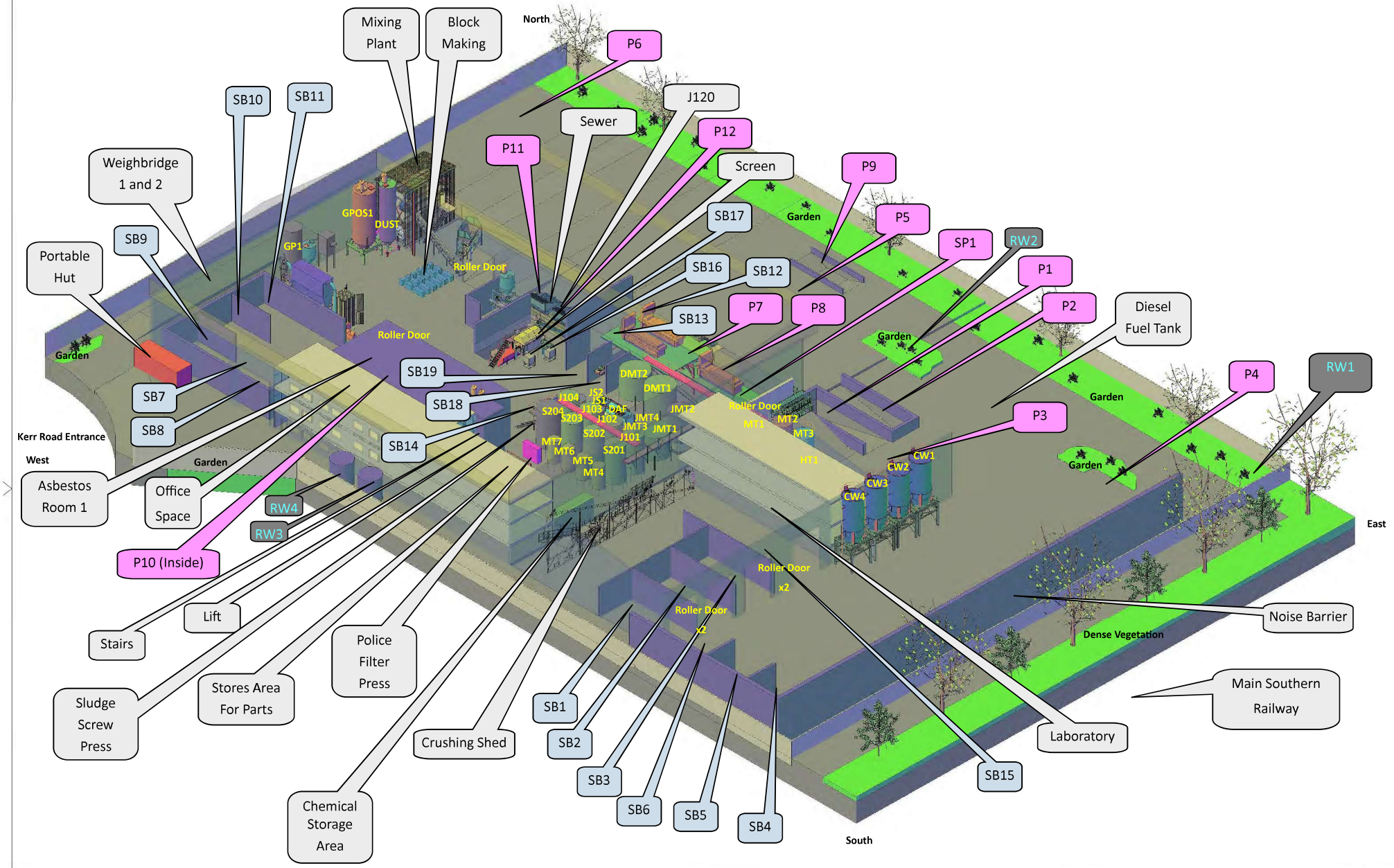
Checked By

Title: 3D ID Drawing (North)

Scale

Date: 19-08-20

Drawing Number and Revision: BRS-Site-004



Items Listing					Amendments or Issues				
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					R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Title: 3D ID Drawing (South)

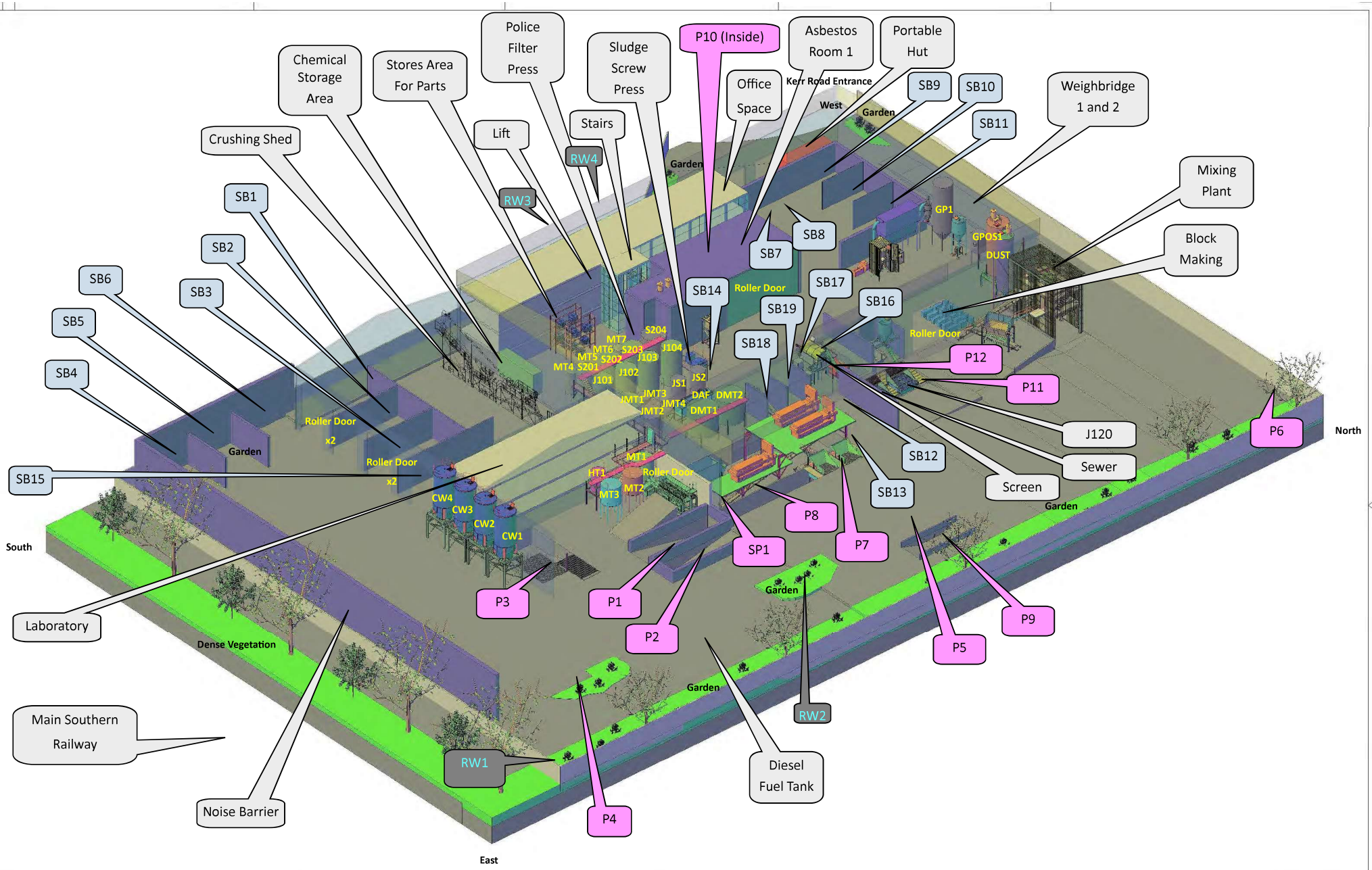
Drawing Number and Revision: BRS-Site-005

Drawn By: TB

Checked By

Scale

Date: 19-08-20



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Amendments or Issues				
Revision	Amendment	Date	By	Appr
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R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
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Phone: 87173366

Client

Drawn By: TB

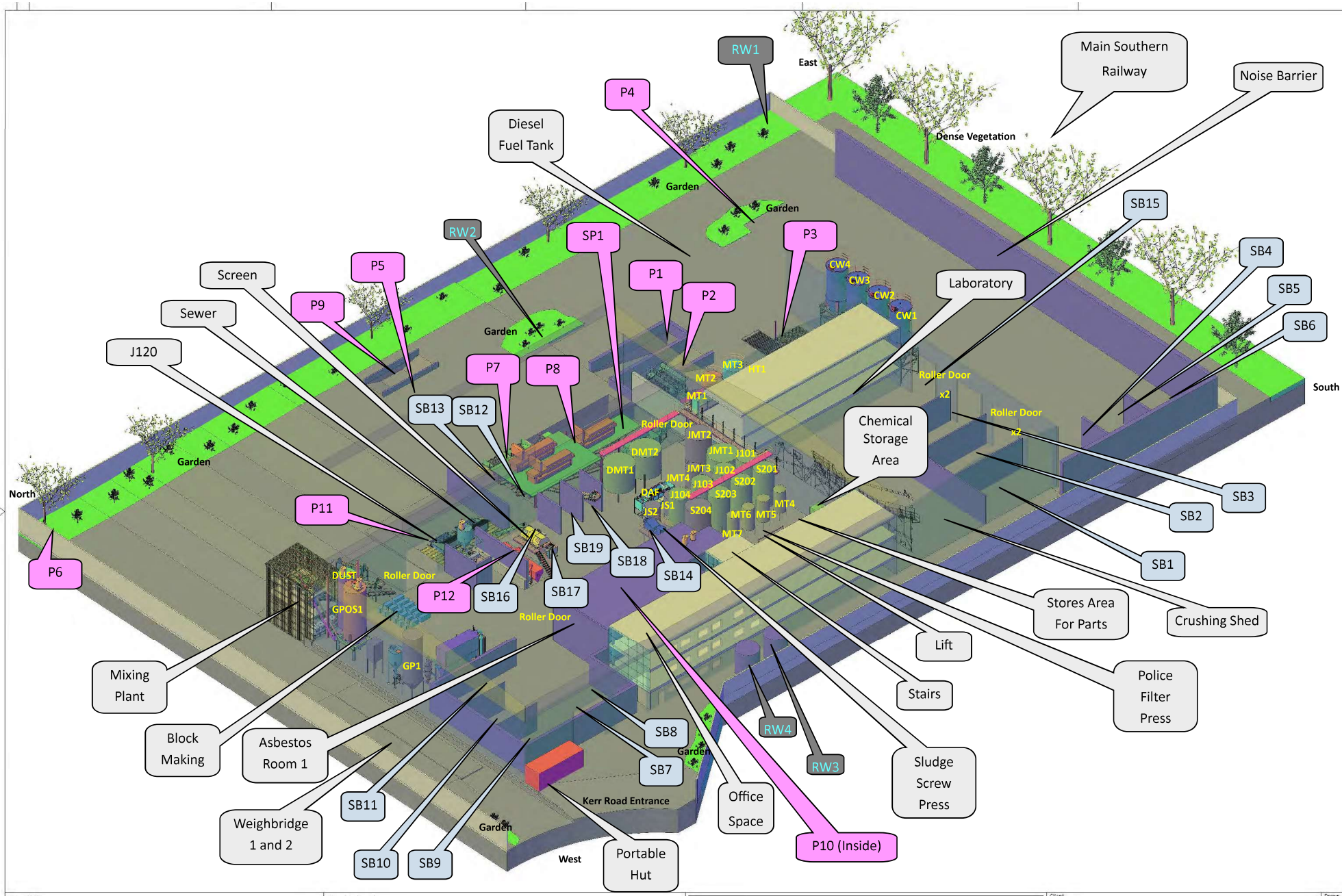
Checked By

Title: 3D ID Drawing (East)

Scale

Date: 19-08-20

Drawing Number and Revision: BRS-Site-006



Items Listing

Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues

Revision	Amendment	Date	By	Appr
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R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
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16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

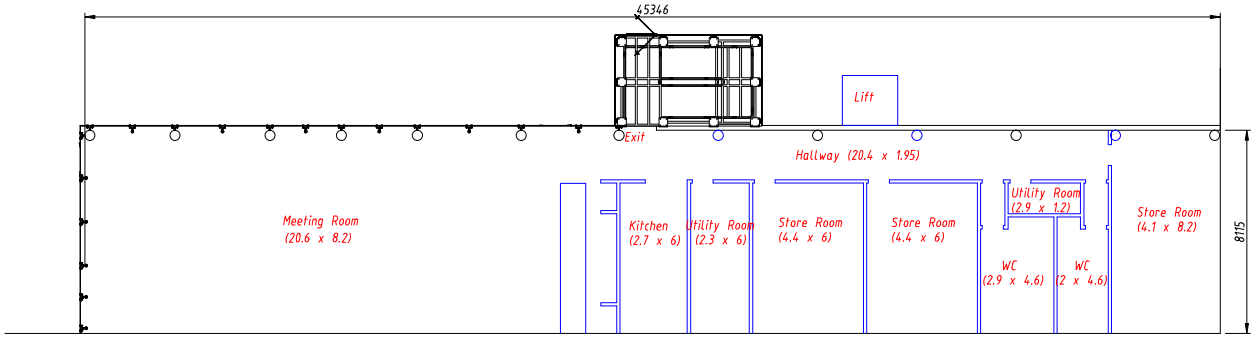
Checked By

Title: 3D ID Drawing (West)

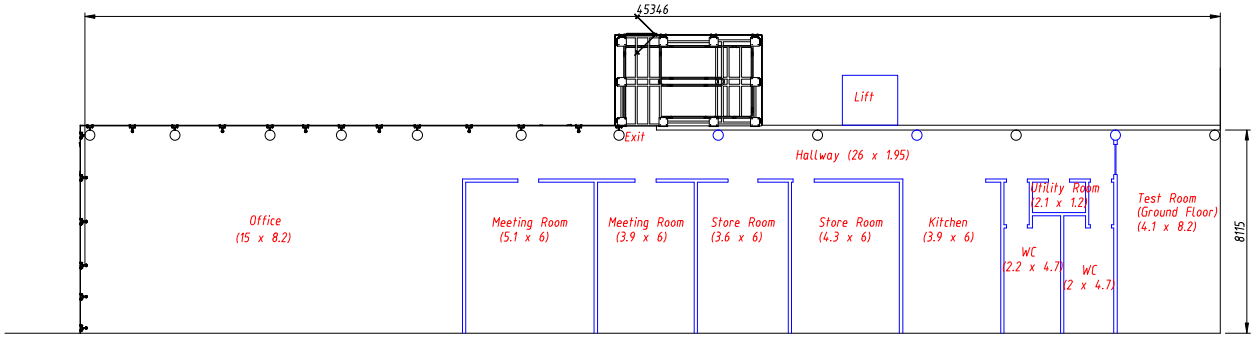
Scale

Date: 19-08-20

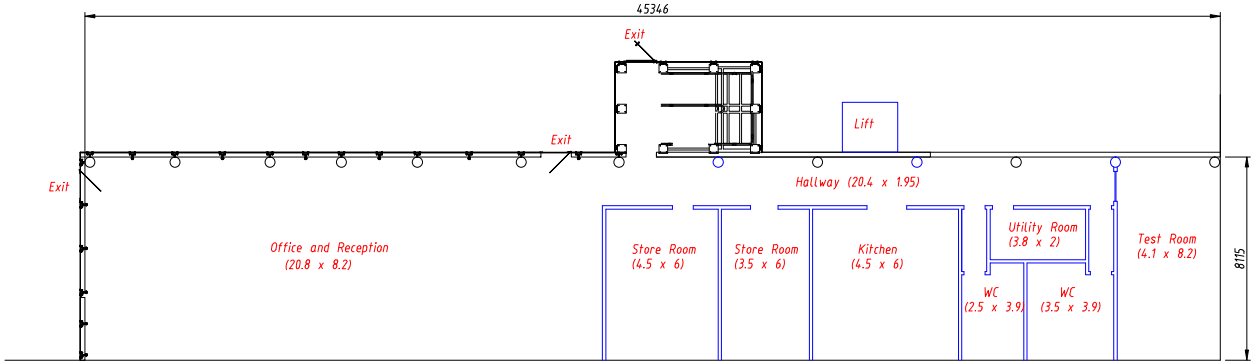
Drawing Number and Revision: BRS-Site-007



Second Floor Plan
(All Dimensions Approximate and in Metres)



First Floor Plan
(All Dimensions Approximate and in Metres)



Ground Floor Plan
(All Dimensions Approximate and in Metres)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
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50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE Group, 16 Kerr Road, Ingleburn, NSW

Title: Plan View and General Office Proportions

Drawing Number and Revision: AWEG-1000

Drawn By: AA

Checked By: TB

Scale: 1:100 (A1 Sheet)

Date: 10-11-17

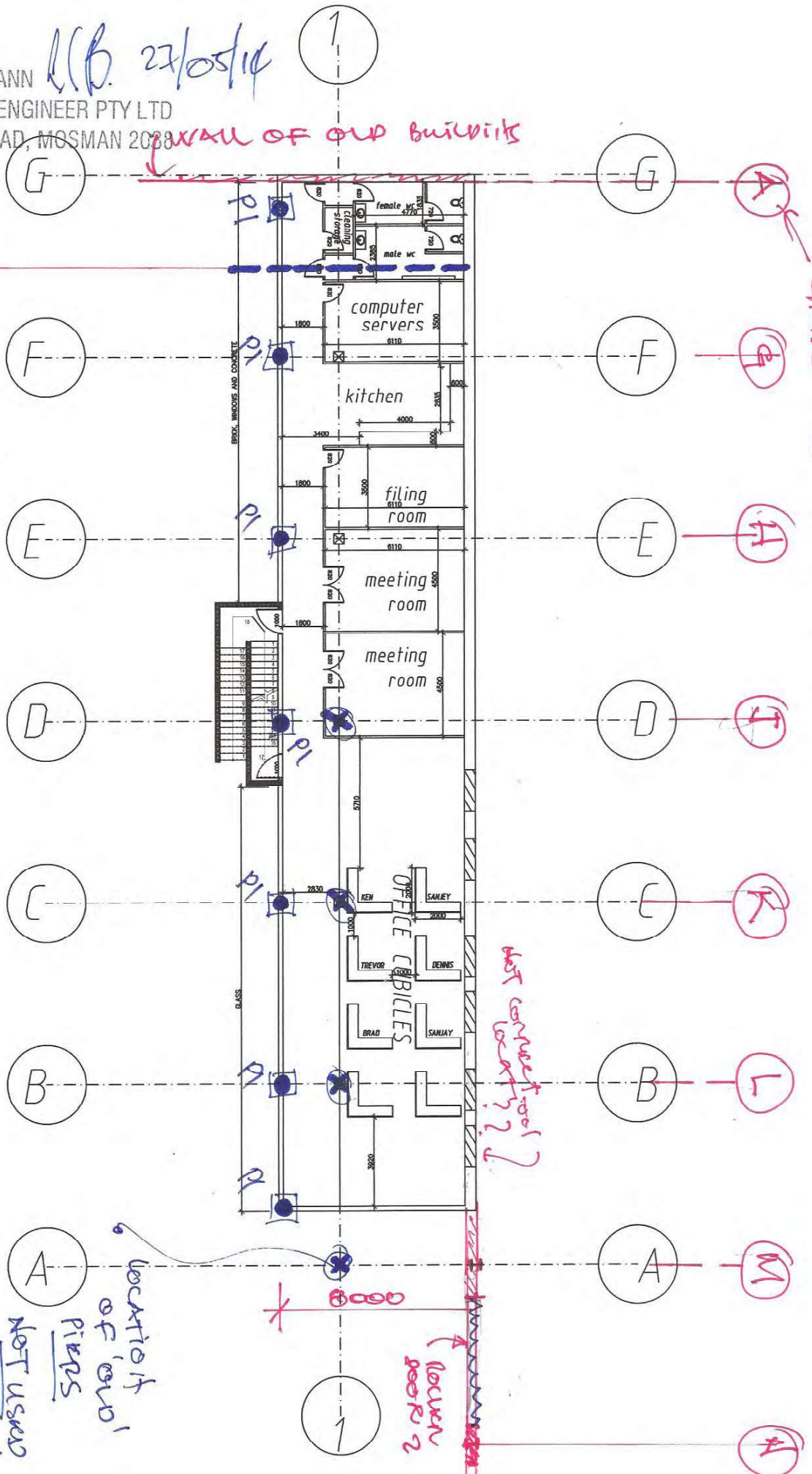
LEIGH BACHMANN
STRUCTURAL ENGINEER PTY LTD
51 DALTON ROAD, MOSMAN 2088

LLB. 27/05/14

WALL OF OLD BUILDING

GRIDS OF 'OLD' DRAWINGS.

ASSUMED LOCATIONS OF MONORAIL FIXED TO U/S FIRST FLOOR SLAB

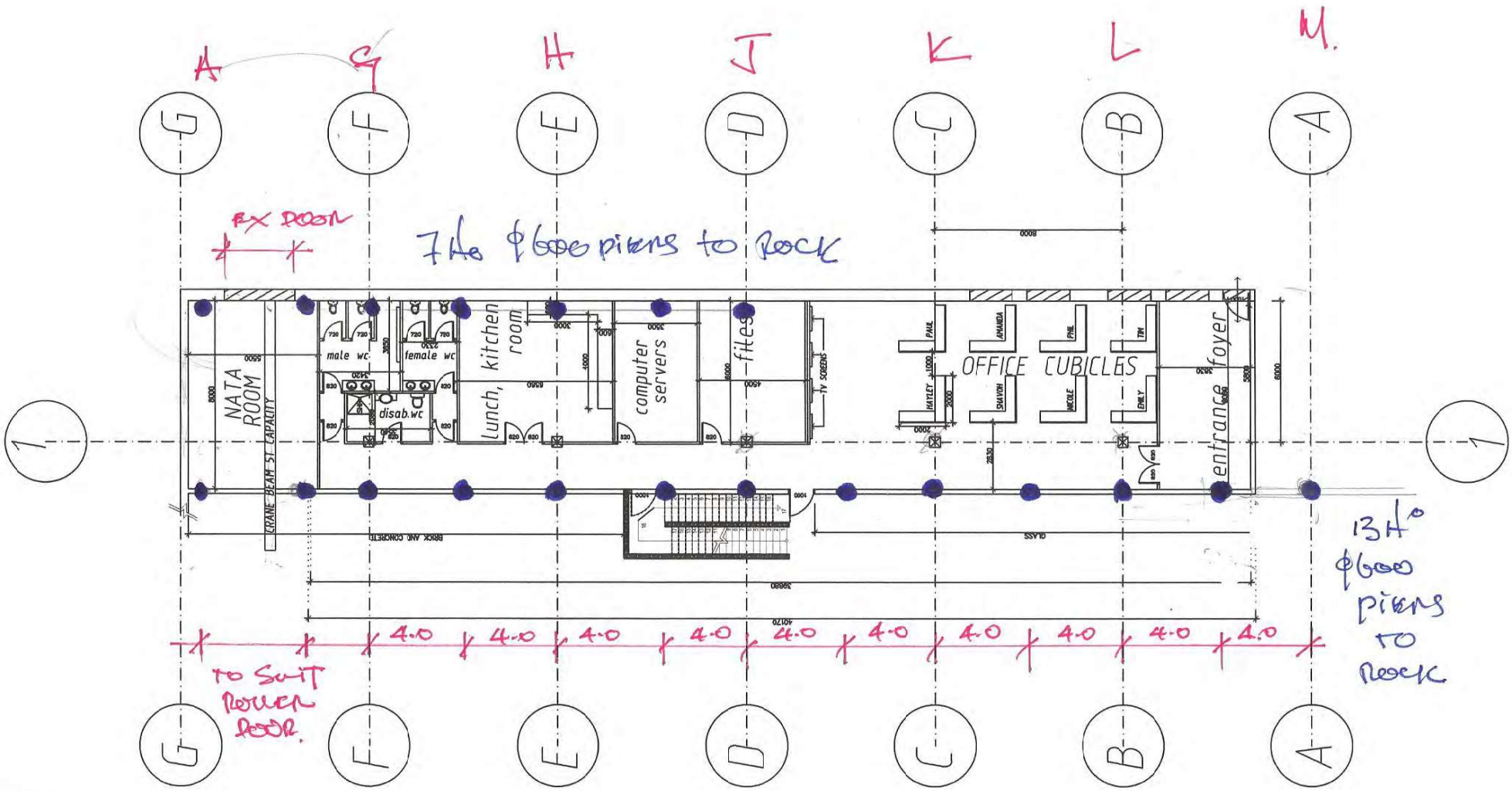


PIER LOCATIONS FOR OFFICE.

LOCATION OF 'OLD' PIERS NOT USED.

NOT CONNECTED LOCATION?

LOCKER ROOM 2

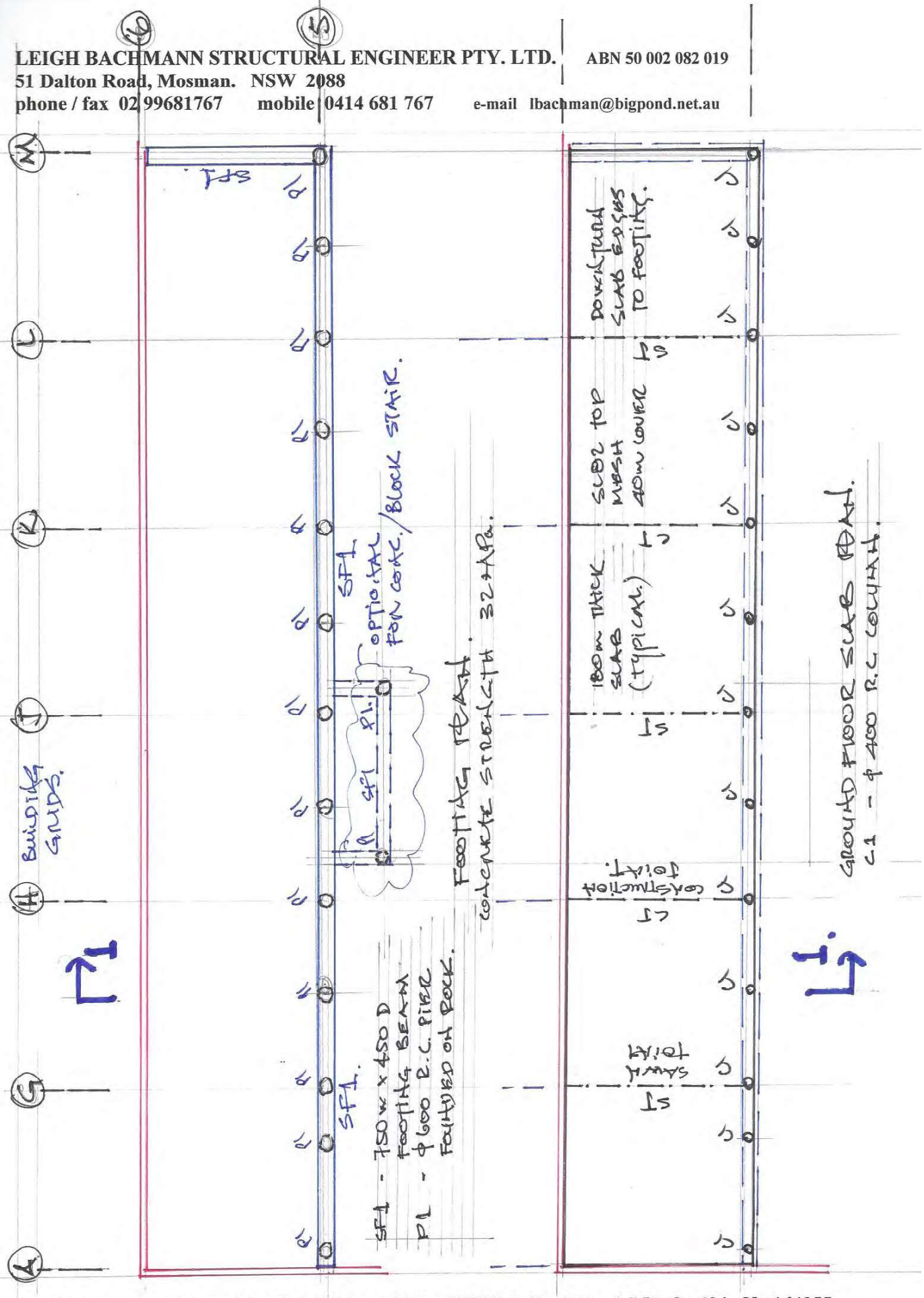


LEIGH BACHMANN
STRUCTURAL ENGINEER PTY LTD
51 DALTON ROAD, MOSMAN 2088

LLBach 27/05/14

PIER LOCATIONS FOR OFFICE BLOCK.

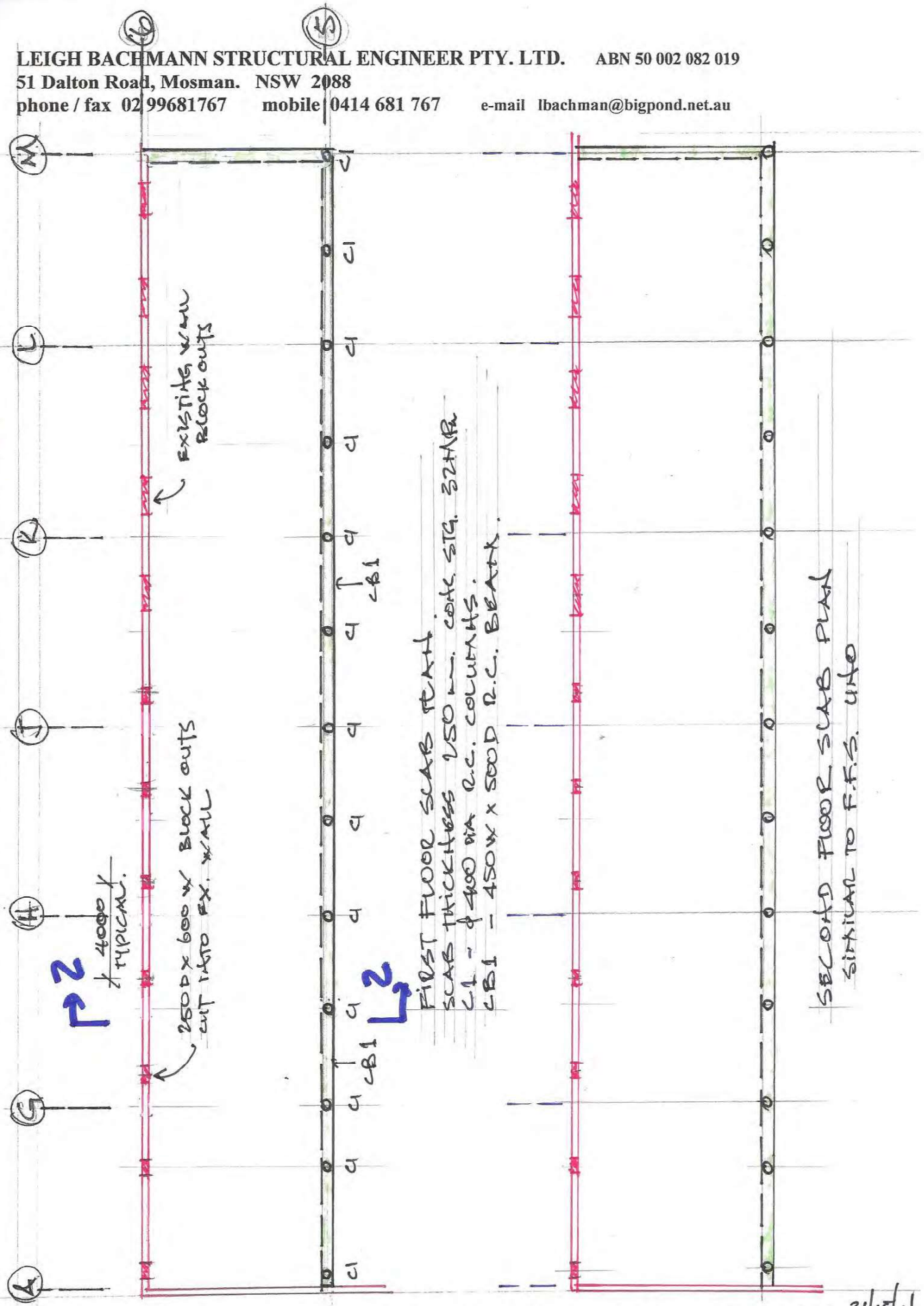
LEIGH BACHMANN STRUCTURAL ENGINEER PTY. LTD. ABN 50 002 082 019
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au



Leigh Bachmann B Eng MEngSc MIEAust CPEng NPER-3 Registered, Membership No 164355

31/05/14

LEIGH BACHMANN STRUCTURAL ENGINEER PTY. LTD. ABN 50 002 082 019
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au



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31/05/14

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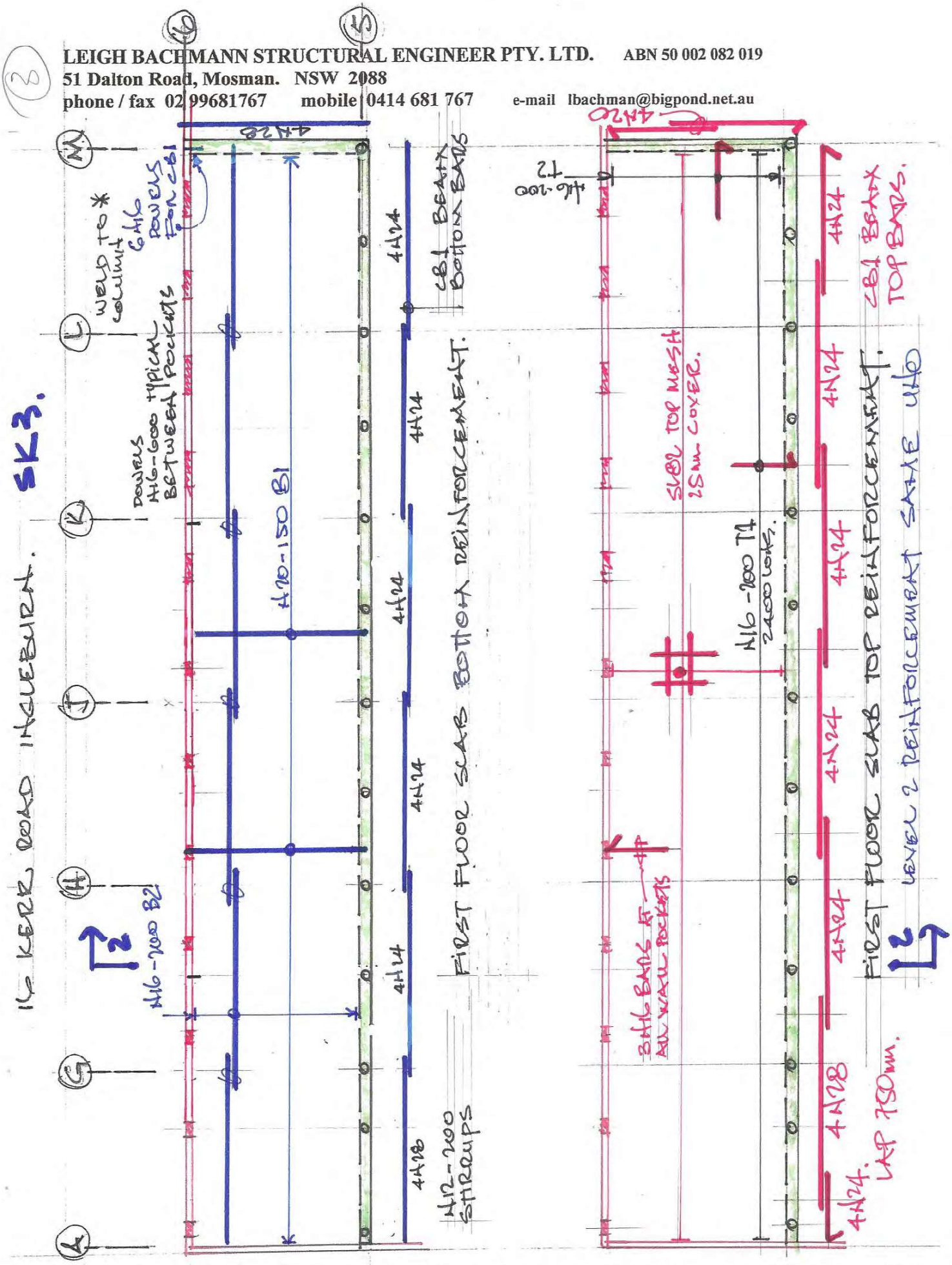
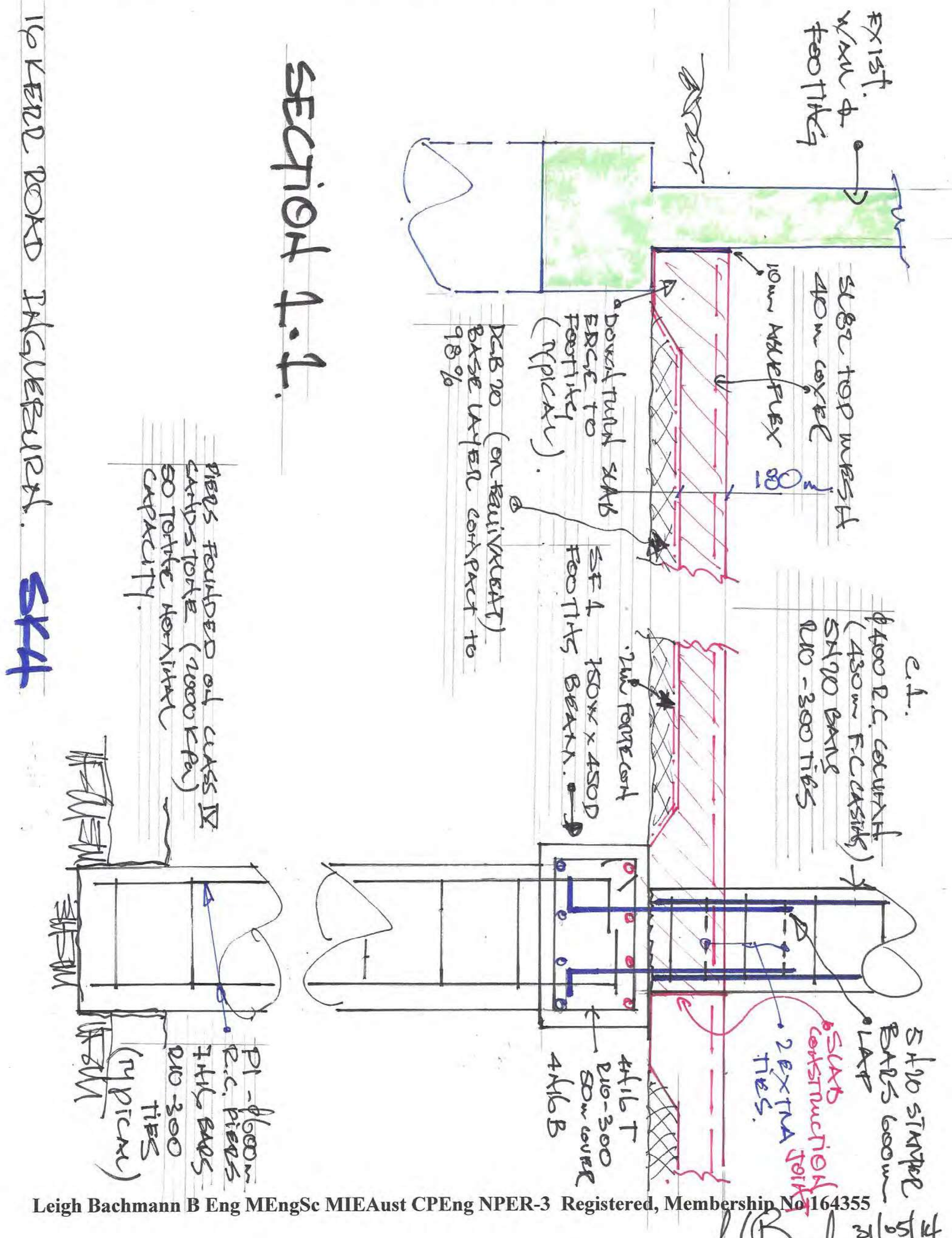
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au



Leigh Bachmann B Eng MEngSc MIEAust CPEng NPER-3 Registered, Membership No 164355

31/05/14

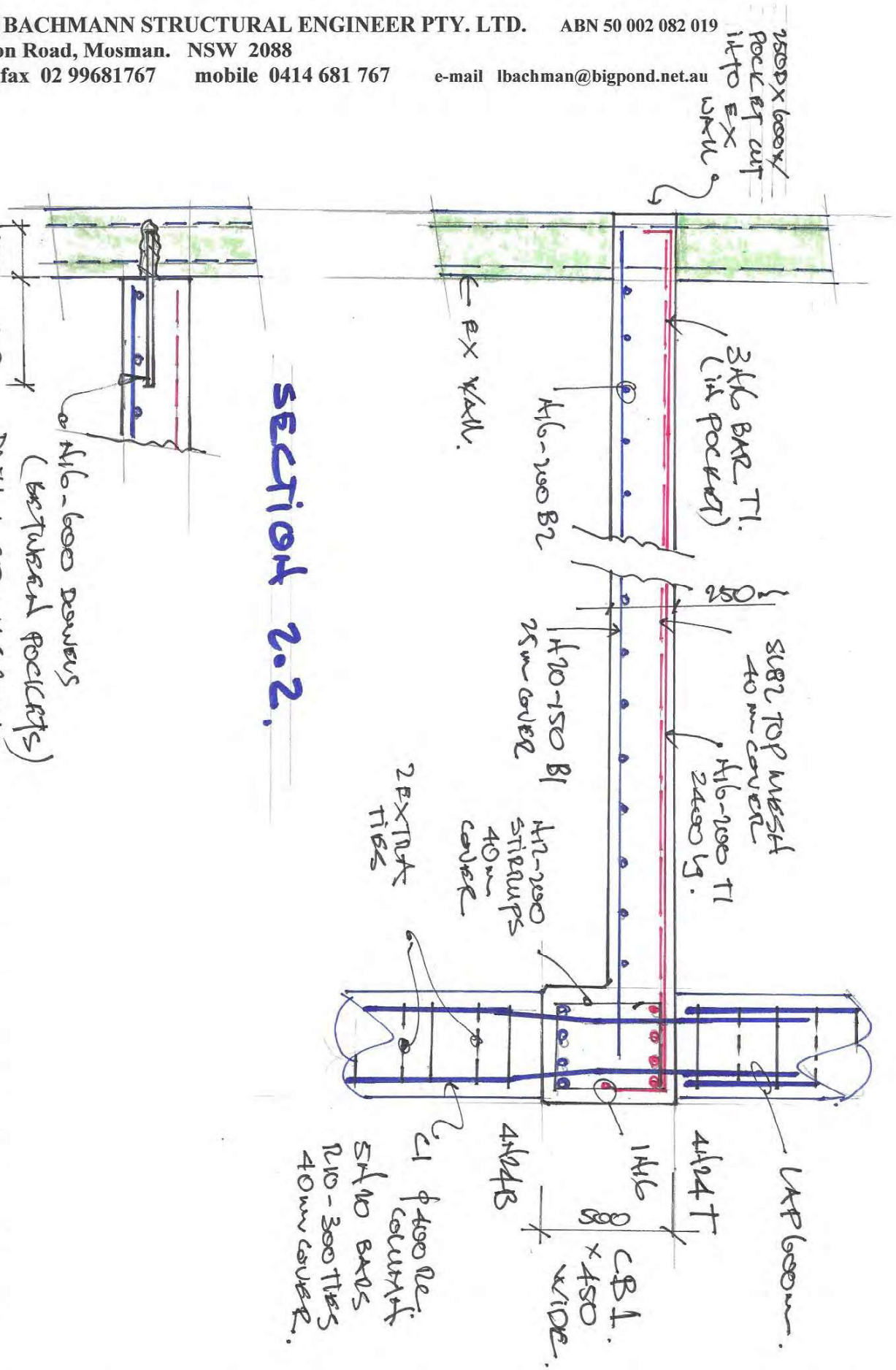
LEIGH BACHMANN STRUCTURAL ENGINEER PTY. LTD. **ABN 50 002 082 019**
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au



Leigh Bachmann B Eng MEngSc MIEAust CPEng NPER-3 Registered, Membership No 164355

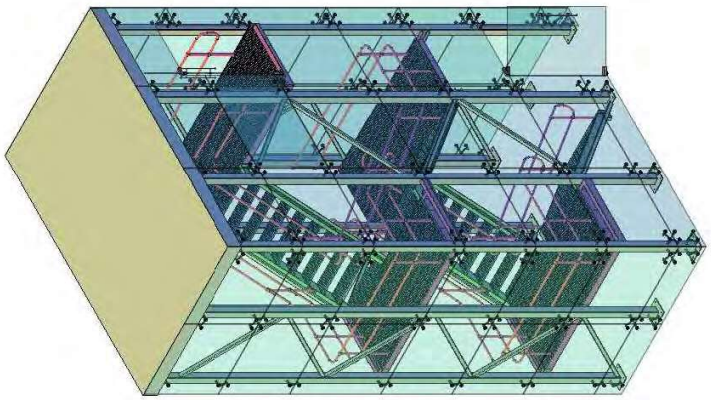
L.C.Bach 31/05/14

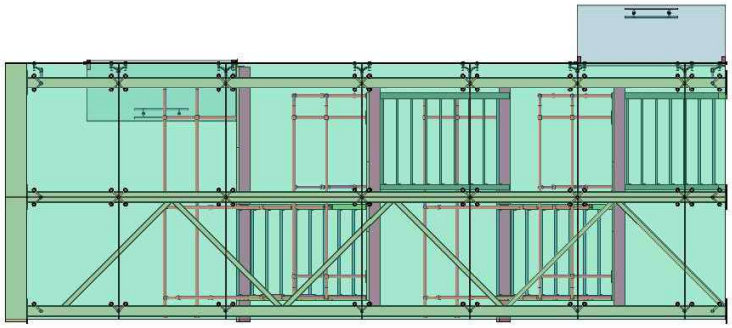
LEIGH BACHMANN STRUCTURAL ENGINEER PTY. LTD. ABN 50 002 082 019
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au

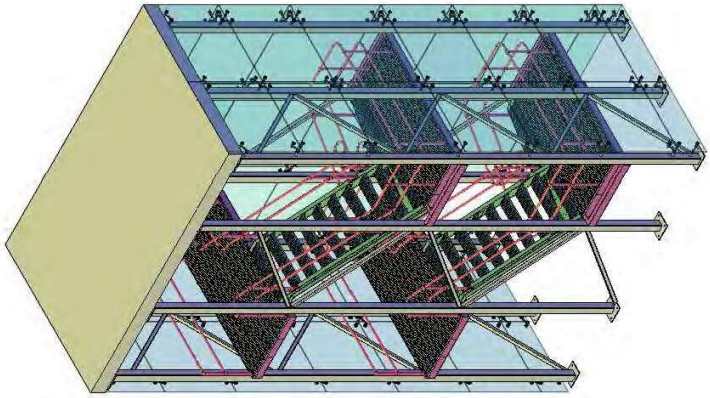


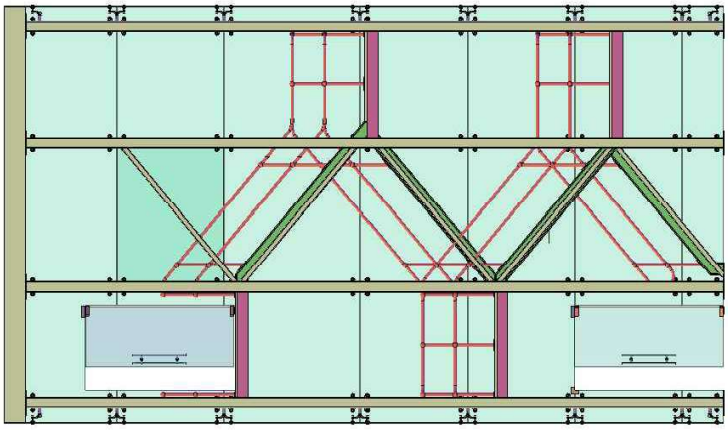
Leigh Bachmann B Eng MEngSc MIEAust CPEng NPER-3 Registered, Membership No 164355

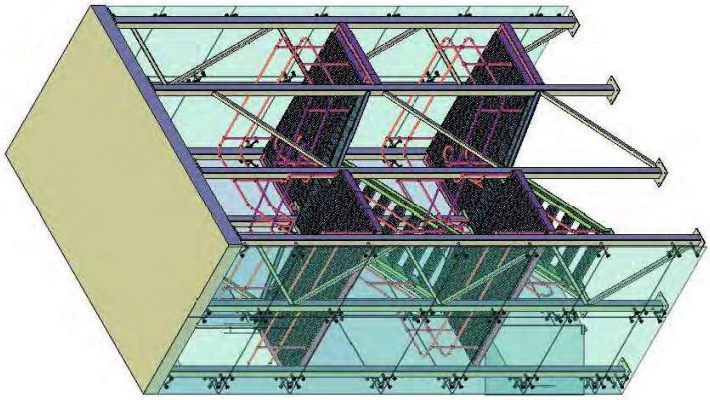
31/05/14.

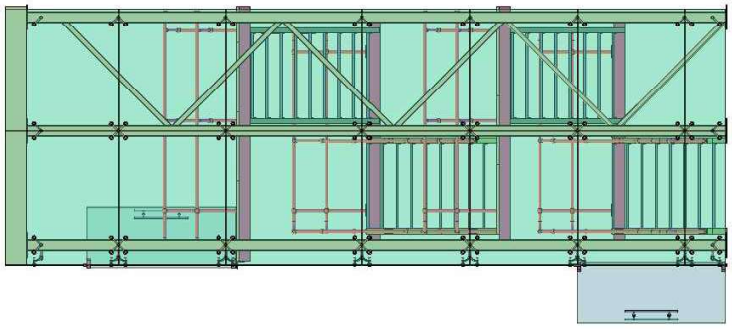


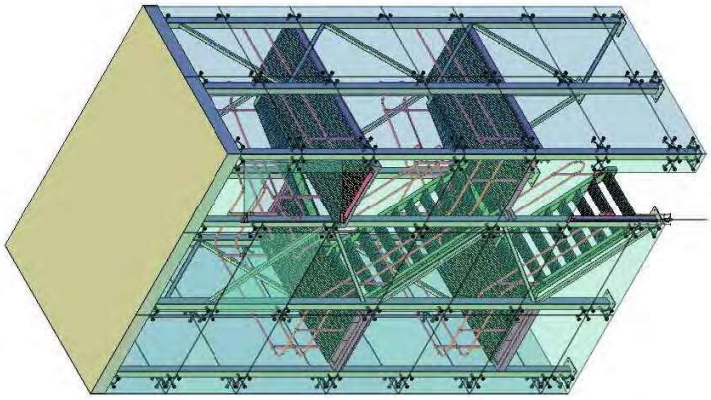


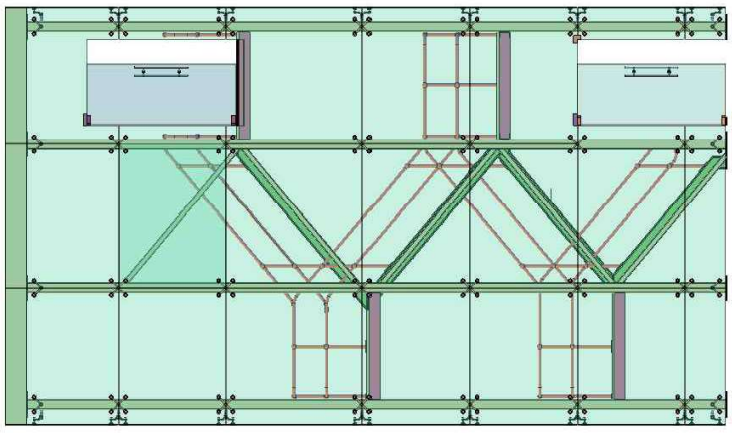


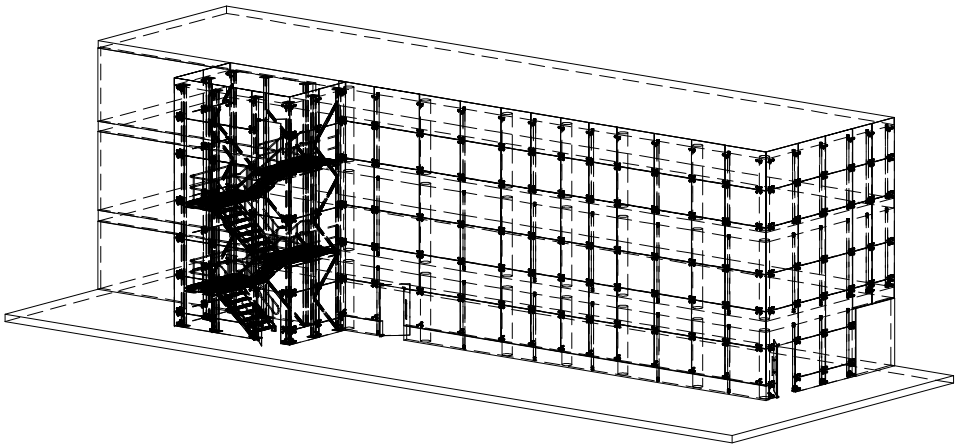


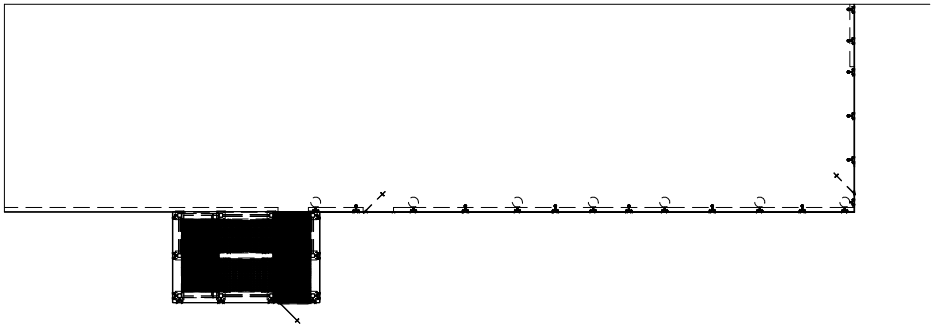


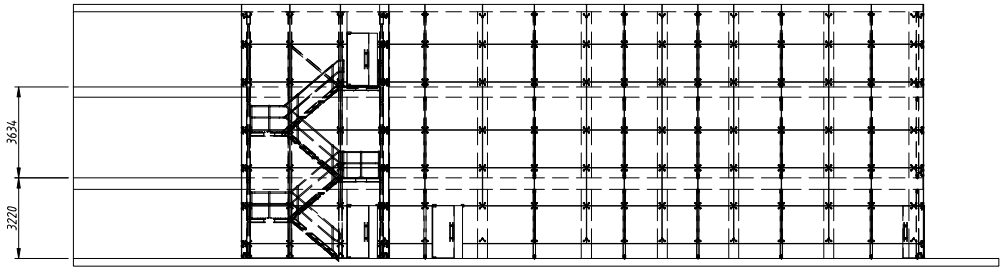


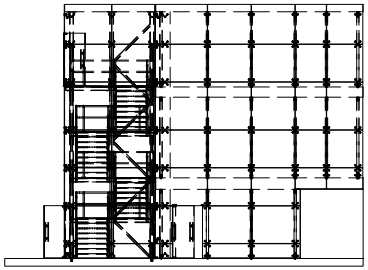












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Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
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R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.

A.C.N. 002 940 301

50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046

Ph (02) 8717 3333
Fax (02) 9754 1351

Client

Title

Drawing Number and Revision

Drawn By: AA

Checked By

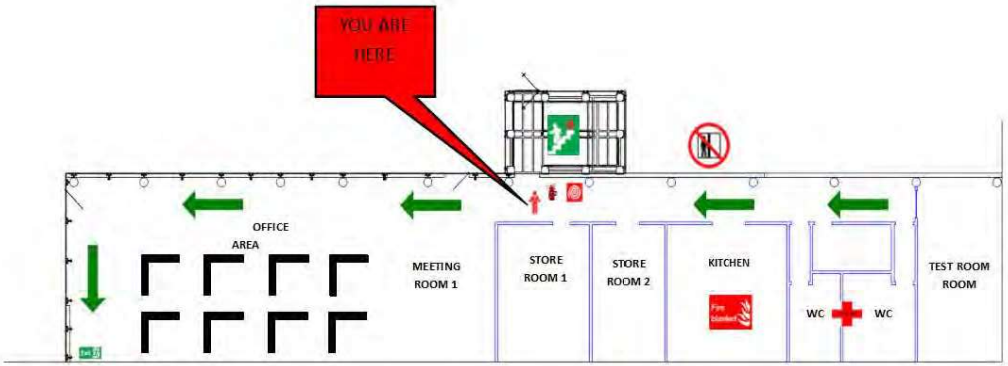
Scale: 1:100 (A1 Sheet)

Date

EVACUATION DIAGRAM

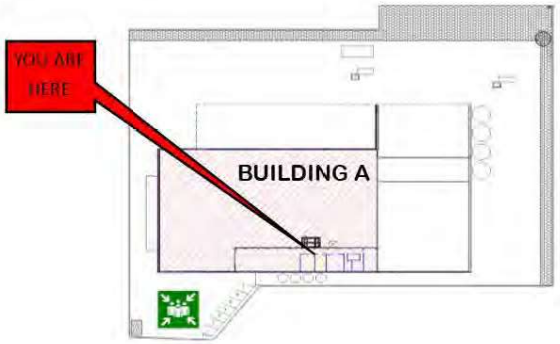
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

GROUND FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA
- FIRE EXTINGUISHER (ABE)

YOUR ASSEMBLY AREA IS:

AT MAIN FRONT GATE

IN ANY EMERGENCY DIAL

000

AND ASK FOR FIRE BRIGADE, POLICE OR AMBULANCE

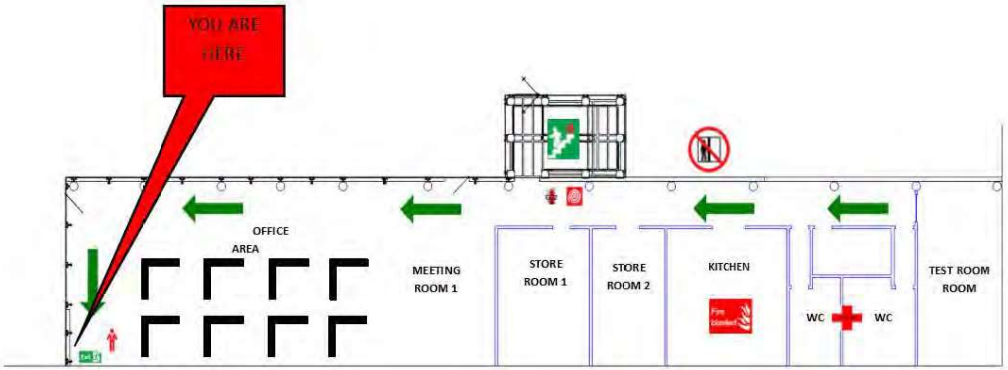
EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
3. ATTACK FIRE IF TRAINED, IF SAFE TO DO SO
4. EVACUATE TO EMERGENCY ASSEMBLY AREA
5. REMAIN IN EMERGENGCY ASSEMBLY AREA AND ENSURE EVERYBODY IS ACCOUNTED FOR.

EVACUATION DIAGRAM

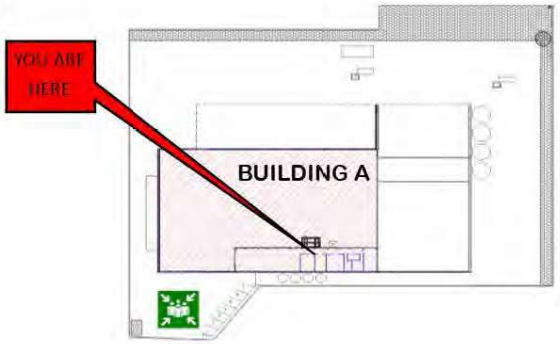
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

GROUND FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA
- FIRE EXTINGUISHER (ABE)

YOUR ASSEMBLY AREA IS:

AT MAIN FRONT GATE

IN ANY EMERGENCY DIAL

000

AND ASK FOR FIRE BRIGADE, POLICE OR AMBULANCE

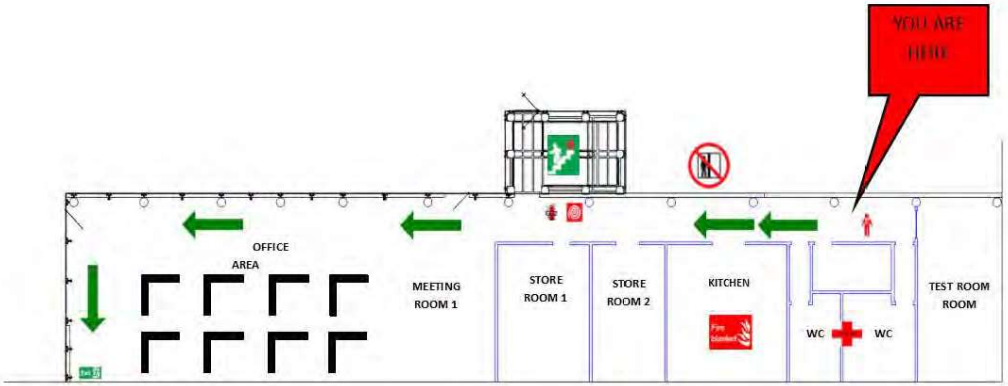
EVACUATION PROCEDURE

1. ASSIST ANY PERSON IN IMMEDIATE DANGER, IF SAFE TO DO SO
2. CALL FIRE BRIGADE 000
3. ATTACK FIRE IF TRAINED, IF SAFE TO DO SO
4. EVACUATE TO EMERGENCY ASSEMBLY AREA
5. REMAIN IN EMERGENGCY ASSEMBLY AREA AND ENSURE EVERYBODY IS ACCOUNTED FOR.

EVACUATION DIAGRAM

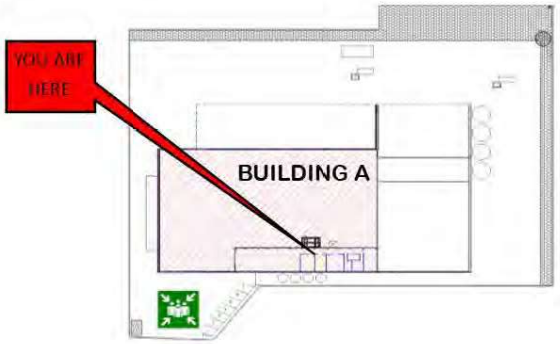
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

GROUND FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA
- FIRE EXTINGUISHER (ABE)

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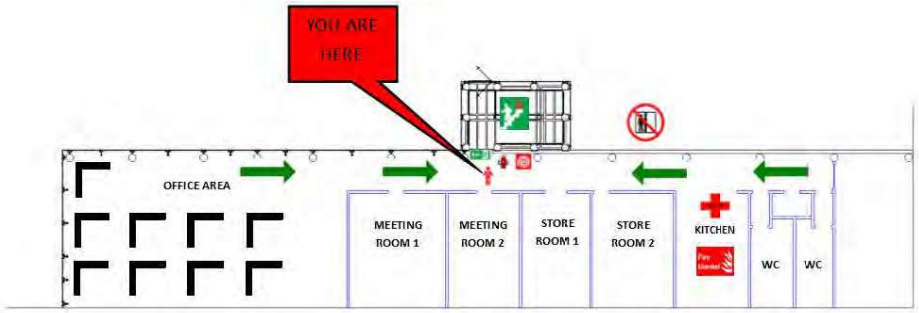
EVACUATION DIAGRAM

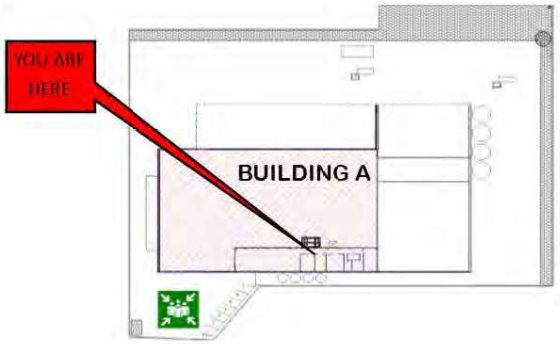
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

FIRST FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRST AID KIT
- FIRE EXTINGUISHER (ABE)

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AT MAIN FRONT GATE

IN ANY EMERGENCY DIAL

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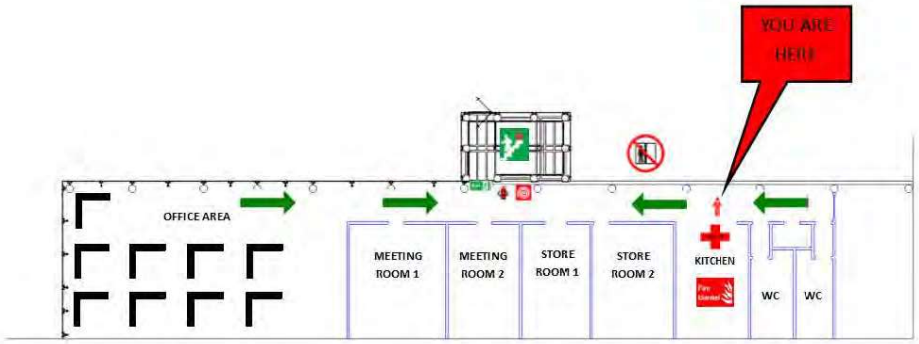
5. REMAIN IN EMERGENGCY ASSEMBLY AREA AND ENSURE EVERYBODY IS ACCOUNTED FOR.

EVACUATION DIAGRAM

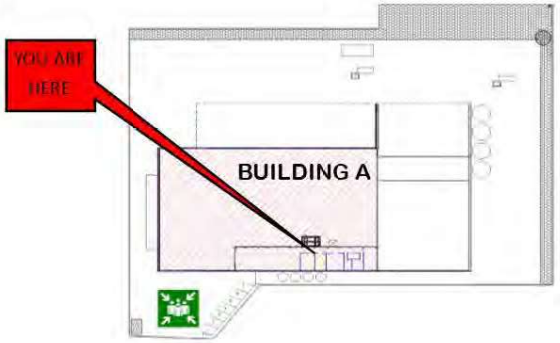
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

FIRST FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA
- FIRE EXTINGUISHER (ABE)

YOUR ASSEMBLY AREA IS:

AT MAIN FRONT GATE

IN ANY EMERGENCY DIAL

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AND ASK FOR FIRE BRIGADE, POLICE OR AMBULANCE

EVACUATION PROCEDURE

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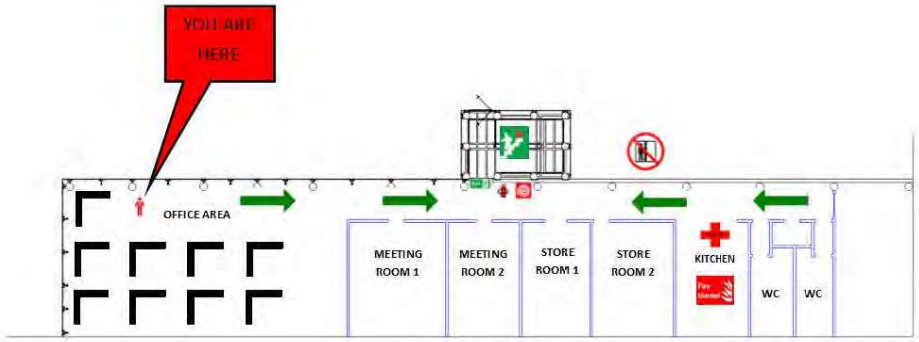
5. REMAIN IN EMERGENGCY ASSEMBLY AREA AND ENSURE EVERYBODY IS ACCOUNTED FOR.

EVACUATION DIAGRAM

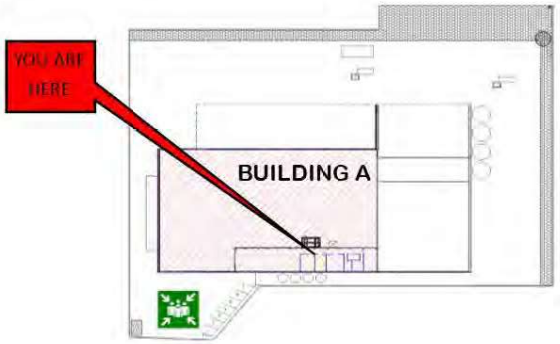
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

FIRST FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO2)
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA
- FIRE EXTINGUISHER (ABE)

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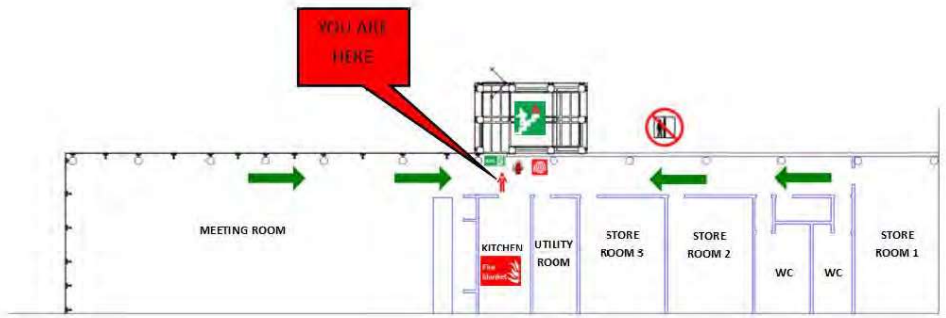
EVACUATION DIAGRAM

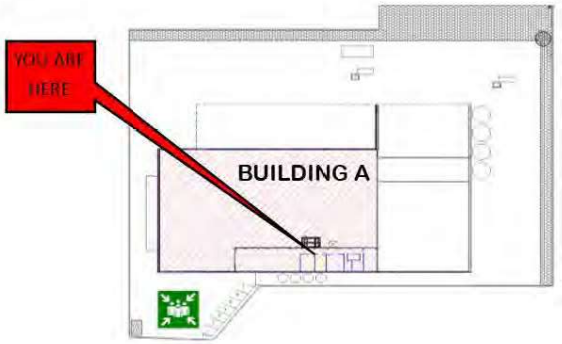
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

SECOND FLOOR OFFICE PLAN



LEGEND

- DON'T USE LIFT
- YOU ARE HERE
- FIRE EXIT
- USE STAIRS
- THIS WAY TO EXIT
- FIRE BLANKET
- FIRE HOSE
- FIRE EXTINGUISHER (CO_2)
- FIRST AID KIT
- EMERGENCY ASSEMBLY AREA
- FIRE EXTINGUISHER (ABE)

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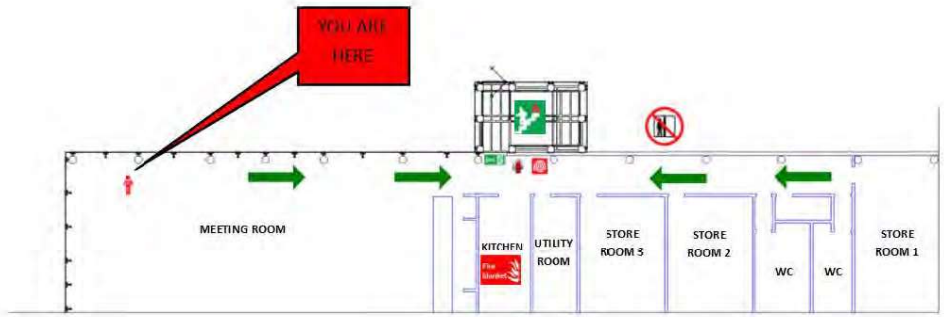
EVACUATION DIAGRAM

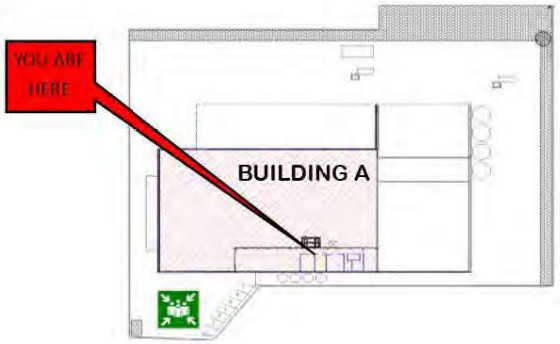
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

SECOND FLOOR OFFICE PLAN



LEGEND

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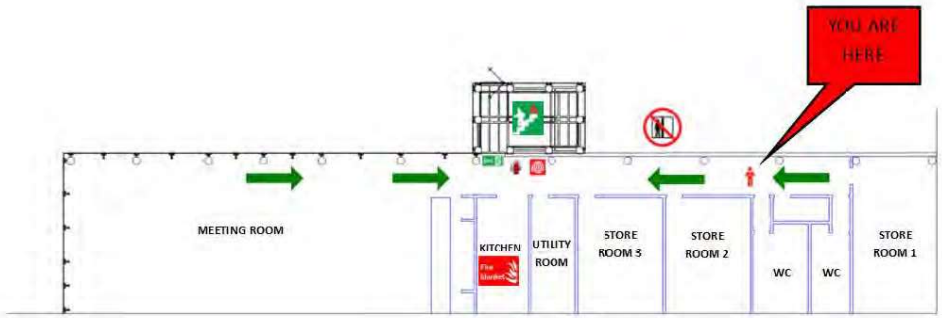
EVACUATION DIAGRAM

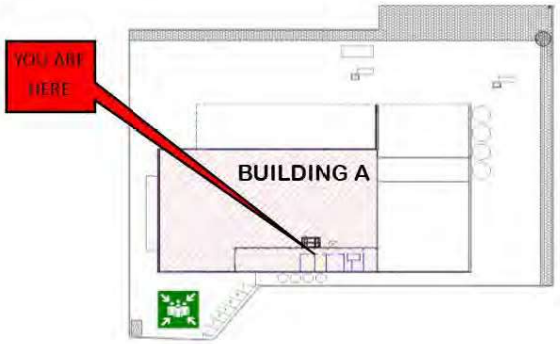
BUILDING A

16 KERR ROAD, INGLEBURN



BUILDING A

SECOND FLOOR OFFICE PLAN



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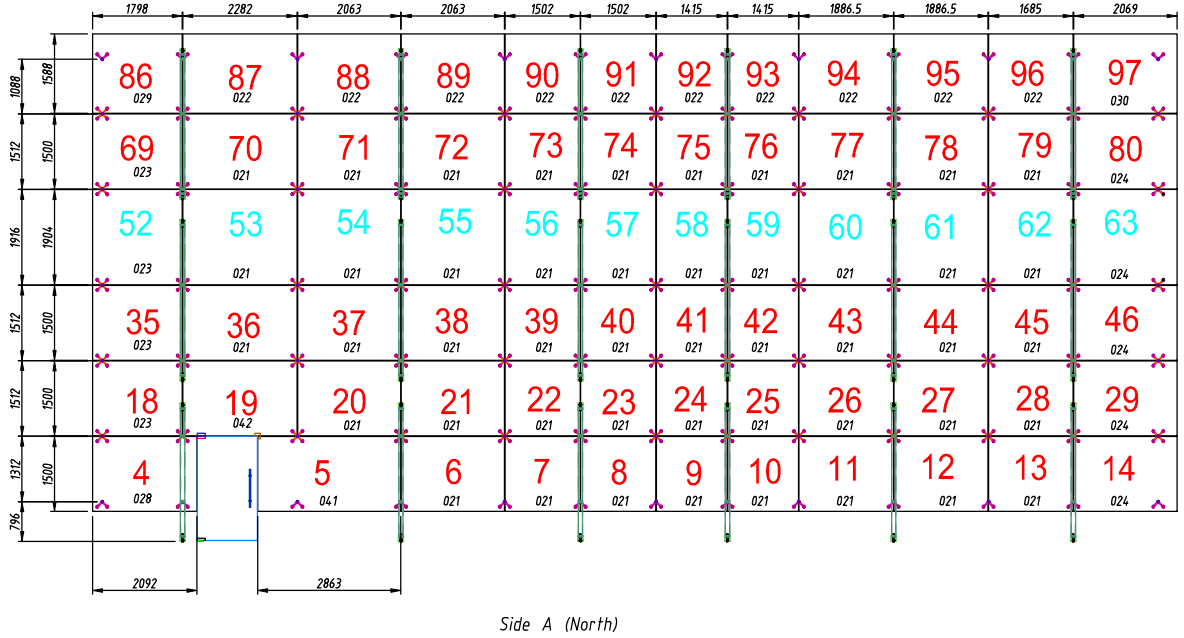
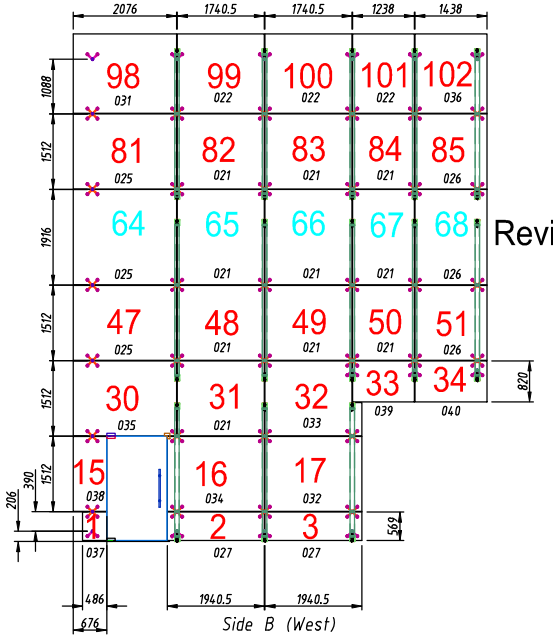


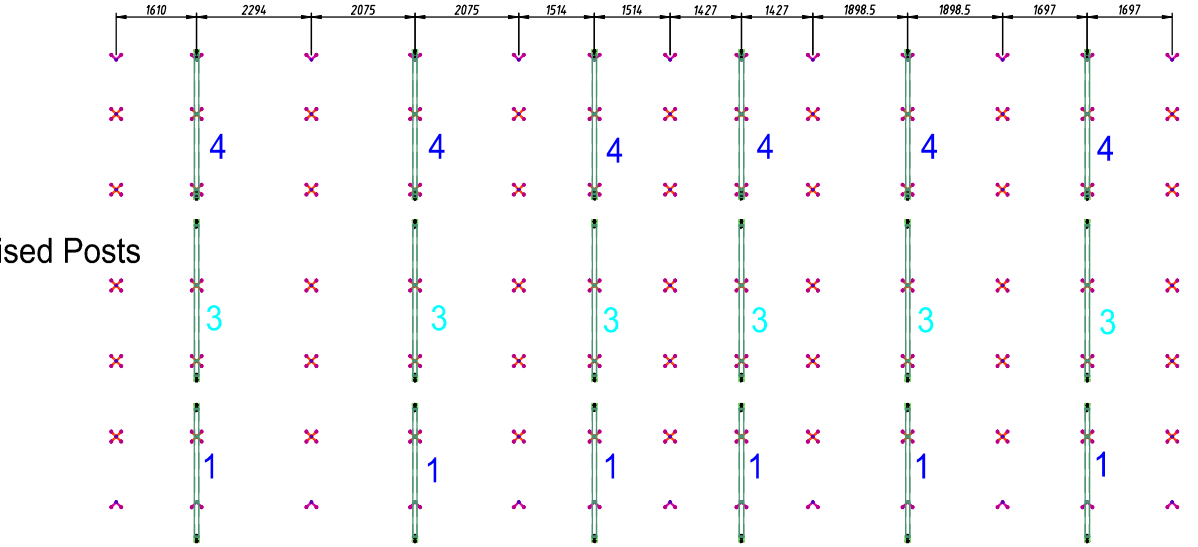
Side A (North)



Revised Windows

Side B (West)

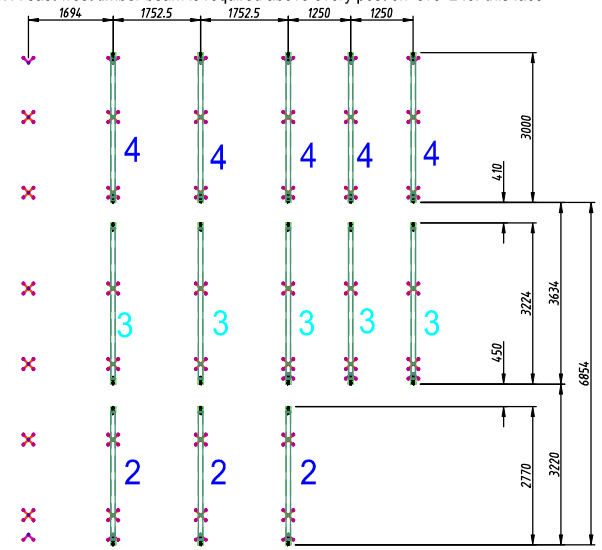
Note: A north south timber beam is required above every post on level 2 for this face



Revised Posts

Side A (North)

Note: A east west timber beam is required above every post on level 2 for this face



Side B (West)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn

Title: Office Window Identification Details

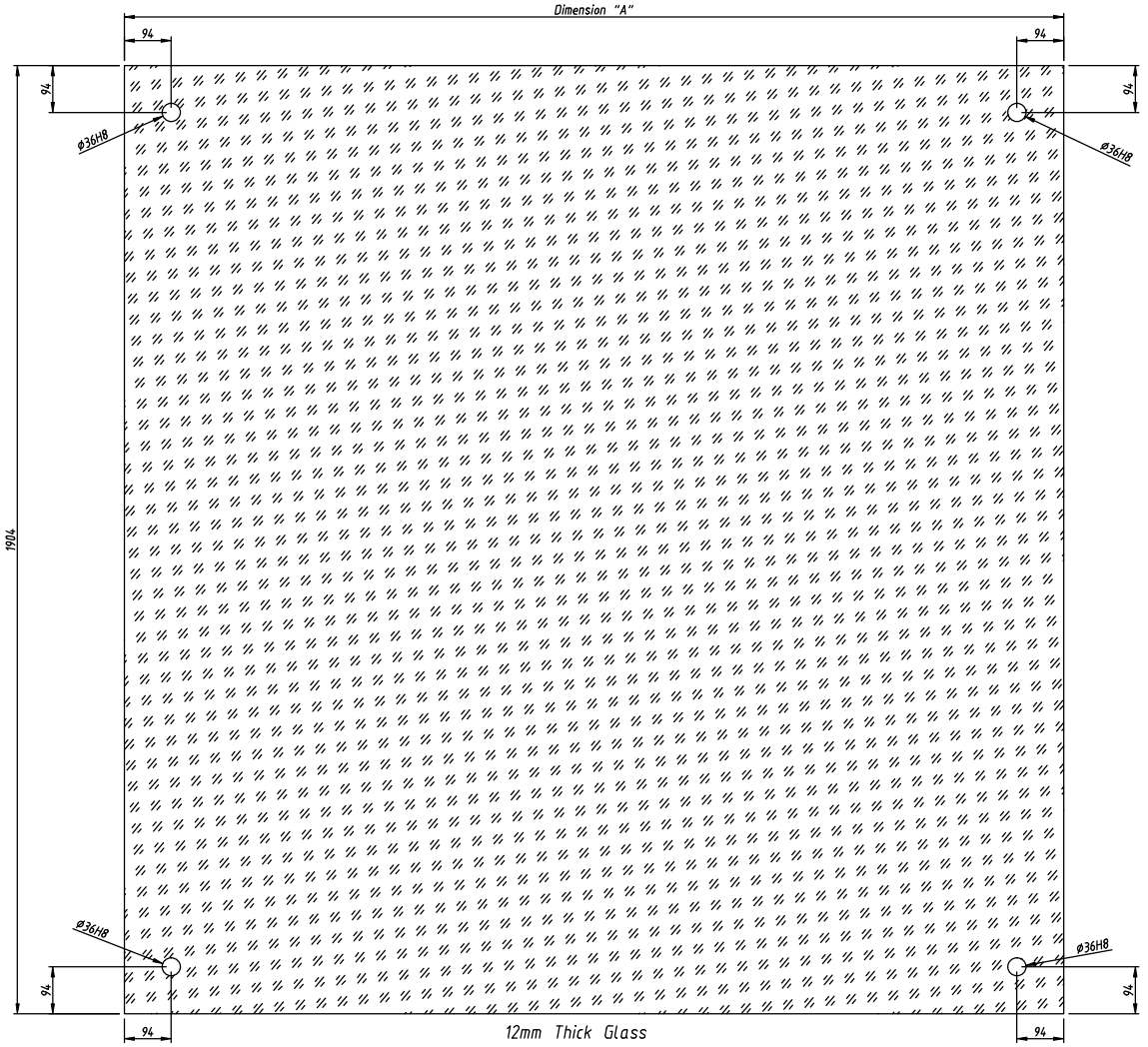
Drawing Number and Revision: 16KerrRoad-020R1

Drawn By: AA

Checked By:

Scale: 1:50 (A1 Sheet)

Date: 12-08-14



12mm Thick Glass

Standard Glass Panel Details

Size	Identification Numbers	Side	Total
2282x1904H	53	A	1
2063x1904H	54,55	A	2
1502x1904H	56,57	A	2
1415x1904H	58,59	A	2
1886.5x1904H	60,61	A	2
1685x1904H	62	A	1
1740.5x1904H	65,66	B	2
1238x1904H	67	B	1

10xA, 3xB, 13 total (of 102)

Items Listing

Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues

Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Fax (02) 9754 1351

Client: AWE, Ingleburn

Title: Office Windows Standard Glass Details

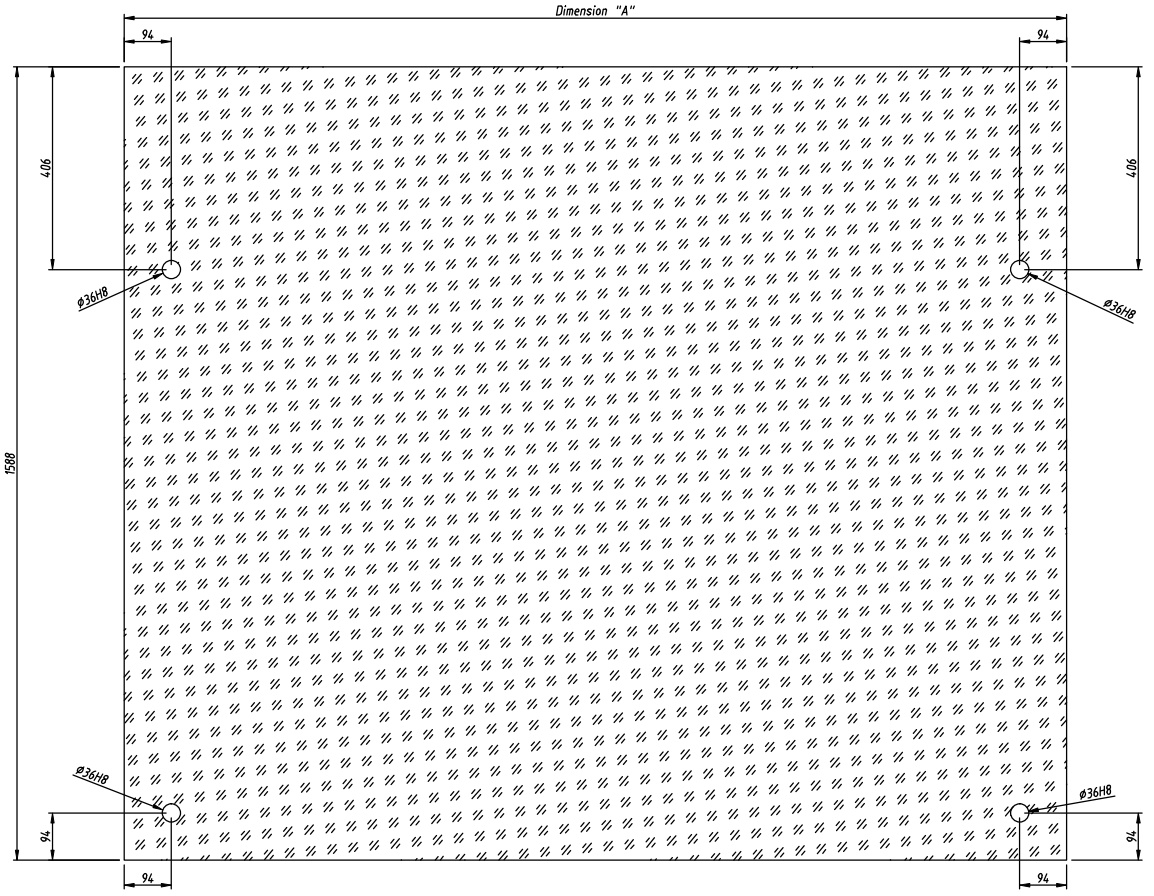
Drawing Number and Revision: 16KerrRoad-021R1

Drawn By: AA

Checked By:

Scale: 1:5 (A1 Sheet)

Date: 12-08-14



12mm Thick Glass

Non Standard Glass Panel Details Sheet 1

Size	Identification Numbers	Side	Total
2282x1588H	87	A	1
2063x1588H	88,89	A	2
1502x1588H	90,91	A	2
1415x1588H	92,93	A	2
1886.5x1588H	94,95	A	2
1685x1588H	96	A	1
1740.5x1588H	99,100	B	2
1238x1588H	101	B	1

10xA, 3xB, 13 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

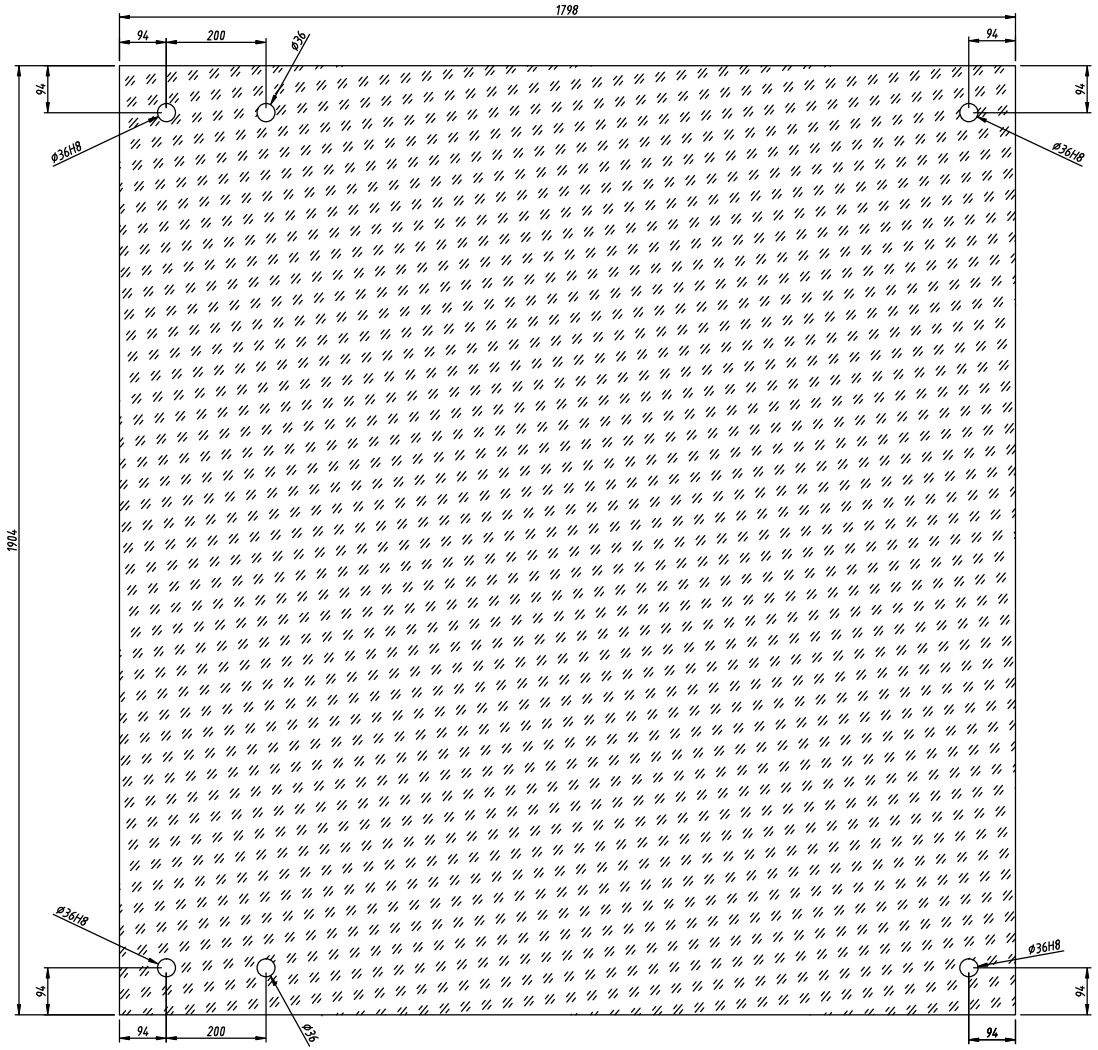
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 1

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-022



12mm Thick Glass

Non Standard Glass Panel Details Sheet 2

Size	Identification Numbers	Side	Total
1798x1904H	52	A	1

1xA, 0xB, 4 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

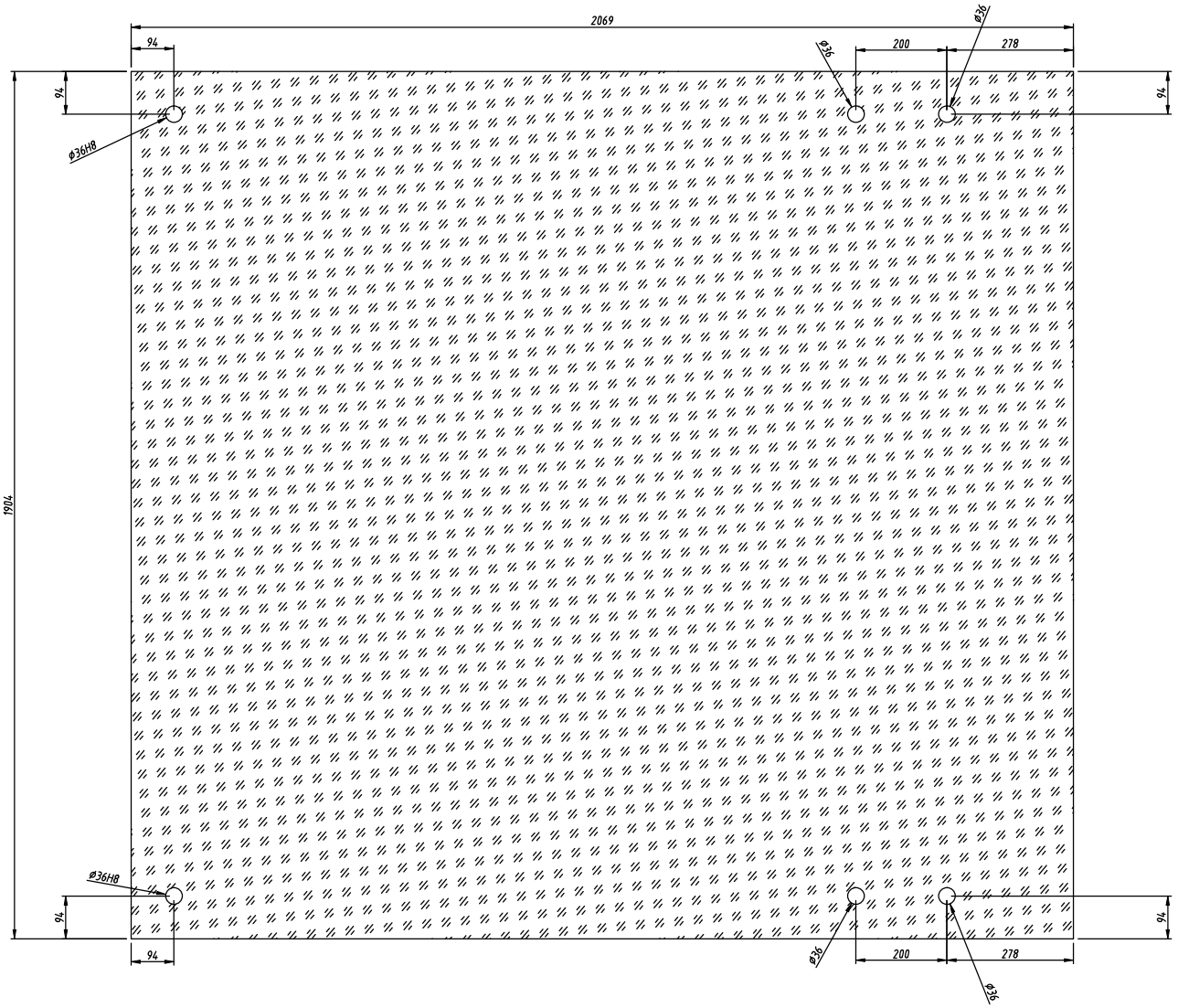
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 2

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-023



12mm Thick Glass

Non Standard Glass Panel Details Sheet 3

Size	Identification Numbers	Side	Total
2069x1904H	63	A	1

1xA, 0xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Fax (02) 9754 1351

Client: AWE, Ingleburn

Drawn By: AA

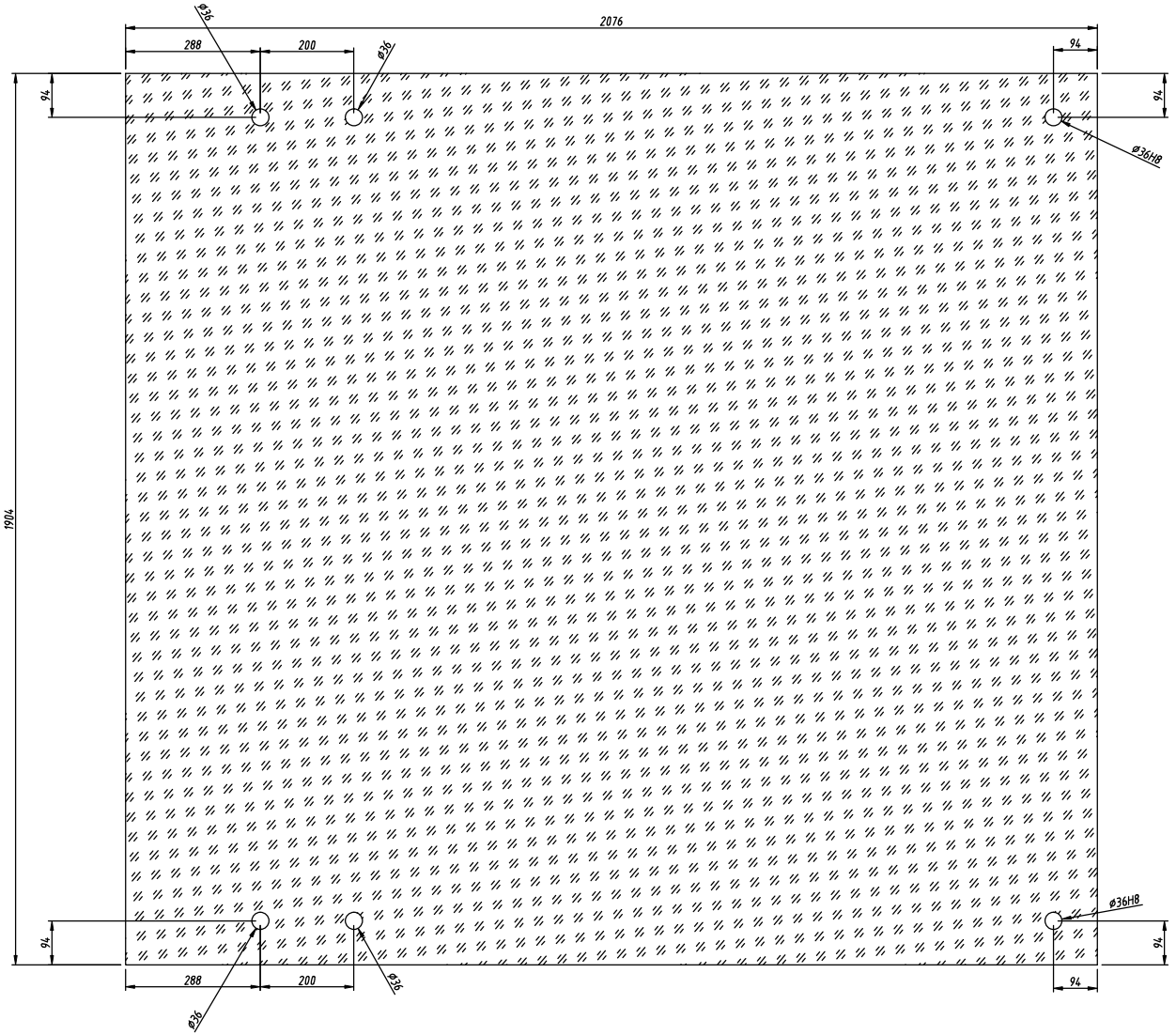
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 3

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-024R1



12mm Thick Glass

Non Standard Glass Panel Details Sheet 4

Size	Identification Numbers	Side	Total
2076x1904H	64	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

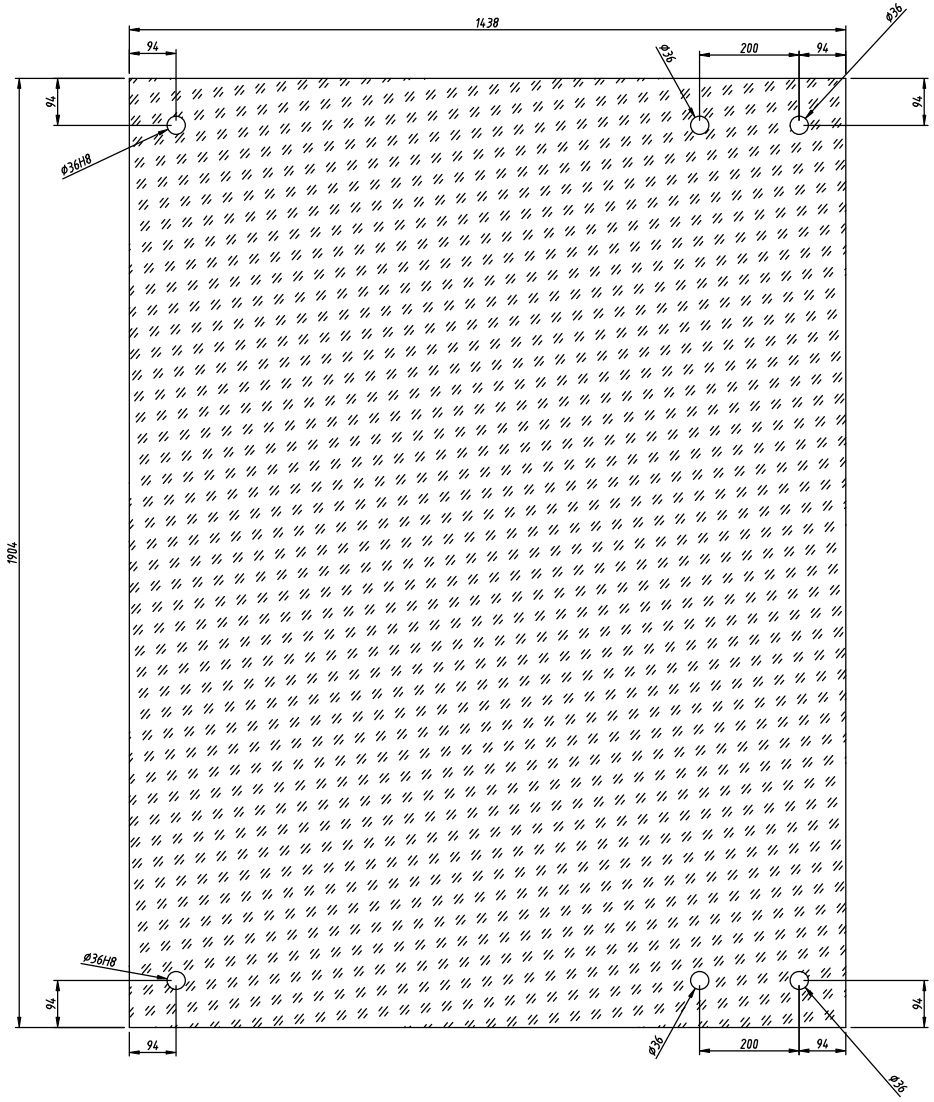
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 4

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-025R1



12mm Thick Glass

Non Standard Glass Panel Details Sheet 5

Size	Identification Numbers	Side	Total
1438x1904H	68	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

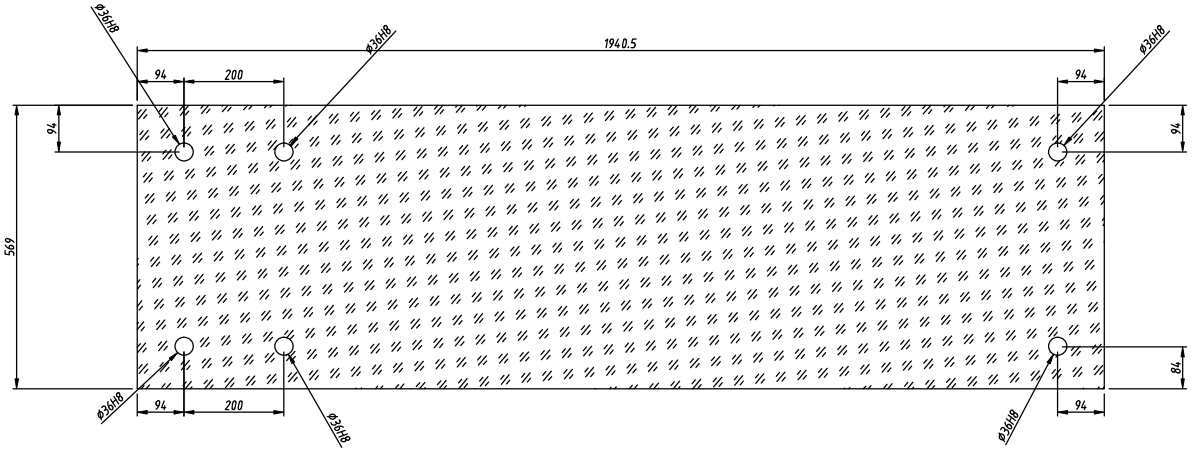
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 5

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-026R1



12mm Thick Glass

Non Standard Glass Panel Details Sheet 6

Size	Identification Numbers	Side	Total
1940.5x569H	2,3	B	2

0xA, 2xB, 2 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Title: Office Windows Non Standard Glass Details Sheet 6

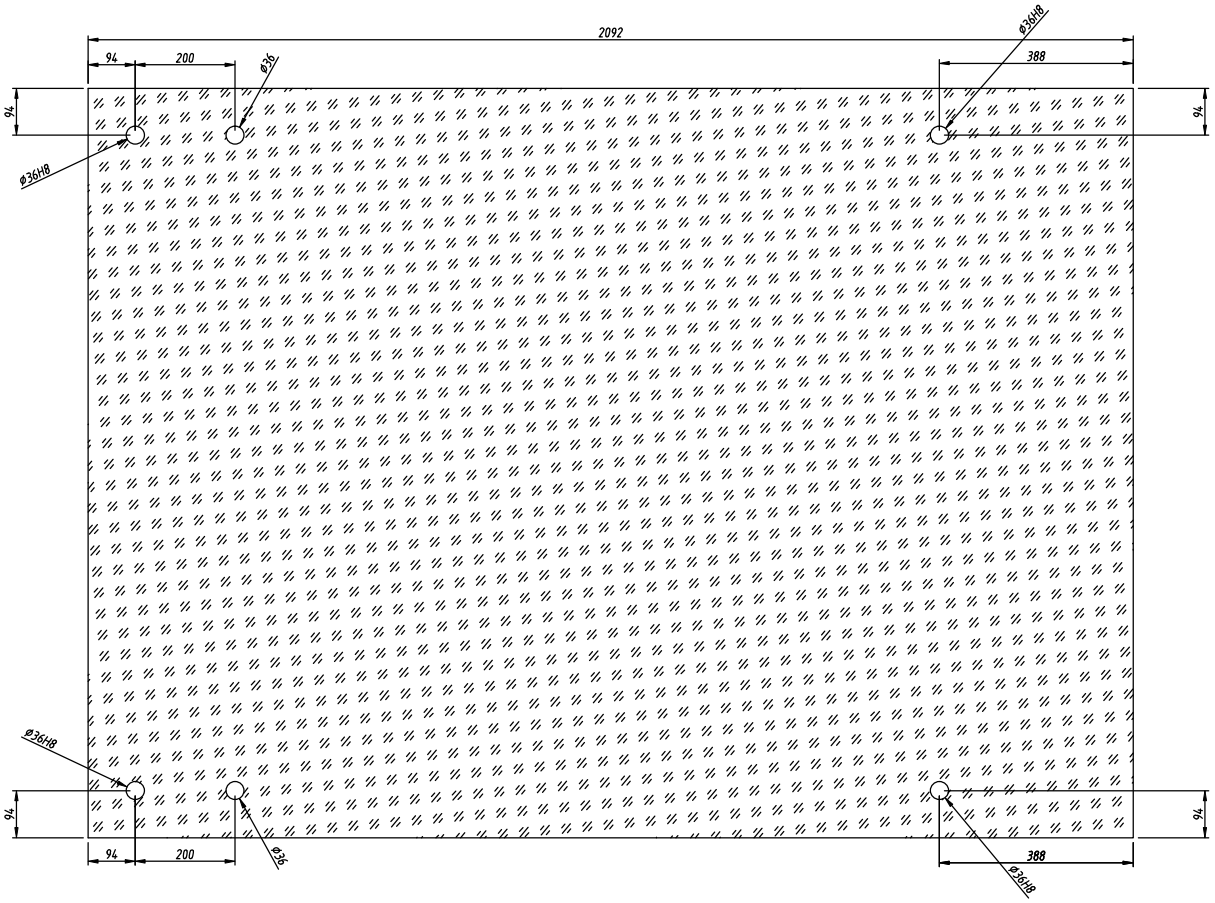
Drawing Number and Revision: 16KerrRoad-027

Drawn By: AA

Checked By:

Scale: 1:5 (A1 Sheet)

Date: 12-08-14



12mm Thick Glass

Non Standard Glass Panel Details Sheet 7

Size	Identification Numbers	Side	Total
2092x1500H	4	A	1

1xA, 0xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Drawn By: AA

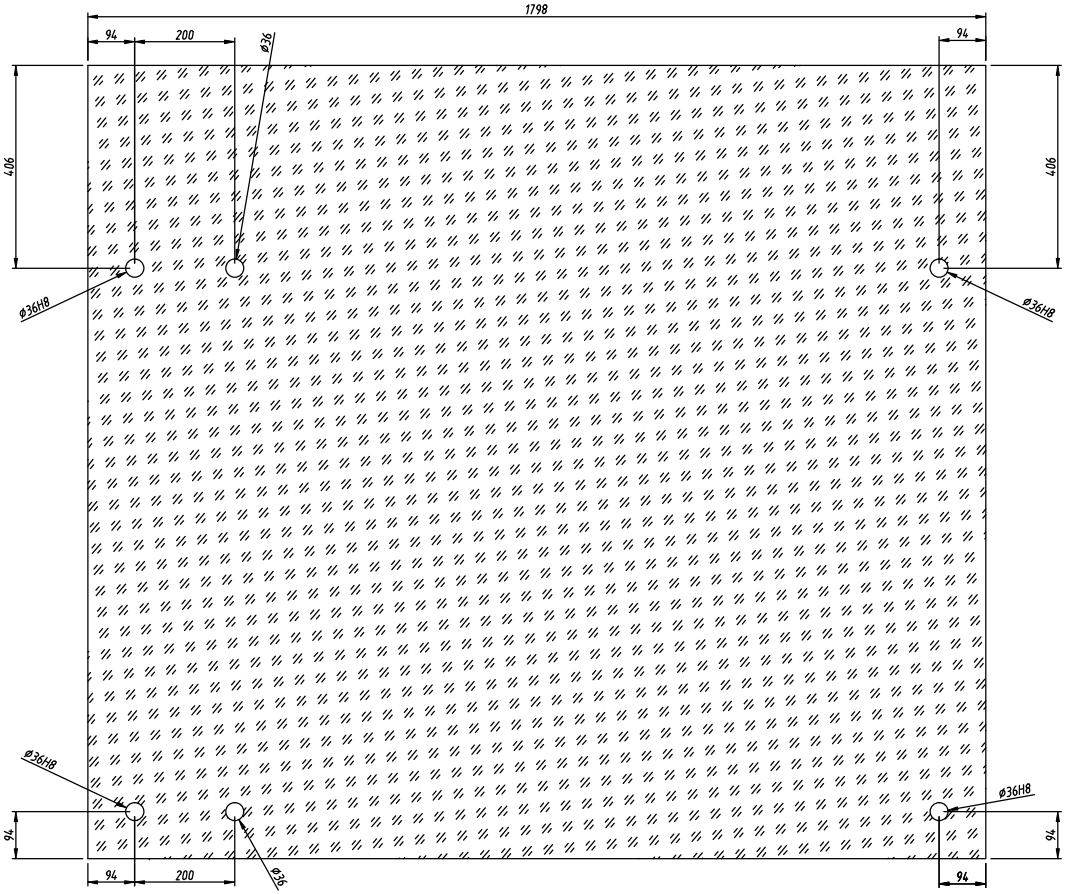
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 7

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-028



12mm Thick Glass

Non Standard Glass Panel Details Sheet 8

Size	Identification Numbers	Side	Total
1798x1588H	86	A	1

1xA, 0xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Drawn By: AA

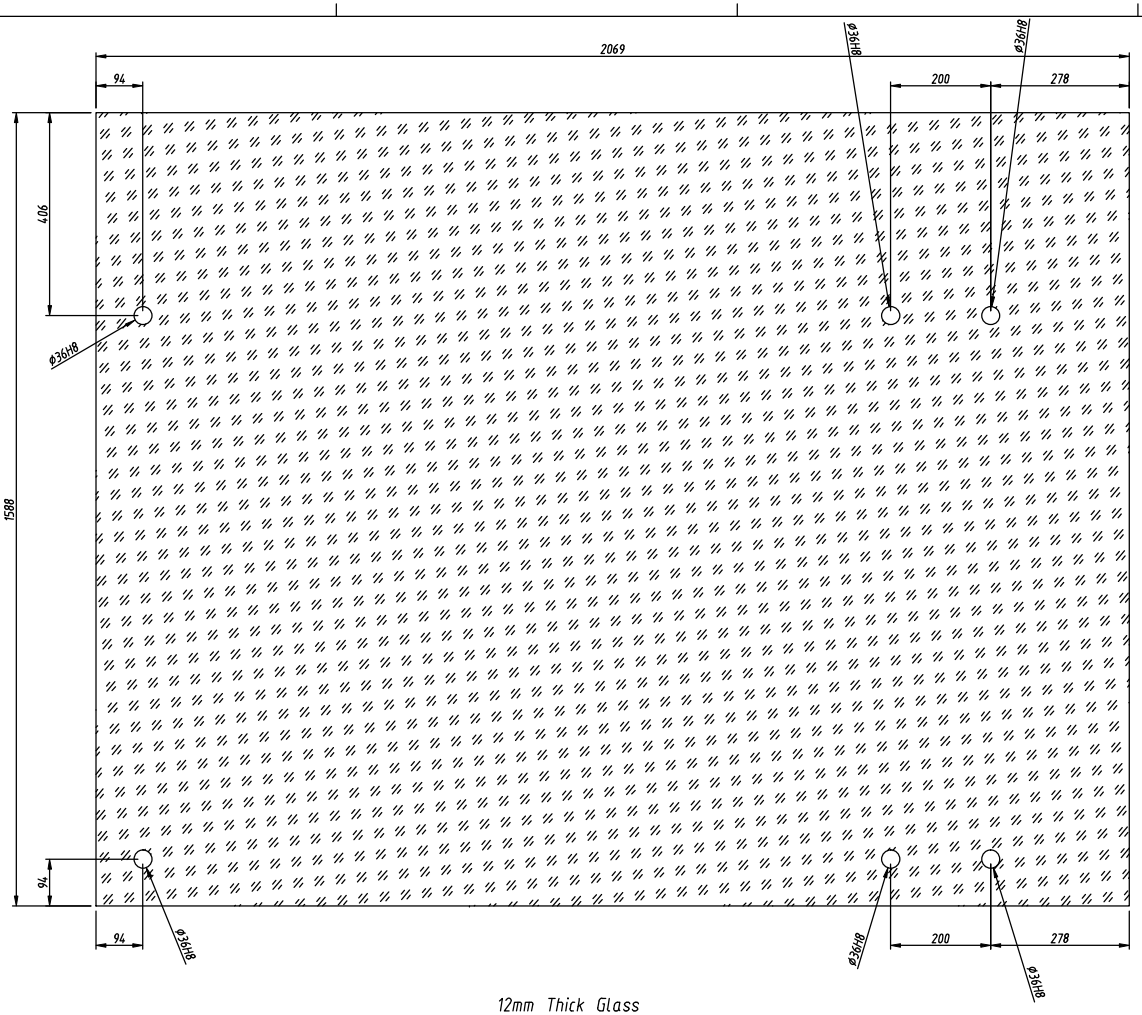
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 8

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-029



12mm Thick Glass

Non Standard Glass Panel Details Sheet 9

Size	Identification Numbers	Side	Total
2069x1588H	97	A	1

1xA, 0xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

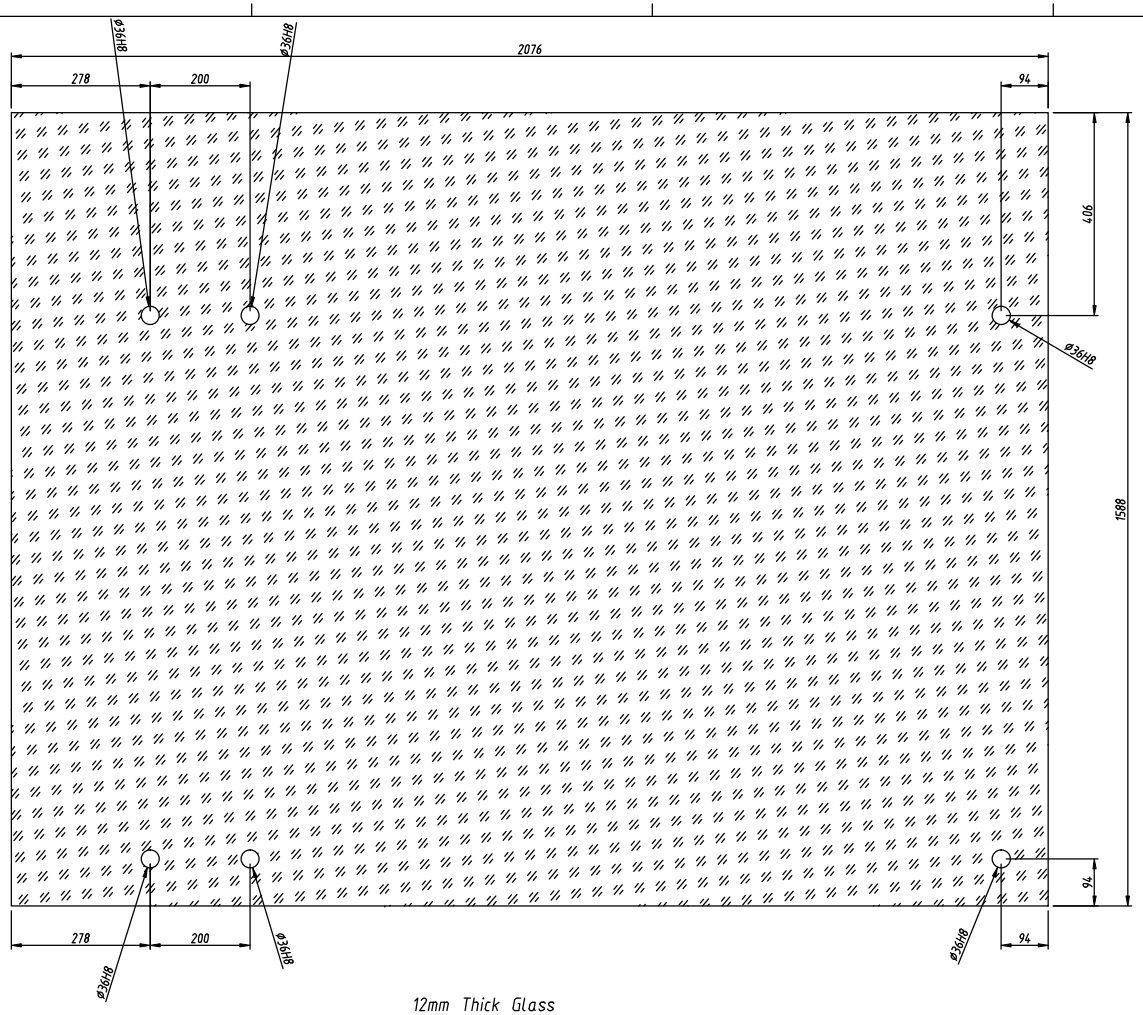
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 9

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-030



12mm Thick Glass

Non Standard Glass Panel Details Sheet 10

Size	Identification Numbers	Side	Total
2076x1588H	98	B	1

0xA, 1xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Drawn By: AA

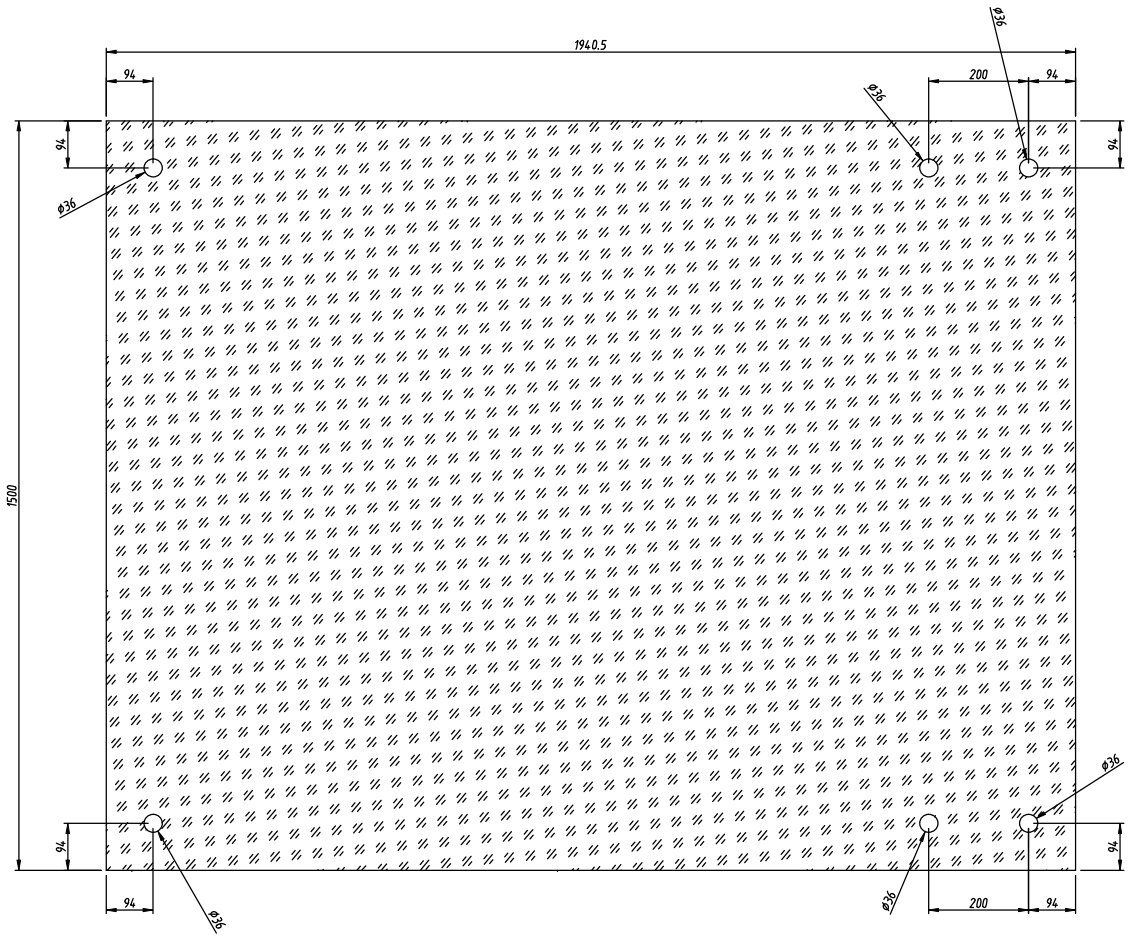
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 10

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-031



12mm Thick Glass

Non Standard Glass Panel Details Sheet 11

Size	Identification Numbers	Side	Total
1940.5x1500H	17	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

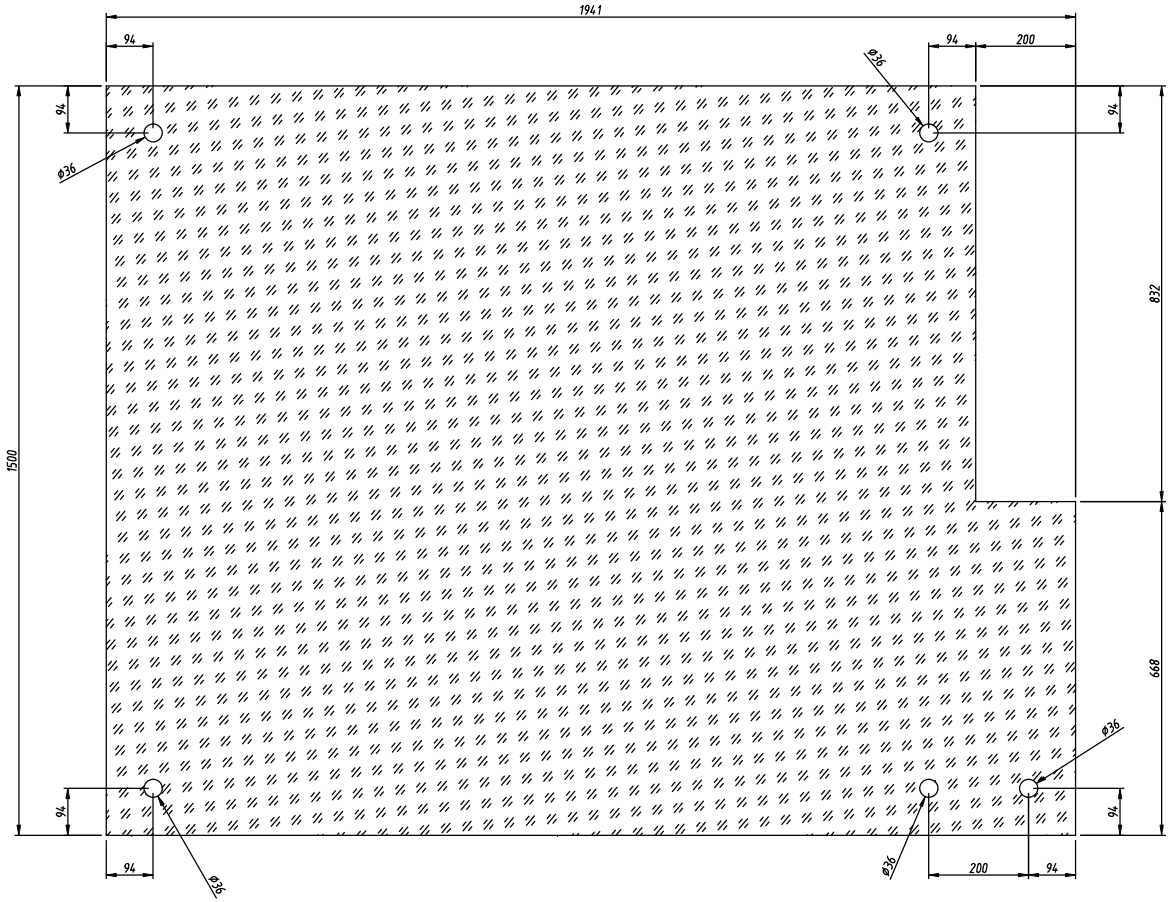
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 11

Scale: 1:5 (A1 Sheet)

Date: 12-08-14.

Drawing Number and Revision: 16KerrRoad-032



12mm Thick Glass

Non Standard Glass Panel Details Sheet 12

Size	Identification Numbers	Side	Total
1940.5x1500H	32	B	1

0xA, 1xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Drawn By: AA

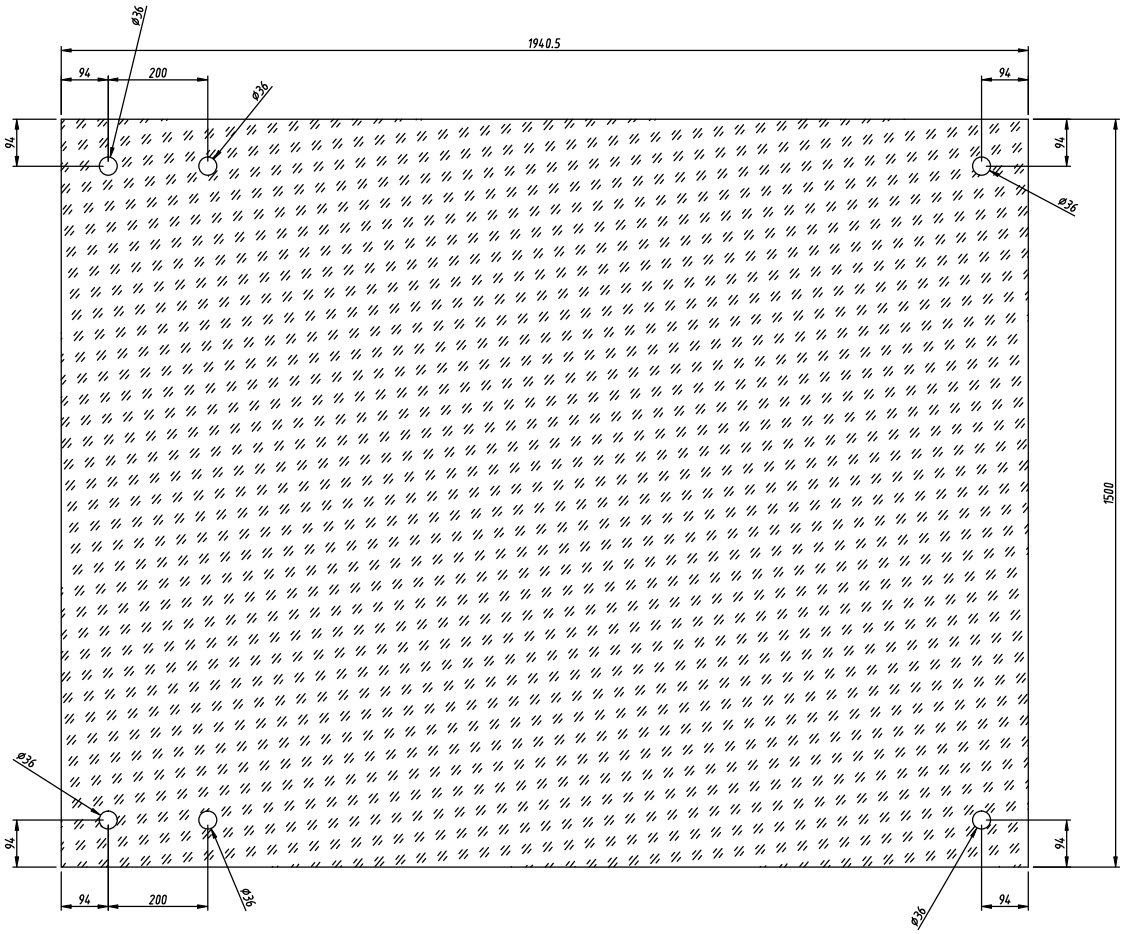
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 12

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-033



12mm Thick Glass

Non Standard Glass Panel Details Sheet 13

Size	Identification Numbers	Side	Total
1940.5x1500H	16	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

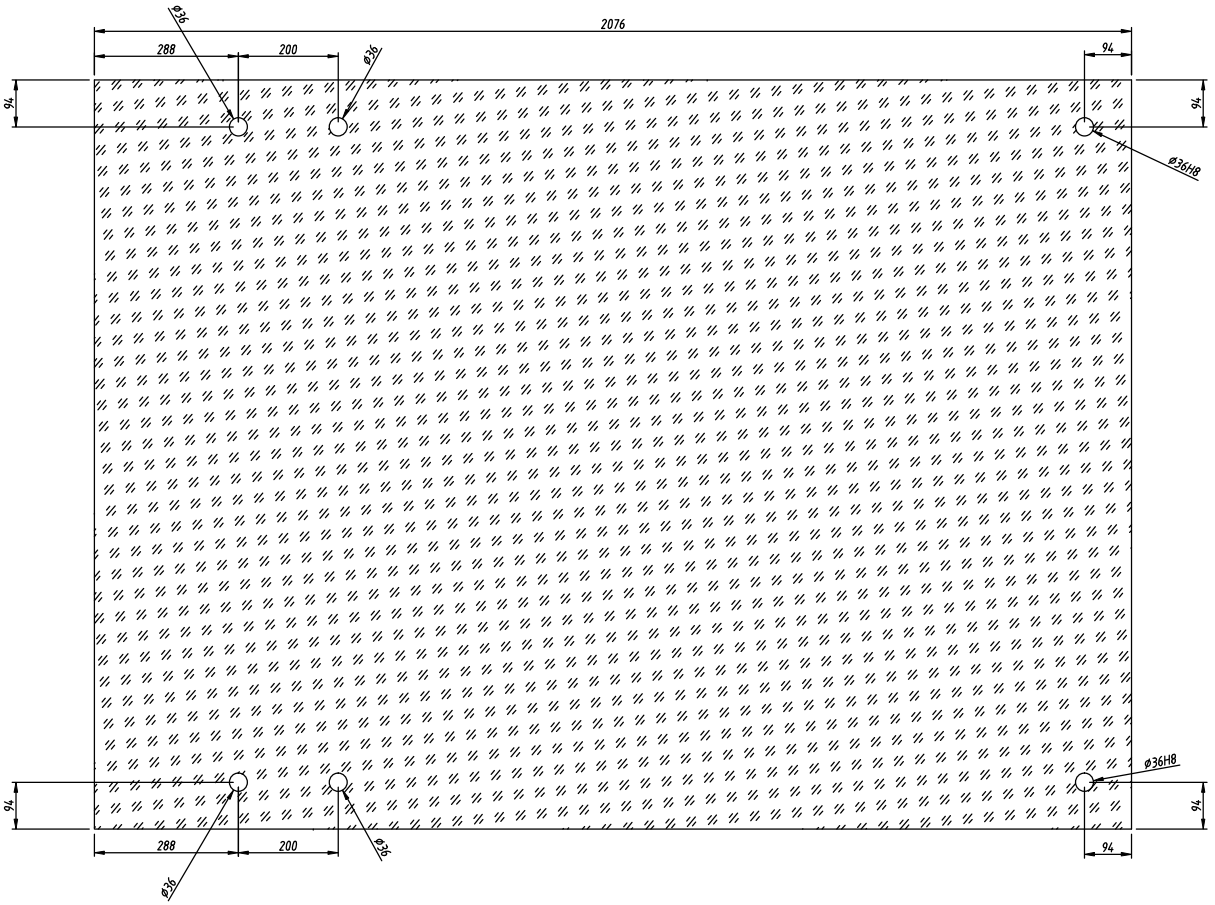
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 13

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-034



12mm Thick Glass

Non Standard Glass Panel Details Sheet 14

Size	Identification Numbers	Side	Total
2076x1500H	30	B	1

0xA, 1xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Drawn By: AA

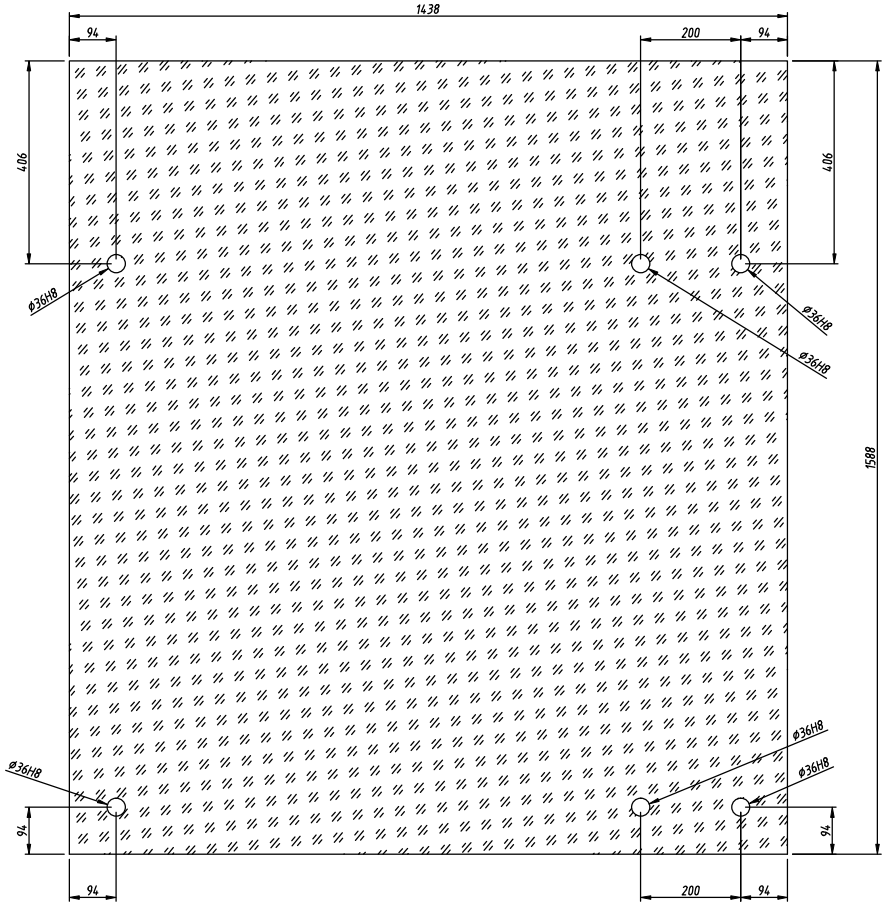
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 14

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-035



12mm Thick Glass

Non Standard Glass Panel Details Sheet 15

Size	Identification Numbers	Side	Total
1438x1588H	102	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Drawn By: AA

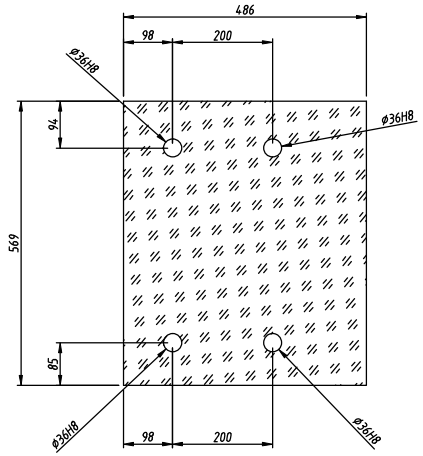
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 15

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-036



12mm Thick Glass

Non Standard Glass Panel Details Sheet 16

Size	Identification Numbers	Side	Total
486x569OH	1	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

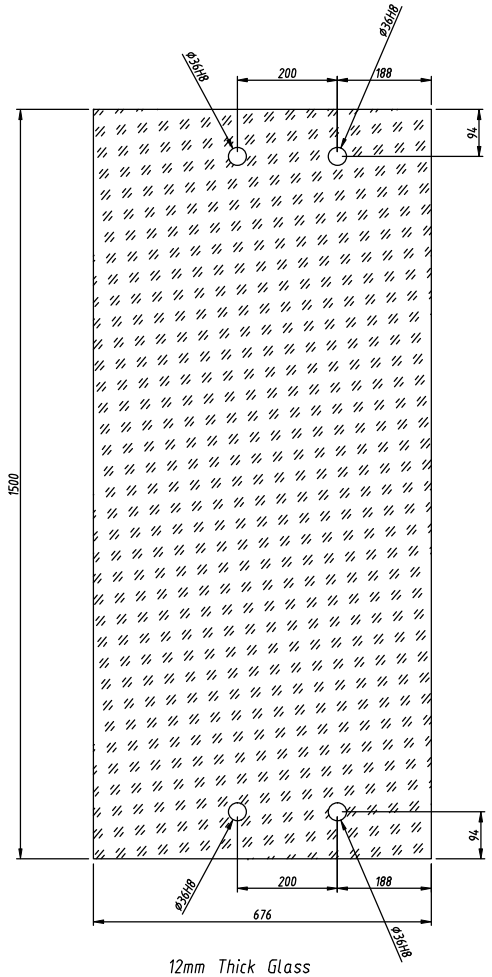
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 16

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-037



12mm Thick Glass

Non Standard Glass Panel Details Sheet 17

Size	Identification Numbers	Side	Total
676x1500H	15	B	1

0xA, 1xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

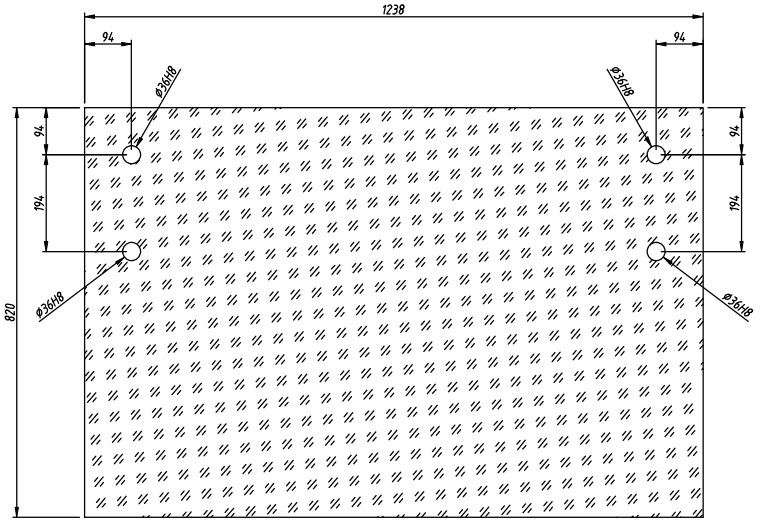
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 17

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-038



12mm Thick Glass

Non Standard Glass Panel Details Sheet 18

Size	Identification Numbers	Side	Total
1238x820H	33	B	1

0xA, 1xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Drawn By: AA

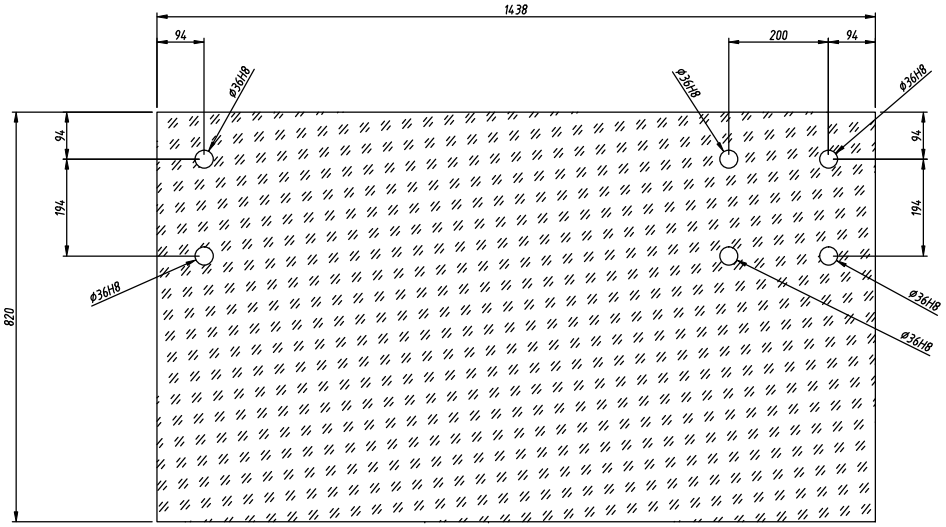
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 18

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-039



12mm Thick Glass

Non Standard Glass Panel Details Sheet 19

Size	Identification Numbers	Side	Total
1438x820H	34	B	1

0xA, 1xB, 1 total (of 102)

Items Listing					Amendments or Issues				
Ref.	Qnt.	Description	Material	Remarks	Revision	Amendment	Date	By	Appr
					R0	As Originally Drawn	NA	NA	NA
					R1				
					R2				
					R3				
					R5				
					R6				
					R7				
					R8				

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Client: AWE, Ingleburn

Title: Office Windows Non Standard Glass Details Sheet 19

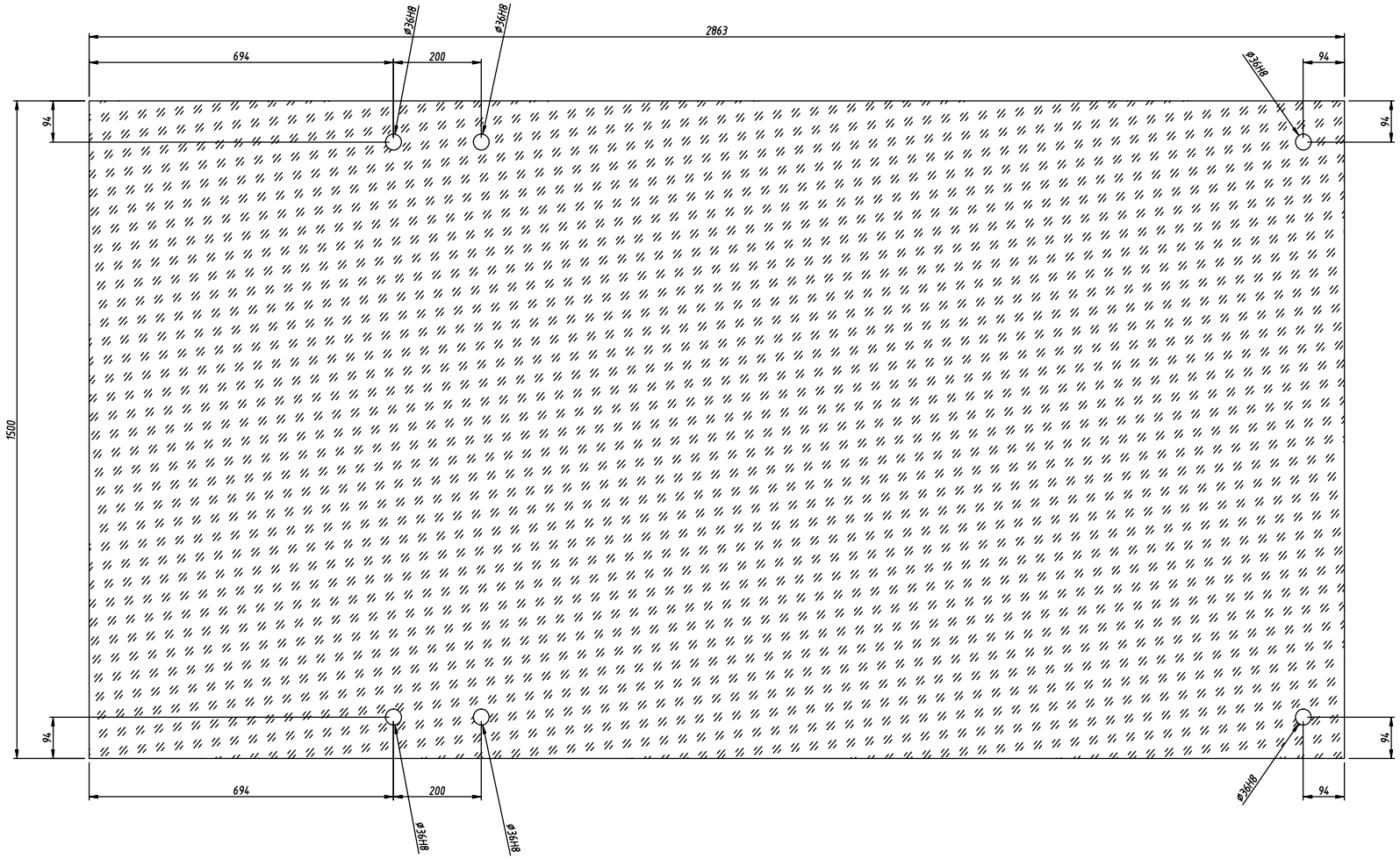
Drawing Number and Revision: 16KerrRoad-040

Drawn By: AA

Checked By:

Scale: 1:5 (A1 Sheet)

Date: 12-08-14



12mm Thick Glass

Non Standard Glass Panel Details Sheet 20

Size	Identification Numbers	Side	Total
2863x1500H	5	A	1

1xA, 0xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Drawn By: AA

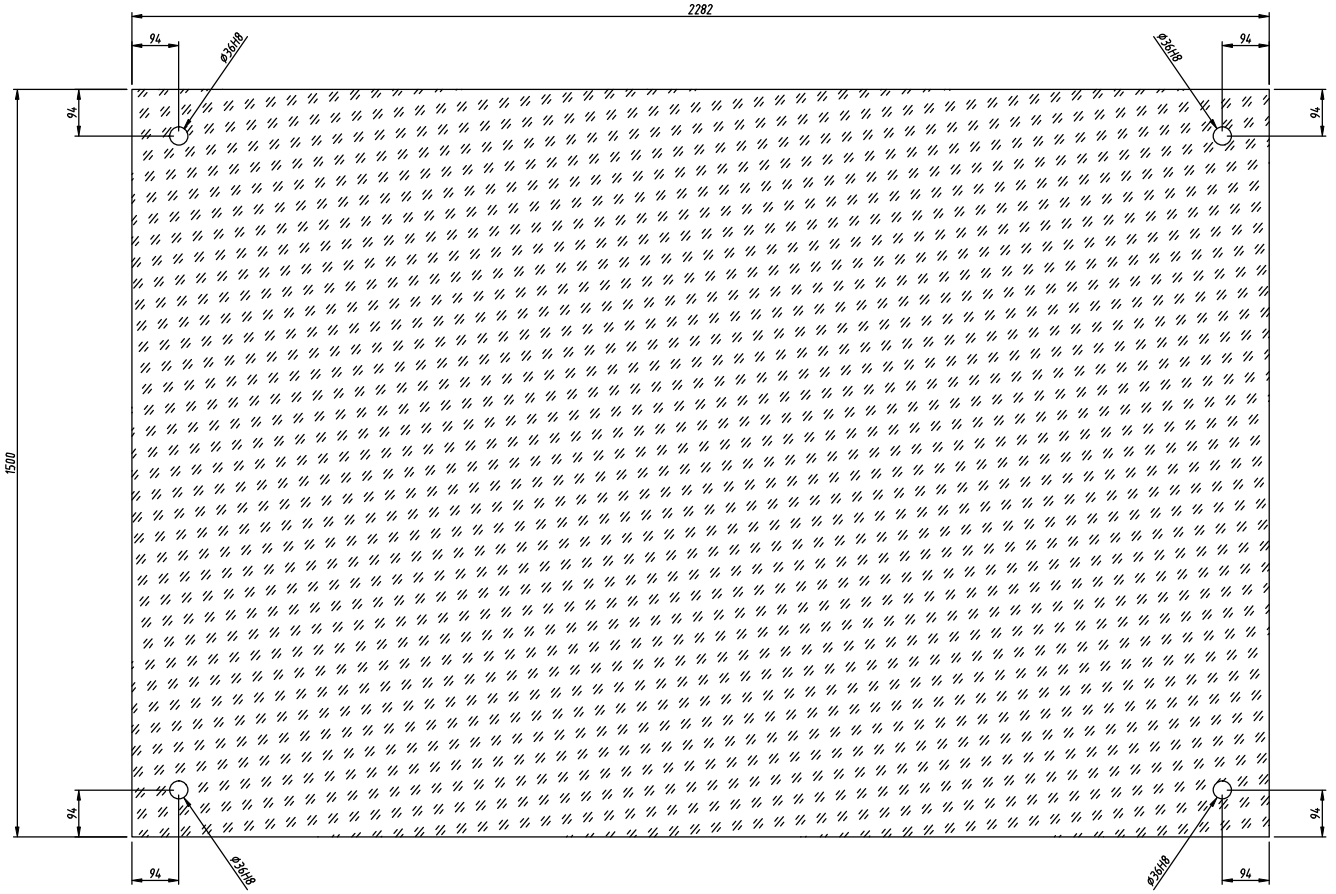
Checked By:

Title: Office Windows Non Standard Glass Details Sheet 20

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-041



12mm Thick Glass

Non Standard Glass Panel Details Sheet 21

Size	Identification Numbers	Side	Total
2282x1500H	19	A	1

1xA, 0xB, 1 total (of 102)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Title: Office Windows Non Standard Glass Details Sheet 21

Drawing Number and Revision: 16KerrRoad-042

Drawn By: AA

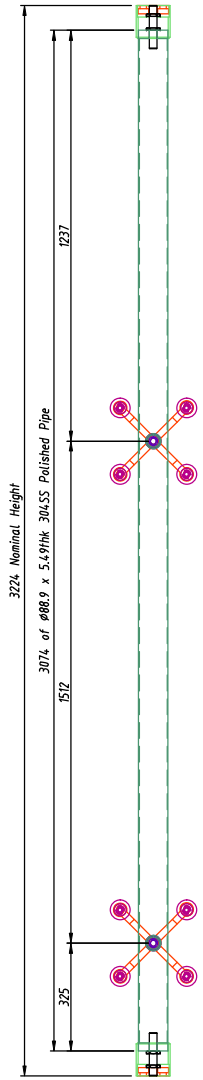
Checked By:

Scale: 1:5 (A1 Sheet)

Date: 12-08-14

3

Pipe Support 3
11-required
Material: See Details



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: *AWE, Ingleburn*

Title: *Office Window Pipe Support Arrangements*

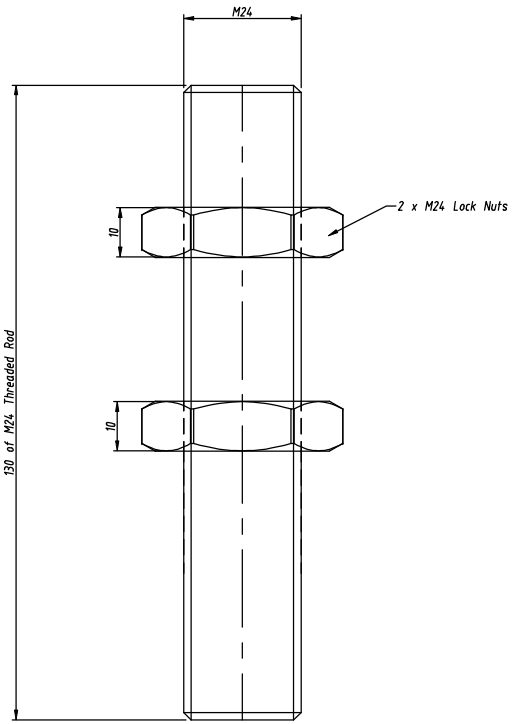
Drawing Number and Revision: *16KerrRoad-043R1*

Drawn By: *AA*

Checked By:

Scale: *1:7.5 (A1 Sheet)*

Date: *12-08-14*



Office Window Pipe Support Post Rod Details
62-required (2 per post)
Material: MS

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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Client: AWE, Ingleburn

Title: Office Window Pipe Support Post Rod Details

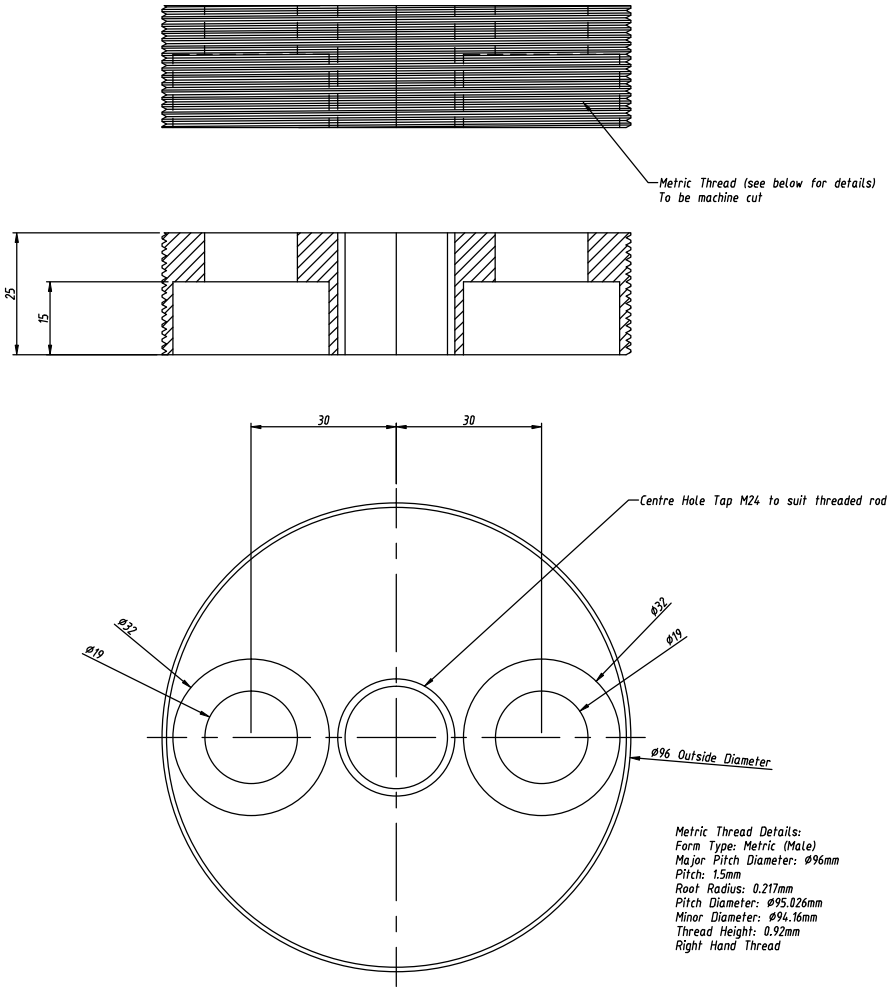
Drawing Number and Revision: 16KerrRoad-044

Drawn By: AA

Checked By:

Scale: 1:0.5 (A1 Sheet)

Date: 18-08-14



Metric Thread Details:
Form Type: Metric (Male)
Major Pitch Diameter: Ø96mm
Pitch: 1.5mm
Root Radius: 0.217mm
Pitch Diameter: Ø95.026mm
Minor Diameter: Ø94.16mm
Thread Height: 0.92mm
Right Hand Thread

Secure to wall / ceiling with
2 x M12 Dynabolts each base plate
(Dynabolt length to be determined by installer)

Office Window Pipe Support Post Base Details
62-required (2 per post)
Material: MS

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

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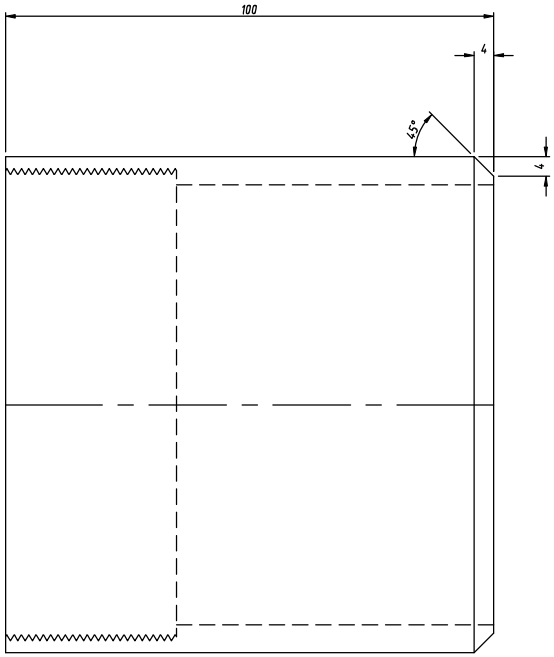
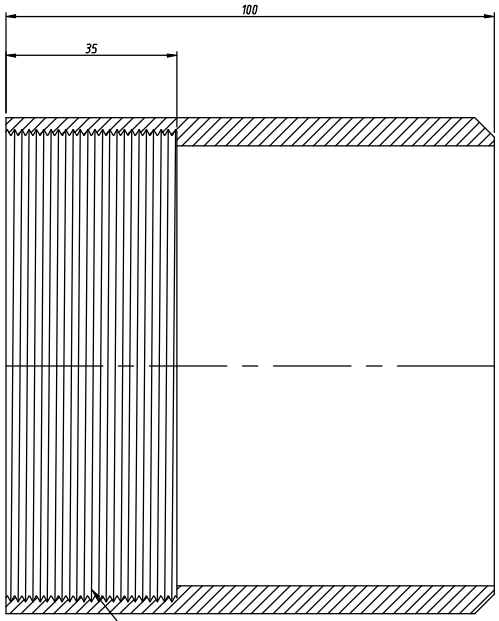
Client: AWE, Ingleburn

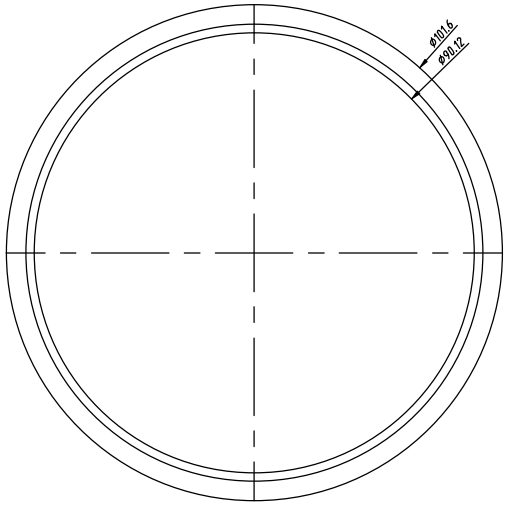
Title: Office Window Pipe Support Post Base Details

Drawing Number and Revision: 16KerrRoad-045

Drawn By: AA
Checked By:
Scale: 1:0.5 (A1 Sheet)
Date: 18-08-14







Metric Thread Details:
Form Type: Metric (Female)
Major Pitch Diameter: Ø96mm
Pitch: 1.5mm
Root Radius: 0.217mm
Pitch Diameter: Ø95.026mm
Minor Diameter: Ø94.376mm
Thread Height: 0.812mm
Right Hand Thread

Office Window Pipe Support Post Cover Details
62-required (2 per post)
Material: Polished 304SS (Ø101.6 x 5.74thk pipe)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn

Title: Office Window Pipe Support Post Cover Details

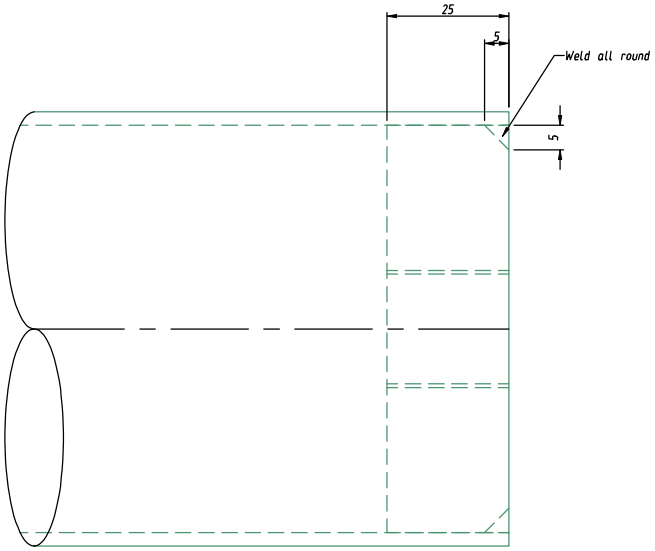
Drawing Number and Revision: 16KerrRoad-046

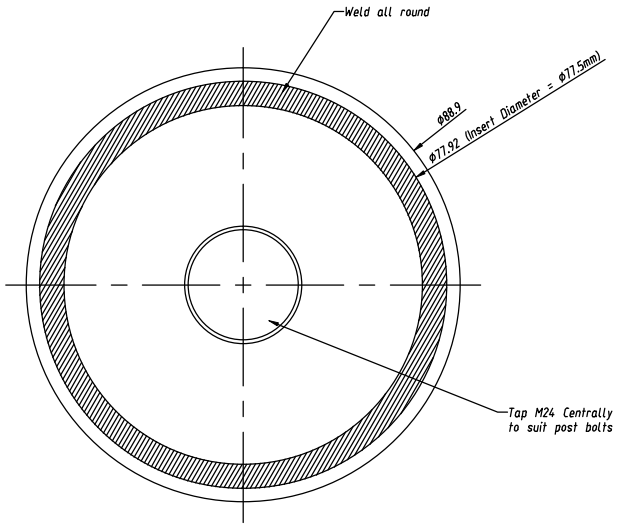
Drawn By: AA

Checked By:

Scale: 1:0.5 (A1 Sheet)

Date: 18-08-14





Office Window Pipe Support Post End Details
62-required (2 per post, 31 posts total)
Material: Insert: Mild Steel
Material: Pipe: Polished 304SS (Ø88.9 x 5.49thk pipe)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn

Drawn By: AA

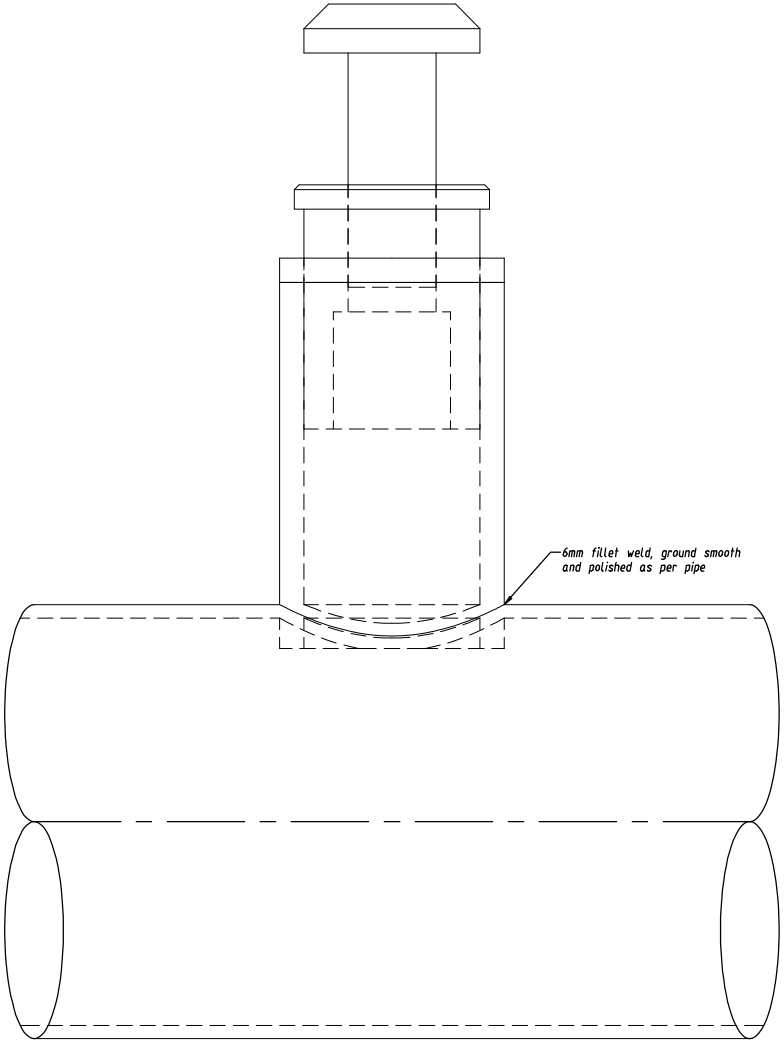
Checked By:

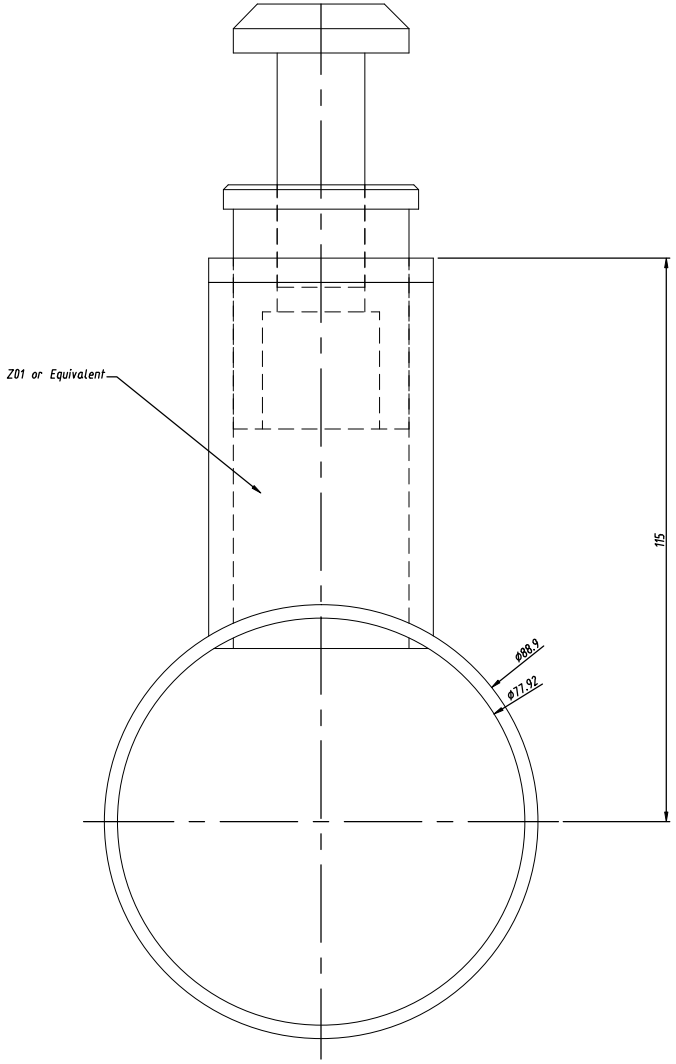
Title: Office Window Pipe Support Post End Details

Scale: 1:0.5 (A1 Sheet)

Date: 18-08-14

Drawing Number and Revision: 16KerrRoad-047





Office Window Pipe Support Post Spider Socket Details
76-required (See drawing 043 for positions)
Material: Z01 or Equivalent: 304SS
Material: Pipe: Polished 304SS (ø88.9 x 5.49thk pipe)

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

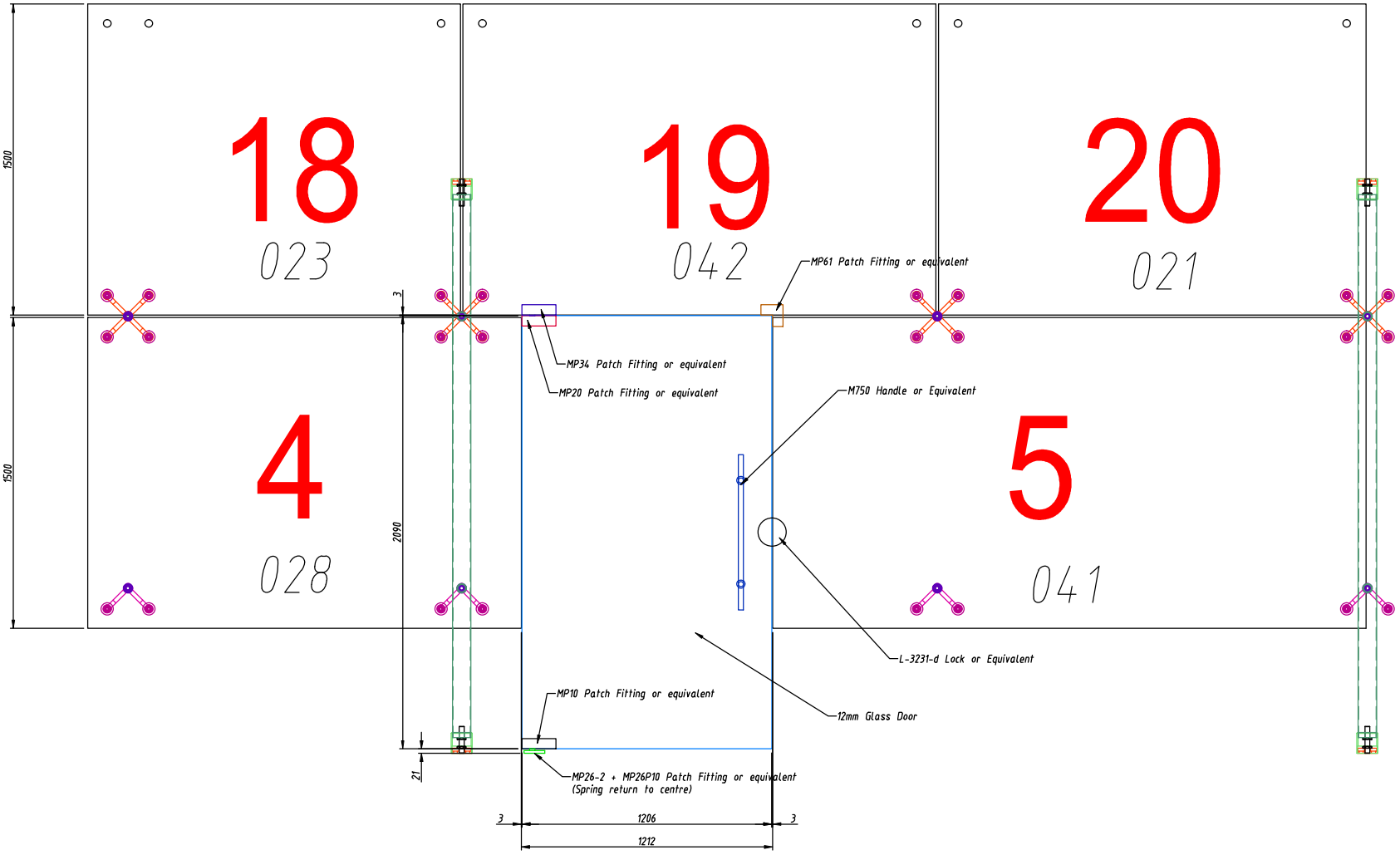
Client: AWE, Ingleburn

Drawn By: AA
Checked By:

Title: Office Window Pipe Support Post End Details

Scale: 1:0.5 (A1 Sheet)
Date: 18-08-14

Drawing Number and Revision: 16KerrRoad-048



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn

Drawn By: AA

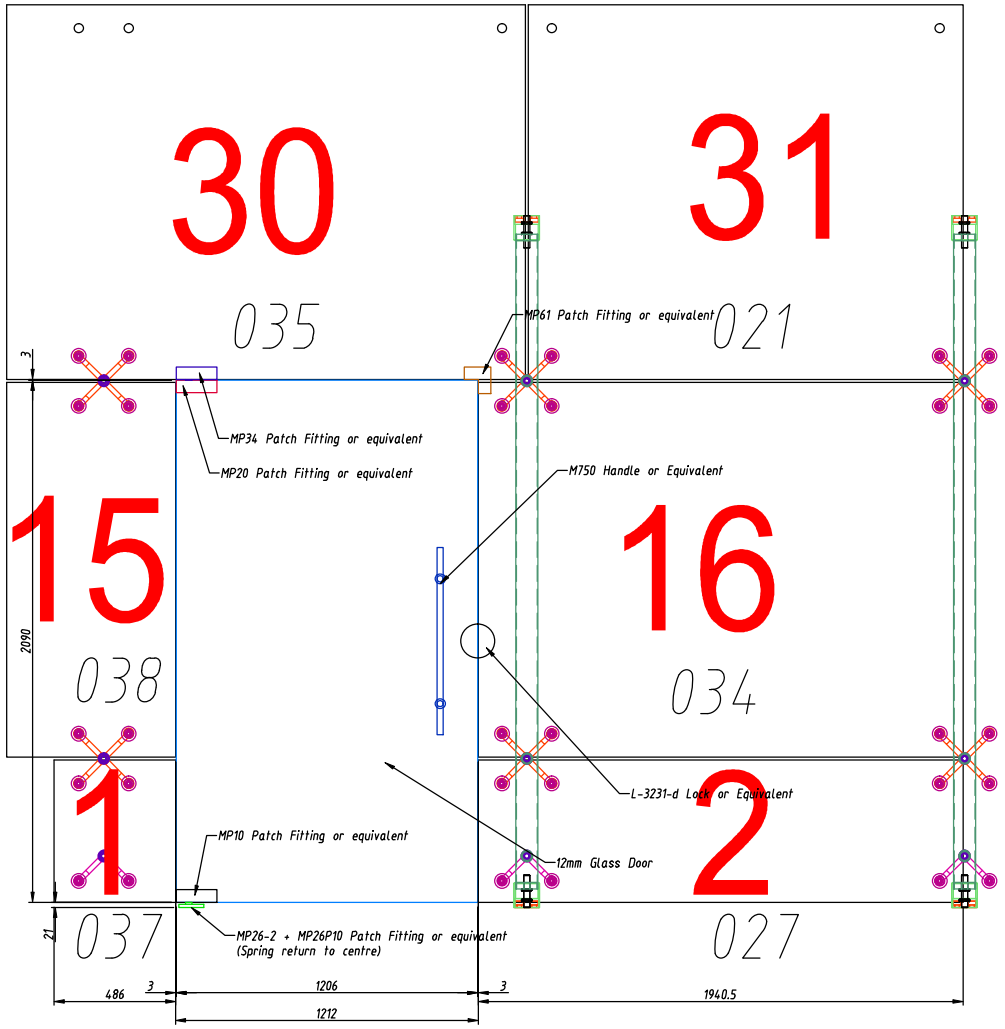
Checked By:

Title: Office Door Requirements Door 1

Scale: 1:10 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-049



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn

Drawn By: AA

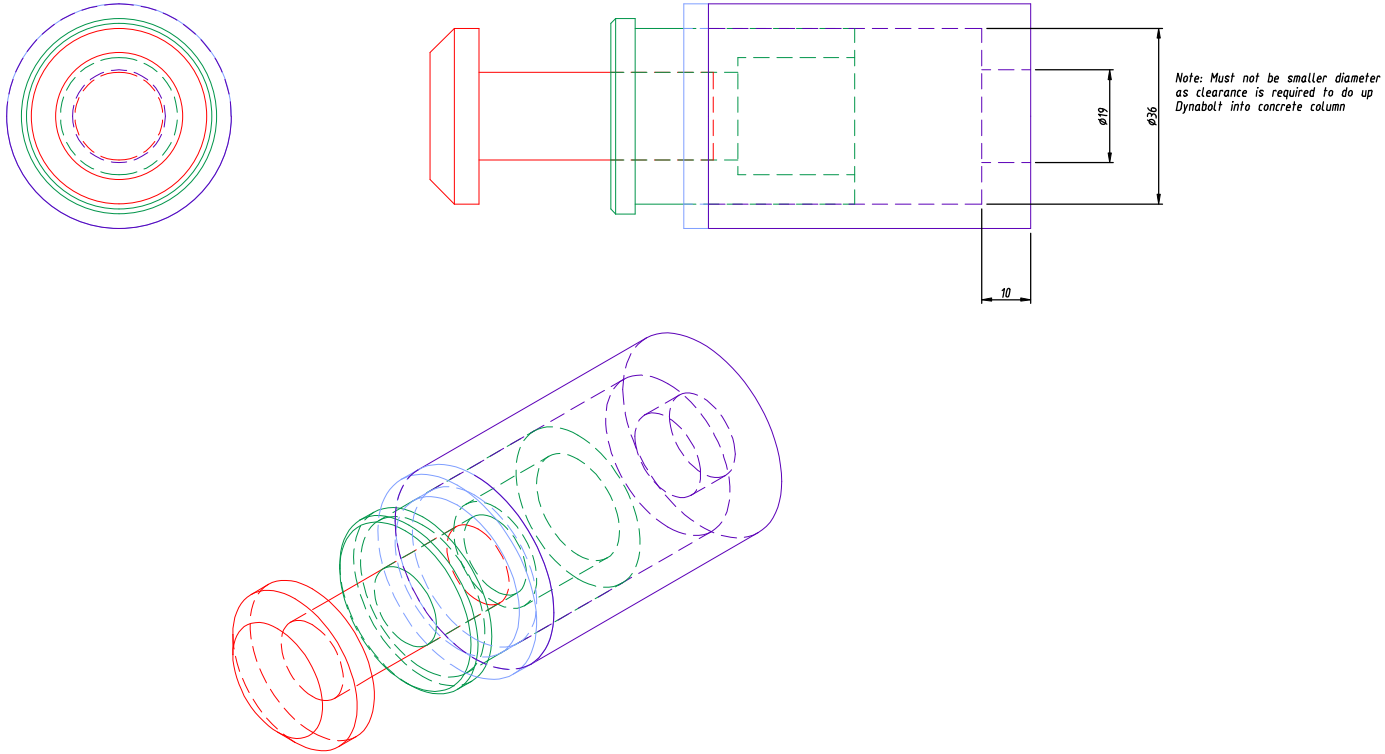
Checked By:

Title: Office Door Requirements Door 2

Scale: 1:10 (A1 Sheet)

Date: 12-08-14

Drawing Number and Revision: 16KerrRoad-050



Note: Must not be smaller diameter as clearance is required to do up Dynabolt into concrete column

Component Z01 Modifications
57-required (Supply 70)
Material: 304 SS Polished

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

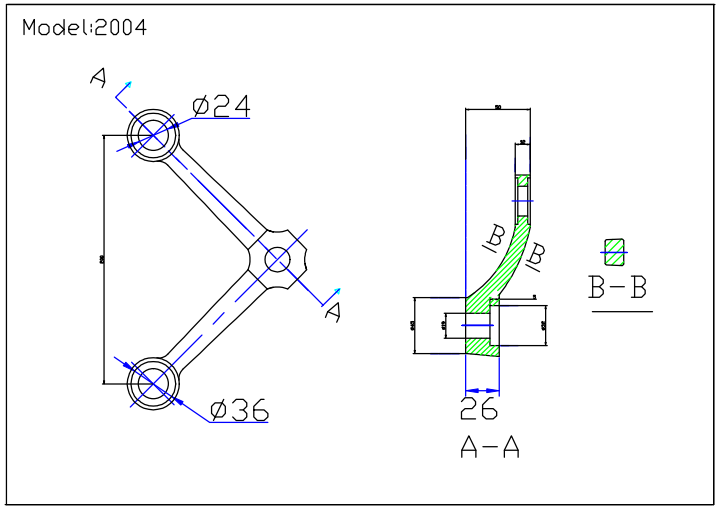
AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn

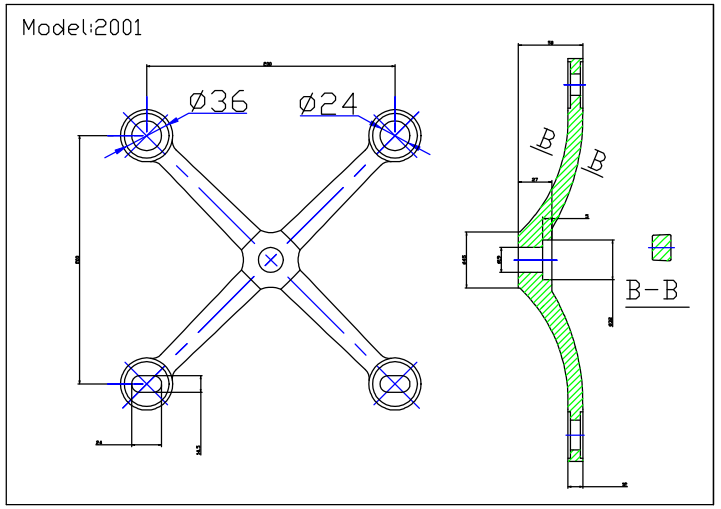
Title: Component Z01 Modifications

Drawing Number and Revision: 16KerrRoad-051

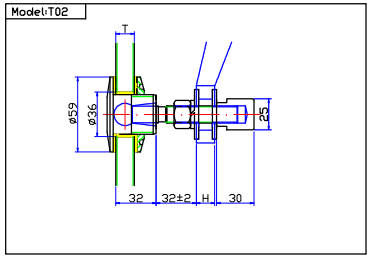
Drawn By: AA
Checked By:
Scale: 1:0.5 (A1 Sheet)
Date: 18-08-14



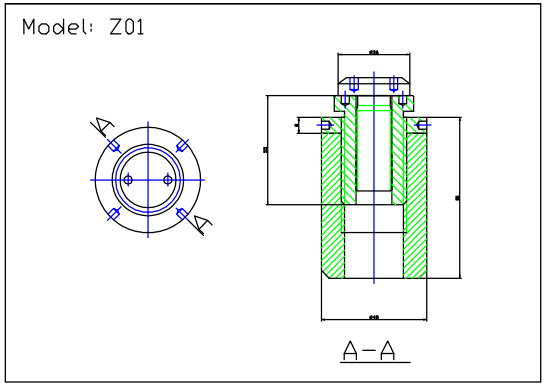
39 required, Supply 45



97 required, Supply 110



Supply 530



See 051 for modification details and numbers (for columns)
See 044 for numbers (for attachment to posts)

Component Requirements
See above for numbers
Material: 304SS Polished

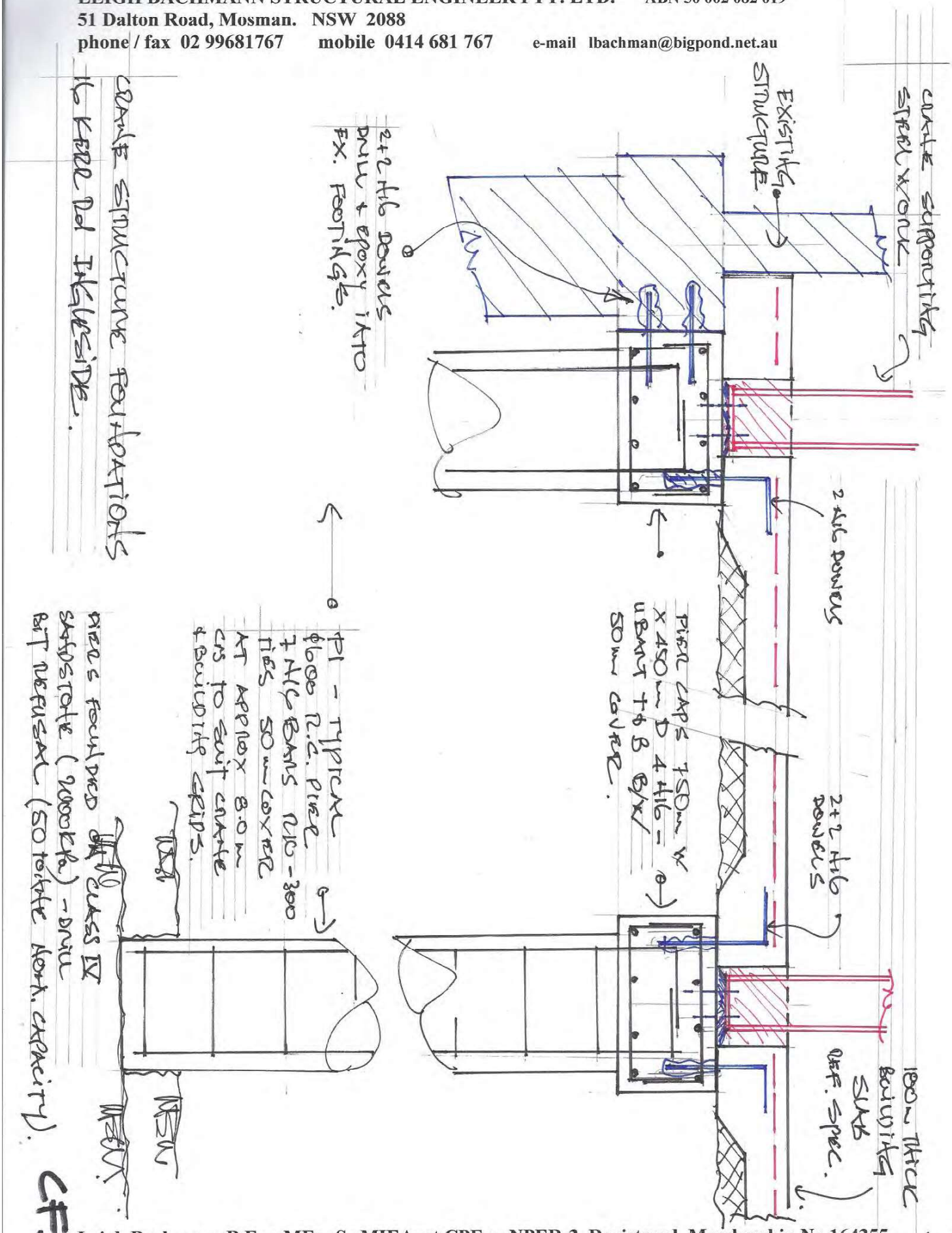
Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

AWE Group Pty. Ltd.
A.C.N. 002 940 301
50 Mandarin St
East Fairfield N.S.W. 2165
P.O. Box 95
Fivedock N.S.W. 2046
Ph (02) 8717 3333
Fax (02) 9754 1351

Client: AWE, Ingleburn	Drawn By: AA
	Checked By:
Title: Component Requirements	Scale: 1:2 (A1 Sheet)
	Date: 18-08-14
Drawing Number and Revision: 16KerrRoad-052	

LEIGH BACHMANN STRUCTURAL ENGINEER PTY. LTD. ABN 50 002 082 019
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au



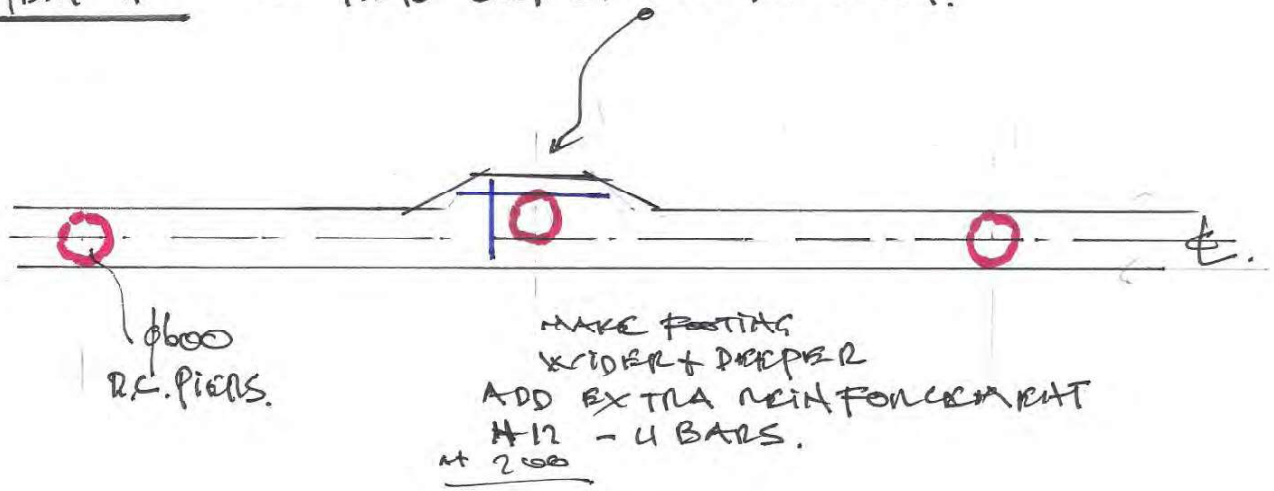
Leigh Bachmann B Eng MEngSc MIEAust CPEng NPER-3 Registered, Membership No 164355

01/04/14

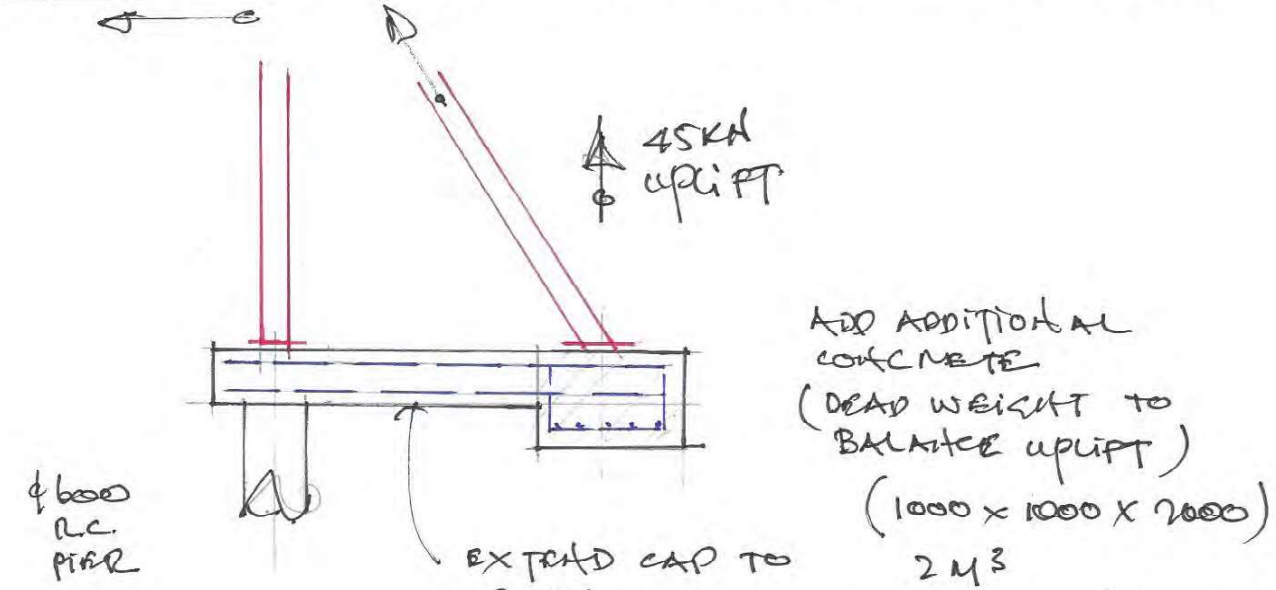
LEIGH BACHMANN STRUCTURAL ENGINEER PTY. LTD. **ABN 50 002 082 019**
51 Dalton Road, Mosman. NSW 2088
phone / fax 02 99681767 mobile 0414 681 767 e-mail lbachman@bigpond.net.au

16 KERR ROAD WILLOUGHBY 04/06/14.

ITEM 1 – PIER OUT OF ALIGNMENT.

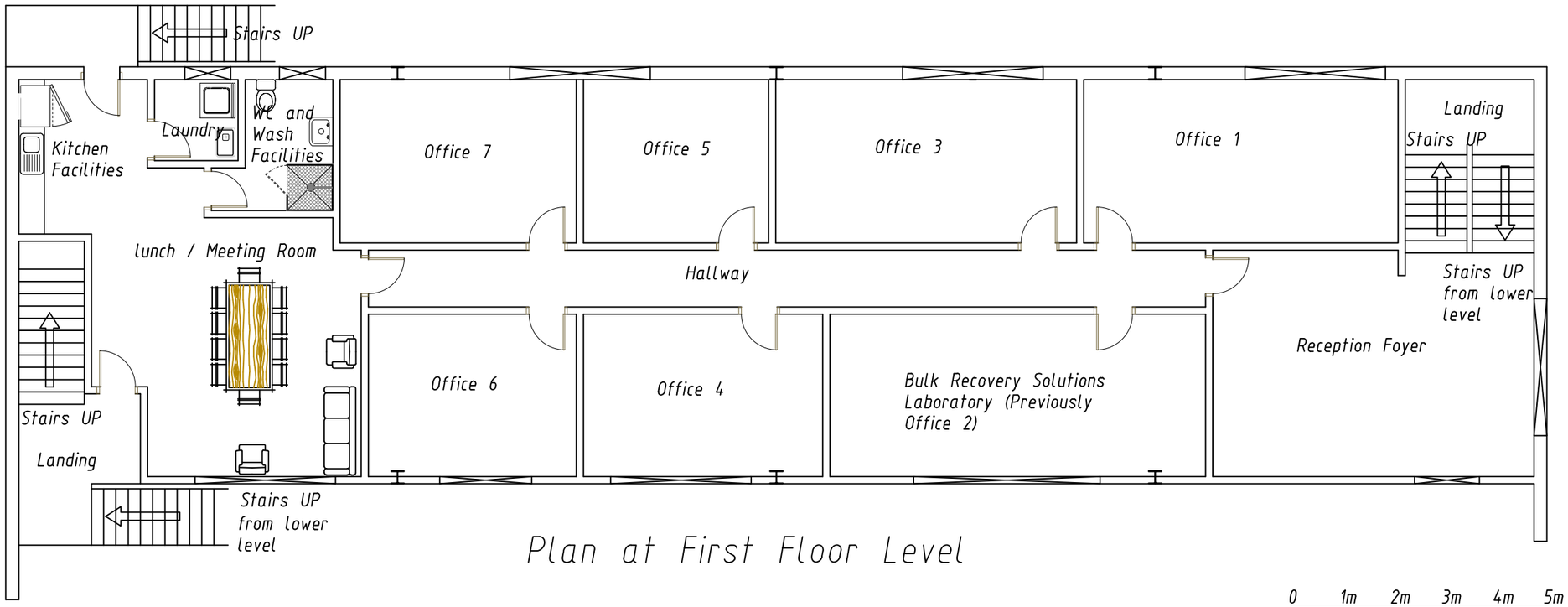


ITEM 2 – EXTENDED FOOTING FOR CRANE-BRACING.



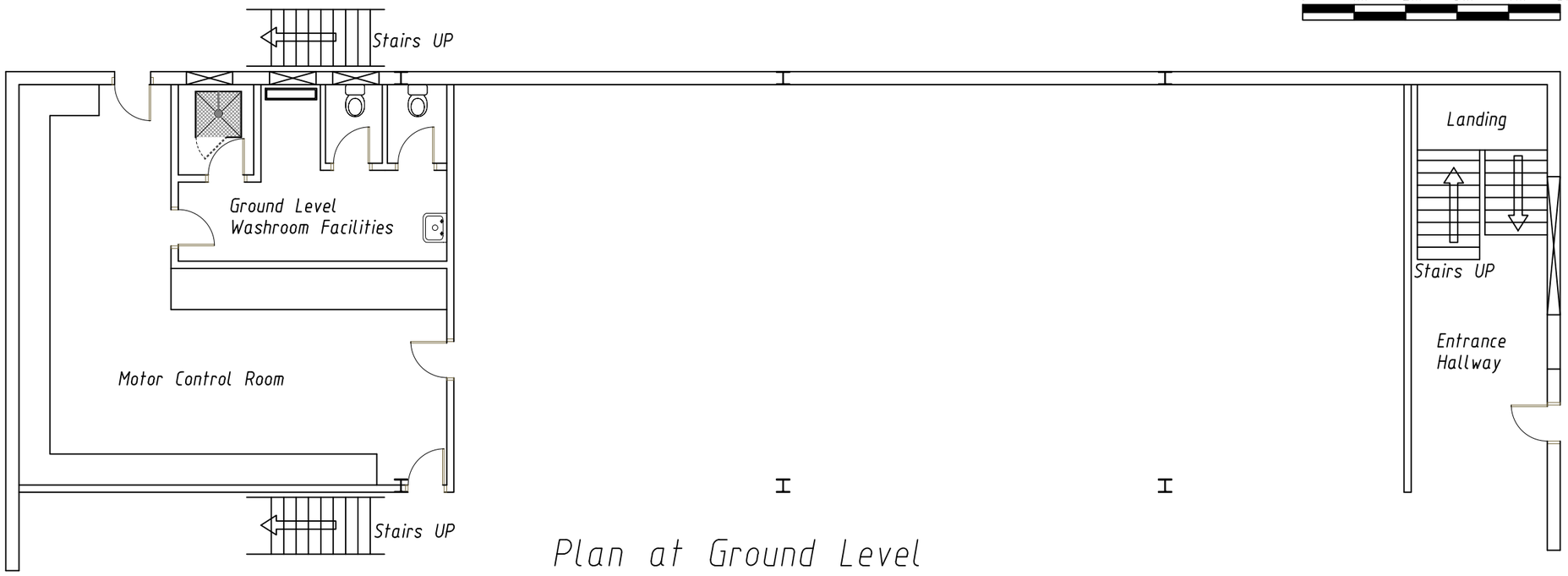
L.C.Bach 04/06/14.

Leigh Bachmann B Eng MEngSc MIEAust CPEng NPER-3 Registered, Membership No 164355



Plan at First Floor Level

0 1m 2m 3m 4m 5m



Plan at Ground Level

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By TB

Checked By

Title: Laboratory Plans

Scale

Date: 09-01-21

Drawing Number and Revision: BRS-Site-008

Attachment 4: Revised Waste Tipping Flow Charts

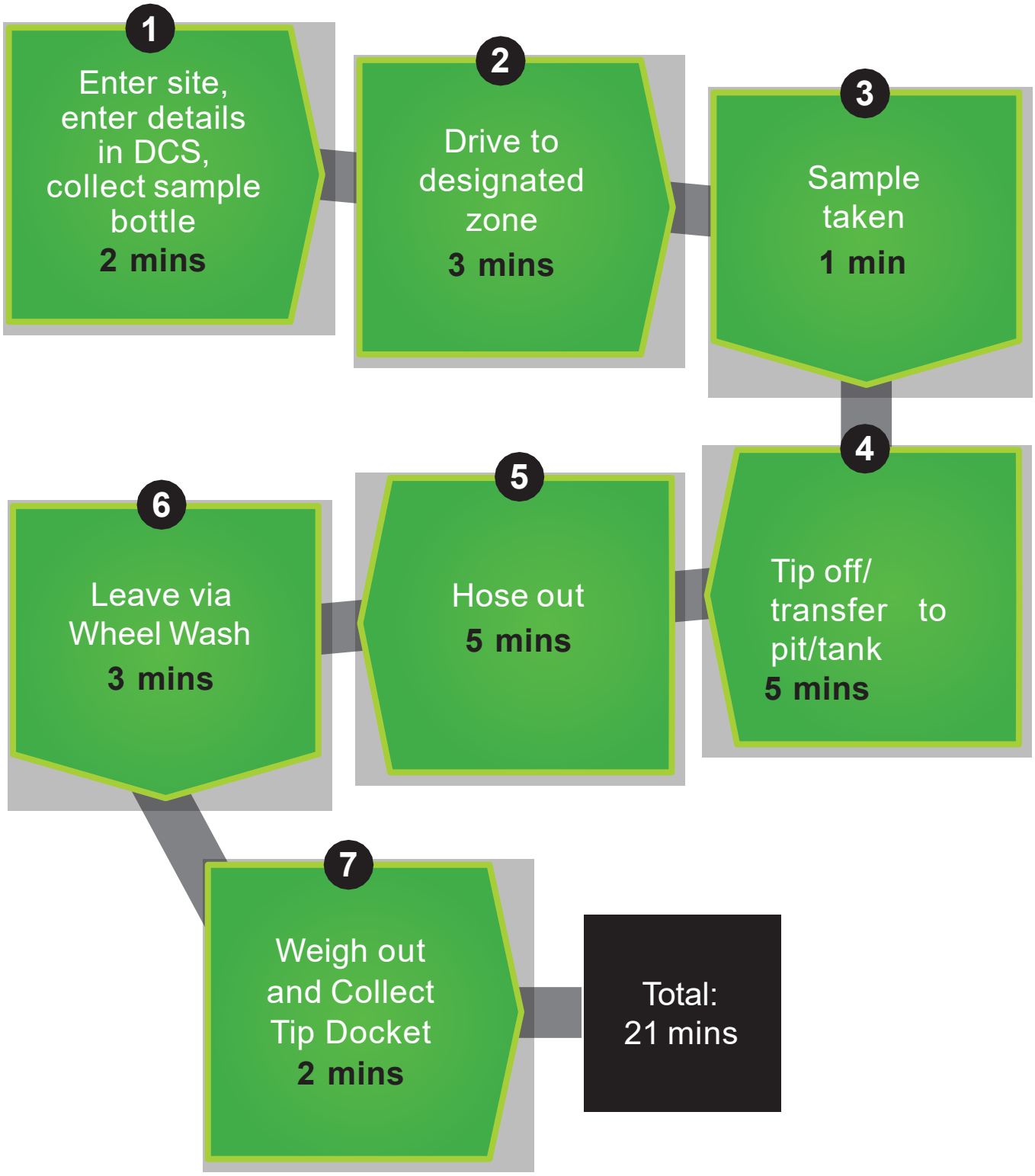
Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

STORMWATER / GROUNDWATER

Classification report required prior to tipping.



This is based on 10 tonne Vac Truck loads for Liquids.
20 Tonne Tankers will take approximately 26-27 minutes.

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

DRILL MUD / NDD / CEMENT SLURRY

Classification report required prior to tipping.

1. Enter site, enter details in DCS, collect sample bottle **2 mins**
2. Drive to designated zone **3 mins**
3. Sample taken **1 min**
4. Tip off/ transfer to pit/tank **5 mins**
5. Hose out **5 mins**
6. Leave via Wheel Wash **3 mins**
7. Weigh out and Collect Tip Docket **2 mins**

Total: 21 mins

This is based on 10 tonne Vac Truck loads for Liquids.
20 Tonne Tankers will take approximately 26-27 minutes.

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

SOILS / SANDS / GSW / SOLIDS

Classification report required prior to tipping.

1. Enter site, enter details in DCS, collect sample bottle **2 mins**
2. Visual inspection by weighbridge staff of top of load **5 mins**
3. Drive to designated zone **3 mins**
4. Tip off **5 mins**
5. Visual inspection by yard staff **5 mins**
6. Leave via Wheel Wash **3 mins**
7. Weigh out and Collect Tip Docket **2 mins**

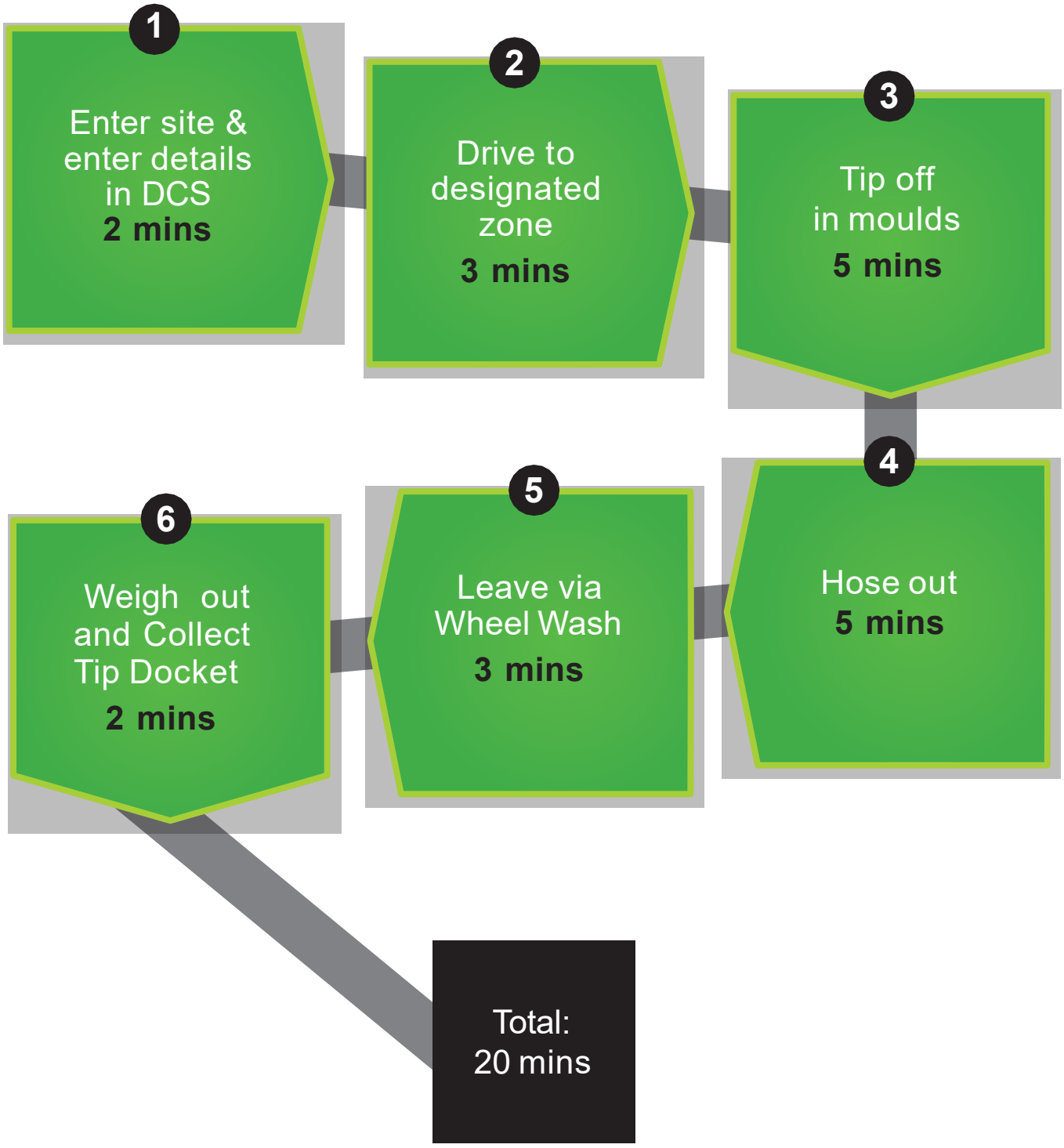
Total: 25 mins

Truck and Dog tonnages will vary based on weight of material.

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE
CEMENT AGITATOR TRUCKS



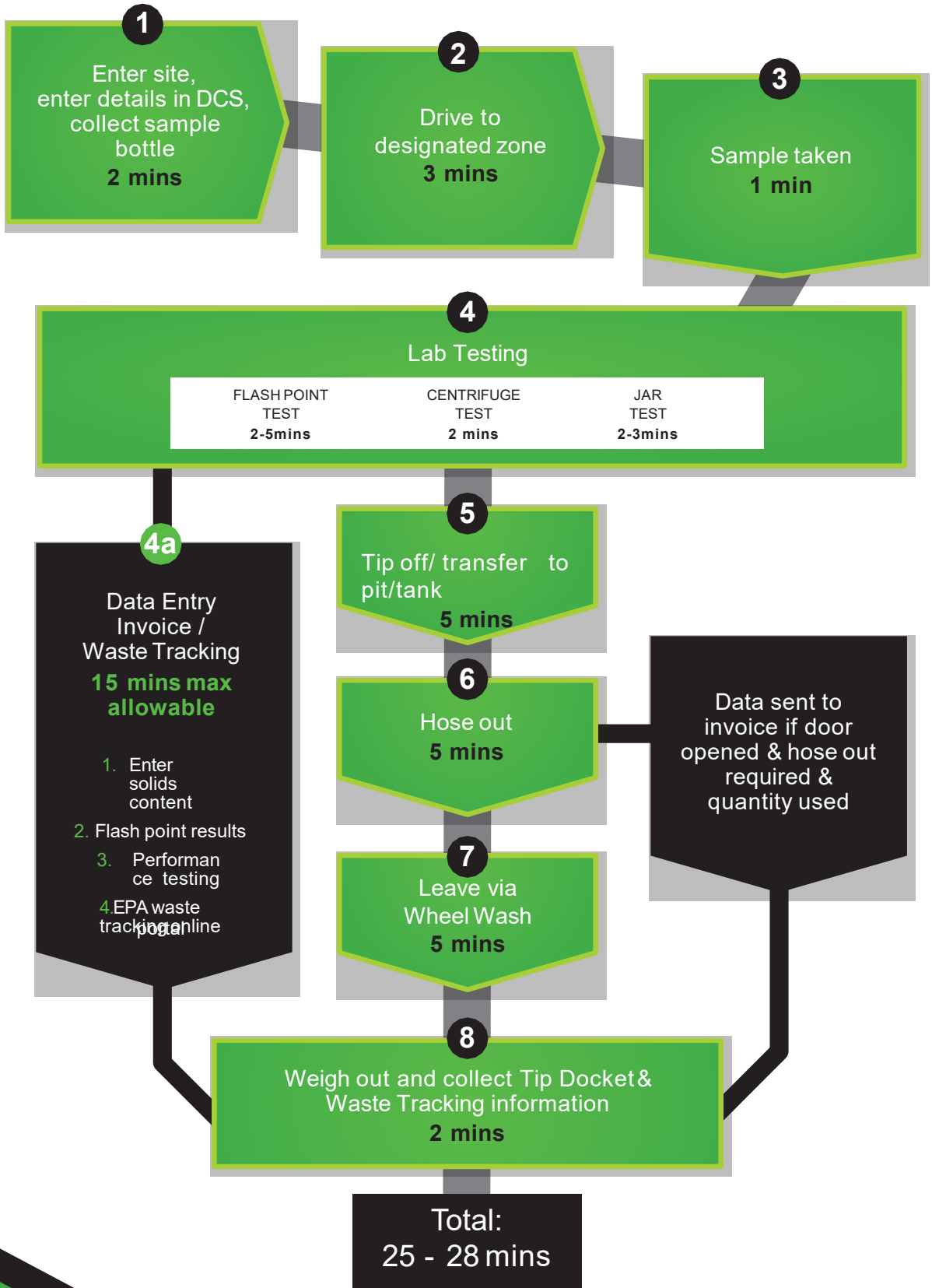
Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

J120 / FIREWATER

Classification report required prior to tipping.



Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic: 20797

TIPPING PROCEDURE

A100 / B100 / C100 / N140 / Z180 / M250

Classification report required prior to tipping.

1 Enter site, enter details in DCS, collect sample bottle
2 mins

2 Drive to designated zone
3 mins

3 Sample taken
1 min

4 Lab Testing

FLASH POINT TEST	CENTRIFUGE TEST	JAR TEST
2-5mins	**2 mins**	**2-3mins**

4a Data Entry Invoice / Waste Tracking
15 mins max allowable

1. Enter solids content
2. Flash point results
3. Performance testing
4. EPA waste tracking online portal

5 Tip off via Pump Out
5 mins

6 Leave via Wheel Wash
5 mins

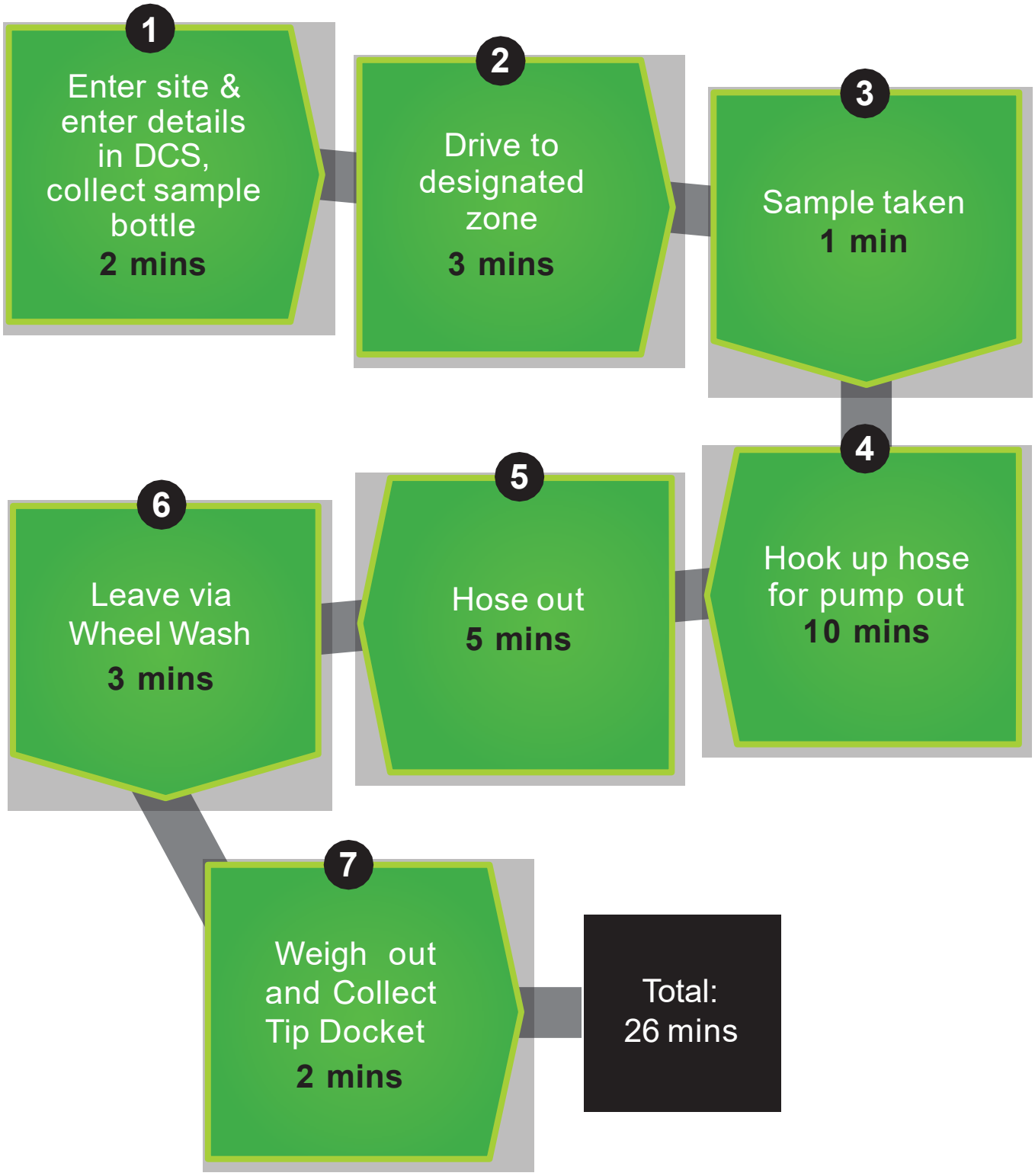
7 Weigh out and collect Tip Docket& Waste Tracking information
2 mins

Total:
20 - 23 mins

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE
SEWER WASTE



Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

ASBESTOS CONTAINING LIQUID

Classification report required prior to tipping.

1. Enter site & enter details in DCS, collect sample bottle **2 mins**
2. Drive to ACL Treatment Room **3 mins**
3. Transfer to Pit **5 min**
4. Hose out **5 mins**
5. Follow operator's instructions for decontamination , if required **10 mins**
6. Leave via Wheel Wash **3 mins**
7. Weigh out and Collect Tip Docket **2 mins**

Total: 30 mins

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

LEACHATE

Classification report required prior to tipping.

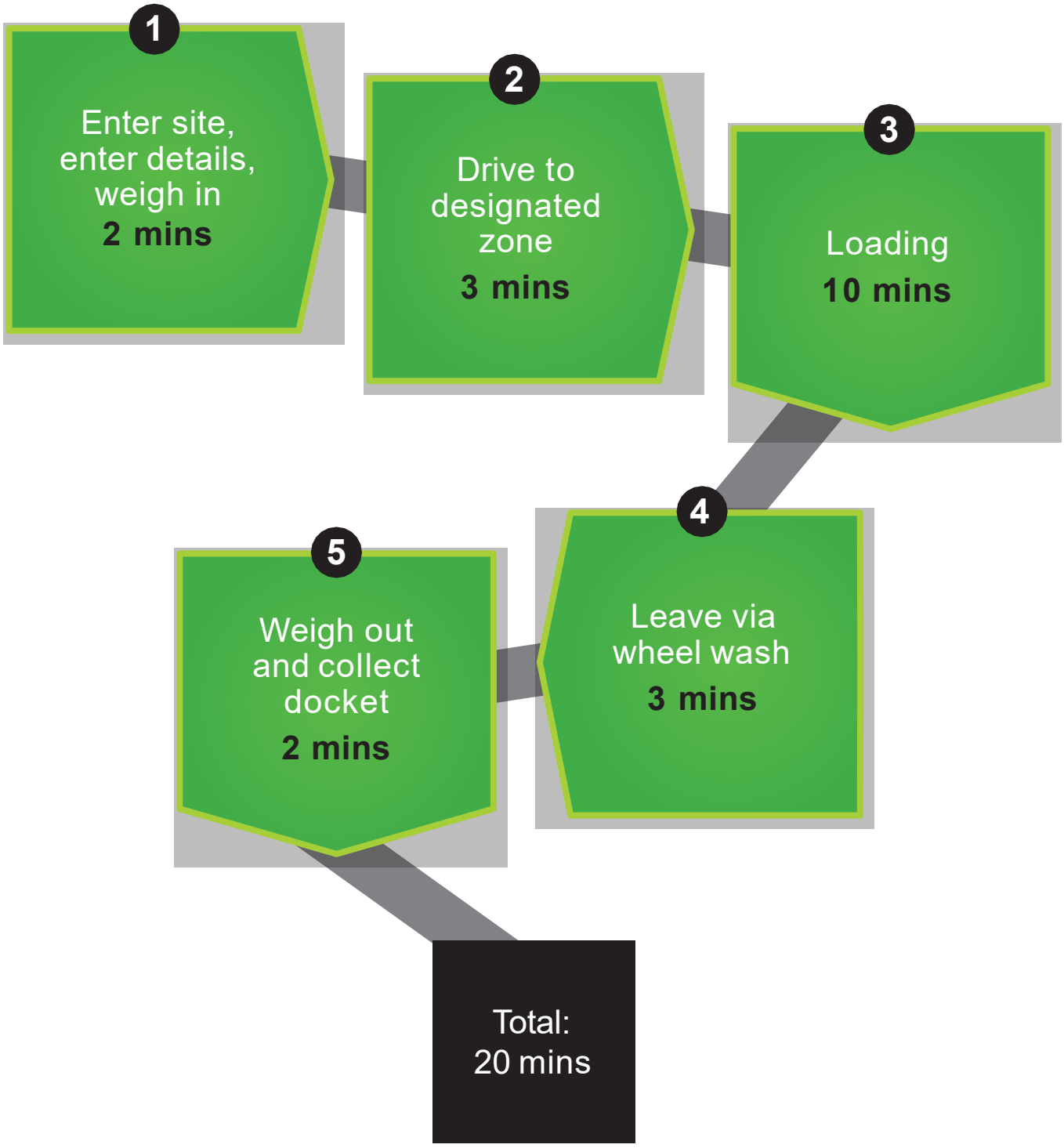
1. Enter site & enter details in DCS, collect sample bottle **2 mins**
2. Drive to designated zone **3 mins**
3. Sample taken **1 min**
4. Hook up hose for pump out **10 mins**
5. Hose out **5 mins**
6. Leave via Wheel Wash **3 mins**
7. Weigh out and Collect Tip Docket **2 mins**

Total: 26 mins

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

NSW EPA APPROVED SITE Lic:20797

MATERIAL PICK UP PROCEDURES



Attachment 5: Approved Awning Plans and Determination Notice

DEVELOPMENT APPLICATION
NOTICE OF DETERMINATION

Issued in accordance with Sections 4.16 and 4.17 of the
Environmental Planning and Assessment Act 1979

APPLICATION DETAILS

Application Number	801/2020/DA-O
Applicant	Kerr Road Investments Pty Limited
Land to be developed	Lot 16 DP 717203, 16 Kerr Road, INGLEBURN
Proposed Development	Construction of an industrial steel awning

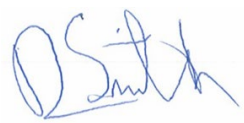
DETERMINATION - APPROVED

Determination Date	30 November 2020
Consent to be effective from	3 December 2020
Consent to lapse on	3 December 2022
Determination Authority	Campbelltown City Council

RIGHTS OF APPEAL

Division 8.2 of the Act may allow an applicant who is dissatisfied with the determination of an application, a right to request Council review its determination within 12 months from the date of this notice.

Section 8.7 of the Act allows an applicant who is dissatisfied with the determination of a consent authority, a right of appeal to the Land and Environment Court within 12 months from the date of this notice.



David Smith
Executive Manager Urban Centres
Contact: Michelle Penna- 4645 4608

GENERAL CONDITIONS

The following conditions have been applied to ensure that the use of the land and/or building is carried out in such a manner that is consistent with the aims and objectives of the planning instrument affecting the land.

For the purpose of these conditions, the term 'applicant' means any person who has the authority to act on or benefit of the development consent.

1. Approved Development

The development shall be carried out in accordance with the approved plans and documents listed in the table below, and all associated documentation supporting this consent, except as modified in red by Council and / or any conditions within.

Plan Detail	Drawing Number	Version	Prepared by	Date
Cover	A000	A	Form Design Studio	22 January 2019
Locality	DA001	A	Form Design Studio	22 January 2019
Waste & Demolition Plan	DA005	A	Form Design Studio	22 January 2019
Ground Floor Plan	DA102	A	Form Design Studio	22 January 2019
Roof Plan	DA104	A	Form Design Studio	22 January 2019
Section & Elevations	DA201	A	Form Design Studio	22 January 2019

2. Building Code of Australia

All building work must be carried out in accordance with the provisions of the *Building Code of Australia*. In this clause, a reference to the *Building Code of Australia* is a reference to that Code as in force on the date the application for the relevant construction certificate is made.

3. External Finishes

The external finishes shall be in accordance with the approved plans and the schedule of finishes submitted with this application. Any proposed alterations to these finishes are considered to be a modification to the development consent and require separate approval by Council.

4. Use of Awning

The area under the awning shall not be used for any purpose including the storage of any goods, materials or equipment or any other work associated with the existing use unless separate approval has been granted.

5. Graffiti Removal

In accordance with the environmental maintenance objectives of 'Crime Prevention Through Environmental Design', the owner/lessee of the building shall be responsible for the removal of any graffiti which appears on the buildings, fences, signs and other surfaces of the property within 48 hours of its application.

6. Engineering Design Works

The design of all engineering works shall be carried out in accordance with the requirements set out in *Council's 'Engineering Design Guide for Development'* (as amended) and the applicable development control plan.

7. Construction Certificate

Prior to the commencement of any works that require a construction certificate:

a. the applicant shall obtain a construction certificate for the particular works;
b. the applicant shall appoint a principal certifying authority; and
c. the private certifying authority shall notify Council of their appointment no less than two days prior to the commencement of any works.

PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE

The following conditions of consent must be complied with prior to the issue of a construction certificate by either Campbelltown City Council or an accredited certifier. All necessary information to comply with the following conditions of consent must be submitted with the application for a construction certificate.

8. Sydney Water

Prior to Council or an accredited certifier issuing a construction certificate, the approved plans must be submitted to Sydney Water via the Sydney Water Tap In service, to determine whether the development will affect any Sydney Water wastewater and water mains, stormwater drains and/or easements, and if any requirements need to be met.

An approval receipt will be issued if the building plans have been approved. The approval receipt shall be submitted to the Principal Certifying Authority prior to issue of a construction certificate.

The Sydney Water Tap In service can be accessed at www.sydneywater.com.au.

9. Section 7.12 Contributions

Contribution
The developer must make a monetary contribution to Campbelltown City Council in the amount of $600 or the purposes of the Local Infrastructure identified in the Campbelltown Local Infrastructure Contributions Plan 2018.

Indexation
The monetary contribution is based on a proposed cost of carrying out the development of $120,000. This cost (and consequently the monetary contribution) must be indexed between the date of this consent and the date of payment in accordance with the following formula:

Indexed development cost ($) =	$\$C_O$ X Current CPI / Base CPI

Where:

- $\$C_O$ is the original development cost estimate assessed at the time of the issue of consent.

- Current CPI is the Consumer Price Index (All Groups Index) for Sydney as published by the Australian Bureau of Statistics at the time of the quarter immediately prior to the date of payment.

- Base CPI is the Consumer Price Index (All Groups Index) for Sydney as published by the Australian Bureau of Statistics at the quarter ending immediately prior to the date of imposition of the condition requiring payment of a contribution.

Note: The contribution payable will not be less than the contribution specified in this consent.

Time for payment
The contribution must be paid prior to the release of a construction certificate for any works authorising construction above the floor level of the ground floor.

Works in kind agreement
This condition does not need to be complied with to the extent specified, if a works in kind agreement is entered into between the developer and the Council.

PRIOR TO THE COMMENCEMENT OF ANY WORKS

The following conditions of consent have been imposed to ensure that the administration and amenities relating to the proposed development comply with all relevant requirements. These conditions are to be complied with prior to the commencement of any works on site.

10. Erosion and Sediment Control

Prior to the commencement of any works on the land, adequate/approved erosion and sediment control measures shall be fully installed/implemented.

11. Erection of Construction Sign

Prior to the commencement of any works on the land, signs must be erected in prominent positions on the site:

a. Showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours

b. Stating that unauthorised entry to the work site is prohibited

c. Pollution warning sign promoting the protection of waterways (a digital copy is provided with this consent that can be printed, laminated and affixed to the site or a corflute sign is available for free pick up at Council's administration office)

d. Stating the approved construction hours in which all works can occur

e. Showing the name, address and telephone number of the principal certifying authority for the work.

Any such signs are to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

12. Trade Waste

Prior to the commencement of any works on the land, a trade waste facility shall be provided on-site to store all waste pending disposal. The facility shall be screened, regularly cleaned and accessible to collection vehicles.

13. Public Property

Prior to the commencement of any works on site, the applicant shall advise Council of any damage to property which is controlled by Council which adjoins the site, including kerbs, gutters, footpaths, and the like. Failure to identify existing damage may result in all damage detected after completion of the development being repaired at the applicant's expense.

14. Demolition Works

Demolition works shall be carried out in accordance with the following:

a. Prior to the commencement of any works on the land, a detailed demolition work plan designed in accordance with Clause 1.7.3 of Australian Standard AS 2601-2001 – The Demolition of Structures, prepared by a suitably qualified person with suitable expertise or experience, shall be submitted to and approved by Council and shall include the identification of any hazardous materials, method of demolition, precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.

b. Prior to commencement of any works on the land, the demolition Contractor(s) licence details must be provided to Council.

c. The handling or removal of any asbestos product from the building/site must be carried out by a NSW Work Cover licensed contractor irrespective of the size or nature of the works. Under no circumstances shall any asbestos on site be handled or removed by a non-licensed person. The licensed contractor shall carry out all works in accordance with NSW Work Cover requirements.

d. An appropriate fence preventing public access to the site shall be erected for the duration of demolition works

e. Immediately prior to the commencement of the demolition or handling of any building or structure that contains asbestos, the applicant shall request that the principal certifying

authority attend the site to ensure that all appropriate safety measures are in place. The applicant shall also notify the occupants of the adjoining premises and Workcover NSW prior to the commencement of any works.

15. Structural Engineer Details

Prior to the commencement of any works, the submission to the principal certifying authority of all details prepared by a practicing structural engineer.

DEVELOPMENT REQUIREMENTS DURING CONSTRUCTION

The following conditions of consent have been imposed to ensure that the administration and amenities relating to the proposed development comply with all relevant requirements. These conditions are to be complied with during the construction of the development on site.

16. Construction Work Hours

All work on site shall only occur between the following hours:

Monday to Friday	7.00am to 6.00pm
Saturday	8.00am to 5.00pm
Sunday and public holidays	No Work.

17. Erosion and Sediment Control

Erosion and sediment control measures shall be provided and maintained throughout the construction period, in accordance with the requirements of the manual – *Soils and Construction (2004) (Bluebook),* the approved plans, Council specifications and to the satisfaction of the principal certifying authority. The erosion and sedimentation control devices shall remain in place until the site has been stabilised and revegetated.

Note: On the spot penalties up to $8,000 will be issued for any non-compliance with this requirement without any further notification or warning.

18. Work Zones

All loading, unloading and other activities undertaken during construction shall be accommodated on the development site.

Where it is not practical to load, unload or undertake specific activities on the site during construction, the provision of a 'Work Zone' external to the site may be approved by Council following an application being submitted to Council's Traffic Unit outlining the proposal for the work zone. The application is required to be made prior to the commencement of any works and is to include a suitable 'Traffic / Pedestrian Management and Control Plan' for the area of the work zone that will be affected. All costs of approved traffic / pedestrian control measures, including relevant fees, shall be borne by the applicant.

19. Dust Nuisance

Measures shall be implemented to minimise wind erosion and dust nuisance in accordance with the requirements of the manual – *'Soils and Construction (2004) (Bluebook)*. Construction areas shall be treated/ regularly watered to the satisfaction of the principal certifying authority.

20. Excess Material

All excess material is to be removed from the site. The spreading of excess material or stockpiling on site will not be permitted without prior written approval from Council.

21. Public Safety

Any works undertaken in a public place are to be maintained in a safe condition at all times. In this regard, the applicant shall ensure that a safe, fully signposted passage, minimum 1.2 metres wide, separated from the works and moving vehicles by suitable barriers and lights, is maintained for pedestrians, including disabled pedestrians, at all times. The applicant shall ensure that traffic control is undertaken and maintained strictly in accordance with *AS 1742.3*, the requirements set out in the State Roads Authority manual *"Traffic Control at Work Sites" (as amended),* all applicable Traffic Management and/or Traffic Control Plans. The contractor shall also ensure that all *Work Cover Authority* requirements are complied with. Council may at any time and without prior notification make safe any such works that be considered to be unsafe, and recover all reasonable costs incurred from the applicant.

22. Compliance with Council Specification

All design and construction work shall be in accordance with:

a. Council's specification for Construction of Subdivisional Road and Drainage Works (as amended);

b. *Campbelltown (Sustainable City) DCP - Volumes 1 and 3 as amended;*

c. 'Soils and Construction (2004) (Bluebook); and

d. Relevant Australian standards and State Government publications.

23. Associated Works

The applicant shall undertake any works external to the development, that are made necessary by the development, including additional road and drainage works or any civil works directed by Council, to make a smooth junction with existing work.

24. Demolition Work/Plan

All work shall be completed in accordance with the approved demolition work plan designed in accordance with clause 1.7.3 of *Australian Standard A52601-2001 The Demolition of Structures.*

25. Completion of Construction Works

Unless otherwise specified in this consent, all construction works associated with the approved development shall be completed within 12 months of the date of the notice of the intention to commence construction works under Section 81A of the Act.

In the event that construction works are not continually ongoing, the applicant shall appropriately screen the construction site from public view with architectural devices and landscaping to Council's written satisfaction.

PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE

The following conditions of consent must be complied with prior to the issue of an occupation certificate by a registered certifier. All necessary information to comply with the following conditions of consent must be submitted with the application for an occupation certificate.

26. Structural Engineering Certificate

Prior to the principal certifying authority issuing an occupation certificate, the submission of a certificate from a practising structural engineer certifying that the building has been erected in compliance with the approved structural drawings and relevant *SAA Codes* and is structurally adequate.

27. Completion of External Works Onsite

Prior to the principal certifying authority issuing an occupation certificate, all external works, repairs and renovations detailed in the schedule of treatment/finishes, landscaping, driveways, fencing and retaining walls to be completed to the satisfaction of the principal certifying authority.

28. Council Fees and Charges

Prior to the principal certifying authority issuing an occupation certificate, the applicant shall obtain written confirmation from Council that all applicable Council fees and charges associated with the development have been paid in full. Written confirmation will be provided to the applicant following Council's final inspection and satisfactory clearance of the public area adjacent the site.

SYDNEY TRAINS

To ensure that the proposed development is undertaken in a safe manner, the following conditions are required to be satisfied at all times

30. Notification of Representative

The applicant must ensure that at all times they have a representative (which has been notified to Sydney Trains in writing), who:

- oversees the carrying out of the Applicant's obligations under the conditions of this consent and in accordance with correspondence issued by Sydney Trains;
- acts as the authorised representative of the Applicant; and
- is available (or has a delegate notified in writing to Sydney Trains that is available) on a 7 day a week basis to liaise with the representative of Sydney Trains, as notified to the Applicant.

31. Consultation with Sydney Trains

Without in any way limiting the operation of any other condition of this consent, the Applicant must, during demolition, excavation and construction works, consult in good faith with Sydney Trains in relation to the carrying out of the development works and must respond or provide

documentation as soon as practicable to any queries raised by Sydney Trains in relation to the works.

32. West Interface Team

Where a condition of consent requires consultation with Sydney Trains, the Applicant shall forward all requests and/or documentation to the relevant Sydney Trains external party interface team. In this instance the relevant interface team is West Interface and they can be contacted via email on West_Interface@transport.nsw.gov.au.

33. Prior to the issue of a Construction Certificate

Prior to the issuing of a Construction Certificate, the Applicant must submit to Sydney Trains a plan showing all craneage and other aerial operations for the development and must comply with all Sydney Trains requirements. The Principal Certifying Authority is not to issue a Construction Certificate until written confirmation has been received from Sydney Trains confirming that this condition has been satisfied.

ADVISORY NOTES

The following information is provided for your assistance to ensure compliance with the Environmental Planning and Assessment Act 1979, Environmental Planning and Assessment Regulation 2000, other relevant Council Policy/s and other relevant requirements. This information does not form part of the conditions of development consent pursuant to Section 4.17 of the Act.

Advice 1. Environmental Planning and Assessment Act 1979 Requirements

The Environmental Planning and Assessment Act 1979 requires you to:

a. Obtain a construction certificate prior to the commencement of any works. Enquiries regarding the issue of a construction certificate can be made to Council's Customer Service Centre on 4645 4000.

b. Nominate a principal certifying authority and notify Council of that appointment prior to the commencement of any works.

c. Give Council at least two days notice prior to the commencement of any works.

d. Have mandatory inspections of nominated stages of the construction inspected.

e. Obtain an occupation certificate before occupying any building or commencing the use of the land.

Advice 2. Provision of Equitable Access

Nothing in this consent is to be taken to imply that the development meets the requirements of the *Disability Discrimination Act 1992* (DDA1992) or *Disability (Access to Premises – Buildings) Standards 2010* (Premises Standards).

Where a Construction Certificate is required for the approved works, due regard is to be given to the requirements of the *Building Code of Australia* (BCA) & the Premises Standards. In this regard it is

the sole responsibility of the certifier, building developer and building manager to ensure compliance with the Premises Standards.

Where no building works are proposed and a Construction Certificate is not required, it is the sole responsibility of the applicant and building owner to ensure compliance with the DDA1992.

Advice 3. Retaining Walls

A separate application for development consent shall be submitted and approved for any retaining walls that do not meet the exempt requirements of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Consent must be received for the construction of any such retaining walls before work commences.

Advice 4. Buried Waste

Should buried materials/wastes or the like be uncovered during the excavation of footings or trenches on site works, Council is to be contacted immediately for advice on the treatment/removal methods required to be implemented.

Advice 5. Covenants

The land upon which the subject building is to be constructed may be affected by restrictive covenants. Council issues this approval without enquiry as to whether any restrictive covenant affecting the land would be breached by the construction of the building, the subject of this permit. Persons to whom this permit is issued must rely on their own enquiries as to whether or not the building breaches any such covenant.

Advice 6. Inspection within Public Areas

All works within public areas are required to be inspected at all stages of construction and approved by Council prior to the principal certifying authority releasing the Occupation Certificate.

Advice 7. Adjustment to Public Utilities

Adjustment to any public utilities necessitated by the development is required to be completed prior to the occupation of the premises and in accordance with the requirements of the relevant Authority. Any costs associated with these adjustments are to be borne by the applicant.

Advice 8. Salinity

Please note that Campbelltown is an area of known salinity potential. As such any salinity issues should be addressed as part of the construction certificate application. Further information regarding salinity management is available within *Campbelltown (Sustainable City) DCP - Volumes 1 and 3 (as amended)*.

Advice 9. Asbestos Warning

Should asbestos or asbestos products be encountered during construction or demolition works you are advised to seek advice and information prior to disturbing the material. It is recommended that a contractor holding an asbestos-handling permit (issued by Work Cover NSW), be engaged to manage the proper disposal and handling of the material. Further information regarding the safe handling and removal of asbestos can be found at:

www.environment.nsw.gov.au
www.nsw.gov.au/fibro
www.adfa.org.au
www.workcover.nsw.gov.au

Alternatively, call Work Cover Asbestos and Demolition Team on 8260 5885.

Advice 10. Waste-Derived Material

The application of waste-derived material to land is an activity that may require a licence under the *Protection of the Environment Operations Act 1997* (POEO Act). However, a licence is not required by the occupier of land if the only material applied to land is virgin excavated natural material or waste-derived material that is the subject of a resource recovery exemption under clause 51A of the *Protection of the Environment Operations (Waste) Regulation 2005*.

Resource recover exemptions are available on Department of Environment and Climate Change's website at http:///www.environment.nsw.gov.au/waste/

Definition of *'virgin excavated natural material'* within the meaning of the POEO Act:
Natural material (such as clay, gravel, sand, soil or rock fines) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues (as a result of industrial, commercial, mining or agricultural activities), and that does not contain any sulfidic ores or soils or any other waste.

Definition of 'waste' within the meaning of the POEO (Waste) Regulation:
See Part 1, Clause 3B.

Advice 11. Bonds and Bank Guarantees

All bonds are to be provided in the form of Cash or a written Bank Guarantee from an Australian Banking Institution. Bonds will not be accepted in any other form or from any other institution.

Advice 12. Dial before you Dig

Underground assets may exist in the area that is subject to your application. In the interests of health and safety and in order to protect damage to third party assets please contact Dial before you dig at www.1100.com.au or telephone on 1100 before excavating or erecting structures (This is the law in NSW). If alterations are required to the configuration, size, form or design of the development upon contacting the Dial before you dig service, an amendment to the development consent (or a new development application) may be necessary. Individuals owe asset owners a duty of care that must be observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial before you dig service in advance of any construction or planning activities.

Advice 13. Telecommunications Act 1997 (Commonwealth)

Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any persons interfering with a facility or installation owned by Telstra is committing an offence under the Criminal Code Act 1995 (Cth) and is liable for prosecution.

Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, you are required to contact: Telstra's Network Integrity Team on phone number 1800 810 443.

THIS DOCUMENT HAS BEEN ISSUED WITHOUT ALTERATION OR ERASURE

DEVELOPMENT APPLICATION

PROJECT: PROPOSED STRUCTRUAL STEEL AWNING

AT: 16 KERR ROAD, INGLEBURN NSW
JANUARY 2019

ISSUE: A

16 Kerr Road - Carparking Calculations

Existing Factory Area	4000 sqm		
Existing Office Area	1100 sqm		
Total loading Bays	5 loading Bays @ 80sqm each		
	400 sqm		
Proposed Covered Hardstand Area	1750 sqm		
Parking Rates Required:			
Area used for offices, lunchroom, etc	1 per	35 sqm	
Areas used other than for lunchroom, office, etc.	1 per	100 sqm	(area under 2000 sqm)
	1 per	250 sqm	(area over 2000 sqm)
Outdoor storage	1 per	300 sqm	
Plus 2 spaces per unit			
Factory Area			
First 2000sqm - 5 loading bays	1600 sqm		
	16 car parking spaces		
Second 2000sqm	8 car parking spaces		
Existing Office, Lunchroom, etc	31.4285714		
	32 car parking spaces		
Proposed Covered Hardstand Area	5.83333333		
	6 car parking spaces		
Plus 2 spaces per unit	2 car parking spaces		
Total car parking required for this development	64 car parking spaces		

building notes for type c construction

essential services

- emergency lighting and exit signs are to be provided in accordance with as 2293.1 and table 5.5 of 2293.1 - 2005 (bca cl. e4.2, e4.4, e4.6, e4.8)
- hose reels to be installed as per as 1221, as 2441 (bca cl e1.4)
- fire hydrant (if required) to be installed as per as 2419.1 (bca cl e1.2, e1.3)
- portable fire extinguisher to be provided as per as 2444 (bca cl e1.6)
- external wall to be provided as per (bca c1.1-4)
- fire-resistance of building elements as per (bca a2.3 + specification a2.3)

fire safety legend

Statuary Minimum Standards

fire safety measures to be implemented if applicable:	design/installation standard:	maintenance standard:
emergency lighting	bca e4.4 + as2293.1-2005	as 2293.2-2005
exit signs	bca e4.5/e4.6/e4.8 + as2293.2-2005	as 2293.2-2005
fire dampers	bca c3.15 + as1668.1-1998 + as1682.1+2-1990	as 1851-2005
fire doors	bca c2.13, c3.2, c3.4-3.8, c3.10, c3.11, nsw c3.11(d), c3.13 + as1905.1-2005	as 1851-2005 sect.17
fire hose reels	bca e1.4 + as2441-2005	as 1851-2005 sect.14
fire hydrant systems	bca e1.3 + as2419.1-2005	as 1851-2005 sect.4
fire seals	bca c3.15 + as1530.4-1997	physical inspection
fire windows	bca c3.4	as 1851.7-1984
portable fire extinguishers	bca e1.6 + as2444-2001	as 1851-2005 sect.15
warning + operational signs	sect.183 of ep&a regulations 2000, as1905.1-1997, bca c3.6, d2.23, e3.3	physical inspection of integrity and operation

type c construction: frl of building elements

class of building - frl: (in minutes)
structural adequacy / integrity / insulation

building elements	2, 3 or 4 part	5, 7a or 9	6	7 b or 8
external wall	(including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is-			
for loadbearing parts less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3m	-/-/-	60/60/60	60/60/60	60/60/60
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-
external column not incorporating in an external wall, where the distance from any fire source feature to which it is exposed is-				
less than 1.5m	90/-/-	90/-/-	90/-/-	90/-/-
less than 3m	-/-/-	-/-/-	-/-/-	-/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
common walls + fire walls	90/90/90	90/90/90	90/90/90	90/90/90
internal wall bounding public corridors, public lobbies and the like-	60/60/60	-/-/-	-/-/-	-/-/-
between or bounding sole-occupancy units-	60/60/60	-/-/-	-/-/-	-/-/-
bounding a stair if required to be rated	60/60/60	60/60/60	60/60/60	60/60/60
roof	-/-/-	-/-/-	-/-/-	-/-/-

1. Do Not Scale. All Dimensions are in millimeters.
2. Contractor/Builder to check ans verify all levels and dimensions on site and shall report any discrepancies or omissions to this office prior to start of construction works & during the construction phase.
3. Drawing is to be read and understood in conjunction with structrual, mechanical, electrical and / or any other consultant/s documentation as may be applicable to the project prior to start or work & it's duration
4. Any additional request for information is to be referred to the architect or engineer in writing.
5. All Construction Practices shall be in accordance with the general requirements of the Building Code of Australia (BCA), Austalian Standrads and local government regulations & The Principal Certifying Authority.
6. Erosion & sediment control measures to be in place prior to excavation or construciton work.
7. Where applicable, all sediment basins ans traps shall be claened when structures are a maximum of 60% full of soil materials, including the maintainence period.
8. Filter shal be constructed by stretching filter fabric (propex or approved equivalent) between post at 2.0m centres. Fabric shall be buried 150mm along its lower edge.
9. Revegetation and storage of soil and topsoil, shall be implemented to the standards of the soil conservatiob of NSW.
10. All siteworks indicated are illustrative only.
11. Final levels may be subject to adjustment, such adjustments, while complying with council requirements remain at the discretion of the Builder and must obtain such variations of final levels from council or PCA in writing.
12. This plan has been prepared from a combination of field survey and existing records for the purpose of construction on the land and should not br used for any othert purpose.
13. The builder shall engage a Registered Surveyor to peg-out all structures shown on plans.
14. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location or further underground services and detailed location of all services.
15. COntours have been interpolated from the spot heights taken.
16. All demolition work to be carried out in accordance with AS 2601-2001, refer to NSW Coccupational Health and Safety Act & rregulations and NOHSC guide to control of Asbestos Hazards in building and structures during demolition. Removal of all asbestos must be carried out by licensed contractors.
17. Protection measures are required for each trss being retained on site and shall be extablised before operations begin and construction in accordance with Council's requirements (also refer to Arborist report for details).
18. During construction the stability of the structure shall be the builder's responsibility.
19. Builder shall make good all disturbed areas adjacent to the works on Council's road, Footpaths are to be restored on the satisfaction of the principal certifying authority & local authority (also refer to DA conditions).
20. Termite protection for all postsm stums, underside of slabs & edges to be chlopiryfos poison (part a & b) in accordance with AS 3660.1/2000. Also refer to BCA.
21. Provide under all slabs-on-ground 50mm sand bed topped with minimum 20 micron thick polthenem, waterpoof membrane with all edges having minimum laps of 200mm sealed with approved tapes.
22. Ground floor slabs shall be a minimum of 225mm above finished ground level, U.N.O.
23. All concrete footings, floor slabs, columns & timber roof framing to structrual engineer's details and specifications.
24. All stormwater requirements, extenral RL and driveway levels to hydraulic engineer's details and specifications.
25. All lanndscape areas, existing trees, driveway, drying yard and fencing to landscaped (drawing) details and specifications.
26. All balustrades to terraces, balcinies and stairs to comply with BCA
27. All wet areas to have floors which fall to floor wastes.
28. Unless the door in a sanitary room swings out or slide, where distance between the path of door swing and toilet suite is less than 1.2m, the door must be installed with removable (Lift-Off) hinges.
29. All materials and form of construction to comply with BCA requirements.
30. All materials & assemblies to hae fire hazard properties to comply with BCA.
31. Refer to BASIX certificate for Water, Thermal Comfort & Energy performance requirements.
32. All wet areas to comply with AS 3740. Wall finished shall be impervious to a height of 1800mm above floor level to shower enclosures and 300mm above baths, basins, sinks ans troughs if within 75mm of the wall. Refer to code for all requirements.
33. Shower screens shall be Grade A safety glass.
34. Window sizes are nominly only, actual size will vary according to manufacturer. Windows to be flashed all round.
35. Stormwater shall be taken to legal point of discharge as advised by municipal drainage egineer. Contact the Council if unsure of point of discharge.
36. Sewer or septic system shall be in accordance with the relevant authorities requirements.
37. Footings not to enroach title boundaries and easement lines. Builder to ensure this does not occur.
38. Provide wall ties to brickwork at a maximum of 600mm centres in eash direction and within 300mm of articulated joints.
39. Sub floor vents & cleasrances to BCA
40. Stair & Handrail requirements to BCA (domestic only)
Risers - 190mm maximum - 150mm minimum
Going 355 maximum - 240mm minimum.
Handrail 1000mm minimum height to balconies and decks which are 1000mm or more above ground level.
41. The builder shall take all steps necessary yo ensure the stability of new and existing structrures during all works.
42. The builder shall ensure for the general watertightness of all new and existing works.
43. Smoke alarms to be provided and installed in accordance with AS 3786. New dwellings and additions with sleeping accomodation to be hard wired with back-up battery.
44. All work shall comply with, buth not limited to the following Australian Standards:
AS 1288: Glass in Buildings - Selection and Installation
AS 1562: Design and Installation of Sheet Roof and Wall Cladding
AS 1684: Residential Timber Framed Construction
AS 1860: Installtion of Particle Board Flooring
AS 2047: Installtion and Selection of Windows
AS 2049: Roof Tiles
AS 2050: Fixing of Roof Tiles
AS 2870: Residential Slabs and Footings
AS 2904: Damp Proof Courses and Flashings
AS 3500: Plumbing & Drainage
AS 3600: Concrete Structures
AS 3660: Protection of Buildings from Subteranean Termites
AS 3700: Masonry in Buildings
AS 3740: Waterproof of Wet Areas in Residential Construction
AS 3959: Construction in a Bushfire Prone Area
AS 3786: Smoke Alarms
AS 4055: Wind Loadings for Housing
AS 4100: Steel Structures

Note: All proprietary items, products & systems shall be installled in acordance to the manufacturer's specifications

CC Builders Notes
1 : 100

australian standard compliance

the building shall be constructed in accordance with but not limited to the following australian standards.

as/nzs 1664	aluminum structures
as/nzs 1905	components for the protection of openings in fire resistant walls.
as 2047	windows in buildings - selection & installation
as 2159	piling- design & installation
as 2293	emergency evacuation lighting in buildings
as 2327	composite structures
as 3700	masonry structures
as 3013	electrical installations
as 1668	the use of mechanical ventilation & air conditioning in buildings
as 2441	installation of hose reels
as 2444	portable fire extinguishers & fire blankets - selection & location
as 3786	smoke alarms
as/nzs 1905	components for the protection of openings in fire-resistant walls
as 1288	glass in buildings - selection & installation
as 2107	acoustics - recommended design sound levels & reverberation times for building interiors
as 3660.1-2000	termite management - new building work
as 2890.1-2004	off street car parking
as 1428.1 & .2	design for access & mobility part 1 & 2
as 1428.4	design for access & mobility part 4
as 2118.1-1999	automatic fire sprinklers
as 1670.1,2,3-2004	fire detection, warning, control & intercom system
as/anz 2293.1-1998	emergency evacuation lightings for buildings
as 1668.2-1991	use of mech'l ventilation & airconditoning of buildings
as/anz 1668.1-1998	use of mech'l vent. & aircond. of buildings. fire & smoke control m-c buildings
as 2419.1-1994	hydrant installation

e.s.d. commitments

J6 Artificial Lighting and Power Artificial

Section J6.2(b) applies to artificial lighting in the building. Note that these specifications supersede any shown on the drawings.

Refer to Appendix II – Lighting Calculator.
Based on the assumptions in the lighting calculator, the aggregate permissible lighting Illumination Power Load (IPL) is 23.0 kW. Provided the aggregate design Illumination Power Load is less than this amount, then the design complies. The design IPL is 20.6 kW based on the design assumptions in the lighting calculator (refer to the brown cells). The required artificial lighting should be confirmed with a suitably qualified person.
These requirements do not apply to emergency lighting, signage and display lighting in displays and lighting of a specialist nature.
Note that while Section J specifies maximum Illumination Power Load, BCA Section F4.4 and AS/NZS 1680.0 specify minimum levels of illumination.

J6.3 Power Control
The artificial lighting must be operated by a switch or other control device. A switch must be in a visible position in the room or space being switched or in an adjacent room or space from where the lighting being switched is visible.
The above do not apply to emergency lighting in accordance with Part E4.

J6.4 Interior decorative and display lighting
Any interior decorative and display lighting must be controlled separately from other artificial lighting and by a manual switch for each area other than when the operating times of the displays are the same in a number of areas in which case they may be combined. Where the display lighting exceeds 1kW a time switch in accordance with Specification J6 is required.

J6.5 Artificial lighting around the perimeter of a building
Any artificial lighting around the perimeter of the building must be controlled by a daylight sensor or a programmable time switch.
When the perimeter lighting load exceeds 100W, the light source efficacy must not be less than 60 Lumens/W.
The perimeter lighting used for decorative purposes such as facade and signage lighting must have a separate time switch in accordance with Specification J6. Such a time switch must be capable of switching on and off electric power at variable pre-programmed times and on variable pre-programmed days. It must also be capable of limiting the period the system is switched on to between 30 minutes before sunset and 30 minutes after sunrise is determined or detected including any pre-programmed period between these times; and being overridden by a manual switch or a security access system for a period of up to 30 minutes, after which the time switch must resume control.

J6.6 Boiling water and chilled water storage units
Power supply to any boiling water or chilled water storage unit in the retail space must be controlled by a time switch in accordance with BCA 2014 Specification J6. Such a time switch must be capable of switching on and off electric power at variable pre-programmed times and on variable pre-programmed days. It must also be capable of being overridden by a manual switch or a security access system that senses a person's presence, overrides for a period of up to 2 hours, after which if there is no further presence detected, the time switch must resume control.

J7 Hot Water Supply

J7.2 Heated Water Services
Any hot water supply system for food preparation and sanitary purposes must be designed and installed in accordance with Section 8 of AS/NZS 3500.4.

J8 Access for Maintenance + Facilities for Monitoring

J8.2 Access for Maintenance NSW J8.2 Access for maintenance must be provided to all services and their components including time switches and motion detectors; reflectors, lenses and diffusers of light fittings; and heat transfer equipment.
J8.3 Facilities for energy monitoring
A building with a floor area of more than 500 m2 must have the facility to record the consumption of gas and electricity.

general notation

all work to be carried out in accordance with the requirements of the principal certifying authority and the current building code of australia.

all demolition work to be carried out in accordance with as 2601 - 1991

silt/sediment control measures to be in place prior excavation or construction work

protection measures are required for each tree being retained on site and shall be established before building operations begin and constructed in accordance with council's requirements

removal of asbestos cement sheeting must be carried out by licensed contractors and in accordance with council's information sheets "demolition of asbestos cement sheeting"

pedestrian access, including disabled + pram access during road work to be maintained as per as 1742.3,"part 3 - traffic control devices for works on roads".

builder shall make good all disturbed areas adjacent to the works on council's road. footpath are to be restored to the satisfaction of the principal certifying authority.

all concrete footings, floor slabs, columns 2B steel roof framing to structural engineer's detail.

all storm water requirements, external rl and driveway levels to hydraulic engineer's details.

all landscape areas, existing trees, driveway, drying yard and fencing to landscape architect's details.

carparking ventilation to mechanical engineer's details.

fire safety layout + schedule refer to fire safety engineer's details.

ceiling immediately below the roof to have an 1 hour fire rating.

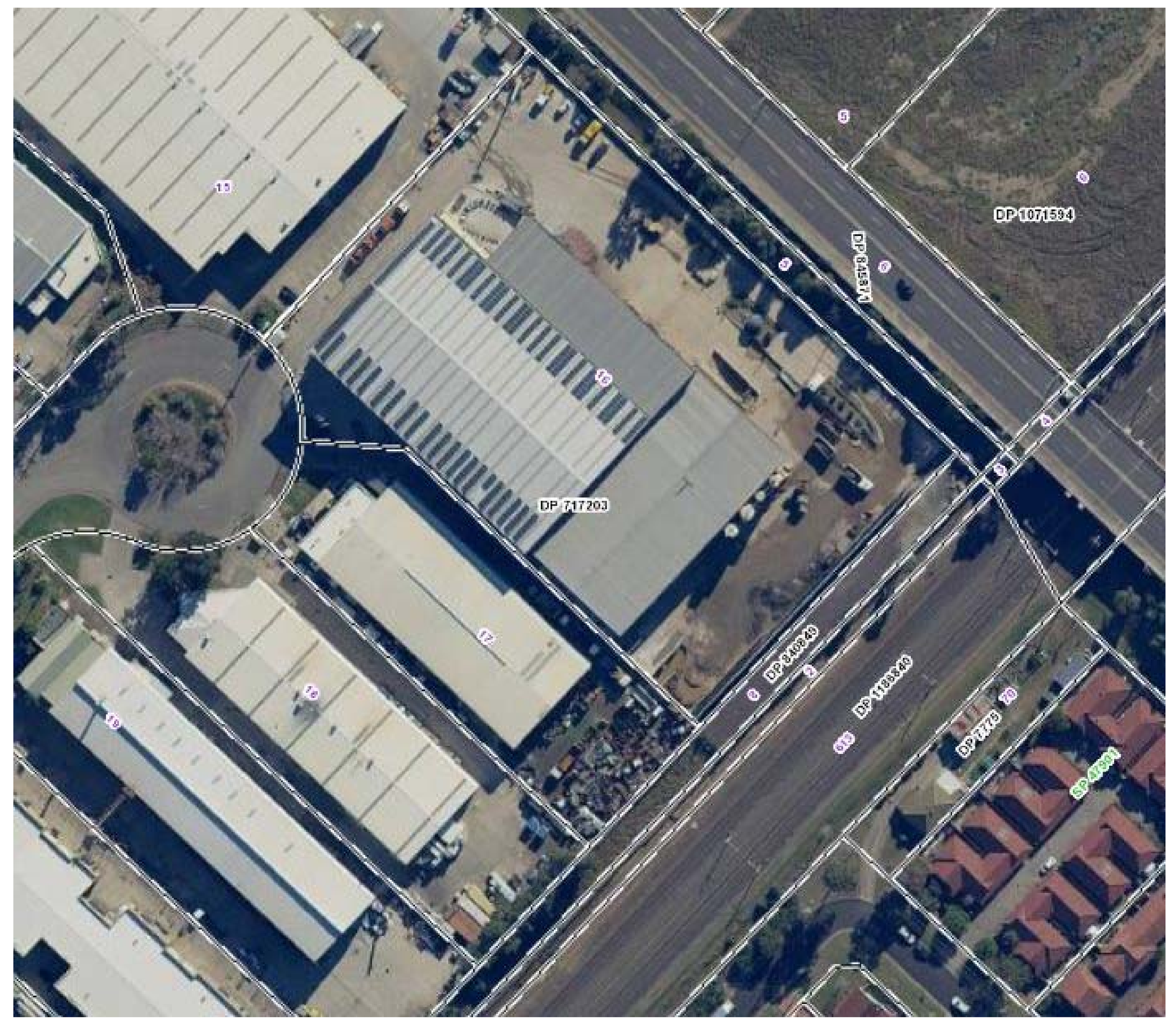
the reflectivity index of glass used in the external facade of the building is not to exceed 20%.

access for the disabled within the development shall be provided in compliance with part d3 of the bca.

all toilet windows shall be fitted and maintained with obscure glass.

unless the door in a sanitary room swings out or slides, where distance between the path of door swing and toilet suit less than 1.2 m, the door must be installed with removable hinges

a door in a required exit, forming part of a required exit or in path of travel to a required exit must be readily operable without a key from the side that faces a person seeking egress, by a single hand downward action or pushing action on a single device which is located between 900mm and 1100mm from the floor, and must not comprise a bolt or padlock or a separately operated deadlock



01 - SHEET METAL CLADDING
- COLORBOND - DEEP OCEAN

02 - PRESSED METAL CAPPING
- COLORBOND -

03 - SHEET METAL ROOFING
- COLOURBOND - SHALE GREY

Schedule of Finishes
1 : 2

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Issue	Date	Description
A	22.01.19	For client review

KERR ROAD

EXISTING PARKING

EXISTING CONCRETE PANEL WALL ALONG REAR BOUNDARY

LINE OF STEEL RAFTERS SUPPORTING AWNING TO ENGINEERS DETAILS

NEW STEEL RAFTERS TO BE CONNECTED TO EXISTING CONCRETE PANEL WALL

PROPOSED AWNING OVER EXISTING HARDSTAND AREA

EXISTING INDUSTRIAL BUILDING

EXISTING INDUSTRIAL BUILDING

EXISTING CONCRETE PANEL WALL

NEW PARKING

NEW STEEL RAFTERS TO BE CONNECTED TO EXISTING STRUCTURAL STEEL FRAME TO ENGINEERS DETAILS

EXISTING PARKING

EXISTING PARKING

EXISTING PARKING

EXISTING PARKING

EXISTING PARKING

WATER TANKS

METAL BUILDING

DEMOUNTABLE METAL BUILDING

WEIGH BRIDGE

EXISTING LOADING BAY

EXISTING LOADING BAY

EXISTING LOADING BAY

EXISTING LOADING BAY

EXISTING LOADING BAY

GARDEN

FUEL TANK

WATER TANK

GARDEN

WATER TANK

DENSE VEGETATION

MAIN SOUTHERN RAILWAY

HENDERSON ROAD

17 DP 717203

16 DP 717203 1.295 Ha

No.16 CONCRETE PANEL BUILDING METAL ROOF

15 DP 717203

613 1186840

2 DP 845871

8 DP 840849

614 1186840

3 DP 845871

5 DP 845871

S.L. = 25.05
I.L. = 24.29
□ 150

S.L. = 25.03
I.L. = 24.27
□ 150

S.L. = 25.43
I.L. = 24.45
□ 150

S.L. = 25.48
I.L. = 24.47
□ 150

S.L. = 24.20
I.L. = 23.19
□ 375

S.L. = 24.20
I.L. = 22.90
□ 900

S.L. = 24.20
I.L. = 23.00
□ 750

25.14FFL

25.13FFL

25.23FFL

25.62FFL

25.61FFL

4680

59962

26741

29755

4 DA201

T1

B1

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Rev

Issue	Date	Description
A	22.01.19	For client review

Consultants

Client

AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project

Proposed Structural Steel Awning

No. 16 Kerr Road, Ingleburn

Drawing

Locality Plan

North

Scale: 1 : 250 @ A1

Date: 12/25/17

Project No.: 1708

Drawing No.: DA001 / A

Issued for: DA

Construction Environmental Management Plan (CEMP)

Prior to the works being undertaken on site, investigations will be undertaken to mitigate and control impacts arising from the works.

- A detailed dilapidation survey will be performed on surrounding areas and adjacent buildings.
- Undertake infrastructure investigations to locate and mark all in-ground services.
- Seek authority approvals from Council and utility providers as necessary.

Site establishment will include the contractor's site offices, lunch and toilet facilities, vehicle access, vehicle loading and unloading zones, and establishment of site work areas.
The contractor will ensure the security of all active work areas and vacant buildings for the safety of the public and protection of the works.
It is estimated that at the peak of construction there will be approximately 20 workers on site each day.
Specific areas will be provided for the storage of materials and will be restricted to secure areas within the site.

Environmental and safety controls will be installed by the contractor/s prior to the commencement of demolition and bulk excavation. These will include:

- Security measures (fencing and gate access);
- Occupational health and safety measures including PPE and signage;
- Environmental management measures including dust minimisation, vehicle tyres, sediment and stormwater control, waste transport and disposal, storage of dangerous goods.

Bulk excavation and shoring of the basement will be completed by a suitably qualified contractor. A specific CEMP will be created by the contractor for these works.
Site Specific Quality, WHS and Environmental Management Plans will be developed by the Contractor prior to the works commencing.
All material removed from site is to be sorted and disposed of in accordance with the Waste Minimisation and Management Act of 1995.
All contaminated and non-recyclable materials will be loaded and transported to EPA approved landfill sites.
All loads departing the site shall be covered with tarpaulins to prevent any debris from escaping the truck or bin body.
Bulk excavation and shoring of the basement will be completed by a suitably qualified contractor. A specific CEMP will be created by the contractor for these works.
Site Specific Quality, WHS and Environmental Management Plans will be developed by the Contractor prior to the works commencing.
All material removed from site is to be sorted and disposed of in accordance with the Waste Minimisation and Management Act of 1995.
All contaminated and non-recyclable materials will be loaded and transported to EPA approved landfill sites.
All loads departing the site shall be covered with tarpaulins to prevent any debris from escaping the truck or bin body.

Once the construction of the floor slabs is past the ground level, temporary perimeter screens and or scaffold will be installed around the perimeter of each of the buildings for safety as the suspended deck construction progresses.

"A" and "B" class hoardings will be installed and established throughout the project as required. Emergency Access and Egress gates will be provided.
Security and public access lighting will be installed where required. Site sheds may be installed on hoarding.
A site plan showing the proposed location of hoarding and other protective measures.

Signage will be placed at all site entrances clearly stating that access is for authorised persons only.
Only those workers who have completed site specific inductions will be allowed to enter the site.
Visitors to the site will need to first attend the Site Office and sign in.
An on-site manned and after hours mobile security presence will be maintained.
All gates are to be securely locked outside of working hours and patrolled by security staff.

It is envisaged that the majority of materials unloading and loading during excavation will occur on site however a street construction zone on Digitiaria Drive will be required. Loading zones required to be established on existing roads, will require separate approval from the relevant Authorities and coordination with any adjacent construction sites.
For the buildings to be built, Construction Zones will be required for the majority of the construction building time.
The Construction Zones will be used to park trucks for the purpose of:-

- Unloading materials required for the Works.
- Load up surplus materials including waste, from the works.
- Standing a concrete pump and concrete trucks required for the Works.

To alleviate congestion to the Construction Zones and streets, once the permanent basements are constructed and stripped of formwork, trucks that can be marshalled into the basements will be directed there for unloading and or reloading of materials. Some of these activities will be:-

- Delivery of concrete trucks
- Pick up of rubbish bins

Delivery of finishing materials such as bricks, blocks, gyprock, light fittings will be moved by hoist or builders lifts rather than the tower crane to the designated floor.
Construction Zones will be required in Digitiaria Drive. The Construction Zone will be phased in use so as not to cause excessive traffic congestion to these surrounding streets.
Construction zones will take the kerb lane in all cases.
The need for maintaining smooth traffic flow and pedestrian safety is understood and so adequate, well informed and trained, traffic controllers will be used to ensure this occurs.
To assist the traffic flow and the traffic controllers, Site Management will ensure that all trucks are pre booked well in advance for a designated time to stop in the Construction Zones so that no unnecessary queueing occurs which will restrict traffic flow. The if used, a tower cranes will have a schedule for the anticipated truck deliveries so that they can schedule their work to minimize truck waiting time in the Construction Zones.

The envisaged truck arrivals to site will be:
Excavation 25 - 40 per day
Structure 3 – 5 per day
Concrete Pour 5 – 40 per day (on pour days only)
Fit out 5 - 15 per day (mainly within loading dock)

A detailed site specific Work Health and Safety Management Plan, which will include a health and safety risk assessment for the planned construction works shall be prepared by the Contractor prior to the CC being issued.
The Plan shall include, but not be limited to:

- Name key personnel responsible for site safety;
- Emergency contact details and procedures;
- Identify and describe the risks associated with each operation conducted;
- Describe actions to be taken to mitigate risks and hazards;
- Confirm that on-site personnel are adequately trained to perform their job responsibilities;
- Describe personal protective clothing and equipment that will be worn by personnel;

During excavation all trucks will be required to exit the site via a dedicated gate. This gate will have facilities such that loads are covered and wheels are free of sediment.
All construction waste will be separated as much as possible and waste will be minimised by ensuring that all construction waste packaging be returned to the suppliers of all manufactured items.

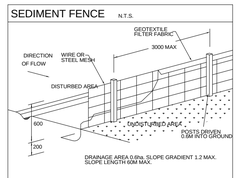
The Stormwater and Sediment Control plan is to be prepared by the Contractor prior to the commencement of the works and shall include measures to ensure compliance with the Protection of the Environment Operations Act (2000), as amended, and other relevant legislation.
The SSC shall include a plan showing the location of the sediment controls to be implemented by the Contractor with the following measures to be adopted:

- Provide temporary drainage channels and detention pondage to appropriately manage stormwater
- Stormwater drain grates will be wrapped in filtration medium. The filtration medium will be periodically cleaned and changed as and when required;
- Diversion drains will be constructed to minimize runoff from rainfall flowing into the works area. Stormwater diversion drains are to be constructed in the vicinity of areas to be excavated to minimize water flow into excavations;
- Regular visual inspection of the site drainage system will be undertaken by the Contractor.

construction waste management plan

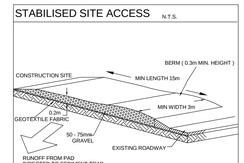
material	estimated waste volume	weight	destination: reuse and recycling on-site: proposed use on-site	reuse and recycling off-site: recycling outlet	disposal: contractor/landfill site
grass /topsoil	200 cu.m	110 t	mulch / landscaping		concrete recyclers
fill	1500 cu.m	700 t	fill		sims metal
concrete	18 cu.m	7.20 t	spread on-site		wsn envro solutions
steel reinforcing	0.65 cu.m	1.30 t			brandown
masonry	1.30 cu.m	1.00 t			sims metal
timber	0.85 cu.m	0.50 t	temp. barriers / formwork		
metal	3.30 cu.m	1.80 t			
tiles	0.30 cu.m	0.60 t			
plasterboard	1.40 cu.m	3.00 t			
general waste	20.00 cu.m	5.00 t			

SEDIMENT FENCE N.T.S.



CONSTRUCTION NOTES
1) CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO THE CONTOURS OF THE SITE.
2) DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND, 3 METRES APART.
3) DIG A 150MM DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4) BACKFILL TRENCH OVER BASE OF FABRIC.
5) FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY THE SUPPLIER. NOT LESS THAN 150MM.
6) JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150MM OVERLAP.

STABILISED SITE ACCESS N.T.S.

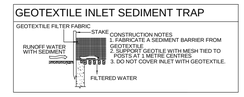


CONSTRUCTION NOTES
1) STRIP TOPSOIL AND LEVEL SITE.
2) COMPACT SUBGRADE.
3) COVER AREA WITH A NEEDLE-PUNCHED GEOTEXTILE.
4) CONSTRUCT A 200MM THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30MM AGGREGATE MINIMUM LENGTH 15M OR TOBUILDING ALIGNMENT. MINIMUM WIDTH 3M.
5) CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE.

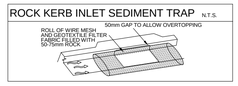
RAINWATER TANK

1) LABELS SHALL BE FIXED ADJACENT TO ALL OUTDOOR WATERING TAPS STATING THAT THE WATER IS NOT TO BE CONSUMED.
2) AN EMERGENCY MAINS TAP SHALL BE PROVIDED ADJACENT TO THE WATER TANK OUTLET TAP FOR FILLING PURPOSES.
3) RAINWATER TANK SUPPLY SHALL NOT BE CONNECTED TO DRINKING AND BATHING WATER TAP OUTLETS.
4) FIRST FLUSH DEVICES TO BE FITTED TO ALL DOWNPIPES CONNECTED TO THE RAINWATER TANK.
5) ALL PIPEWORK ARE TO BE ENTIRELY P.V.C. ALL PIPES ARE TO BE SEALED UPTO UNDERSIDE OF ROOF GUTTERS.
6) ENSURE ALL CONNECTIONS WITHIN CHARGED SYSTEMS ARE SOLVENT WELDED.
7) THE MAINS WATER SUPPLY IS TO BE FITTED WITH AN AUTOMATIC CONTROL PANEL TO NSUIRE MAINS WATER SUPPLY IS PROVIDED WHEN TANK EMPTIES.
8) ALL PLUMBING WORKS SHALL BE CARRIED OUT BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER GUIDELINES AND THE "NSW CODE OF PRACTICE: "PLUMBING AND DRAINAGE".

GEOTEXTILE INLET SEDIMENT TRAP



ROCK KERB INLET SEDIMENT TRAP N.T.S.



SIGNAGE FOR EXCAVATION N.T.S.

demolition, construction + works management plan

Construction/demolition hours

Construction of the project will take approximately 12 months to complete. The proposed construction hours for the demolition will be during standard daytime construction hours. Monday to Saturday:
- Monday - Friday 7am- 6pm
- Saturday 8am- 2pm

However due to the inevitability of pedestrians accessing the site, and incidents in the area where visual, amenity and safety impacts caused by the daylight hours (including during the construction process, it is essential that the duration of the construction phase be kept as short as possible. Therefore, it is proposed that the following measures will be managed so as to minimise any impacts on the amenity of residents of the school and surrounding neighbours outside standard daytime construction hours.

Workers

The size of the workforce is dependent on the specific construction methodology employed by the contractor engaged to undertake the works and is unable to be identified at this stage. A methodology peak construction workforce could reach to be approximately 25 persons.

Waste management

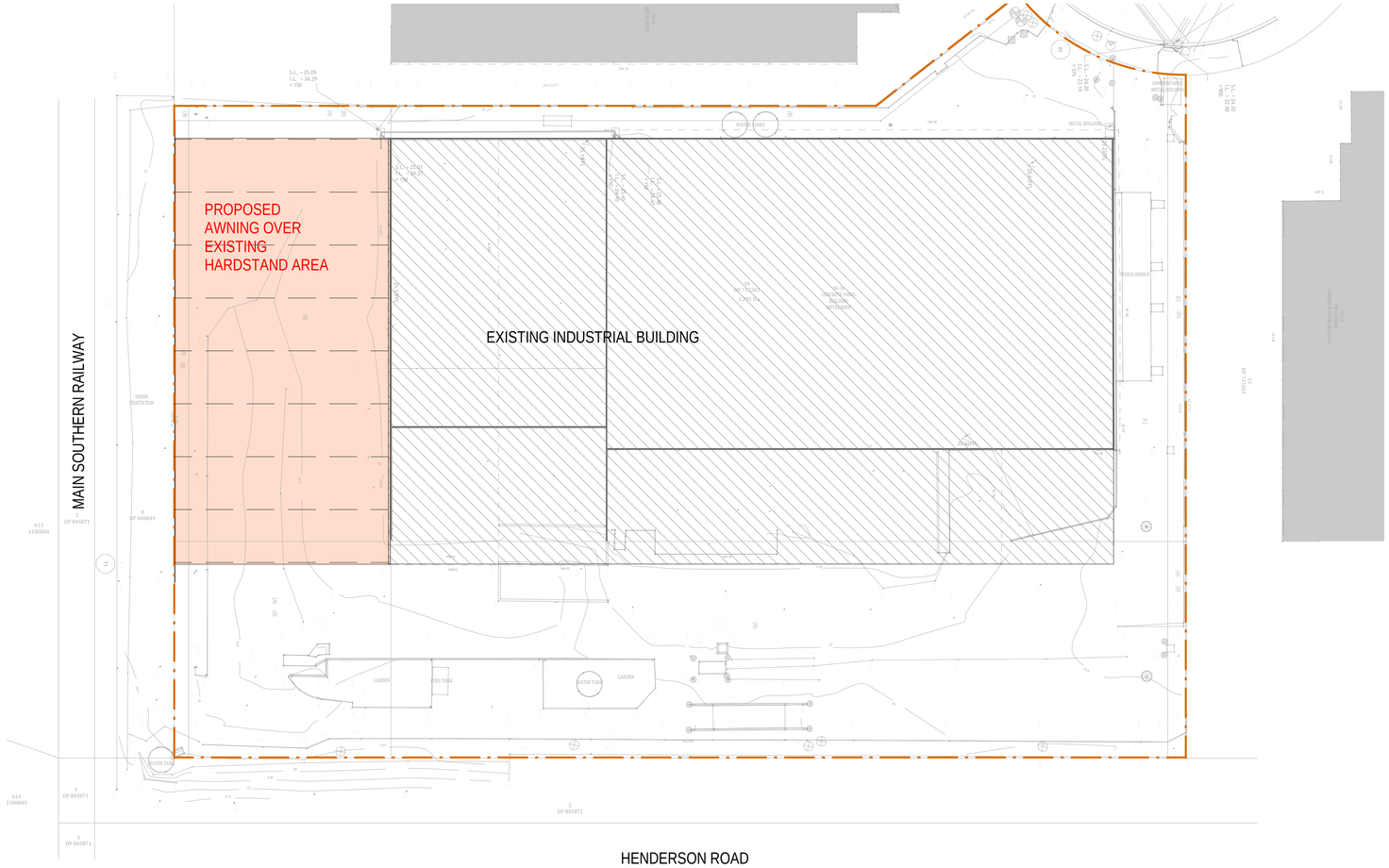
It is expected that the following waste will be generated during the construction:
- spoil
- brick / concrete materials;
- excavated materials;
- timber materials, such as bulk shoring, pipe cradles and sheet metal cladding;
- general waste from construction workers, such as packaging, scraps and paper.

The management of waste including spoil will be in accordance with the WMA 1995 legislation and the principles of the waste management hierarchy as set out in the NSW Waste Avoidance and Resource Recovery Strategy. Figure below illustrates the hierarchy for management of waste.

The proposed waste management measures are as follows:
- Bulk excavation - recycling at the disposal site or the reuse on site as backfill and/or re-shaping and proposed garden beds.
- Brick / concrete materials - disposed to appropriately licensed landfill.
- Timber materials - recycling at the disposal site or recycled in the skip bins for appropriately licensed landfill sites/recycling centre or reuse.
- Sand and waste - recycling at the proposed on site. Recyclable materials will be collected separately and recycled.
- General waste - recycling bins will be provided on site. Recyclable materials will be collected separately and recycled.

The Waste Management Plan will be fully detailed and developed by the contractor engaged to undertake the works. The Waste Management Plan will be developed in accordance with the principles outlined above. Receipts will be prepared and maintained on site commencing at the first construction activity within the Waste Avoidance and Resource Recovery Act 2001, and Waste Classification Guidelines.

standard bin colours		
waste catergory	bin body colour	bin lid colour
garbage	dark green or black	red
recycling	dark green or black	yellow
paper/cardboard	dark green or black	blue
organics	dark green or black	lime green



CC Environmental Management Plan
1 : 200

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Consultants

Rev	Date	Description
A	22.01.19	For client review

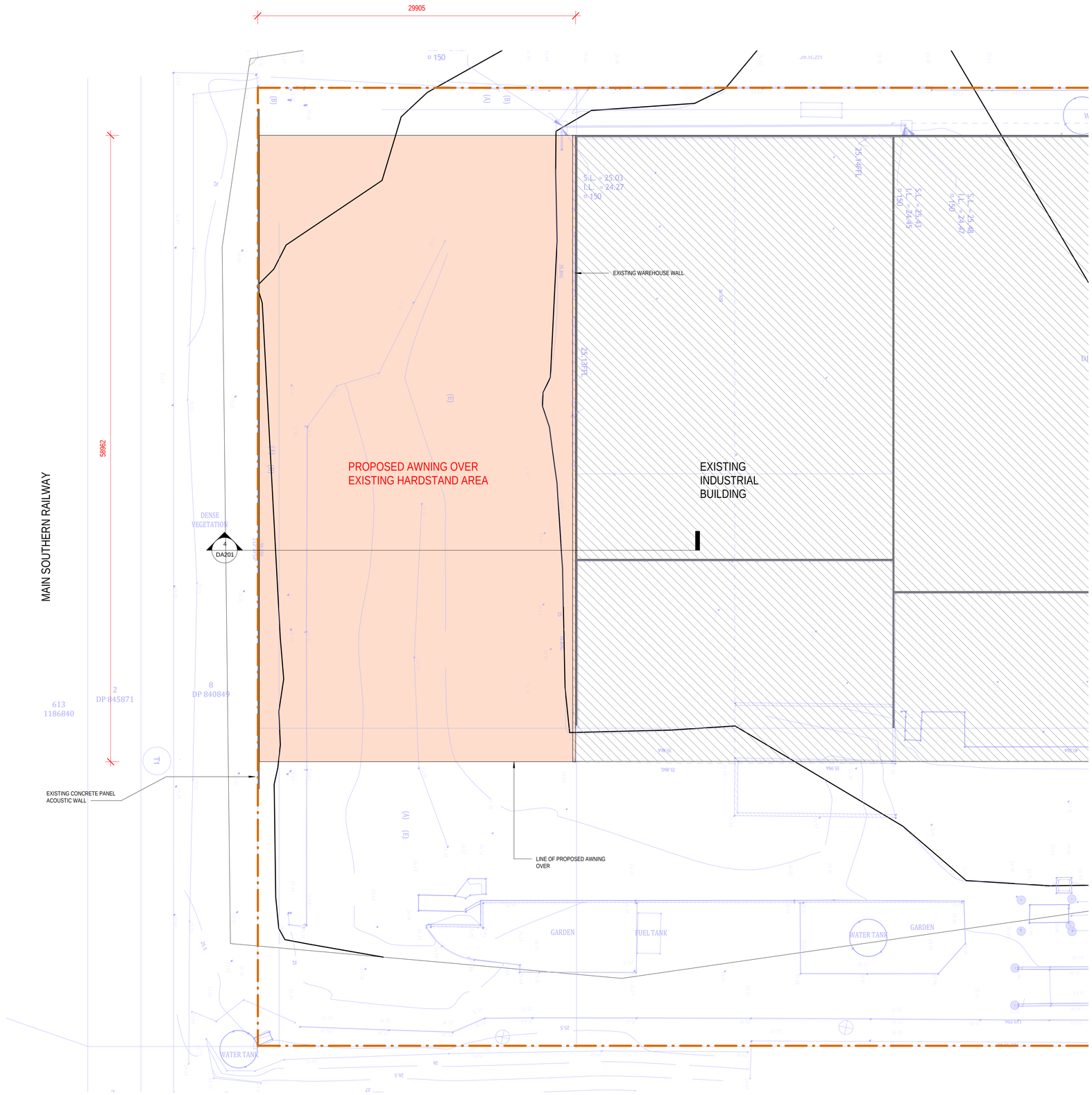
Client: AWE - AUSTRALIAN WEIGHING EQUIPEMENT

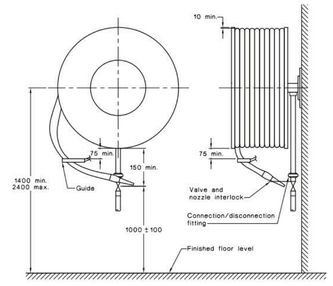
Project: Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing: Waste + Demolition Plan

North | Scale: As indicated @ A1 | Date: 22.01.2019 | Project No.: 1708 | Drawing No.: DA005 / A

Issued for: DA





DIMENSIONS IN MILLIMETRES

FIGURE 11.1 TYPICAL ARRANGEMENT OF FIXED TYPE HOSE REEL

LEGEND

GENERAL ARRANGEMENT PLANS

LEGEND

NOTE: WHERE NOMINATED ON DRAWINGS OR SCHEDULES A NUMERICAL SUFFIX INDICATES MULTIPLE TYPES I.E. BAL1 = BALUSTRADE TYPE 1, ETC. REFER TO ARCHITECTURAL SCHEDULES

AC	Air Conditioning
ACC	Accessible
ADP	Adaptable
AHD	Australian Height Datum
B	Bathroom
B1,2...	Bedroom 1, Bedroom 2, etc.
BAL	Balustrade
BKP	Bicycle Parking
BKR	Bicycle Rack
BKS	Bicycle Storage
BL	Bollard
BY	Balcony
CL	Centre Line
CLNR	Cleaner Store
COL	Column
COMS	Communication Services
COS	Check on Site
CPE	Car Park Echaust
CP	Carparking Space
CPD	Cupboard
CPT	Carpet
CY	Courtyard
CWB	Car Wash Bay
CWS	Cold Water Supply
D	Dining
DB	Distribution Board
DRY	Dryer
DW	Dishwasher
E	Ensuite
ELEC	Electrical Services
(EX)	Existing
EXH	Exhaust
FACT	Factory
F	Fire Services
FCR	Fire Control Room
FEX	Fire Ectinguisher
FFL	Finished Floor Level
FH	Fire Hydrant
FGL	Finished Ground Line
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FMP	Fire Mimic Panel
FEP_01,02..	Fire Egress Passage No.1, 2, etc
FS_01,02..	Fire Stair No. 1, 2, etc.
FW	Floor Waste
GBC	Garbage Chute
GBR	Garbage Room
GHR	Garbage Holding Room
GL	Ground Line
H	Hydraulic Services
HR	Handrail
HRV	Heavy Rigid Vehicle
HWS	Hot Water Service
HWU	Hot Water Unit
IL	Invert Level
K	Kitchen
KB	Kerb
L_01, 02..	Lift No.1, 2, etc.
L	Living
LG	Lower Ground
LR	Lobby Relief Air
LSA	Lobby Supply Air
LT	Laundry Tub
LY	Laundry
LV	Louvre
M	Mechanical Services
MBP	Motorbike Parking
MBX	Mail Box Assembly
MOV	Microwave Oven
MV	Mechanical Vent
MRV	Medium Rigid Vehicle
MSB	Main Swith Board Service Incl. Main Distribution BOard & Frame
MTR	Meter
NGL	Natural Ground Line
NOM	Nominal
OSD	On Site Detention Tank
OSR	On Site Retention Tank
OV	Oven
P	Pantry
PD	Pivot Door
PF	Paint Finish
PV	Paving
PCS	Prefabricated Car Stop
R	Robes
(R)	Recessed
RA	Return Air
RD	Roller Door
RES	Residential
RF	Refrigerator
RL	Relatived Level to AHD
RWH	Rainwater Head
RWO	Rainwater Outlet
S	Storage
SCN	Screen
SD	Sliding Door
SGN	Signage
SIM	Similar
SKL	Skylight
SMR	Small Rigid Vehicle
SO	Structural Opening
SOP	Set Out Point
SP	Stair Pressurisation
SSL	Structural Slab Level
STY	Study
SWD	Stormwater Drain
SWP	Stormwater Pit
TCE	Terrace
TD	Timber Deck
TGSI	Tactile Ground Surface Indicator
TH	Threshold
TOW	Top of Wall
TYP	Typical
UG	Upper Ground
UNO	Unless Noted Otherwise
U/S	Underside
UT	Utility
V	Void
VS	Visitor
WAH	Warehouse
WC	WC
WC_A	WC - Accessible
WC_F	WC - Female
WC_M	WC - Male
WC_U	WC - Unisex
WIR	Walk In Robe
WM	Washing Machine

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Rev

Issue	Date	Description
A	22.01.19	For client review

Consultants

Client
AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project
Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing
Ground Floor Plan

North | Scale: As indicated @ A1 | Date: Project date | Project No.: 1708 | Drawing No.: DA102 / A

Issued for
DA

NEW STRUCTURAL STEEL AWNING TO BE ATTACHED TO EXISTING CONCRETE PANEKL ACOUSTIC WALL

MAIN SOUTHERN RAILWAY

DENSE VEGETATION

4 DA201

ROOF VENTILATOR

3°

PROPOSED AWNING OVER EXISTING HARDSTAND AREA

600 WIDE BOX GUTTER TO BE CONNECTED TO EXISTING STORMWATER SYSTEM

EXISTING INDUSTRIAL BUILDING

TRANSLUCENT ROOF SHEETING

NEW STRUCTRUAL STEEL ROOF FRAME TO BE ATTACHED TO EXISTING WAREHOUSE STEEL FRAME

WATER TANKS

25.14FFL

25.13FFL

EXISTING INDUSTRIAL BUILDING

613 1186840

2 DP 845871

8 DP 840849

T1

General

- Provide gutter expansion joints every 18m max.
- Minimum gutter grades shall be 1 in 50
- Connect all downpipes to the sole of the gutter sump. No side entires permitted
- Minimum slope of downpipes to be 15d.
- Provide overflows to all box gutters
- Installation of roof tie down points shall be carried out in accordance with Australian Standards

Safety

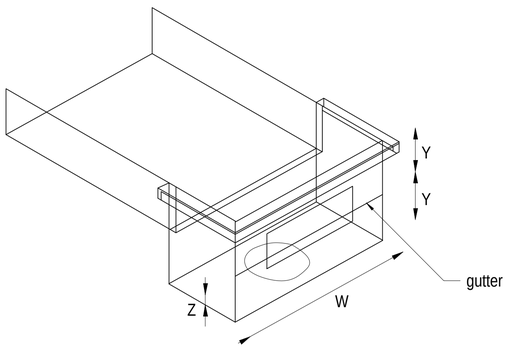
- Safety mesh to be provided under all translucent roof sheeting

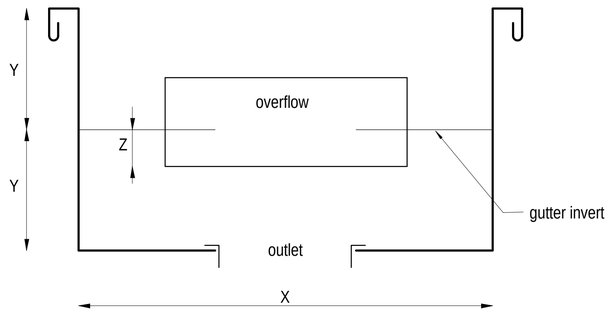
Translucent Roof Sheeting

- Translucent roof sheeting shall be manufactured to conform with the nominated cladding profile
- Installation shall be carried out in accordance with Australian Design and Fixing Standards

CC Roof Notes
1 : 20

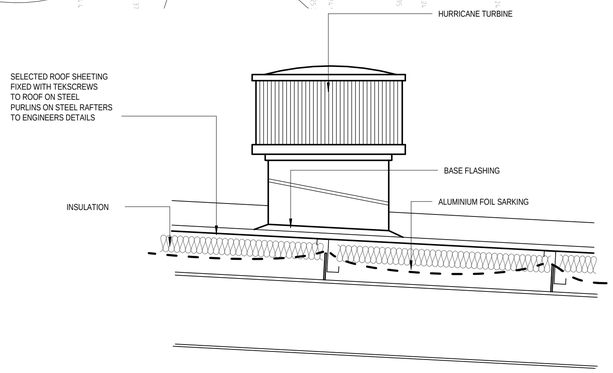
STORMWATER LAYOUT IS DIAGRAMMATIC ONLY AND SUBJECT TO CONTRACTORS RECOMMENDTAIONS AND / OR ANY CONSTRUCTION CONSTRAINTS.
REFER TO STORMWATER PLAN FOR ALL ROOF COLLECTION AND SURFACE DRAINAGE CONNECTIONS AND DISCHARGE SYSTEMS.



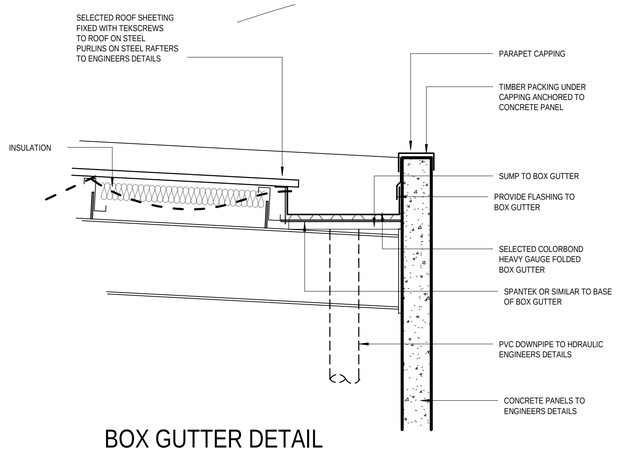


Dimension Y equal to depth of gutter at outflow
Dimension X equal to width of gutter plus 3mm
Dimension Z greater than or equal to 25mm
Cross-Section are of overlofw greater than or equal to Cross-Section area of outlet

CC Rainwater Head Detail
1 : 100



TURBINE VENTILATOR DETAIL



BOX GUTTER DETAIL

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Rev

Issue	Date	Description
A	22.01.19	For client review

Consultants

Client
AWE - AUSTRALIAN WEIGHING EQUIPEMENT

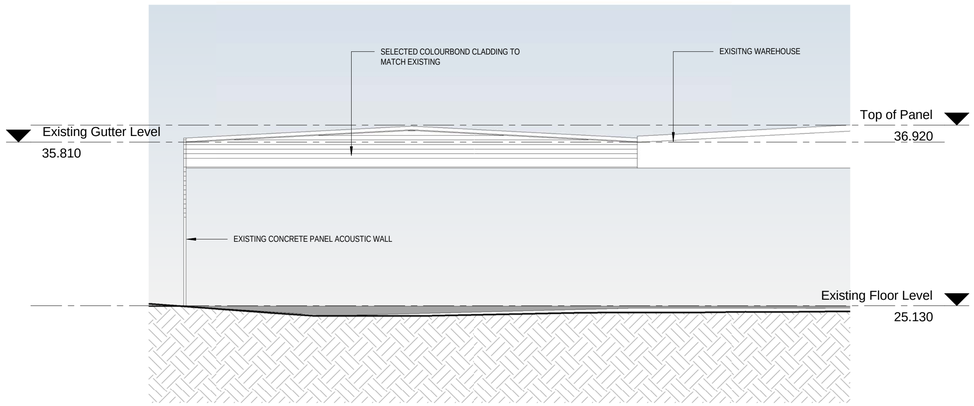
Project
Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing
Roof Plan

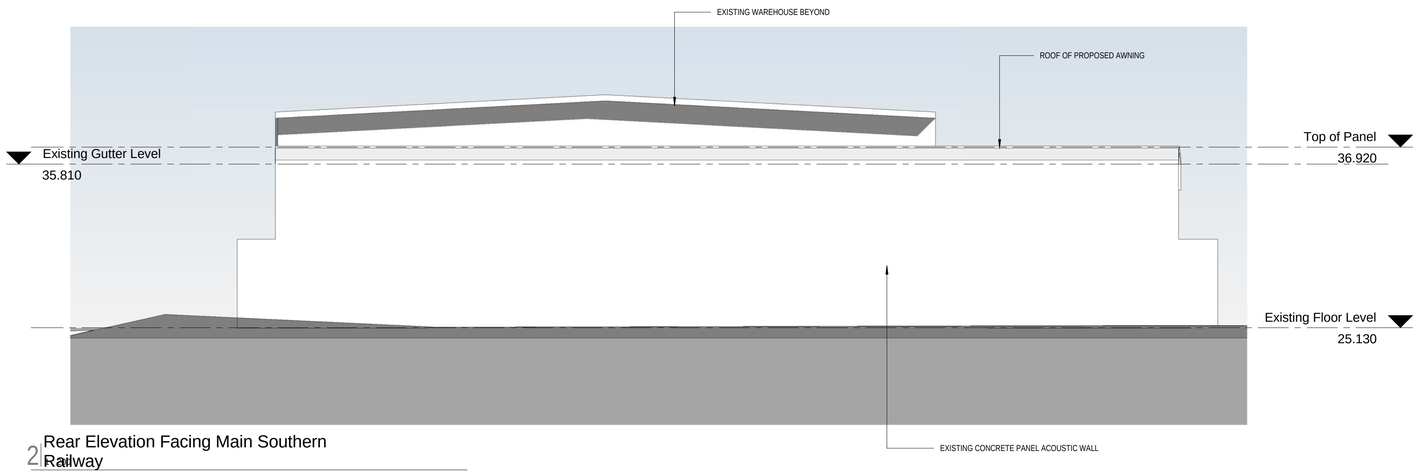
North

Scale	Date	Project No.	Drawing No.
As indicated @ A1	Project date	1708	DA104 / A

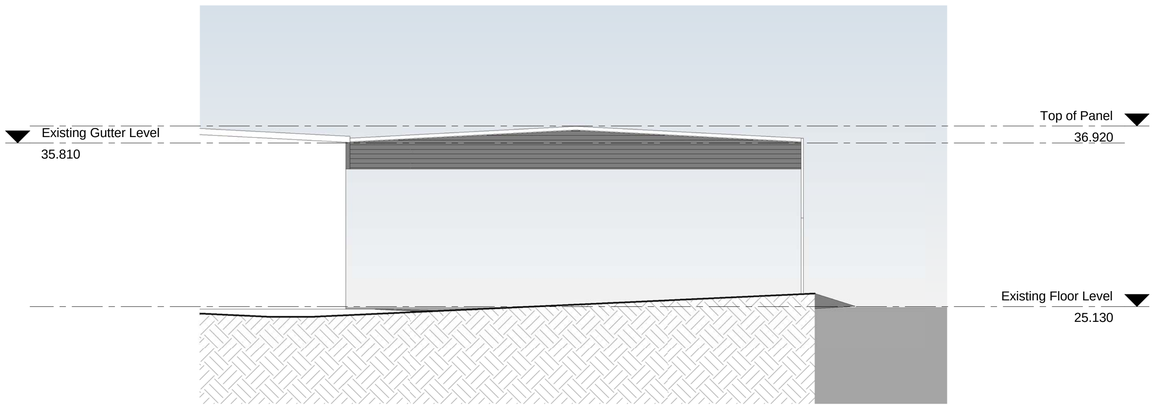
Issued for
DA



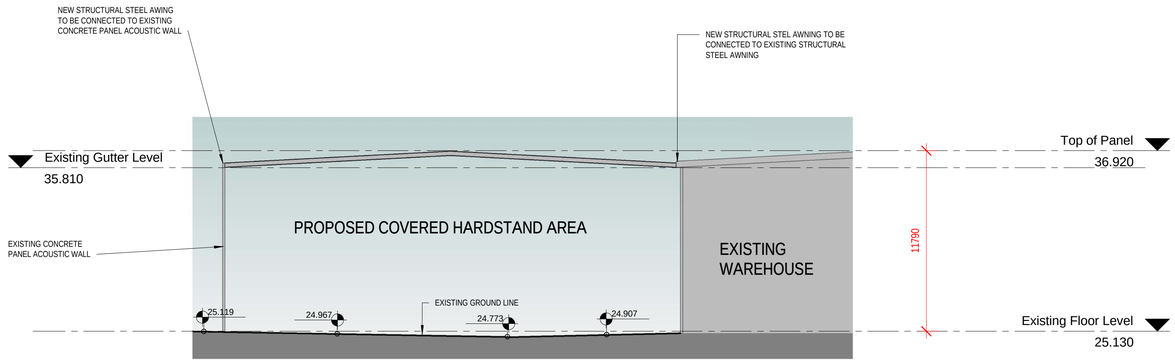
1 Side Elevation Facing Henderson Road
1 : 200



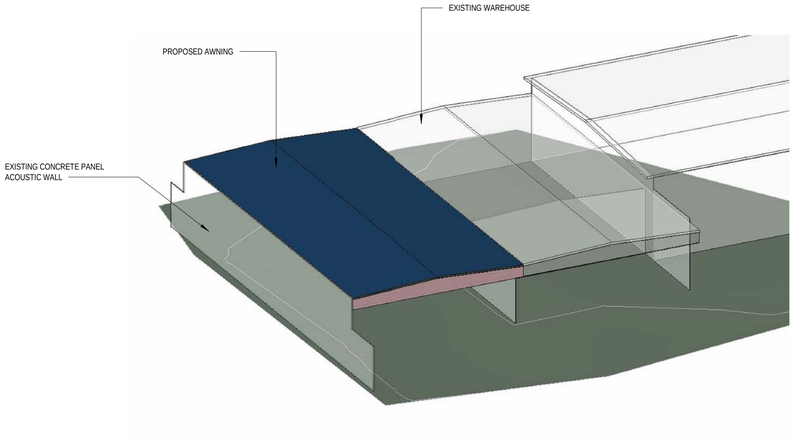
2 Rear Elevation Facing Main Southern Railway
1 : 200

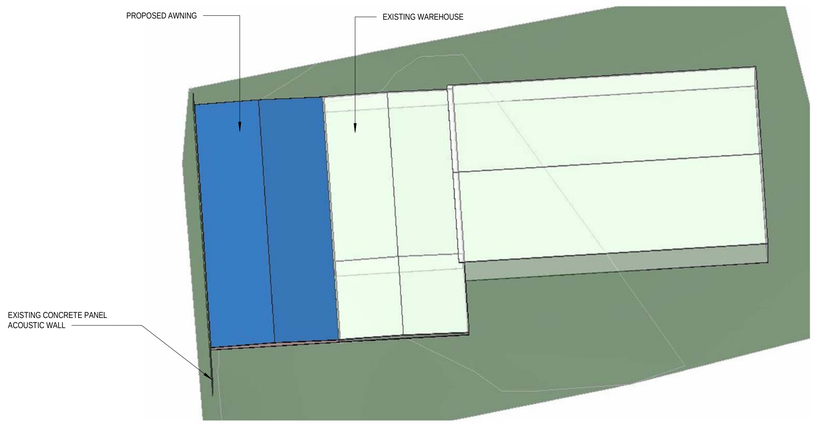


3 Elevation 1 - d
1 : 200



4 Cross Section
1 : 200





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Rev

Issue	Date	Description
A	22.01.19	For client review

Consultants

Client
AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project
Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing
Section + Elevations

North | Scale: 1 : 200 @ A1 | Date: Project date | Project No.: 1708 | Drawing No.: DA201 / A

Issued for
DA

DEVELOPMENT APPLICATION

PROJECT: PROPOSED STRUCTRUAL STEEL AWNING

AT: 16 KERR ROAD, INGLEBURN NSW
JANUARY 2019

ISSUE: A

Sheet List

A000-099 DA-SITE		
A000	Cover	A
CC000-099 CC-SITE		
DA001	Locality Plan	A
DA005	Waste + Demolition Plan	A
CC100-199 CC-GENERAL ARRANGEMENT		
DA102	Ground Floor Plan	A
DA104	Roof Plan	A
CC200-299 CC-ELEVATIONS		
DA201	Section + Elevations	A

16 Kerr Road - Carparking Calculations

Existing Factory Area	4000 sqm		
Existing Office Area	1100 sqm		
Total loading Bays	5 loading Bays @ 80sqm each		
	400 sqm		
Proposed Covered Hardstand Area	1750 sqm		
Parking Rates Required:			
Area used for offices, lunchroom, etc	1 per 35 sqm		
Areas used other than for lunchroom, office, etc.	1 per 100 sqm		(area under 2000 sqm)
	1 per 250 sqm		(area over 2000 sqm)
Outdoor storage	1 per 300 sqm		
Plus 2 spaces per unit			
Factory Area			
First 2000sqm - 5 loading bays	1600 sqm		
	16 car parking spaces		
Second 2000sqm	8 car parking spaces		
Existing Office, Lunchroom, etc	31.4285714		
	32 car parking spaces		
Proposed Covered Hardstand Area	5.83333333		
	6 car parking spaces		
Plus 2 spaces per unit	2 car parking spaces		
Total car parking required for this development	64 car parking spaces		

building notes for type c construction essential services

- emergency lighting and exit signs are to be provided in accordance with as 2293.1 and table 5.5 of 2293.1 - 2005 (bca cl. e4.2, e4.4, e4.6, e4.8)
- hose reels to be installed as per as 1221, as 2441 (bca cl e1.4)
- fire hydrant (if required) to be installed as per as 2419.1 (bca cl e1.2, e1.3)
- portable fire extinguisher to be provided as per as 2444 (bca cl e1.6)
- external wall to be provided as per (bca c1.1-4)
- fire-resistance of building elements as per (bca a2.3 – specification a2.3)

fire safety legend

Statuary Minimum Standards

fire safety measures to be implemented if applicable:	design/installation standard:	maintenance standard:
emergency lighting	bca e4.4 – as2293.1-2005	as 2293.2-2005
exit signs	bca e4.5/e4.6/e4.8 + as2293.2-2005	as 2293.2-2005
fire dampers	bca c3.15 + as1668.1-1998 + as1682.1 – 2-1990	as 1851-2005
fire doors	bca c2.13, c3.2, c3.4-3.8, c3.10, c3.11, nsw c3.11(d) c3.13 + as1905.1-2005	as 1851-2005 sect.17
fire hose reels	bca e1.4 – as2441-2005	as 1851-2005 sect.14
fire hydrant systems	bca e1.3 – as2419.1-2005	as 1851-2005 sect.4
fire seals	bca c3.15 + as1530.4-1997	physical inspection
fire windows	bca c3.4	as 1851.7-1984
portable fire extinguishers	bca e1.6 – as2444-2001	as 1851-2005 sect.15
warning + operational signs	sect.183 of ep&a regulations 2000, as1905.1-1997, bca c3.6, d2.23, e3.3	physical inspection of integrity and operation

type c construction: frl of building elements

	class of building - frl (in minutes) structural adequacy / integrity / insulation			
building elements	2, 3 or 4 part	5, 7a or 9	6	7 b or 8
external wall	(including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is-			
for loadbearing parts				
less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3m	-/-/-	60/60/60	60/60/60	60/60/60
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-
external column not incorporating in an external wall, where the distance from any fire source feature to which it is exposed is-				
less than 1.5m	90/-/-	90/-/-	90/-/-	90/-/-
less than 3m	-/-/-	-/-/-	-/-/-	-/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
common walls + fire walls	90/90/90	90/90/90	90/90/90	90/90/90
internal wall				
bounding public corridors, public lobbies and the like- between or bounding sole-occupancy units-	60/60/60	-/-/-	-/-/-	-/-/-
	60/60/60	-/-/-	-/-/-	-/-/-
bounding a stair if required to be rated	60/60/60	60/60/60	60/60/60	60/60/60
roof	-/-/-	-/-/-	-/-/-	-/-/-

australian standard compliance

the building shall be constructed in accordance with but not limited to the following australian standards

as/nzs 1664	aluminum structures
as/nzs 1905	components for the protection of openings in fire resistant walls
as 2047	windows in buildings – selection & installation
as 2159	piling - design & installation
as 2293	emergency evacuation lighting in buildings
as 2327	composite structures
as 3700	masonry structures
as 3013	electrical installations
as 1668	the use of mechanical ventilation & air conditioning in buildings
as 2441	installation of hose reels
as 2444	portable fire extinguishers & fire blankets – selection & location
as 3786	smoke alarms
as/nzs 1905	components for the protection of openings in fire-resistant walls
as 1288	glass in buildings - selection & installation
as 2107	acoustics - recommended design sound levels & reverberation times for building interiors
as 3660.1-2000	termite management - new building work
as 2890.1-2004	off street car parking
as 1428.1 & .2	design for access & mobility part 1 & 2
as 1428.4	design for access & mobility part 4
as 2118.1-1999	automatic fire sprinklers
as 1670.1,2,3-2004	fire detection, warning, control & intercom system
as/anz 2293.1-1998	emergency evacuation lightings for buildings
as 1668.2-1991	use of mech'l ventilation & airconditioning of buildings
as/anz 1668.1-1998	use of mech'l vent. & aircond. of buildings. fire & smoke control in c buildings
as 2419.1-1994	hydrant installation

e.s.d. commitments

J6 Artificial Lighting and Power Artificial

Section J6 2(b) applies to artificial lighting in the building. Note that these specifications supersede any shown on the drawings.

Refer to Appendix II – Lighting Calculator
Based on the assumptions in the lighting calculator, the aggregate permissible lighting Illumination Power Load (IPL) is 23.0 kW. Provided the aggregate design Illumination Power Load is less than this amount, then the design complies. The design IPL is 20.6 kW based on the design assumptions in the lighting calculator (refer to the brown cells). The required artificial lighting should be confirmed with a suitably qualified person.
These requirements do not apply to emergency lighting, signage and display lighting in displays and lighting of a specialist nature.
Note that while Section J specifies maximum Illumination Power Load, BCA Section F4.4 and AS/NZS 1680.0 specify minimum levels of illumination.

J6.3 Power Control
The artificial lighting must be operated by a switch or other control device. A switch must be in a visible position in the room or space being switched or in an adjacent room or space from where the lighting being switched is visible.
The above do not apply to emergency lighting in accordance with Part E4.

J6.4 Interior decorative and display lighting
Any interior decorative and display lighting must be controlled separately from other artificial lighting and by a manual switch for each area other than when the displays or parts of the displays are the same in a number of areas in which case they may be combined. Where the display lighting exceeds 1kW a time switch in accordance with Specification J6 is required

J6.5 Artificial lighting around the perimeter of a building
Any artificial lighting around the perimeter of the building must be controlled by a daylight sensor or a programmable time switch.
When the perimeter lighting uses fluorescent lighting, the light source efficacy must not be less than 60 Lumens/W.
The perimeter lighting used for security or other purposes such as decorative and signage lighting must have a separate time switch in accordance with Specification J6. Such a time switch must be capable of switching on and off electric power at variable pre-programmed times and on variable pre-programmed days. It must also be capable of being overridden by a manual switch or a security access system that senses a persons presence, overrides for a period of up to 2 hours, after which if there is no further presence detected, the time switch must resume control.

J6.6 Boiling water and chilled water storage units
Power supply to any boiling water or chilled water storage unit in the retail space must be controlled by a time switch in accordance with BCA 2014 Specification J6. Such a time switch must be capable of switching on and off electric power at variable pre-programmed times and on variable pre-programmed days. It must also be capable of being overridden by a manual switch or a security access system that senses a persons presence, overrides for a period of up to 2 hours, after which if there is no further presence detected, the time switch must resume control.

J7 Hot Water Supply

J7.2 Heated Water Services
Any hot water supply system for food preparation and sanitary purposes
must be designed and installed in accordance with Section 8 of AS/NZS 3500.4

J8 Access for Maintenance + Facilities for Monitoring

J8.2 Access for Maintenance NSW J8.2 Access for maintenance must be provided to all services and their components including time switches and motion detectors, reflectors, lenses and diffusers of light fittings; and heat transfer equipment.
J8.3 Facilities for energy monitoring
A building with a floor area of more than 500 m2 must have the facility to record the consumption of gas and electricity.

general notation

all work to be carried out in accordance with the requirements of the principal certifying authority and the current building code of australia.

all demolition work to be carried out in accordance with as 2601 - 1991

silt/sediment control measures to be in place prior excavation or construction work

protection measures are required for each tree being retained on site and shall be established before building operations begin and constructed in accordance with council's requirements

removal of asbestos cement sheeting must be carried out by licensed contractors and in accordance with council's information sheets "demolition of asbestos cement sheeting"

pedestrian access, including disabled + pram access during road work to be maintained as per as 1742.3, part 3 - traffic control devices for works on roads"

builder shall make good all disturbed areas adjacent to the works on council's road. footpath are to be restored to the satisfaction of the principal certifying authority.

all concrete footings, floor slabs, columns 2B steel roof framing to structural engineer's detail.

all storm water requirements, external rl and driveway levels to hydraulic engineer's details.

all landscape areas, existing trees, driveway, drying yard and fencing to landscape architect's details.

carparking ventilation to mechanical engineer's details.

fire safety layout + schedule refer to fire safety engineer's details.

ceiling immediately below the roof to have an 1 hour fire rating.

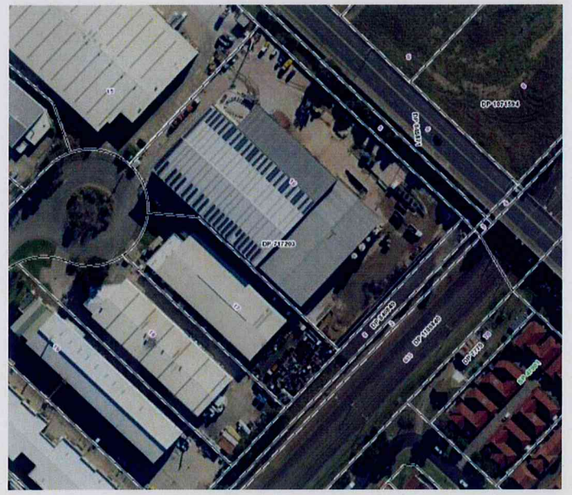
the reflectivity index of glass used in the external facade of the building is not to exceed 20%.

access for the disabled within the development shall be provided in compliance with part d3 of the bca.

all toilet windows shall be fitted and maintained with obscure glass.

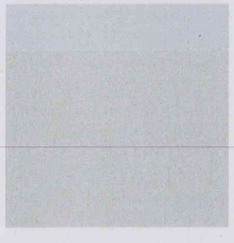
unless the door in a sanitary room swings out or slides, where distance between the path of door swing and toilet suit less than 1.2 m, the door must be installed with removable hinges.

a door in a required exit, forming part of a required exit or in path of travel to a required exit must be readily operable without a key from the side that faces a person seeking egress, by a single hand downward action or pushing action on a single device which is located between 900mm and 1100mm from the floor, and must not comprise a bolt or padlock or a separately operated deadlock.



01 - SHEET METAL CLADDING
- COLORBOND - DEEP OCEAN

02 - PRESSED METAL CAPPING
- COLORBOND -



03 - SHEET METAL ROOFING
- COLOURBOND - SHALE GREY

Schedule of Finishes
1:2

1. Do Not Scale. All Dimensions are in millimeters.
2. Contractor/Builder to check ans verify all levels and dimensions on site and shall report any discrepancies or omissions to this office prior to start of construction works & during the construction phase.
3. Drawing is to be read and understood in conjunction with structrual, mechanical, electrical and / or any other consultant's documentation as may be applicable to the project prior to stan or work & it's duration
4. Any additional request for information is to be referred to the architect or engineer in writing
5. All Construction Practices shall be in accordance with the general requirements of the Building Code of Australia (BCA), Australian Standards and local government regulations & The Principal Certifying Authority.
6. Erosion & sediment control measures to be in place prior to excavation or construction work
7. Where applicable, all sediment basins ans traps shall be cleaned when structures are a maximum of 60% full of soil materials, including the maintainence period.
8. Filter shal be constructed by stretching filter fabric (propex or approved equivalent) between post at 2.0m centres. Fabric shall be buried 150mm along its lower edge
9. Revegetation and storage of soil and topsoil, shall be implemented to the standards of the soil conservatio of NSW.
10. All siteworks indicated are illustrative only.
11. Final levels may be subject to adjustment, such adjustments, while complying with council requirements remain at the discretion of the Builder and must obtain such variations of final levels from council or PCA in writing.
12. The plan has been prepared from a combination of field survey and existing records for the purpose of construction on the land and should not be used for any other purpose.
13. The builder shall engage a Registered Surveyor to peg-out all structures shown on plans.
14. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location or further underground services and detailed location of all services.
15. COntours have been interpolated from the spot heights taken.
16. All demolition work to be carried out in accordance with AS 2601-2001, refer to NSW Occupational Health and Safety Act & regulations and NOHSC guide to control of Asbestos Hazards in building and structures during demolition. Removal of all asbestos must be carried out by licensed contractors.
17. Protection measures are required for each tree being retained on site and shall be established before operations begin and construction in accordance with Council's requirements (also refer to Arborist report for details).
18. During construction the stability of the structure shall be the builder's responsibility.
19. Builder shall make good all disturbed areas adjacent to the works on Council's road. Footpaths are to be restored on the satisfaction of the principal certifying authority & local authority (also refer to DA conditions).
20. Termite protection for all postm slums, underside of slabs & edges to be chlopyfos poison (part a & b) in accordance with AS 3660.1(2000) Also refer to BCA.
21. Provide under all slabs-on-ground 50mm sand bed topped with minimum 20 micron thick polthenem, waterpoof membrane with all edges having minimum laps of 200mm sealed with approved tapes.
22. Ground floor slabs shall be a minimum of 225mm above finished ground level, U.N.O.
23. All concrete footings, floor slabs, columns & timber roof framing to structrual engineer's details and specifications.
24. All stormwater requirements, external RL and driveway levels to hydraulic engineer's details and specifications.
25. All landscape areas, existing trees, driveway, drying yard and fencing to landscaped (drawing) details and specifications.
26. All balustrades to terraces, balcinies and stairs to comply with BCA
27. All wet areas to have floors which fall to floor wastes.
28. Unless the door in a sanitary room swings out or slide, where distance between the path of door swing and toilet suite is less than 1.2m, the door must be installed with removable (Lift-Off) hinges.
29. All materials and form of construction to comply with BCA requirements.
30. All materials & assemblies to hae fire hazard properties to comply with BCA.
31. Refer to BASIX certificate for Water, Thermal Comfort & Energy performance requirements.
32. All wet areas to comply with AS 3740. Wall finished shall be impervious to a height of 1800mm above floor level to shower enclosures and 300mm above baths, basins, sinks ans troughs if within 75mm of the wall. Refer to code for all requirements.
33. Shower screens shall be Grade A safety glass.
34. Window sizes are nomenly only, actual size will vary according to manufacturer. Windows to be flashed all round.
35. Stormwater shall be taken to legal point of discharge as advised by municipal drainage egineer. Contact the Council if unsure of point of discharge.
36. Sewer or septic system shall be in accordance with the relevant authorities requirements.
37. Footings not to encroach title boundaries and easement lines. Builder to ensure this does not occur.
38. Provide wall ties to brickwork at a maximum of 600mm centres in each direction and within 300mm of articulated joints.
39. Sub floor vents & clearances to BCA
40. Stair & Handrail requirements to BCA (domestic only)
Risers - 190mm maximum - 150mm minimum
Going 355 maximum - 240mm minimum.
Handrail 1000mm minimum height to balconies and decks which are 1000mm or more above ground level.
41. The builder shall take all steps necessary yo ensure the stability of new and existing structures during all works.
42. The builder shall ensure for the general - watertightness of all new and existing works.
43. Smoke alarms to be provided and installed in accordance with AS 3786. New dwellings and additions with sleeping accomodation to be hard wired with back-up battery.
44. All work shall comply with, both not limited to the following Australian Standards:
AS 1288: Glass in Buildings - Selection and Installation
AS 1562: Design and Installation of Sheet Roof and Wall Cladding
AS 1684: Residential Timber Framed Construction
AS 1860: Installtion of Particle Board Flooring
AS 2047: Installtion and Selection of Windows
AS 2049: Roof Tiles
AS 2050: Fixing of Roof Tiles
AS 2870: Residential Slabs and Footings
AS 2904: Damp Proof Courses and Flashings
AS 3500: Plumbing & Drainage
AS 3600: Concrete Structures
AS 3660: Protection of Buildings from Subterranean Termites
AS 3700: Masonry in Buildings
AS 3740: Waterproof of Wet Areas in Residential Construction
AS 3959: Construction in a Bushfire Prone Area
AS 3786: Smoke Alarms
AS 4055: Wind Loadings for Housing
AS 4100: Steel Structures

Note: All proprietary items, products & systems shall be installed in accordance to the manufacturer's specifications

CC Builders Notes
1 : 100

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Issue	Date	Description
A	22.01.19	For client review

KERR ROAD

EXISTING PARKING

DEMOUNTABLE METAL BUILDING

METAL BUILDING

WATER TANKS

S.L. = 25.05
I.L. = 24.29
ø 150

S.L. = 25.03
I.L. = 24.27
ø 150

S.L. = 25.43
I.L. = 24.43
ø 150

S.L. = 25.46
I.L. = 24.47

S.L. = 24.20
I.L. = 23.00
ø 750

S.L. = 24.20
I.L. = 23.74
ø 525

S.L. = 24.20
I.L. = 22.90
ø 900

25.14FFL

25.38FFL

25.64FFL

25.62FFL

EXISTING CONCRETE PANEL WALL ALONG REAR BOUNDARY

LINE OF STEEL RAFTERS SUPPORTING AWNING TO ENGINEERS DETAILS

NEW STEEL RAFTERS TO BE CONNECTED TO EXISTING CONCRETE PANEL WALL

EXISTING CONCRETE PANEL WALL

NEW STEEL RAFTERS TO BE CONNECTED TO EXISTING STRUCTURAL STEEL FRAME TO ENGINEERS DETAILS

29765

25741

4480

58962

MAIN SOUTHERN RAILWAY

PROPOSED AWNING OVER EXISTING HARDSTAND AREA

EXISTING INDUSTRIAL BUILDING

EXISTING LOADING BAY

EXISTING LOADING BAY

EXISTING LOADING BAY

EXISTING LOADING BAY

EXISTING INDUSTRIAL BUILDING

-16
DP 719203
1.295 Ha

N616
CONCRETE PANEL
BUILDING
METAL ROOF

WEIGH BRIDGE

EXISTING PARKING

EXISTING PARKING

EXISTING PARKING

EXISTING PARKING

EXISTING PARKING

NEW PARKING

GARDEN

FUEL TANK

WATER TANK

GARDEN

WATER TANK

DENSE VEGETATION

DA201

17
DP 717203

613
1186840

2
DP 845871

8
DP 840849

614
1186840

3
DP 845871

5
DP 845871

HENDERSON ROAD

CAMPBELLTOWN CITY COUNCIL

This plan forms part of Development Consent No.
801/2020/DA-O
This plan is not for construction purposes and a separate construction certificate must be issued before building or subdivision work commences.

Rev	Date	Description
Issue A	22.01.18	For client review

Consultants

Client: AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project: Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing: Locality Plan

North | Scale: 1:250 @ A1 | Date: 12/25/17 | Project No.: 1708 | Drawing No: DA001 / A

Issued for: DA

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Construction Environmental Management Plan (CEMP)

Prior to the works being undertaken on site, investigations will be undertaken to mitigate and control impacts arising from the works.

- A detailed dilapidation survey will be performed on surrounding areas and adjacent buildings.
- Undertake infrastructure investigations to locate and mark all in-ground services.
- Seek authority approvals from Council and utility providers as necessary.

Site establishment will include the contractor's site offices, lunch and toilet facilities, vehicle access, vehicle loading and unloading zones, and establishment of site work areas.
The contractor will ensure the security of all active work areas and vacant buildings for the safety of the public and protection of the works.
It is estimated that at the peak of construction there will be approximately 20 workers on site each day.
Specific areas will be provided for the storage of materials and will be restricted to secure areas within the site.

Environmental and safety controls will be installed by the contractor/s prior to the commencement of demolition and bulk excavation. These will include:

- Security measures (fencing and gate access);
- Occupational health and safety measures including PPE and signage;
- Environmental management measures including dust minimisation, vehicle tyres, sediment and stormwater control, waste transport and disposal, storage of dangerous goods.

Bulk excavation and shoring of the basement will be completed by a suitably qualified contractor. A specific CEMP will be created by the contractor for these works.
Site Specific Quality, WHS and Environmental Management Plans will be developed by the Contractor prior to the works commencing.
All material removed from site is to be sorted and disposed of in accordance with the Waste Minimisation and Management Act of 1995.
All contaminated and non-recyclable materials will be loaded and transported to EPA approved landfill sites.
All loads departing the site shall be covered with tarpaulins to prevent any debris from escaping the truck or bin body.
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All loads departing the site shall be covered with tarpaulins to prevent any debris from escaping the truck or bin body.

Once the construction of the floor slabs is past the ground level, temporary perimeter screens and or scaffold will be installed around the perimeter of each of the buildings for safety as the suspended deck construction progresses.

"A" and "B" class hoardings will be installed and established throughout the project as required. Emergency Access and Egress gates will be provided.
Security and public access lighting will be installed where required. Site sheds may be installed on hoarding.
A site plan showing the proposed location of hoarding and other protective measures.

Signage will be placed at all site entrances clearly stating that access is for authorised persons only.
Only those workers who have completed site specific inductions will be allowed to enter the site.
Visitors to the site will need to first attend the Site Office and sign in.
An on-site manned and after hours mobile security presence will be maintained.
All gates are to be securely locked outside of working hours and patrolled by security staff.

It is envisaged that the majority of materials unloading and loading during excavation will occur on site however a street construction zone on Digitaria Drive will be required. Loading zones required to be established on existing roads will require separate approval from the relevant Authorities and coordination with any adjacent construction sites.
For the buildings to be built, Construction Zones will be required for the majority of the construction building time.
The Construction Zones will be used to park trucks for the purpose of:

- Unloading materials required for the Works
- Load up surplus materials including waste, from the works.
- Standing a concrete pump and concrete trucks required for the Works.

To alleviate congestion to the Construction Zones and streets, once the permanent basements are constructed and stripped of formwork, trucks that can be marshalled into the basements will be directed there for unloading and or reloading of materials. Some of these activities will be -

- Delivery of concrete trucks
- Pick up of rubbish bins

Delivery of finishing materials such as bricks, blocks, gyprock, light fittings will be moved by hoist or builders lifts rather than the tower crane to the designated floor.
Construction Zones will be required in Digitaria Drive. The Construction Zone will be phased in use so as not to cause excessive traffic congestion to these surrounding streets.
Construction zones will take the kerb lane in all cases.
The need for maintaining smooth traffic flow and pedestrian safety is understood and so adequate, well informed and trained, traffic controllers will be used to ensure this occurs.
To assist the traffic flow and the traffic controllers, Site Management will ensure that all trucks are pre booked well in advance for a designated time to stop in the Construction Zones so that no unnecessary queueing occurs which will restrict traffic flow. The if used, a tower cranes will have a schedule for the anticipated truck deliveries so that they can schedule their work to minimize truck waiting time in the Construction Zones.

The envisaged truck arrivals to site will be:
Excavation 25 - 40 per day
Structure 3 – 5 per day
Concrete Pour 5 – 40 per day (on pour days only)
Fit out 5 - 15 per day (mainly within loading dock)

A detailed site specific Work Health and Safety Management Plan, which will include a health and safety risk assessment for the planned construction works shall be prepared by the Contractor prior to the CC being issued.
The Plan shall include, but not be limited to:

- Name key personnel responsible for site safety;
- Emergency contact details and procedures;
- Identify and describe the risks associated with each operation conducted;
- Describe actions to be taken to mitigate risks and hazards;
- Confirm that on-site personnel are adequately trained to perform their job responsibilities;
- Describe personal protective clothing and equipment that will be worn by personnel;

During excavation all trucks will be required to exit the site via a dedicated gate. This gate will have facilities such that loads are covered and wheels are free of sediment.
All construction waste will be separated as much as possible and waste will be minimised by ensuring that all construction waste packaging be returned to the suppliers of all manufactured items.

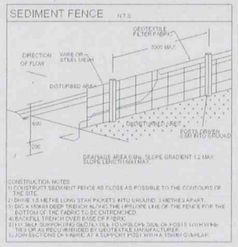
The Stormwater and Sediment Control plan is to be prepared by the Contractor prior to the commencement of the works and shall include measures to ensure compliance with the Protection of the Environment Operations Act (2000), as amended, and other relevant legislation.
The SSC shall include a plan showing the location of the sediment controls to be implemented by the Contractor with the following measures to be adopted:

- Provide temporary drainage channels and detention pondage to appropriately manage stormwater.
- Stormwater drain grates will be wrapped in filtration medium. The filtration medium will be periodically cleaned and changed as and when required.
- Diversion drains will be constructed to minimize runoff from rainfall flowing into the works area. Stormwater diversion drains are to be constructed in the vicinity of areas to be excavated to minimize water flow into excavations.
- Regular visual inspection of the site drainage system will be undertaken by the Contractor.

construction waste management plan

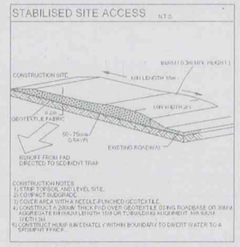
material	estimated waste volume	estimated waste weight	destination: reuse and recycling on-site: proposed use on-site	reuse and recycling off-site: recycling outlet	disposal: contractor/landfill site
grass /topsoil	200 cu.m	110 t	mulch / landscaping		concrete recyclers
fill	1500 cu.m	700 t	fill		sims metal
concrete	18 cu.m	7.20 t	spread on-site		wsn enviro solutions
steel reinforcing	0.65 cu.m	1.30 t			brandown
masonry	1.30 cu.m	1.00 t			sims metal
timber	0.85 cu.m	0.50 t	temp. barriers / formwork		
metal	3.30 cu.m	1.80 t			
tiles	0.30 cu.m	0.60 t			
plasterboard	1.40 cu.m	3.00 t			
general waste	20.00 cu.m	5.00 t			

SEDIMENT FENCE N.T.S.



CONSTRUCTION NOTES
1) CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO THE CONTOURS OF THE SITE.
2) DRIVE STAR TYPE LONG STAR POSTS INTO GROUND, 3 METRES APART.
3) DRIVE REINFORCED FENCE ALONG THE UPHILL SIDE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE EXTENDED 150.
4) BACKFILL TRENCH OVER BASE OF FABRIC.
5) FIT SELF SUPPORTING GEOTEXTILE TO UPRIGHTS, SEAL OR POST WITH WIRE TIES OR AS PER UPRIGHTS BY UNDETEATLE UNSPECIFIED.
6) JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150MM OVERLAP.

STABILISED SITE ACCESS N.T.S.

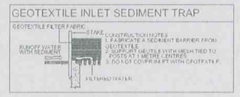


CONSTRUCTION NOTES
1) STRIP TOPSOIL AND LEVEL SITE.
2) COMPACT SUBGRADE.
3) COVER AREA WITH A NEEDLE-PUNCHED GEOTEXTILE.
4) PLACE 100MM THICK LAYER OF 50MM AGGREGATE BEDDING BOADBASE OR 20MM AGGREGATE MINIMUM LENGTH 15M OR AS DIRECTED BY AUTHORITY WIDTH 3M.
5) CONSTRUCT HUMP AND DIVERTLE WITHIN BOUNDARY TO DIRECT WATER TO A DISPERSIVE AREA.

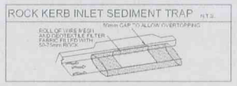
RAINWATER TANK

1) LABELS SHALL BE FIXED ADJACENT TO ALL OUTDOOR WATERING TAPS STATING THAT THE WATER IS NOT TO BE CONSUMED.
2) AN EMERGENCY MAINS TOP UP SHALL BE PROVIDED ADJACENT TO THE WATER TANK AND CONNECTED TO THE MAINS SUPPLY.
3) ALL PIPEWORK WATER SHALL NOT BE CONNECTED TO DRINKING AND DOMESTIC WATER SUPPLY.
4) FIRST FLUSH DEVICES TO BE FITTED TO ALL DOWNPIPES CONNECTED TO THE RAINWATER TANK.
5) ALL DOWNPIPES ARE TO BE ENTIRELY PVC. ALL PIPES ARE TO BE SEALED TO PREVENT ENTRY OF BIRDS, ANIMALS AND INSECTS.
6) ENSURE ALL GUTTERS FLOW TOWARDS DOWNPIPES AND ARE SEALANT WELDED TO ENSURE SMALL BIRDS CANNOT GET IN & DROWN. WATER APPROVED CONTROL PANEL TO BE FITTED TO ALL PUMPS TO ENSURE THEY CANNOT RUN DRY.
7) ALL PLUMBING WORKS SHALL BE CARRIED OUT BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS AND THE "NSW CODE OF PRACTICE PLUMBING AND DRAINAGE".

GEOTEXTILE INLET SEDIMENT TRAP



ROCK KERB INLET SEDIMENT TRAP N.T.S.



SIGNAGE FOR EXCAVATION N.T.S.

standard bin colours

waste category	bin body colour	bin lid colour
garbage	dark green or black	red
recycling	dark green or black	yellow
paper/cardboard	dark green or black	blue
organics	dark green or black	lime green

CC Environmental Management Plan
1 : 200

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Rev	Date	Description
A	22.01.19	For client review

Consultants

Client: AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project: Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing: Waste + Demolition Plan

North | Scale: As indicated @ A1 | Date: 22.01.2019 | Project No: 1708 | Drawing No: DA005 / A

Issued for: DA

29905

EXISTING WAREHOUSE WALL

PROPOSED AWNING OVER
EXISTING HARDSTAND AREA

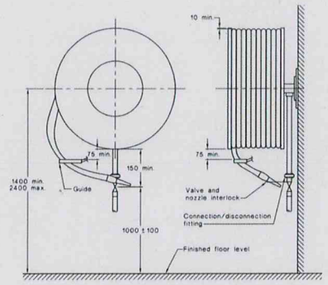
EXISTING
INDUSTRIAL
BUILDING

MAIN SOUTHERN RAILWAY

DA201

EXISTING CONCRETE PANEL
ACOUSTIC WALL

LINE OF PROPOSED AWNING
OVER



DIMENSIONS IN MILLIMETRES

FIGURE 11.1 TYPICAL ARRANGEMENT OF FIXED TYPE HOSE REEL

LEGEND

GENERAL ARRANGEMENT PLANS

LEGEND

NOTE: WHERE NOMINATED ON DRAWINGS OR SCHEDULES A NUMERICAL SUFFIX INDICATES BUILDING TYPES I.E.
BAL 1 = BALUSTRADE TYPE 1, ETC. REFER TO ARCHITECTURAL SCHEDULES

AC	Air Conditioning
ACC	Accessible
ADP	Adaptable
AHD	Australian Height Datum
B	Bathroom
B1,2...	Bedroom 1, Bedroom 2, etc
BAL	Balustrade
BKP	Bicycle Parking
BKR	Bicycle Rack
BKS	Bicycle Storage
BL	Bollard
BY	Balcony
CL	Centre Line
CLNR	Cleaner Store
COL	Column
COMS	Communication Services
COS	Check on Site
CPE	Car Park Exhaust
CP	Carparking Space
CPD	Cupboard
CPT	Carpet
CY	Courtyard
CWB	Car Wash Bay
CWS	Cold Water Supply
D	Dining
DB	Distribution Board
DRY	Dryer
DW	Dishwasher
E	Ensuite
ELEC	Electrical Services
(EA)	Existing
EAH	Exhaust
FACT	Factory
F	Fire Services
FCR	Fire Control Room
FEX	Fire Extinguisher
FFL	Finished Floor Level
FH	Fire Hydrant
FGL	Finished Ground Line
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FMP	Fire Mimic Panel
FEP_01.02..	Fire Egress Passage No.1, 2, etc
FS_01.02..	Fire Stair No. 1, 2, etc.
FW	Floor Waste
GBC	Garbage Chute
GBR	Garbage Room
GHR	Garbage Holding Room
GL	Ground Line
H	Hydraulic Services
HR	Handrail
HRV	Heavy Rigid Vehicle
HWS	Hot Water Service
HWU	Hot Water Unit
IL	Invert Level
K	Kitchen
KB	Kerb
L_01.02..	Lift No.1, 2, etc.
L	Living
LG	Lower Ground
LR	Lobby Relief Air
LSA	Lobby Supply Air
LT	Laundry Tub
LY	Laundry
LV	Louvre
M	Mechanical Services
MBP	Motorbike Parking
MBX	Mail Box Assembly
MOV	Microwave Oven
MV	Mechanical Vent
MRV	Medium Rigid Vehicle
MSB	Main Switch Board Service Incl Main Distribution BOard & Frame
MTR	Meter
NGL	Natural Ground Line
NOM	Nominal
OSD	On Site Detention Tank
OSR	On Site Retention Tank
OV	Oven
P	Pantry
PD	Pivot Door
PF	Paint Finish
PV	Paving
PCS	Prefabricated Car Stop
R	Robes
(R)	Recessed
RA	Return Air
RD	Roller Door
RES	Residential
RF	Refrigerator
RL	Relative Level to AHD
RWH	Rainwater Head
RWO	Rainwater Outlet
S	Storage
SCN	Screen
SD	Sliding Door
SGN	Signage
SIM	Similar
SKL	Skylight
SMR	Small Rigid Vehicle
SO	Structural Opening
SOP	Set Out Point
SP	Stair Pressurisation
SSL	Structural Slab Level
STY	Study
SWD	Stormwater Drain
SWP	Stormwater Pit
TCE	Terrace
TD	Timber Deck
TGSI	Tactile Ground Surface Indicator
TH	Threshold
TOW	Top of Wall
TYP	Typical
UG	Upper Ground
UNO	Unless Noted Otherwise
UIS	Underside
UT	Utility
V	Void
VS	Visitor
WAH	Warehouse
WC	WC
WC_A	WC - Accessible
WC_F	WC - Female
WC_M	WC - Male
WC_U	WC - Unisex
WIR	Walk In Robe
WM	Washing Machine

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Rev | Issue | Date | Description
A | | 22.01.19 | For client review

Consultants

Client
AWE - AUSTRALIAN
WEIGHING
EQUIPEMENT

Project
Proposed Structural Steel
Awning
No. 16 Kerr Road, Ingleburn

Drawing
Ground Floor Plan

North | Scale | Date | Project No. | Drawing No.
As indicated @ A1 | Project date | 1708 | DA102 / A

Issued for
DA

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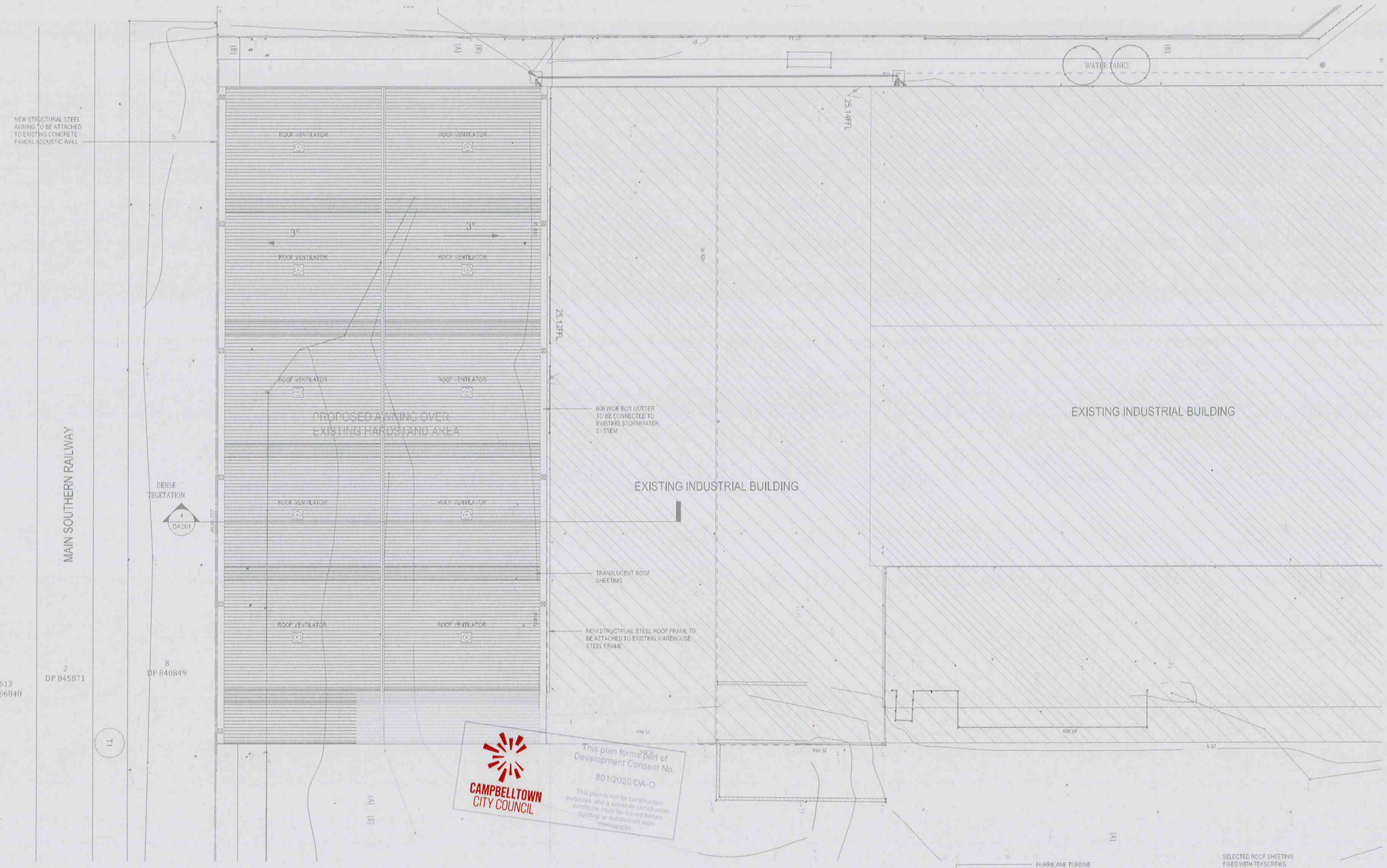


General

- Provide gutter expansion joints every 18m max.
- Minimum gutter grades shall be 1 in 50
- Connect all downpipes to the sole of the gutter sump. No side entries permitted
- Minimum slope of downpipes to be 15d
- Provide overflows to all box gutters
- Installation of roof tie down points shall be carried out in accordance with Australian Standards

Safety

- Safety mesh to be provided under all translucent roof sheeting

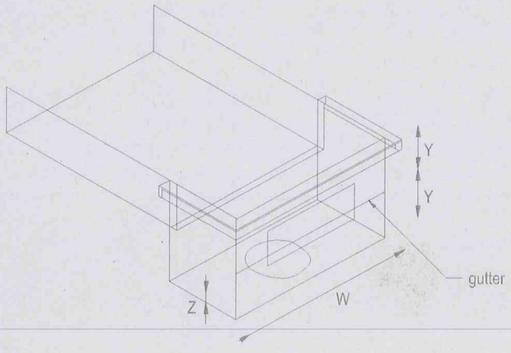
Translucent Roof Sheeting

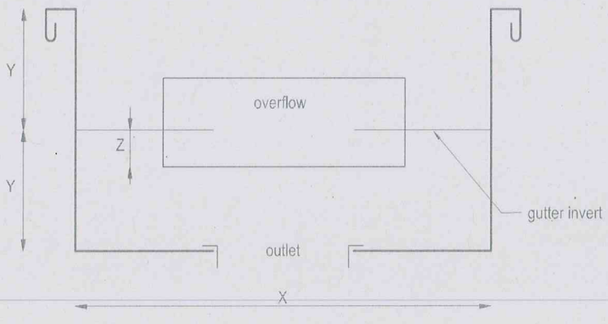
- Translucent roof sheeting shall be manufactured to conform with the nominated cladding profile
- Installation shall be carried out in accordance with Australian Design and Fixing Standards

CC Roof Notes

1 : 20

STORMWATER LAYOUT IS DIAGRAMMATIC ONLY AND SUBJECT TO CONTRACTORS RECOMMENDTAIONS AND / OR ANY CONSTRUCTION CONSTRAINTS.
REFER TO STORMWATER PLAN FOR ALL ROOF COLLECTION AND SURFACE DRAINAGE CONNECTIONS AND DISCHARGE SYSTEMS.

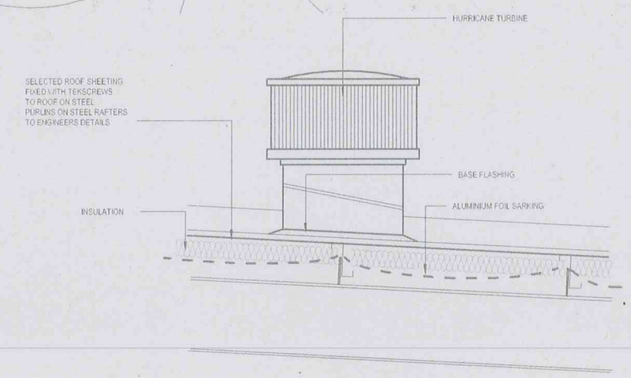




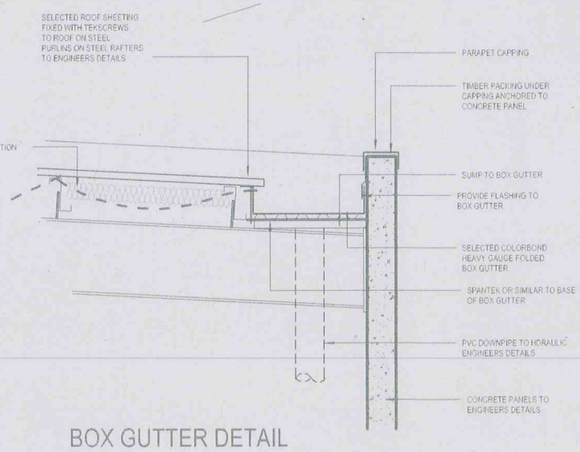
Dimension Y equal to depth of gutter at outflow
Dimension X equal to width of gutter plus 3mm
Dimension Z greater than or equal to 25mm
Cross-Section are of overlofw greater than or equal to Cross-Section area of outlet

CC Rainwater Head Detail

1 : 100



TURBINE VENTILATOR DETAIL



BOX GUTTER DETAIL

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Rev	Issue	Date	Description
A		22.01.19	For client review

Consultants

Client: AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project: Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing: Roof Plan

North | Scale: As indicated @ A1 | Date: Project date | Project No.: 1705 | Drawing No.: DA104 / A

Issued for: DA

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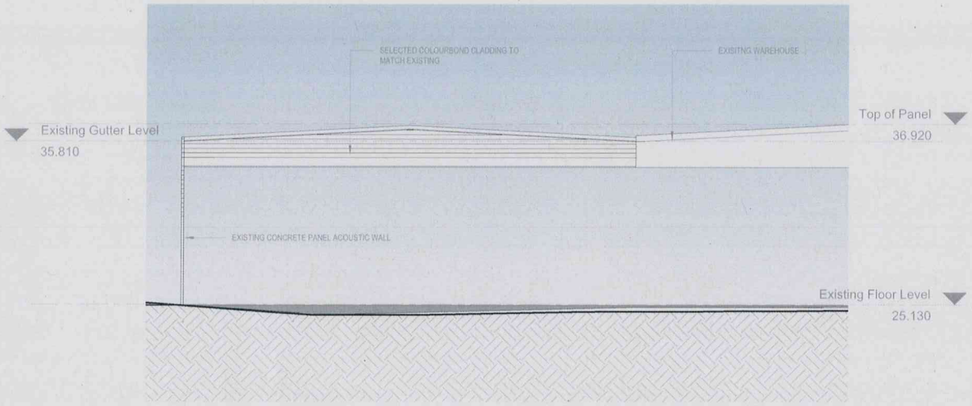
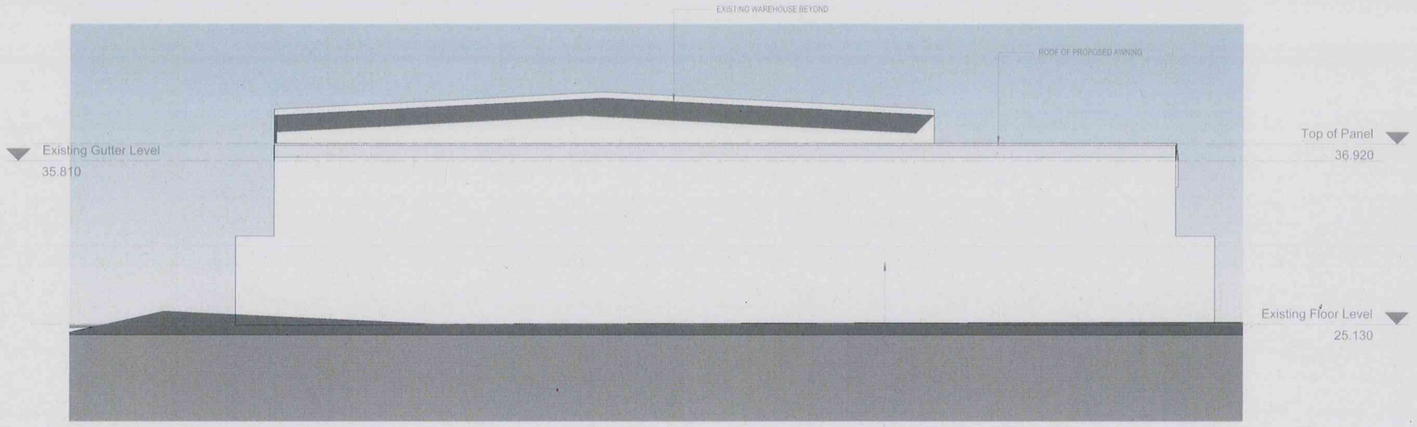
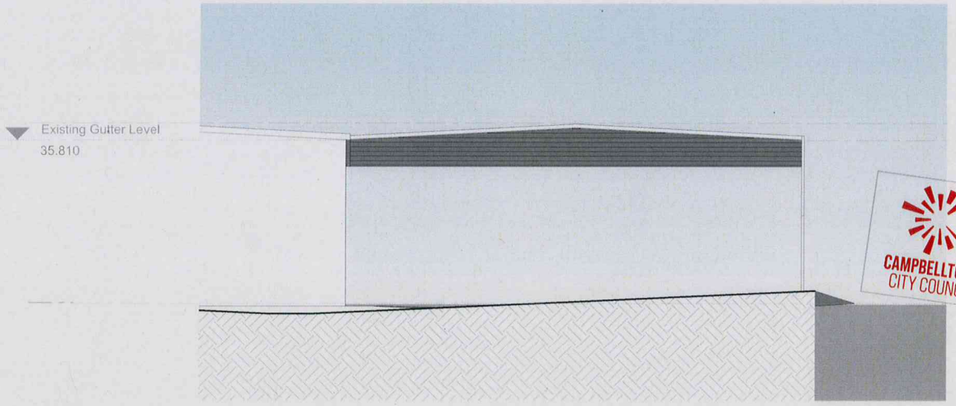


1 Side Elevation Facing Henderson Road
1 : 200

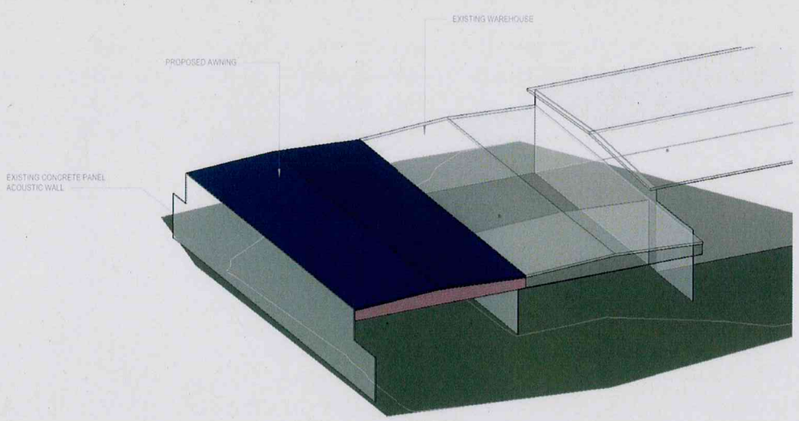


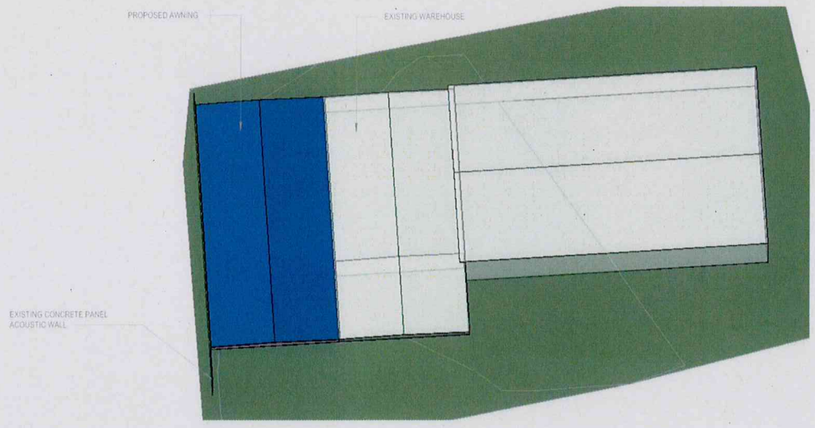
2 Rear Elevation Facing Main Southern Railway



3 Elevation 1 - d
1 : 200

4 Cross Section
1 : 200





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Rev

Issue	Date	Description
A	22.01.19	For client review

Consultants

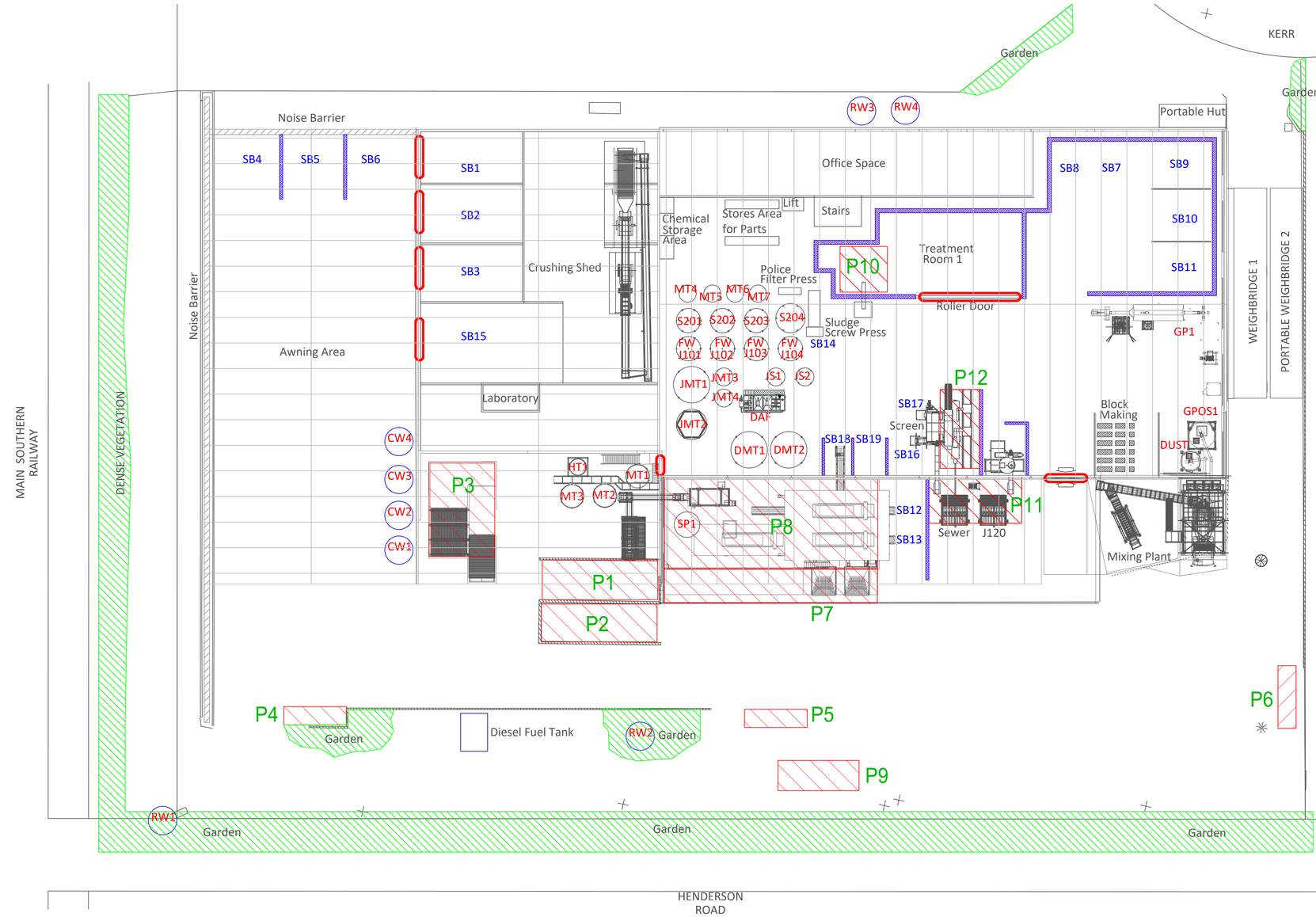
Client
AWE - AUSTRALIAN WEIGHING EQUIPEMENT

Project
Proposed Structural Steel Awning
No. 16 Kerr Road, Ingleburn

Drawing
Section + Elevations

North | Scale: 1 :200 @ A1 | Date: Project date | Project No.: 1708 | Drawing No.: DA201 / A
Issued for: DA

Attachment 6: Updated Site Plans, Traffic Management Plans and Stormwater Management Plans



TANK DETAILS

Tank No	Description	Approx Volume
MT1	Mixing Tank 1	20m3
MT2	Mixing Tank 2	20m3
MT3	Mixing Tank 3	20m3
MT4	Universal Tank	10m3
MT5	Universal Tank	10m3
MT6	Universal Tank	10m3
MT7	Universal Tank	10m3
S201	Sewer Water Tank	30m3
S202	Sewer Water Tank	30m3
S203	Sewer Water Tank	30m3
S204	Sewer Water Tank	39m3
J101	DAF Clean Water Tank	56m3
J102	DAF Clean Water Tank	56m3
J103	DAF Clean Water Tank	56m3
J104	DAF Clean Water Tank	56m3
	(Note: Firewater can be substituted into any J1** Tank)	
JMT1	Oily Water Mixing (Receivables Tank 1)	50m3
JMT2	Oily Water Mixing (ph Correction Tank 1)	50m3
JMT3	Oily Water Mixing (Receivables Tank 2)	10m3
JMT4	Oily Water Mixing (ph Correction Tank 2)	10m3
	Total Volume (All Tanks)	**573m3**
	Total Weight (Assumed SG 1.1)	**630 tonne**

Roller Doors x 6

PIT DETAILS

Pit No	Description	Approx Size	Approx Volume
P1	Stormwater Pit	13500L x 4400w x 5500d at end of pit	327m3
P2	Drill Mud Pit	15010L x 4400w x 5500d at end of pit	363m3
P3	NDD and Drill Mud	12000L x 8000w x 5500d at end of pit	528m3
P4	South Pit	4400L x 1300w x 1000d	6m3
P5	Central Pit	3900L x 1700w x 1250d	8m3
P6	North Facing	2700L x 1300w x 1400d	5m3
P7	NDD Pits /Cement Slurry	16080L x 3000w x 3200d	154m3
P8	Surge /Firewater Pit (Below presses)	23380L x 11200w x 3200d	838m3
P9	Wheelwash	10100L x 3300w x 650d	22m3
P10	Asbestos Containing Liquids	5000 x 5000 x 4000d	100m3
P11	Pit	11900 x 5750 x 4650d	318m3
P12	Pit	9770 x 4860 x 2125d	101m3
	Total Volume (All Pits)		**2770m3**
	Total Weight (Assumed SG 1.1)		**3047 tonne**

STORAGE BAY DETAILS

Bay No	Dimensions	Product Volume
SB1	5.4x6.0x4.8h	108m3
SB2	6.0x6.0x4.8h	121m3
SB3	4.8x6.0x4.8h	97m3
SB4	14.4x5.4x4.0h	202m3
SB5	14.4x5.4x4.0h	202m3
SB6	14.4x5.4x4.0h	202m3
SB7	4.0x4.0x3.0h	16m3
SB8	4.0x4.0x3.0h	16m3
SB9	6.5x15.0x8.0h	546m3
SB10	5.6x15.0x8.0h	470m3

Bay No	Dimensions	Product Volume
SB11	6.4x15.0x8.0h	538m3
SB12	6.5x8.0x5.0h	182m3
SB13	6.5x8.0x5.0h	182m3
SB14	Hook Lift Bin	10m3
SB15	10.0x10.0x4.8	312m3
SB16	Bin	5m3
SB17	Bin	5m3
SB18	5.5x5.0x6.0h	84m3
SB19	5.5x5.0x6.0h	84m3
	Total Volume (All Tanks)	**3382m3**
	Total Weight (Assumed SG 1.8)	**6088 tonne**

PLEASE REFER TO TABLE OF COMPATABILITY OF MATERIALS FOR BAY USE

Total Volume (All Storage) **6725m3**
Total Weight **9765 tonne**

Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By TB

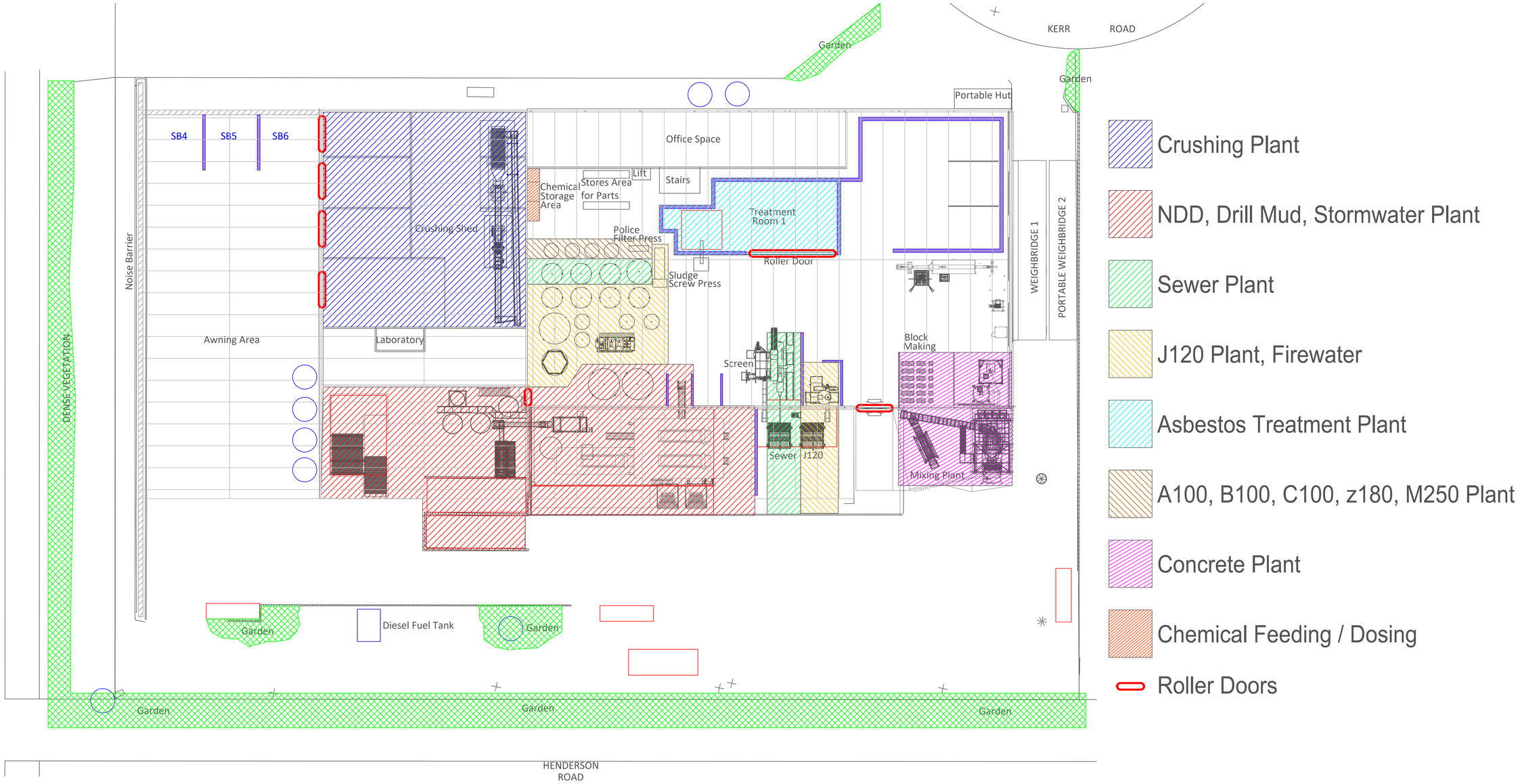
Checked By

Title Storage Capacities

Scale

Date 10-01-21

Drawing Number and Revision BRS-Site-001A



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By TB

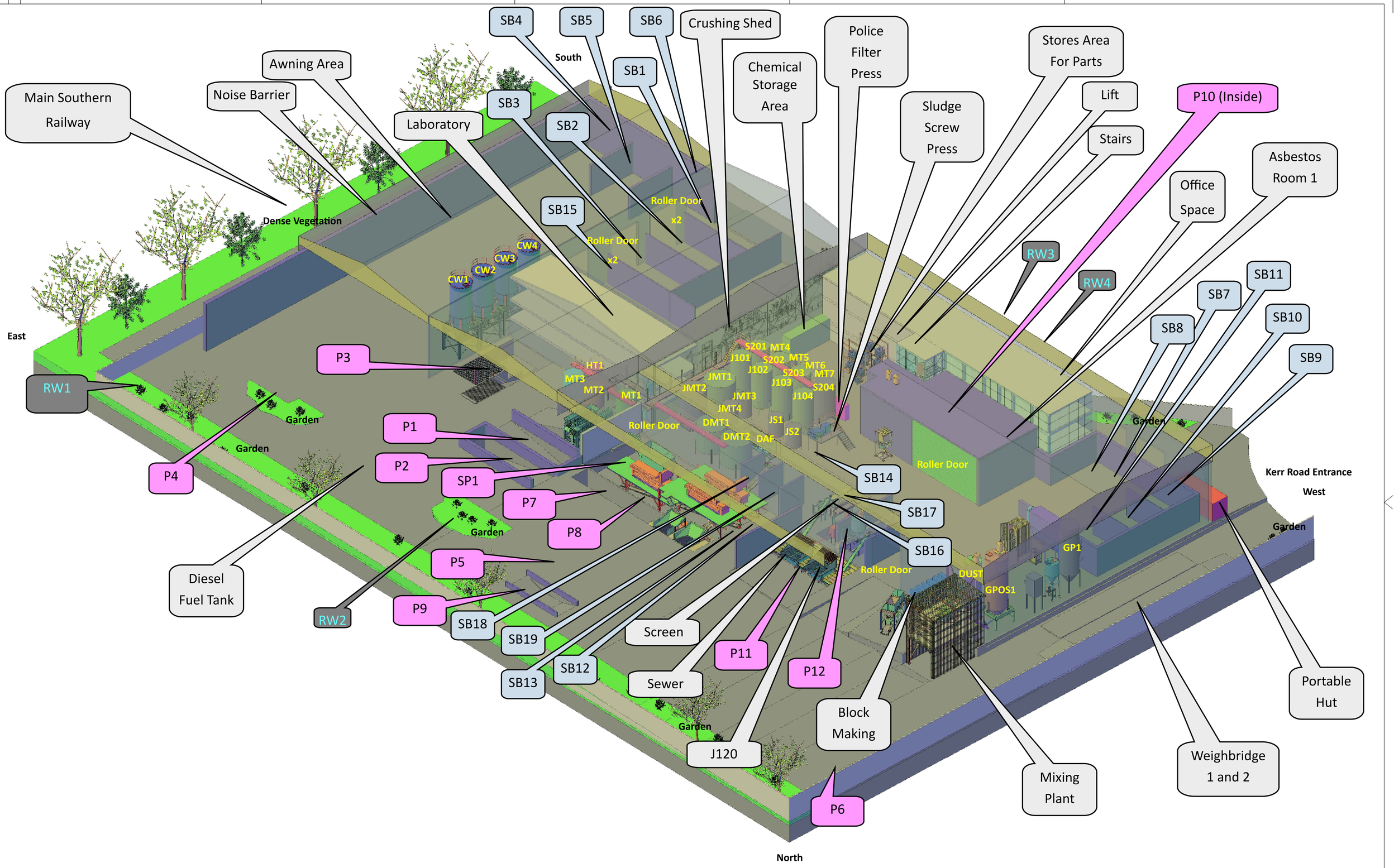
Checked By

Title 2D Master Plan

Scale

Date 10-01-21

Drawing Number and Revision BRS-Site-002A



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

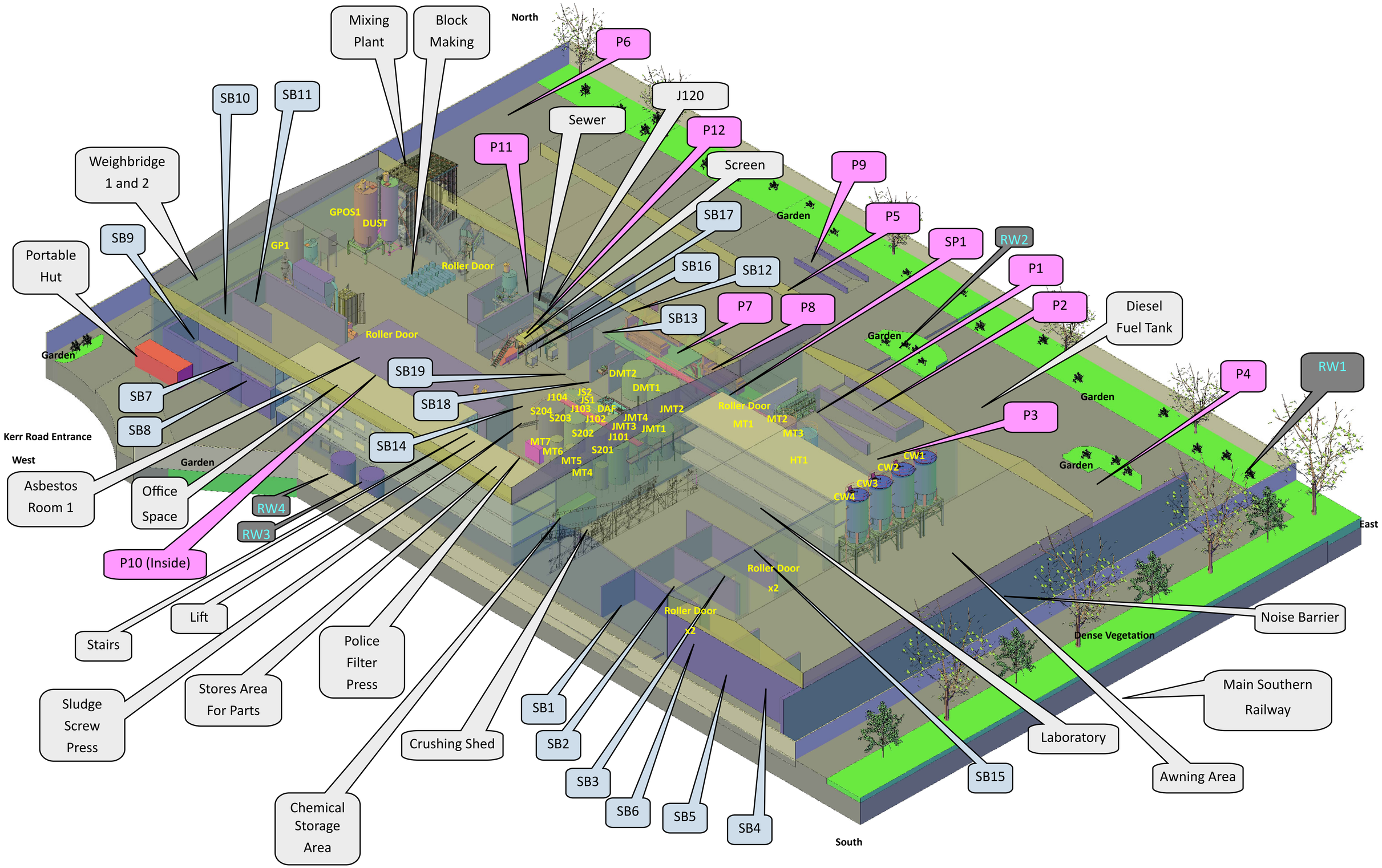
Checked By

Title: 3D ID Drawing (North)

Scale

Date: 10-01-21

Drawing Number and Revision: BRS-Site-004 A



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

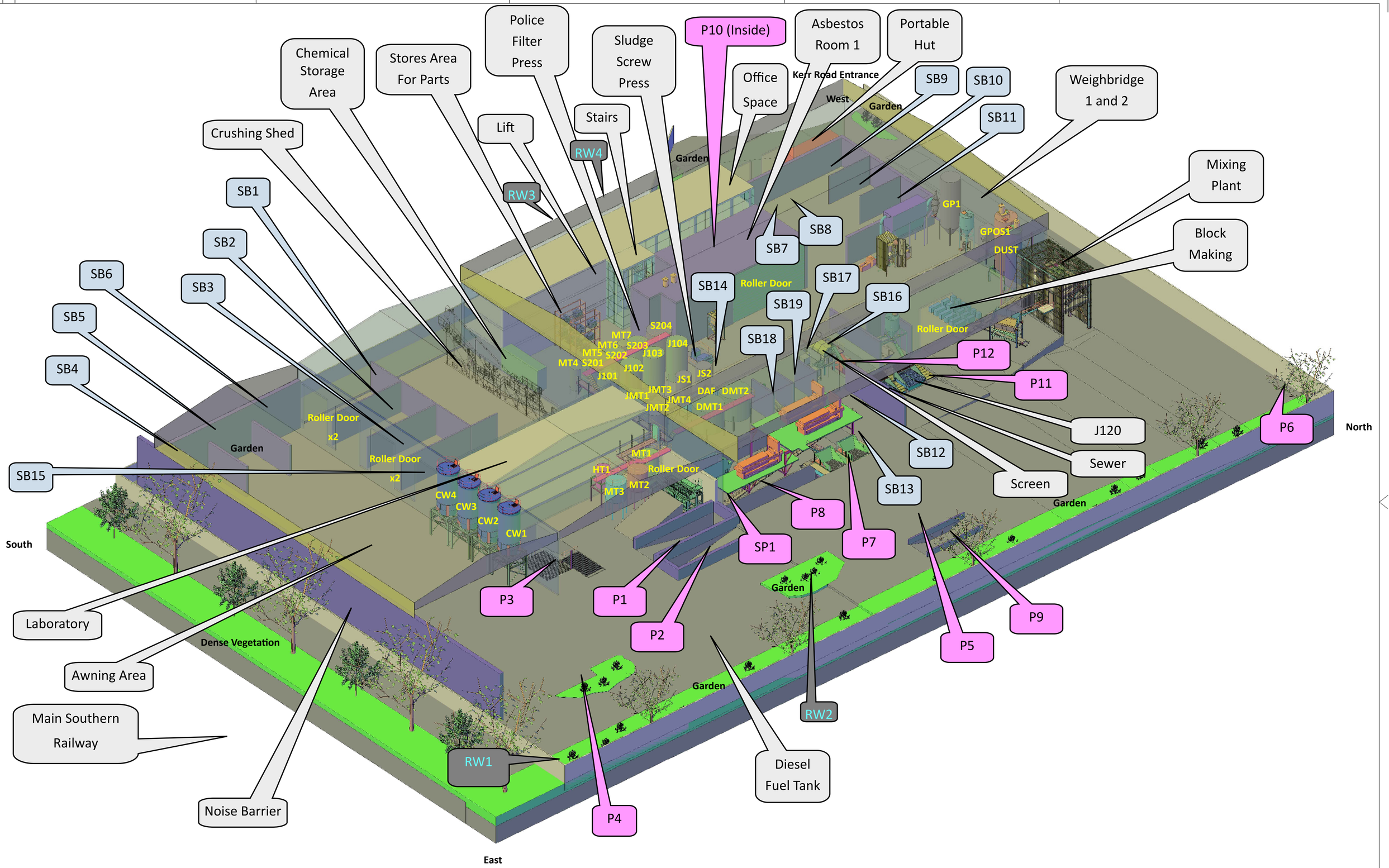
Checked By:

Title: 3D ID Drawing (South)

Scale:

Date: 10-01-21

Drawing Number and Revision: BRS-Site-005 A



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

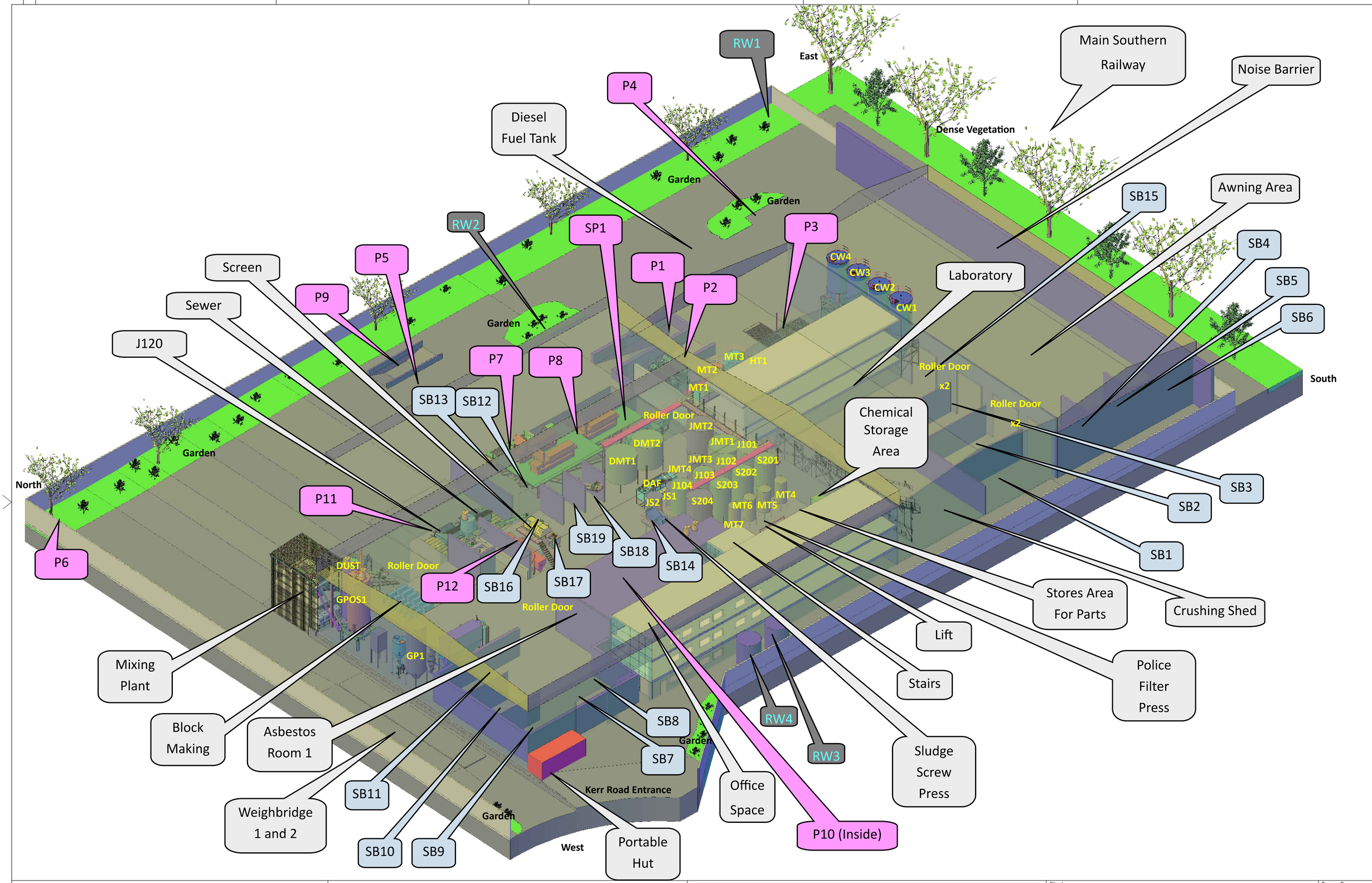
Checked By

Title: 3D ID Drawing (East)

Scale

Date: 10-01-21

Drawing Number and Revision: BRS-Site-006 A



Items Listing				
Ref.	Qnt.	Description	Material	Remarks

Amendments or Issues				
Revision	Amendment	Date	By	Appr
R0	As Originally Drawn	NA	NA	NA
R1				
R2				
R3				
R5				
R6				
R7				
R8				

Bulk Recovery Solutions
A.C.N. 148898784
16 Kerr Road
Ingleburn, NSW 2565
Phone: 87173366

Client

Drawn By: TB

Checked By

Title: 3D ID Drawing (West)

Scale

Date: 10-01-21

Drawing Number and Revision: BRS-Site-007 A

HENDERSON ROAD

5 DP 845871

4 614 1186840 DP 845871

3 DP 845871

2 DP 845871

613 1186840

8 DP 840849

15 DP 717203

16 DP 717203 1.295 H.a

17 DP 717203

No.15 TWO STOREY CONCRETE PANEL BUILDING

No.16 CONCRETE PANEL BUILDING METAL ROOF

No.14 METAL SHED

METAL BUILDING

DEMOUNTABLE METAL BUILDING

OFFICES

CONCRETE PLANT

WEIGH BRIDGE

ROLLER

EXISTING WHEEL WASH BAY

WATER TANK

FUEL TANK

GARDEN

WEDGE PIT

MUD PLANT

Stock Piles

Wet Plant Machinery

Ponds

Water Silos Rain

Sewer Discharge Point

Control Room

Water Filtration Plant

Stock Pile

Crusher

20mm

10mm

Dust

WATER TANKS

FINISHED GOODS BAYS

DENSE VEGETATION

SOUTHERN RAILWAY MAIN

FFL 25.61

25.62FFL

25.61FFL

25.23FFL

25.14FFL

122°31'40"

139.996

32°31'15"

94.515

212°30'50"

90.206

84°28'40"

97.11

38.68G

32.24G

32.94R

35.99A

35.86G

35.86A

40.26A

40.19A

38.73G

38.71E

40.39E

35.87G

35.81G

36.92R

S.L. = 24.20 I.L. = 22.90 Ø 900

S.L. = 24.20 I.L. = 23.19 Ø 375 B1

S.L. = 25.48 I.L. = 24.47 Ø 150

S.L. = 25.43 I.L. = 24.45 Ø 150

S.L. = 25.03 I.L. = 24.27 Ø 150

S.L. = 25.05 I.L. = 24.29 Ø 150

KERR ROAD

IT IS THE BUILDERS RESPONSIBILITY TO CONFIRM DEPTH & LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION AS THIS MAY AFFECT THE DESIGN.

DIAL 1100 BEFORE YOU DIG

REVISIONS					
M	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
L	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
K	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
J	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
I	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL
H	22.05.20	R.F.	M.M.	M.M.	CLIENT REVIEW
G	15.11.19	R.F.	M.M.	M.M.	GENERALLY AMENDED
REV	DATE	DRN	CHK	APP	DRAWING STATUS

This drawing is not approved for construction unless signed.

Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

APPROVED SITE PLAN
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: SITE01

REVISION: M

HENDERSON ROAD

CONCRETE PAVING STRIP FOR CARPARK 9.

STORAGE TANK - REFER TO CIV03

TO COMPLY WITH AS2890.1 'OFF-STREET CAR PARKING'.

CAR PARKING

EXISTING WHEEL WASH BAY

WATER TANK

FUEL TANK

GARDEN

NOISE BARRIER (EXISTING)

PROPOSED AWNING OVER (BEING ASSESSED BY CAMPBELLTOWN COUNCIL).

WEDGE PITS

CAKE BIN

Mixing Plant

J120

Sewer

FILTER PRESSES

MUD PLANT 240kL

WEDGE PITS

MUDDY WATER WASTE DROP-OFF

Roller Door

GPOS1

Block Making

Screen

DAF

Laboratory

No.16 CONCRETE PANEL BUILDING METAL ROOF

FFL 25.61

Sludge Screw Press

Roller Door

Police Filter Press

Treatment Room 1

Crushing Shed

C&D Tip and Spread Area

Stores Area for Parts

Chemical Storage Area

Stairs

Lift

Office Space

No.15 TWO STOREY CONCRETE PANEL BUILDING

WEIGH BRIDGE

DEMOUNTABLE METAL BUILDING

METAL BUILDING

NEW WEIGHBRIDGE OFFICE

EXISTING ROLLER DOORS WILL NO LONGER BE USED FOR ACCESS.

WATER TANKS

No.14 METAL SHED

PROPOSED AWNING OVER (BEING ASSESSED BY CAMPBELLTOWN COUNCIL).

PROPOSED NOISE BARRIER TO BE CONSTRUCTED IN ACCORDANCE WITH THE RECOMMENDATIONS INCLUDED WITHIN THE NOISE IMPACT ASSESSMENT PREPARED BY MAC.

DENSE VEGETATION

RAILWAY

SOUTHERN MAIN

KERR ROAD

IT IS THE BUILDERS RESPONSIBILITY TO CONFIRM DEPTH & LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION AS THIS MAY AFFECT THE DESIGN.

DIAL 1100 BEFORE YOU DIG

REVISIONS						
R	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
Q	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
P	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
O	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
M	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
L	17.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
K	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
REV	DATE	DRN	CHK	APP	DRAWING STATUS

This drawing is not approved for construction unless signed.

Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

PROPOSED SITE PLAN
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

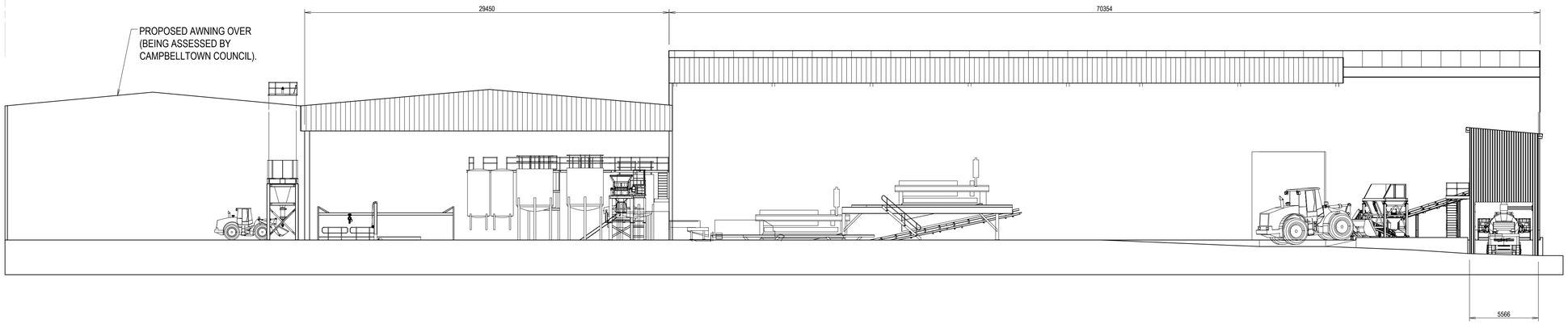
SHEET SIZE: A1

SCALE: 1:250

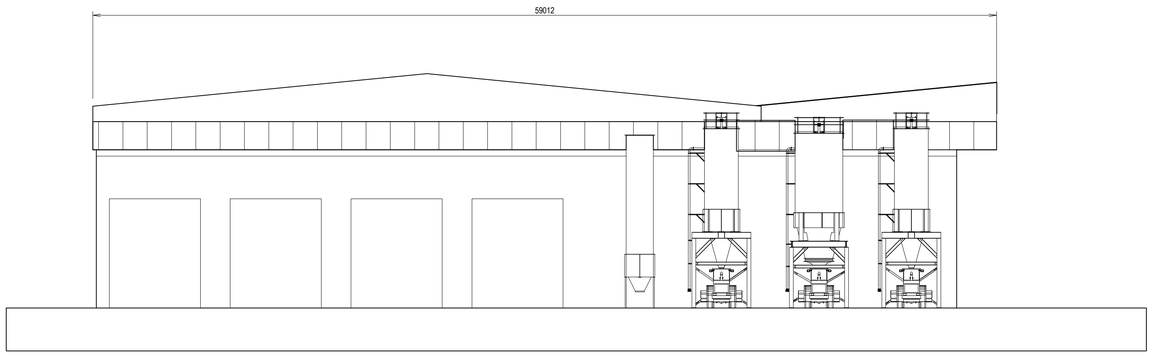
PROJECT REF No.: 180009

DRAWING No.: SITE02

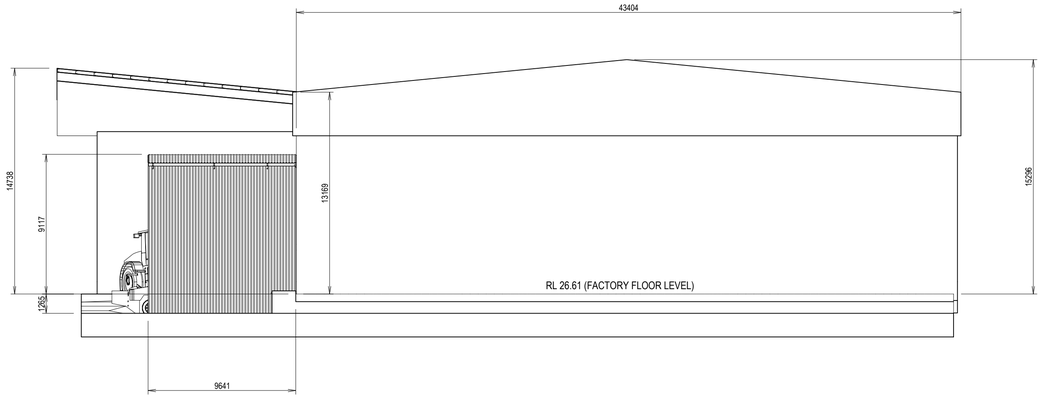
REVISION: R



NORTH EAST ELEVATION
1:200



SOUTH EAST ELEVATION
1:200



NORTH WEST ELEVATION
1:200

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
H	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
G	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
F	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
E	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
D	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL
C	22.05.20	R.F.	M.M.	M.M.	CLIENT REVIEW
B	21.11.18	R.F.	M.M.	M.M.	BUILDING DIMENSIONS AMENDED

This drawing is not approved for construction unless signed.

Mathew McNamara
BEng (Civil) Hons MIE (Aust)

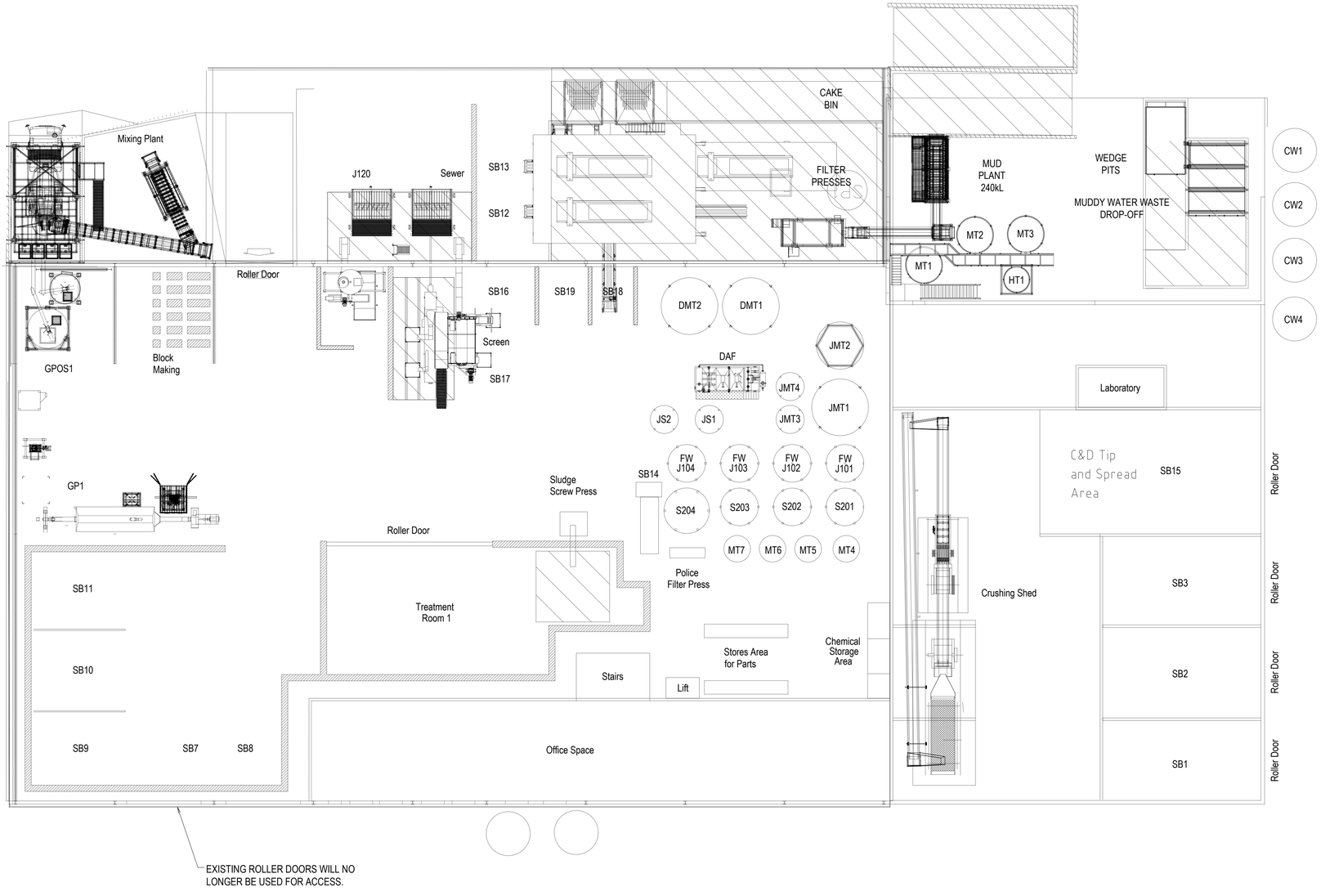
PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

BUILDING ELEVATIONS
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1
SCALE: 1:200

PROJECT REF No.: 180009
DRAWING No.: SITE03
REVISION: H



REVISIONS						
	F	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
	E	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
	D	17.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
	C	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
	B	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL
	A	22.05.20	R.F.	M.M.	M.M.	CLIENT REVIEW
	REV	DATE	DRN	CHK	APP	DRAWING STATUS

This drawing is not approved for construction unless signed.

Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

PROPOSED INTERNAL FLOOR PLAN
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS	SHEET SIZE
NOT FOR CONSTRUCTION	A1
	SCALE 1:200

PROJECT REF No.	DRAWING No.	REVISION
180009	SITE04	F

G	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
F	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
E	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
D	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
C	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
B	05.06.20	R.F.	M.M.	M.M.	CLIENT REVIEW
A	15.11.19	R.F.	M.M.	M.M.	ISSUED FOR DA
REV	DATE	DRN	CHK	APP	DRAWING STATUS

REVISIONS

This drawing is not approved for construction unless signed.

Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

CATCHMENT PLAN
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: CIV01

REVISION: G

IT IS THE BUILDERS RESPONSIBILITY TO CONFIRM DEPTH & LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION AS THIS MAY AFFECT THE DESIGN.

DIAL 1100 BEFORE YOU DIG

HENDERSON ROAD

CONSTRUCT NEW 1200SQ PIT IN EXISTING LOW POINT AND CONNECT TO STORAGE TANK.

STORAGE TANK - REFER TO CIV03

INDICATIVE LOCATION OF PUMP-OUT LINE. PUMP HARVESTING TANK TO SILOS AT NOMINAL 120kL/DAY TO ENSURE TANK IS EMPTY AT THE END OF EVERY 24 HRS.

PROVIDE SEALED CONCRETE LID OVER EXISTING PIT

ASSUMED LEGAL CONNECTION Ø900 (MIN)
SL 24.11
IL 22.50

EXISTING FIRST FLUSH PIT. (8.29m³)

2/Ø50mm LOW FLOW CONNECTION

PIT 4
SL 24.80
IL 23.00

EXISTING FIRST FLUSH PIT. (5.72m³)

2/Ø50mm LOW FLOW CONNECTION

PIT 3
EXISTING STORMWATER PIT
SL 24.30
IL 23.55

(A) (B) (E)

PROPOSED AWNING OVER (BEING ASSESSED BY CAMPBELLTOWN COUNCIL). ALL ROOFWATER DIRECTED TO PIT 3.

PROPOSED DOWNPIPES

PIT 7
SL 24.10
IL 22.50 (TBC)

PIT 6
(EXISTING SIP)

PIT 5
(EXISTING SIP)

EXISTING KIP
SL 24.20
IL 22.90

EXISTING DOWNPIPES

20kL TANKS

Ø150 OVERFLOW

EXISTING PIT 1
SL 25.43
IL 24.45

EXISTING PIT 2
SL 25.03
IL 24.27

EXISTING DOWNPIPES

NOTE: PITS 3,4,5,6,7 TO BE INSTALLED WITH OCEAN PROTECT OCEANGUARD PIT INSERTS.

(A) EASEMENT TO DRAIN WATER 30 WIDE (DP 260710)
(B) EASEMENT FOR GAS PIPELINE 2 WIDE (DP 717203)
(C) EASEMENT TO DRAIN WATER 10 WIDE (DP 717203)
(D) EASEMENT FOR WATER SUPPLY WORKS 2.5 WIDE (DP 717203)
(E) EASEMENT TO DRAIN WATER 30 WIDE (DP 717203)

LEGEND

SL	SURFACE LEVEL
IL	INVERT LEVEL
	SURFACE INLET PIT DETAILS PROVIDED AT CC STAGE
	uPVC STORMWATER PIPE
	uPVC CHARGED DOWNPIPE
	CONCEPTUAL PUMP OUT LINE
x8.38	DESIGN FINISHED SURFACE LEVEL
x36.89	EXISTING FINISHED SURFACE LEVEL, CONTOURS SHOWN ARE ALSO EXISTING
M1	WATER QUALITY MONITORING LOCATION

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
G	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
F	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
E	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
D	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
C	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
B	05.06.20	R.F.	M.M.	M.M.	CLIENT REVIEW
A	15.11.19	R.F.	M.M.	M.M.	ISSUED FOR DA

This drawing is not approved for construction unless signed.

Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

STORMWATER MANAGEMENT PLAN
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

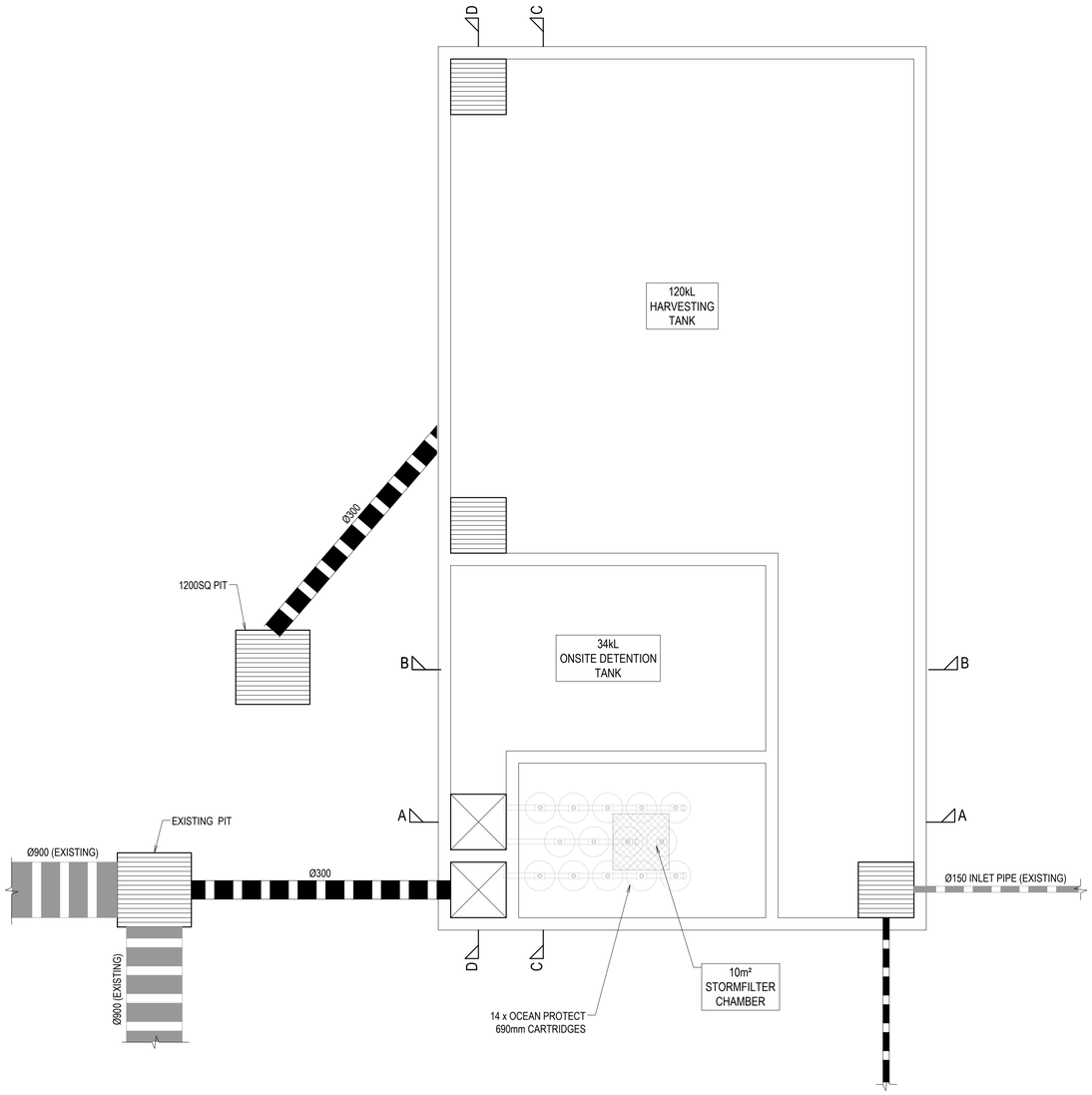
SHEET SIZE: A1

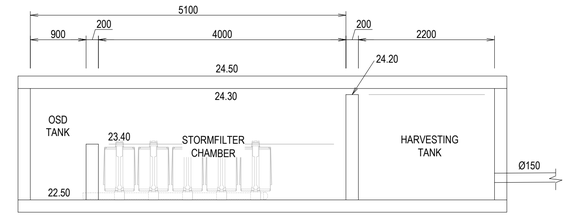
SCALE: 1:250

PROJECT REF No.: 180009

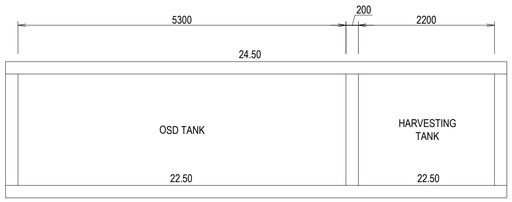
DRAWING No.: CIV02

REVISION: G

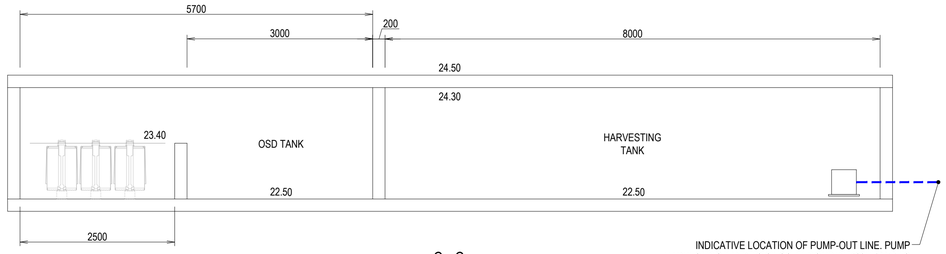




A - A
1:50

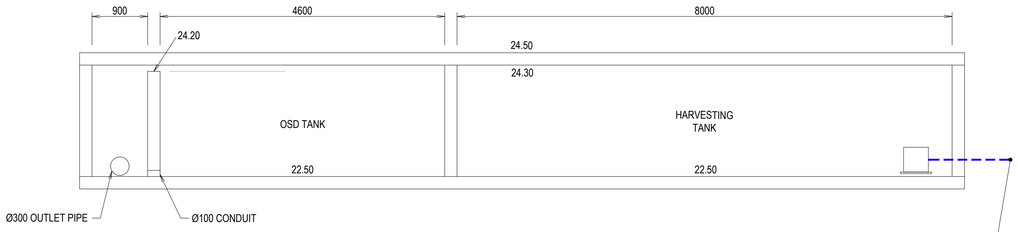


B - B
1:50



C - C
1:100

INDICATIVE LOCATION OF PUMP-OUT LINE. PUMP HARVESTING TANK TO SILOS AT NOMINAL 120kL/DAY TO ENSURE TANK IS EMPTY AT THE END OF EVERY 24 HRS.



D - D
1:50

INDICATIVE LOCATION OF PUMP-OUT LINE. PUMP HARVESTING TANK TO SILOS AT NOMINAL 120kL/DAY TO ENSURE TANK IS EMPTY AT THE END OF EVERY 24 HRS.

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
E	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE AMENDED
D	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE AMENDED
C	15.06.20	R.F.	M.M.	M.M.	CLIENT REVIEW
B	05.06.20	R.F.	M.M.	M.M.	CLIENT REVIEW
A	15.11.19	R.F.	M.M.	M.M.	ISSUED FOR DA

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Mathew McNamara
BEng (Civil) Hons MIE (Aust)

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

OSD PLAN & SECTIONS
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS
NOT FOR CONSTRUCTION

SHEET SIZE
A1

SCALE
1:50

PROJECT REF No.
180009

DRAWING No.
CIV03

REVISION
E

HENDERSON ROAD

STORAGE TANK - REFER TO CIV03

TO COMPLY WITH AS2890.1 'OFF-STREET CAR PARKING'.

CAR PARKING

EXISTING WHEEL WASH BAY

CONCRETE AGITATOR

WATER TANK

FUEL TANK

GARDEN

NOISE BARRIER (EXISTING)

WEDGE PITS

MAX VEHICLE - HRV

MAX VEHICLE - TRUCK & DOG

MAX VEHICLE - MRV

DENSE VEGETATION

NOISE BARRIER

WEIGH BRIDGE

No.16 CONCRETE PANEL (HRV) BUILDING METAL ROOF

No.15 TWO STOREY CONCRETE PANEL BUILDING

DEMOUNTABLE METAL BUILDING

METAL BUILDING

NEW WEIGHBRIDGE OFFICE

WATER TANKS

No.14 METAL SHED

KERR ROAD

5 DP 845871

4 614 1186840 DP 845871

3 DP 845871

2 DP 845871

613 1186840

8 DP 840849

15 DP 717203

16 DP 717203

17 DP 717203

SOUTHERN MAIN RAILWAY

NOTES

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NOTE: TRUCK & DOG SPECIFICATIONS ARE NOT AUST. STANDARD COMPLIANCE. AV COMPLIANCE HAS BEEN CHECKED IN ACCORDANCE WITH AS2890.

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
M	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
L	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
K	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
J	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
I	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
H	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
G	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL

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North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482

DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
HEAVY RIGID VEHICLE (12.5m) INTERNAL DROP OFF
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: TURN01

REVISION: M

HENDERSON ROAD

STORAGE TANK - REFER TO CIV03

TO COMPLY WITH AS2890.1 'OFF-STREET CAR PARKING'.

CAR PARKING

EXISTING WHEEL WASH BAY

CONCRETE AGITATOR

WATER TANK

FUEL TANK

GARDEN

NOISE BARRIER (EXISTING)

WEDGE PITS

MAX VEHICLE - HRV

MAX VEHICLE - MRV

DENSE VEGETATION

WEIGH BRIDGE

NEW WEIGHBRIDGE OFFICE

DEMOUNTABLE METAL BUILDING

METAL BUILDING

No.16 CONCRETE PANEL BUILDING METAL ROOF

No.15 TWO STOREY CONCRETE PANEL BUILDING

No.14 METAL SHED

WATER TANKS

KERR ROAD

RAILWAY

SOUTHERN MAIN

5 DP 845871

4 DP 845871 614 1186840

3 DP 845871

2 DP 845871 613 1186840

8 DP 840849

15 DP 717203

16 DP 717203 1.295 H.a

17 DP 717203

122°31'40"

139.996

122°31'15"

94.515

84°28'40"

25.01

90.206

212°30'50"

97.11

122°31'40"

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REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
M	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
L	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
K	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
J	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
I	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
H	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
G	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL

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BEng (Civil) Hons MIE (Aust)

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PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
TRUCK & DOG LOADING
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

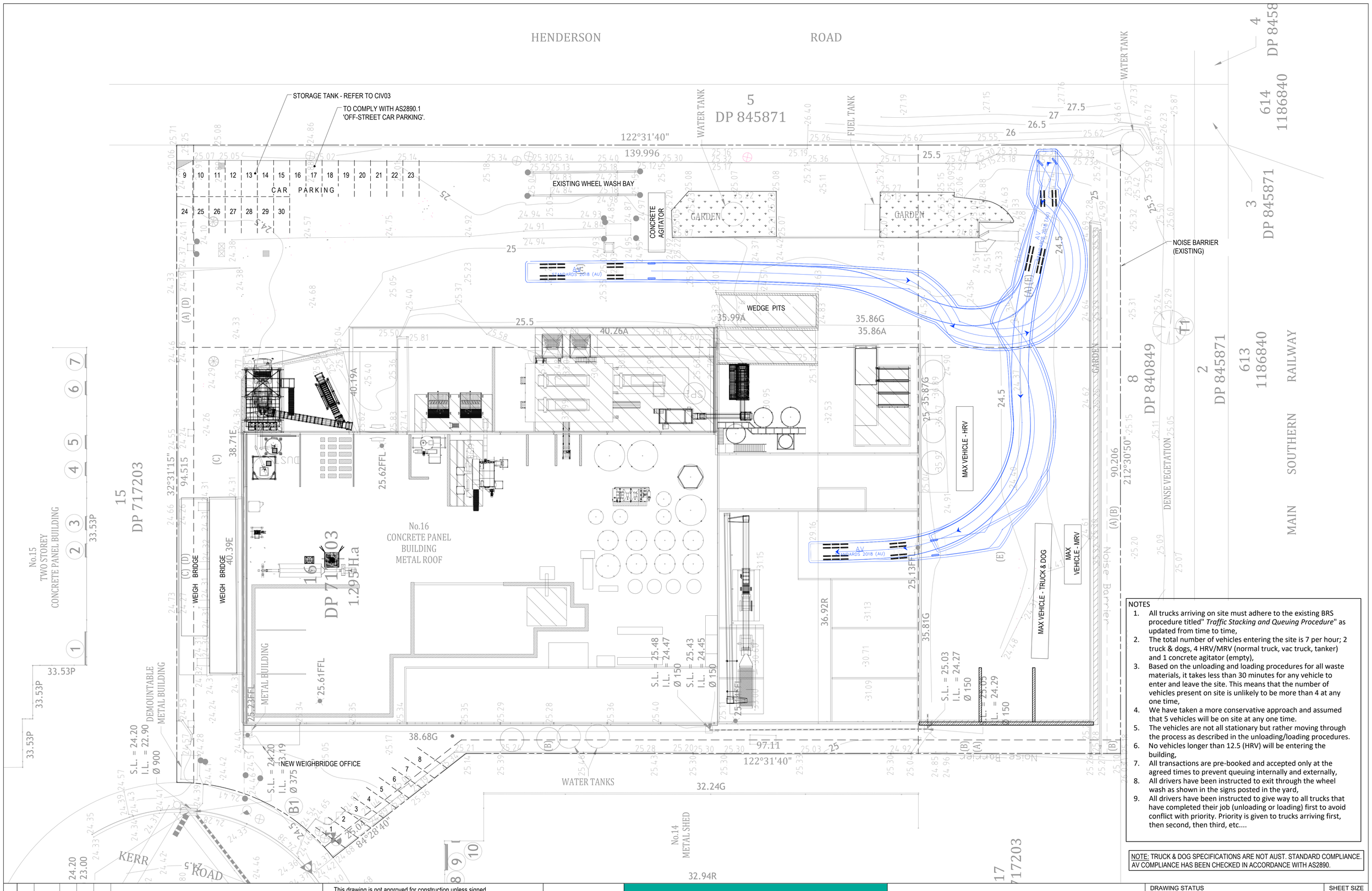
SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: TURN02-1

REVISION: M



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REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
B	14.01.21	R.F.	M.M.	M.M.	DRAWING SHEET TITLE AMENDED
A	22.12.20	R.F.	M.M.	M.M.	TURN02-02 SHEET ADDED

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BEng (Civil) Hons MIE (Aust)

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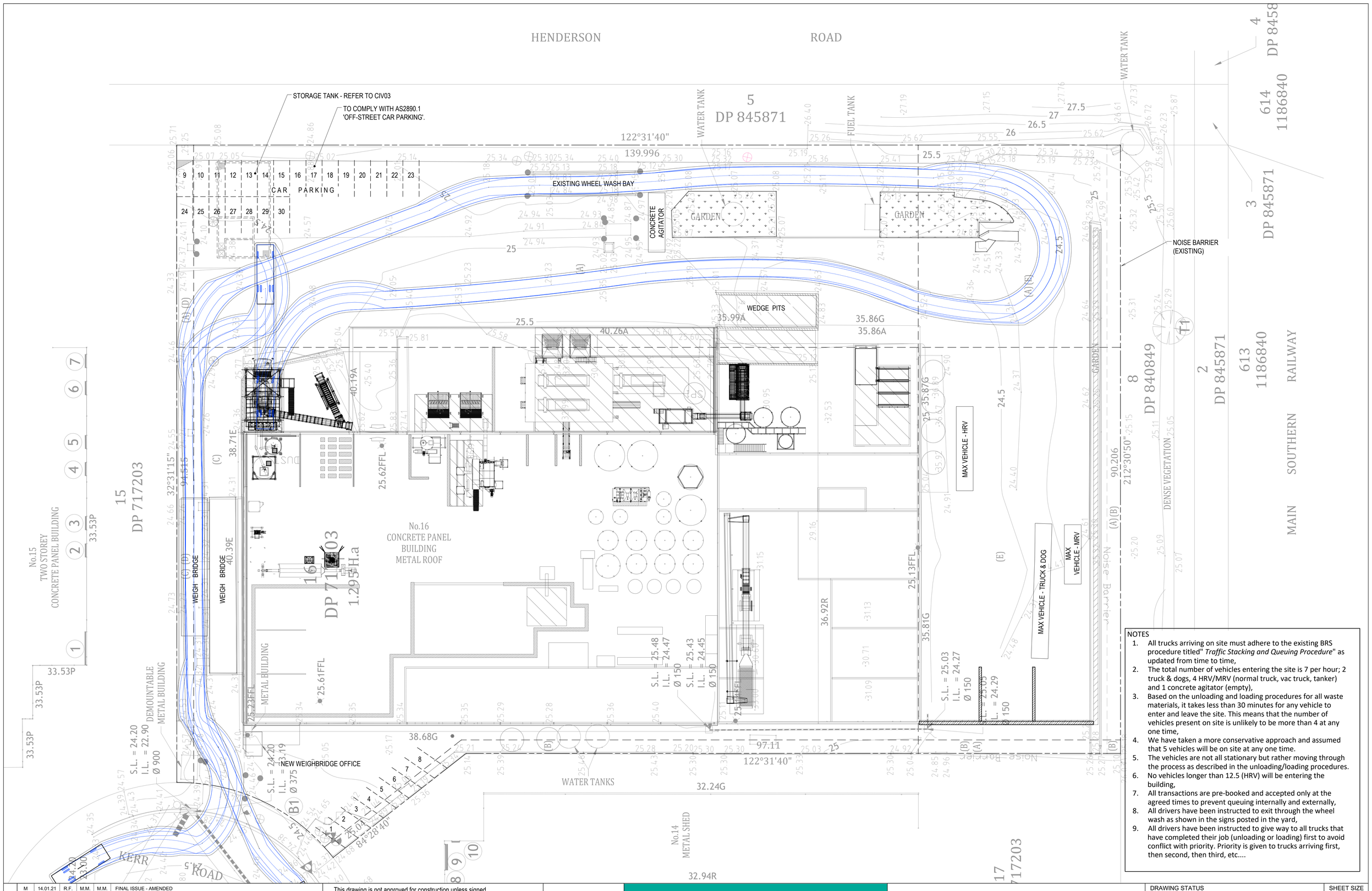
PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
TRUCK & DOG: C & D TIP & SPREAD
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS	SHEET SIZE
NOT FOR CONSTRUCTION	A1
	SCALE 1:250
PROJECT REF No. 180009	DRAWING No. TURN02-2
	REVISION B



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REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
M	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
L	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
K	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
J	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
I	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
H	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
G	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL

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BEng (Civil) Hons MIE (Aust)

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PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
CONCRETE AGITATOR (MRV 8.8m)
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: TURN03

REVISION: M

HENDERSON ROAD

STORAGE TANK - REFER TO CIV03

TO COMPLY WITH AS2890.1 'OFF-STREET CAR PARKING'.

CAR PARKING

EXISTING WHEEL WASH BAY

CONCRETE AGITATOR

WATER TANK

FUEL TANK

GARDEN

NOISE BARRIER (EXISTING)

WEDGE PITS

MAX VEHICLE - HRV

MAX VEHICLE - TRUCK & DOG

MAX VEHICLE - MRV

DENSE VEGETATION

No.15 TWO STOREY CONCRETE PANEL BUILDING

No.16 CONCRETE PANEL BUILDING METAL ROOF

No.14 METAL SHED

METAL BUILDING

DEMOUNTABLE METAL BUILDING

NEW WEIGHBRIDGE OFFICE

WEIGH BRIDGE

WATER TANKS

KERR ROAD

5 DP 845871

4 614 1186840 DP 845871

3 DP 845871

2 DP 845871

613 1186840

8 DP 840849

15 DP 717203

16 DP 717203

17 DP 717203

SOUTHERN MAIN RAILWAY

NOTES

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REVISIONS					
M	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
L	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
K	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
J	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
I	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
H	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
G	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL
REV	DATE	DRN	CHK	APP	DRAWING STATUS

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Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
MRV 8.8m: INTERNAL DROP OFF
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: TURN04

REVISION: M

HENDERSON ROAD

STORAGE TANK - REFER TO CIV03

TO COMPLY WITH AS2890.1 'OFF-STREET CAR PARKING'.

CAR PARKING

EXISTING WHEEL WASH BAY

CONCRETE AGITATOR

WATER TANK

FUEL TANK

WATER TANK

GARDEN

GARDEN

NOISE BARRIER (EXISTING)

WEDGE PITS

MAX VEHICLE - HRV

MAX VEHICLE - TRUCK & DOG

MAX VEHICLE - MRV

DENSE VEGETATION

No.15 TWO STOREY CONCRETE PANEL BUILDING

No.16 CONCRETE PANEL BUILDING METAL ROOF

No.14 METAL SHED

DEMOUNTABLE METAL BUILDING

METAL BUILDING

NEW WEIGHBRIDGE OFFICE

WEIGH BRIDGE

WEIGH BRIDGE

WATER TANKS

KERR ROAD

5 DP 845871

4 614 1186840 DP 845871

3 DP 845871

2 DP 845871

613 1186840

8 DP 840849

15 DP 717203

16 DP 717203

17 DP 717203

SOUTHERN MAIN RAILWAY

122°31'40"

139.996

122°31'15"

84°28'40"

NOTES

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REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
L	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
J	22.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
I	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
H	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
G	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
F	17.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
E	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL

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Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
MRV: EXTERNAL WEDGE PIT
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: TURN05

REVISION: L

HENDERSON ROAD

STORAGE TANK - REFER TO CIV03

TO COMPLY WITH AS2890.1 'OFF-STREET CAR PARKING'.

CAR PARKING

EXISTING WHEEL WASH BAY

CONCRETE AGITATOR

WATER TANK

FUEL TANK

GARDEN

NOISE BARRIER (EXISTING)

WEDGE PITS

MAX VEHICLE - HRV

MAX VEHICLE - MRV

MAX VEHICLE - TRUCK & DOG

DENSE VEGETATION

No.15 TWO STOREY CONCRETE PANEL BUILDING

No.16 CONCRETE PANEL BUILDING METAL ROOF

No.14 METAL SHED

DEMOUNTABLE METAL BUILDING

METAL BUILDING

NEW WEIGHBRIDGE OFFICE

WEIGH BRIDGE

WATER TANKS

KERR ROAD

RAILWAY SOUTHERN MAIN

5 DP 845871

4 DP 845871

3 DP 845871

2 DP 845871

8 DP 840849

15 DP 717203

16 DP 717203

17 DP 717203

614 1186840

613 1186840

122°31'40"

139.996

122°31'15"

94.515

212°30'50"

90.206

84°28'40"

25.01

97.11

122°31'40"

32.24G

32.94R

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REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
J	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
I	24.12.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
H	23.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
G	20.10.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
F	09.09.20	R.F.	M.M.	M.M.	FINAL ISSUE - AMENDED
E	15.06.20	R.F.	M.M.	M.M.	FINAL ISSUE - FOR APPROVAL
D	01.06.20	R.F.	M.M.	M.M.	FOR APPROVAL

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Mathew McNamara
BEng (Civil) Hons MIE (Aust)

North

PO BOX 4105 Kotara East 2305
0402 915 549
ABN 64 625 755 482
DRB CONSULTING ENGINEERS

VEHICLE TURNING PATH
MRV: INTERNAL WEDGE PIT
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS: NOT FOR CONSTRUCTION

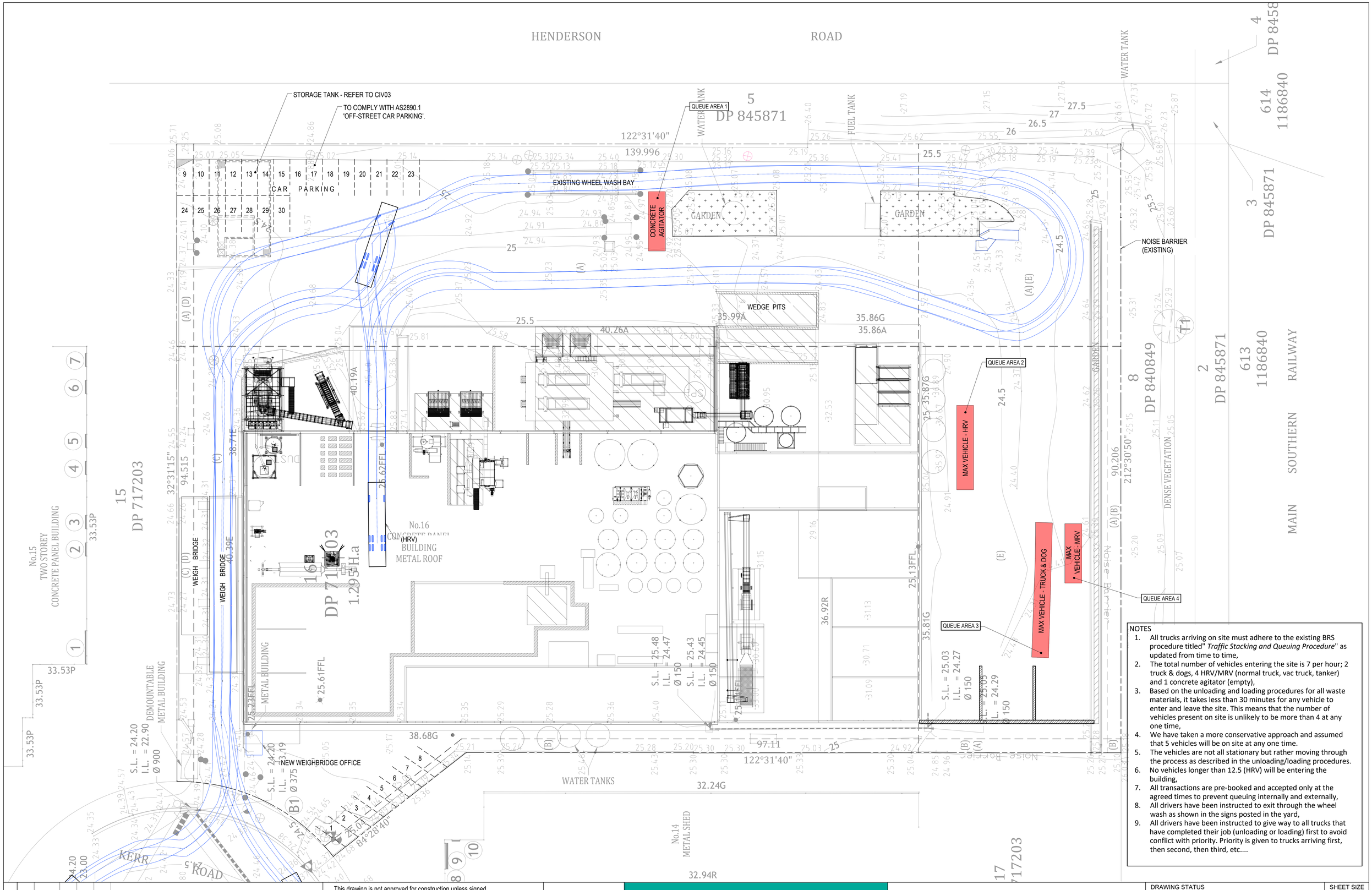
SHEET SIZE: A1

SCALE: 1:250

PROJECT REF No.: 180009

DRAWING No.: TURN06

REVISION: J



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7. All transactions are pre-booked and accepted only at the agreed times to prevent queuing internally and externally,
8. All drivers have been instructed to exit through the wheel wash as shown in the signs posted in the yard,
9. All drivers have been instructed to give way to all trucks that have completed their job (unloading or loading) first to avoid conflict with priority. Priority is given to trucks arriving first, then second, then third, etc....

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
A	14.01.21	R.F.	M.M.	M.M.	FINAL ISSUE

This drawing is not approved for construction unless signed.

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DRB CONSULTING ENGINEERS

QUEUE AREAS 1 - 4
16 KERR ROAD,
INGLEBURN
BRS

DRAWING STATUS	SHEET SIZE
NOT FOR CONSTRUCTION	A1
	SCALE 1:250

PROJECT REF No.	DRAWING No.	REVISION
180009	TURN07	A

Attachment 7: Updated Asbestos Containing Liquids Tipping and Treatment Procedures

Bulk Recovery Solutions – 16 Kerr Road, Ingleburn NSW
Processing of Asbestos Containing liquid

It should be noted that if the material considered to be soil (spadable) rather than liquid, it would not be accepted on site as it is considered as solid asbestos which is not permitted to be accepted on site.

Once the paperwork is confirmed and signed off, the weighbridge operator communicates via the 2-Way Radio with operator within building of asbestos treatment room

Truck is weighed on the weighbridge and proceeds to Asbestos Treatment Room. Once outside room driver calls processing operator via 2-way radio. A Signed document is confirmed noting the material type and quantity. Other details such as source of the materials, truck Rego, company, etc.… are kept with all other reports within the BRS record management system as per the EPA's record keeping requirements.

If the waste has been tested off-site (preferably at the source) prior to delivery, the methodology outlined below will be followed. However, if the waste was not tested off-site (at the source), it would be stored at the BRS facility within a sealed bin hook lift in the asbestos room in preparation for processing after testing. If the testing confirms that it is Asbestos Containing Liquid (ACL), the methodology outlined below will be followed with a slight modification that in this case the waste will be pumped out from the bin into the pit using a dedicated pump and a flexible hose with suitable connections to prevent spills and leaks.

Below is an outline of the methodology used for the tipping off and treatment of ACL which has been tested off-site. This methodology is consistent with the methodologies previously approved by the EPA on different licensed premises for the same waste stream.

<u>Treatment Methodology</u>

1. As you are aware, Asbestos Containing Liquid (ACL) is transferred to the BRS site in tankers like any other liquid waste.
2. The door at the ACL treatment room is always closed unless a tanker is entering or leaving.
3. When the tanker arrives, the door opens and the tanker enters the ACL treatment room as per the normal procedure and following clearance with all relevant parties within BRS site.
4. The operator engages the flexible hose via a dry coupling to the tanker's dry coupling pipe. The other end of the hose is inside the storage and treatment pit.
5. The ACL is emptied into the pit.
6. The hose is disconnected from the dry coupling.
7. The truck is washed down using high pressurized water hose with trigger nozzle.
8. The truck leaves the ACL treatment room as per normal procedure.
9. The door is closed.

Based on the above methodology, there is no contact of the ACL with any part of the tanker due to the use of dry couplings and suitable flexible hoses. The use of dry couplings prevents any leaks or spillages from the tanker or onto the tanker. If any solids are left within the tanker, the rear of the tank is lifted and these solids fall in the pit by gravity. Again there

is no contact of the waste with any external part of the tanker.

When all unloading is completed, the tanker is washed out as an additional second level safety measure to give all stakeholders more confidence in the airtight procedure. This washout water drains directly into the pit.

In relation to the treatment methodology is simplified by the use of the mechanical auger whereby different suitable materials are fed to the ACL within the pit to solidify the ACL. This may take up to 24 hours to complete.

The small excavator will be used to transfer the solidified ACL to the hook lift bin for storage. When the bin is ready to be transported off site (i.e. near full, testing results are received), it will be transported to a lawfully licensed facility that can accept the asbestos waste.

The finished product of the batch is then sampled and sent for testing by accredited external contractors.

Please refer to SWMS Entry and decontamination documents for additional information as well as descriptive PI & D flow diagram labelled BRSLS-003.

Plant and Equipment

The described processing activity would require the use of the following indicative types of plant and equipment internal to room:

- Dedicated Excavator approx. 8T capacity manufacture model Kobelco SK55 or similar to be used solely for the process to avoid cross contamination
- Hook Lift Bins
- Auger

Construction Asbestos Room:

- ✓ Installation of exterior materials, including a concrete panel at the base of building, with cool room panel metal wall cladding above and walls with fast shut roller door allowing access into asbestos treatment room.
- ✓ Construction of treatment pit in room 100m^3, requiring the removal of concrete and excavation of soil, as well as concrete pour to form the pits.
- ✓ Construction of steel mesh/grate on top of the pit so washed out water is drained directly into the pit,
- ✓ Construction of a catch drain along the extent of room doors leading outwards.
- ✓ Construction of a rumble grid near the exit door to assist in shaking any residues of water that may have been left after the truck being washed out.
- ✓ Installation of suitable IP65 rating lighting, HEPA filter air filtration to suck out room under negative pressure to remove all airborne matter, misting systems to aid in suppressing foreign airborne matter, flooring to be installed shall be food standards rating and radius beads throughout the room. This would require minor excavation to be built.

Asbestos Liquid Soil Delivery Instruction to Drivers & Passengers

- Ensure doors and windows are always closed and air conditioner is off or on recirculate mode.
- ensure that all PPE is on.
- Following the traffic management plan. Reverse into the asbestos treatment room. The door is then shut to avoid any airborne matter escaping into the atmosphere. Misting systems are used to help aid this process.
- Following direction from Treatment Operator, unload in location as directed.
- Do not leave vehicle at all except in case of emergency.
- Once unloaded proceed to doorway, for operator to inspect vehicle and wash down as appropriate to ensure all material is washed off vehicle prior to leaving room.
- Once approved by Treatment Operator, Roller door is opened, and the driver is to proceed to the weighbridge via the wheel wash in accordance with the traffic management plan. The operator shall then weigh off and once Weighbridge Operator has recorded weight, proceed off site.

Curing and Disposal of Waste:

The time taken for treated waste material to cure (spadable) would depend on the nature and characteristics of the original materials including moisture and can range from 0.5 hours to a day. Prior to the disposal of any treated waste, BRS would engage a suitably qualified testing company to test the processed waste material to ensure it satisfies EPA criteria, and to classify the processed waste in accordance with the EPA's guidelines. This will be accompanied by a NATA accredited test certificate for Waste Tracking purposes.

Testing would typically include the following:

- Chemical characterisation and physical analysis of the waste to be disposed of with sample results and figures,
- Chemical analysis of the material by an accredited NATA testing laboratory,
- Waste Classification certification from a suitably qualified person.

Bulk Recovery Solutions
www.bulkrecoverysolutions.com

EPA APPROVED SITE Lic:20797

TIPPING PROCEDURE

ASBESTOS CONTAINING LIQUID

Classification report required prior to tipping.