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INCIDENT	High Potential (A1P3)
SUBJECT	Excavator Topples into Trench
INCIDENT DATE	20 th March 2020
BUSINESS UNIT	Higgins – Auckland

WHAT HAPPENED?

A Higgins subcontractor was backfilling a service trench. Due to the narrow workspace, 1.7T Yanmar excavator was selected to backfill the trench. A 1.5T front-end dumper was dumping aggregate in to the 0.4m deep service trench. Once the aggregate was placed into the trench the excavator positioned on the undercut pavement bench would transition into the trench and spread the aggregate. The trench access ramp was located approximately 50m south of the backfilling activities. The front-end dumper made multiple trips back and forth from the stockpile to the excavator. Due to the narrow width of the undercut pavement bench (1.2m), the excavator operator set the tracks to 0.9m. This meant that the tracks were tight under the machine, which reduced the stability of the machine. The tracks on this particular type of excavator are capable of extending to 1.2m.

To allow the dumper to pass the excavator to dump aggregate into the trench, the excavator operator would “climb” the excavator in and out of the trench by leveraging the boom and bucket to counterbalance the weight of the excavator and slowly track up and down the undercut pavement.

As the excavator was climbing off the undercut pavement into the trench to shift the aggregate, the side wall of the bench subsided, and the excavator slowly tipped coming to rest on its side. Fortunately, the excavator operator was wearing his seatbelt and he did not sustain any injuries. There was no obvious damage to the excavator.



Photos from the incident scene: Left – Excavator toppled over; Right – Trench dimensions;

WHAT DID WE DO IMMEDIATELY?

Element	Action
Recovery	The toppled excavator was lifted back into position by a 5T excavator.
Incident Response	The excavator operator underwent D&A test (negative result). The incident was reported to Higgins Management. Higgins commenced an incident investigation.



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WHAT DID WE LEARN?

We learned that we need to question the following:

- Is there an adequate work methodology for the task? Has it been communicated to all involved parties and implemented?
- Are the machine operators adequately trained and deemed competent for the particular type of machine they operate? Does the operator understand the operating limits of the machine being used?
- Is there adequate supervision on site?

WHAT ARE WE DOING DIFFERENTLY?

Element	Corrective Action
Procedures	We are ensuring that approved site plans (work methodologies) are: detailed, specify type of plant and equipment required, specify operator competency required for the task, that are appropriately communicated and adhered to.
Supervision	We are also ensuring adequate supervision is provided to monitor the above requirements are implemented and no shortcuts are taken.