

# Company Profile

D.A.K. Systems Pty Ltd

ABN: 50 081 606 680

PO Box 633

KWINANA WA 6966

Australia

Director: David Knowling, Mech. Eng. Ass. Dip.

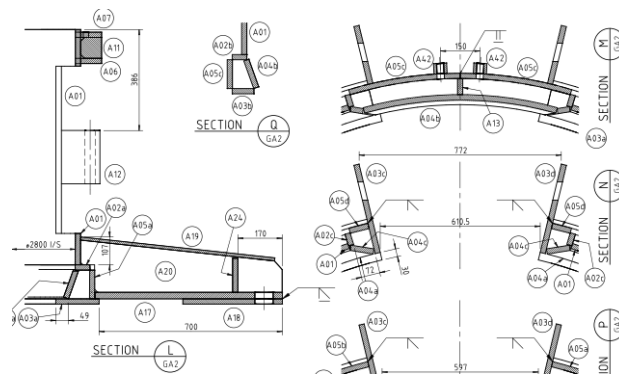
Mob: +61 0412 175 079

Email: davek@daksystems.com.au

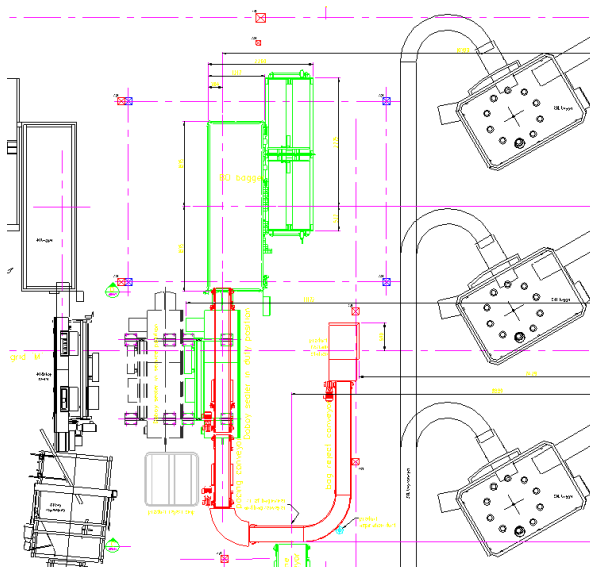


**D.A.K. Systems has been providing mechanical and structural design, project management and construction supervision services for 20 years.**

We combine mechanical and structural design as required. We have significant experience in processing equipment layout and bulk product conveyance and transfers. Most of this work has involved the challenges of modifying existing plant (brown field). We have worked in both the manufacturing and utilities industries. We can work on the client's site if advantageous.



**Our aim: To augment your engineering capabilities to best achieve your project goals.**

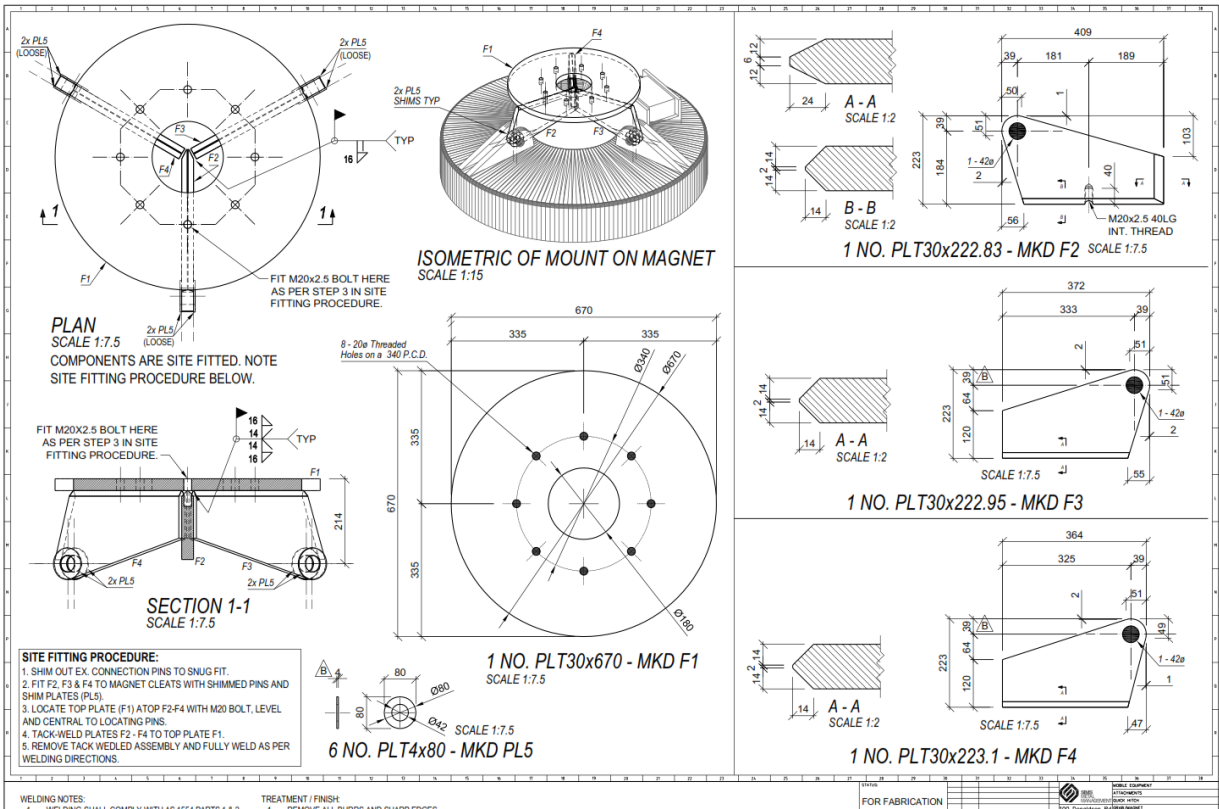
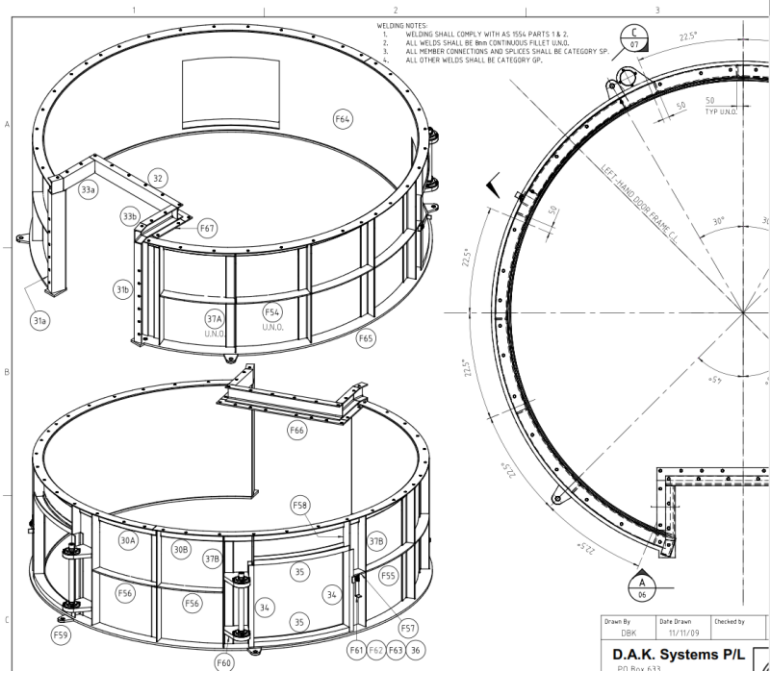


How do we work to achieve this aim? We design, define process specifications, compile tender documentation, site measure, draft, select plant and conveying, design transfers, design support structures and resolve the required operational and maintenance access. Structural certification is provided by our regular consulting engineers. We can take care of the whole project, any part of it, or we can complement your engineering team. We establish a thorough design review process with all of our clients.

We regularly use two drafting packages to best carry out the different drafting tasks required.

**AutoCAD** is the most commonly deployed professional general drafting product. We have been using AutoCAD from the beginning, and also have the readily accessible Mech-Q utility add-on that brings greater efficiency in some mechanical, piping and ducting drafting tasks.

**Autodesk Advance Steel** is an AutoCAD add-on for steelwork shop detailing. It includes connection macros, automatic part numbering, clash checking, and auto-generation of 2D part drawings, material lists and NC code.

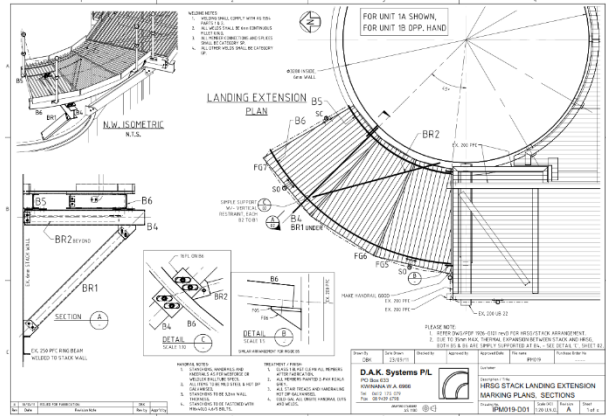


With **shut-down and construction supervision**; issuing Hot Work and Confined Space Entry permits, developing JSA's and running toolbox meetings, we have a good understanding of WHS requirements and are committed to maintaining a safe work environment.

Our Quality Management procedures include in-built and active measures. Our software includes checks for physical and assembly clashes. The compilation of detailing jobs is handled in a manner that highlights any remaining issues early and enables the most efficient rectification of these.

Our pride in our work and our Quality Management procedures help prevent errors and oversights. Our obligation to you doesn't end with the hand-over of drawings and completion of the project. Support is on-going.

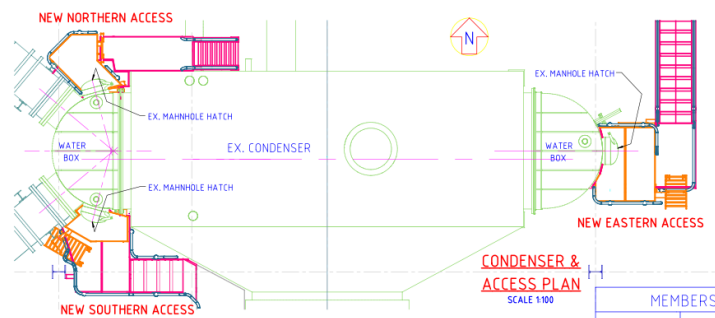
D.A.K. Systems is insured for workers compensation and public liability insurance.



Our history:

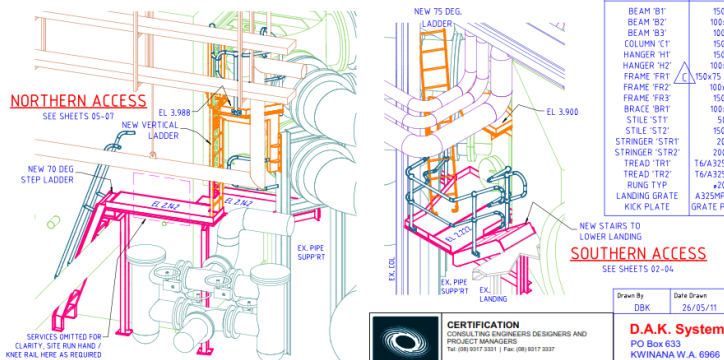
**Extensive design experience in:**

- o Brown field layout design
- o Bulk materials conveying and chute work
- o Brown-field plant structural design
- o Access design - landings, stairs, step ladders etc
- o Plant equipment detailing, modifications and as-builts
- o Steelwork detailing



**Significant history also in:**

- o Project management from internal approvals to delivery
- o Project write-up and justification
- o Managing worksite construction and installation
- o AutoCAD + Advance Steel + Document Management System configuration, training & maintenance



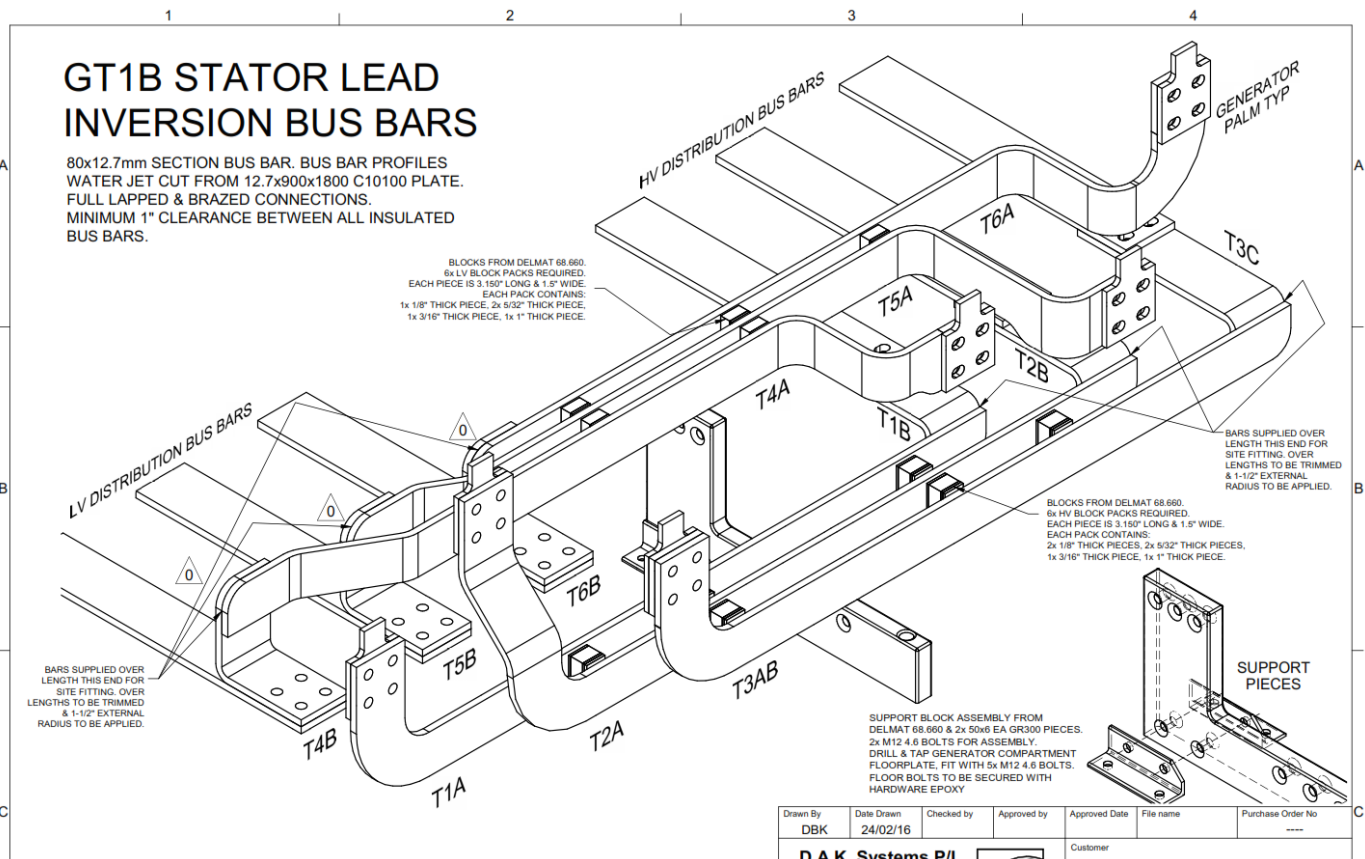
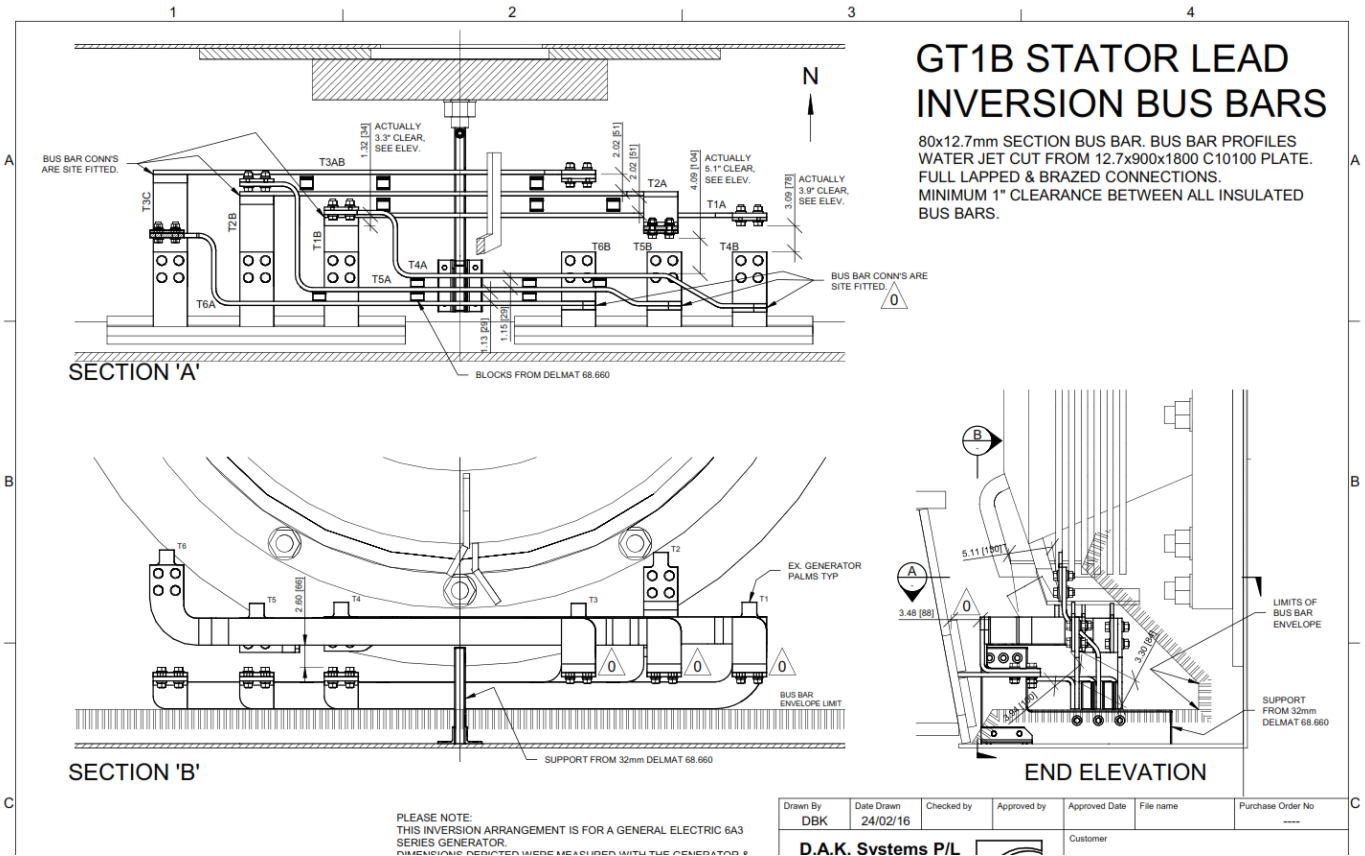
**Past / current clients include:**

- o Cockburn Cement Limited (3 years, 12+ projects, South Metropolitan WA)
- o Mentis Australia (3 month project, on site, Bibra Lake WA)
- o Sims Metal Management (30 months, 15 projects, across WA)
- o Thistle Fabrication (5 years intermittent, Kwinana Beach, WA)
- o Doral Fused Materials (12 years, 70+ projects, Rockingham, WA)
- o Engie Mitsui Co-Generation Plant (12 years, 70+ projects, Kwinana Beach, WA)
- o EMCO Building (18 months intermittent, Osborne Park, WA)
- o Heat Exchangers WA (8 years intermittent, Beckenham, WA)
- o Masterfoods ANZ (5 years on-site, Bathurst, NSW)
- o Devro (18 months on-site, Bathurst, NSW)

**Would additional engineering support help fulfill your objectives?**

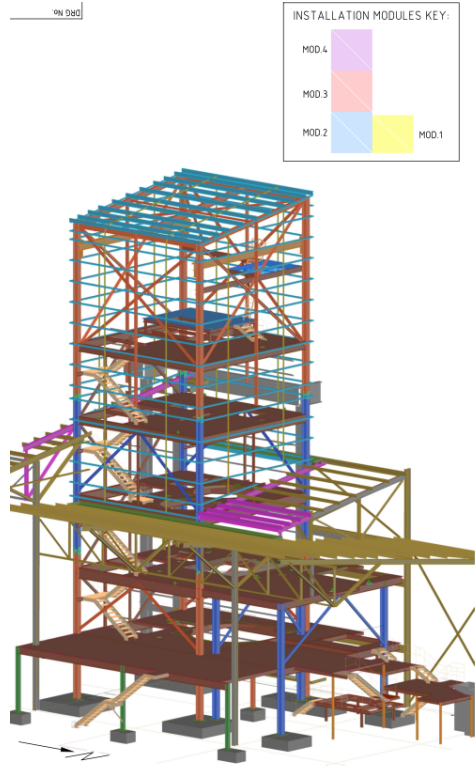
**Call or email me; David Knowling. 0412 175 079, davek@daksystems.com.au**

... Stator inversion project for a power generation client, Kwinana Beach, WA.

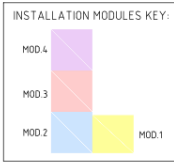




... Existing packing facility upgrade project for manufacturing client, Kwinana Beach, WA.



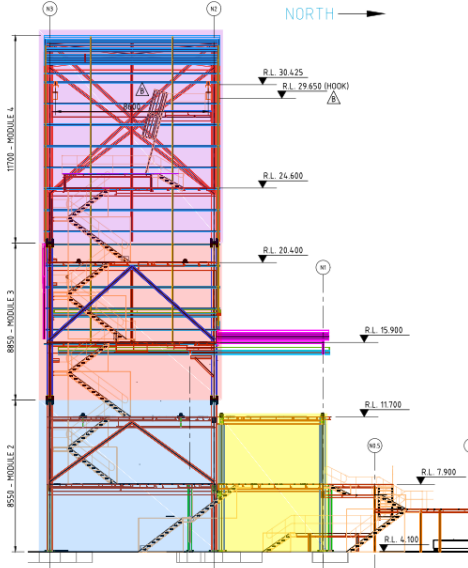
ISOMETRIC OF COMPLETED STRUCTURE WITHIN REMAINING PACKING HALL STRUCTURE  
SCALE 1:100



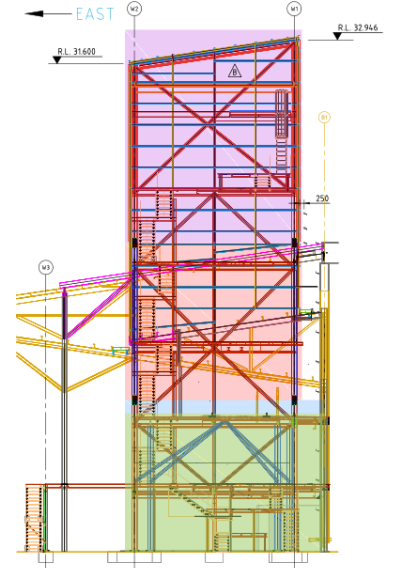
**Notes regarding modularisation for installation of structural steel.**  
Read in conjunction with drawing

- Extent of modularisation:**
- The structural design has allowed for modularisation of the structural steel south of Gridline 'N1' and west of Gridline 'W2'.
  - Steelwork north of Gridline 'N1' is expected to be erected in a typical manner, with pre-assembly of floorplate sections and joists, staircases & handrails only.
  - Likewise, steelwork east of Gridline 'W2' is expected to be erected in a typical manner, with pre-assembly of floorplate sections and joists, staircases & handrails only.
  - The modules are installed in numerical order with the following sub-steps:
    - Module 1 is craned through the roof and located 500mm north of its final location.
    - Module 2 is craned into location.
    - Module 1a is then lifted to clear studs in floor, brought south 500mm and lowered into its final location.
    - Modules 3 & 4 are installed with consideration of the following notes.
- Items across multiple modules:**
- The two flights of stairs that straddle modules 2 & 3 and 3 & 4 need to be secured to modules 2 & 3 respectively.
  - Diagonal bracing that spans modules (on Grid 'N3') will need to be installed once the modules are in place.

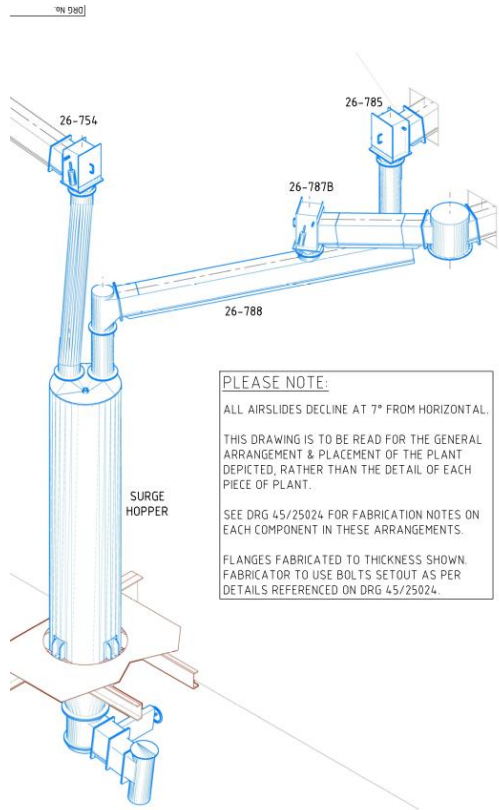
- Plant equipment within modules:**
- The dust filter in module 1 may be installed independently of module 1.
  - The dust collection cone beneath the filterpacker needs to be installed within module 2 as module 2 is assembled.
  - The filterpacker may be installed independently of module 2.
  - The silos need to be installed within module 3 as module 3 is assembled.
  - It may be advisable to suspend the vibratory screen to the underside of module 4 before module 4 is installed.
  - The bucket elevator bears on the floor, platform RL 11,700 in module 2 and platform RL 24,600 in module 4. It will need to be installed four stages:
    - all floor level
    - suspended at RL 11,700 within module 2
    - craned through module 3 bearing on module 2 once module three is in location and
    - lifted secured but not in place in module 4 for installation with the BE crane once module 4 is secured.



EASTERN ELEVATION  
INSTALLATION MODULES HIGHLIGHTED  
EX. STRUCTURE OMITTED

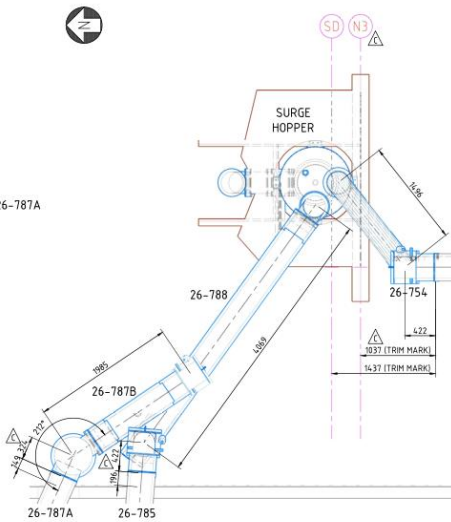


NORTHERN ELEVATION  
INSTALLATION MODULES HIGHLIGHTED  
SCALE 1:100

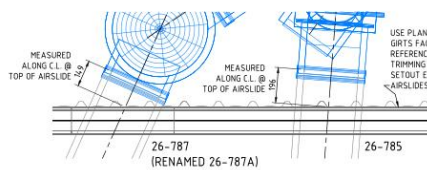


NORTHEAST ISOMETRIC

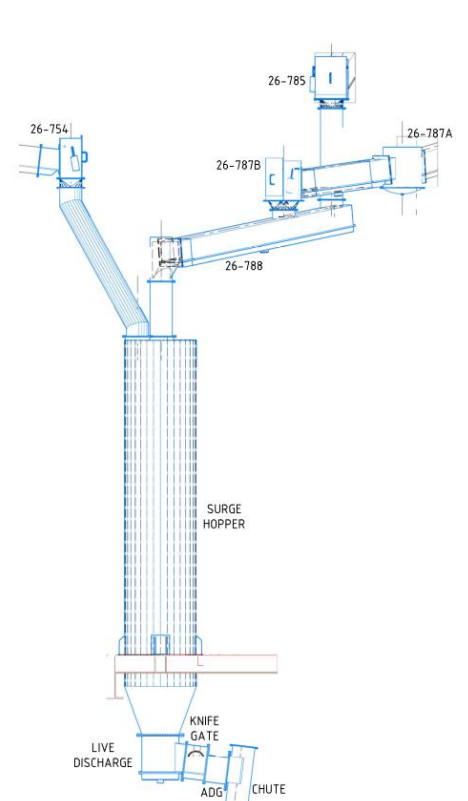
**PLEASE NOTE:**  
ALL AIRSLIDES DECLINE AT 7° FROM HORIZONTAL.  
THIS DRAWING IS TO BE READ FOR THE GENERAL ARRANGEMENT & PLACEMENT OF THE PLANT DEPICTED, RATHER THAN THE DETAIL OF EACH PIECE OF PLANT.  
SEE DRG 45/25024 FOR FABRICATION NOTES ON EACH COMPONENT IN THESE ARRANGEMENTS.  
FLANGES FABRICATED TO THICKNESS SHOWN. FABRICATOR TO USE BOLTS SETOUT AS PER DETAILS REFERENCED ON DRG 45/25024.



PLAN OF AIRSLIDES & SURGE HOPPER ARRANGEMENT



SHORTENING OF AIRSLIDES - PLAN  
SCALE 1:10



EASTERN ELEVATION