

M MACHINEX



Miller Waste Systems

Proposal #2219055

***Glass breaker screen & perforator
retrofit***

5/11/2020

TABLE OF CONTENTS

1. **INTRODUCTION** 3

2. **PRICING CHART**4

3. **EQUIPMENT LIST**.....5

4. **EQUIPMENT DESCRIPTION**.....6

5. **ELECTRICAL INFORMATION** 10

6. **MECHANICAL INSTALLATION** 11

7. **SCHEDULE**12

8. **LIMITED SCOPE OF SUPPLY**13

9. **INDUSTRIES MACHINEX GENERAL CONDITIONS OF SALE**15

APPENDICES

APPENDIX A - LAYOUT20

1. INTRODUCTION

5/11/2020

Mr. Adrian Kleywegt
Miller Waste Systems
505 Miller Avenue
Markham, ON
L6G 1B2

SUBJECT: **Glass breaker screen & perforator retrofit**
 Our Proposal # 2219055

We are pleased to submit our Proposal # 2219055 for your project featuring Industries Machinex Equipment.

In the following, we present the details of our proposal based on drawing MR-2389A17, Rev 0. The scope of the work is to Design, Fabricate & Ship the equipment listed in the following. All necessary civil work (building modification, site preparation, sprinkler system modification, Seismic and main electrical), performance & execution bond fees, attorney fees are not included and will be the responsibility of Miller Waste Systems.

Unloading the equipment, installation, controls, field wiring as well as start-up and training are included in the Industries Machinex scope of work.

We hope that you will find that this proposal meets with your requirements. If you have any comments or questions, whatsoever, please do not hesitate to contact us.

Sincerely,

INDUSTRIES MACHINEX INC.



Charles-Étienne Simard, Pr. Eng.

Proposal #2219055

2. PRICING CHART

ITEMS	DESCRIPTION	PRICE** (CAN)
UPGRADE #1	NEW GLASS BREAKER SCREEN AND PLASTIC PERFORATOR <ul style="list-style-type: none"> • NEW 60" WIDE GLASS BREAKER SCREEN • DUAL STAGE (4 DRUMS) PERFORATOR • NEW TRANSFER CONVEYOR • ALL NECESSARY MODIFICATIONS TO THE EXISTING SYSTEM 	INCLUDED
FREIGHT	DELIVERY TO SITE	INCLUDED
INSTALLATION	MECHANICAL INSTALLATION DISMANTLING AND INSTALLATION OF SPECIFIED EQUIPMENT	INCLUDED
CONTROL	CONTROLS OF EQUIPMENT	INCLUDED
WIRING	FIELD WIRING ON SITE	INCLUDED
START-UP	START-UP AND TRAINING ON SITE	INCLUDED
	TOTAL	\$ 579,767.97

Taxes are not included in any of the given price

Prices are valid for existing colours: Blue RAL5010 and safety yellow RAL1037

Prices do not include seismic engineering and building permits

Any modifications or repairs to existing equipment are excluded, unless otherwise mentioned

***** If required, ESA inspection, TSSA and pre-start health & safety review are excluded***

3. EQUIPMENT LIST

EQUIPMENT TO BE REMOVED							
ITEM #	DESCRIPTION	MODEL	HP	KW	VFD	WIDTH	LENGTH
S-8	Fines screen [DS-182L]		---	---	-	---	---
C-9	Air sort feeder conveyor [SA-080L]		---	---	-	---	---
AS-10	Heavy light separator [SA-080L]		---	---	-	---	---
PP-11	Plastic perforator [EP-044L]		---	---	-	---	---
S-12	Fines screen [DS-183L]		---	---	-	---	---

EQUIPMENT LIST - NEW EQUIPMENT							
ITEM #	DESCRIPTION	MODEL	HP	KW	VFD	WIDTH	LENGTH
S-9	Glas breaker screen (New) (DECK #1)	GBS-60	5	---	X	---	---
"	Glas breaker screen (New) (DECK #2)	"	5	---	X	---	---
"	Glas breaker screen (New) (SPEED SHAFT)	"	5	---	X	---	---
C-10	Containers transfer conveyor (New)	SLIDER BED	3	---	-	36"	13' 4"
PP-11	Plastic perforator (New) (DRUM #1)	MEP-2436-2S	5	---	-	---	---
"	Plastic perforator (New) (DRUM #2)	"	5	---	-	---	---
"	Plastic perforator (New) (DRUM #3)	"	5	---	-	---	---
"	Plastic perforator (New) (DRUM #4)	"	5	---	-	---	---
S-12	Fines screen (Motor)	48" wide X 6 shafts	5	---	X	---	---

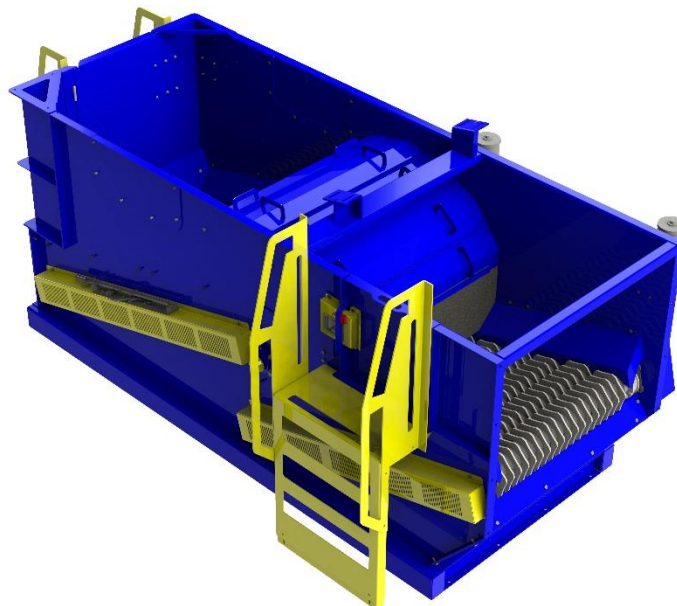
4. EQUIPMENT DESCRIPTION

4.1 GLASS BREAKER SCREEN

MACH Glass Breaker Screen [S-9]

Features	Description	Additional information
FRAME		
Frame	Closed frame 1/4" thick	Reinforced with gussets Inside width from 36" to 60" (Refer to Equipment List)
Maintenance	Hinged Access Door with Ladder on one side	With safety door switch
Transfer panels	Made of 3/16" steel	With replaceable sacrificial AR steel plate
MOTOR AND DISKS		
Motor	Refer to Equipment List for HP (5HP minimum)	Flange mounted Premium efficiency
Shaft	1 15/16" shaft shelled with AR steel Total diameter of 6" Two (2) deck glass breaker	First Deck has 8 shafts + 1 speed shaft Second Deck has 8 shafts Disks are staggered to reduce disk spacing
Disk	ø9 3/8" in diameter 3/8" thick AR steel disks	Abrasive resistant
Speed shaft	Football shaped high speed shaft	Limit wrapping while increasing impact effect Covered with AR steel
LUBRICATION		
Oiler	Automatic oiler on Drive Chain(s)	

*Excluded unless otherwise noted

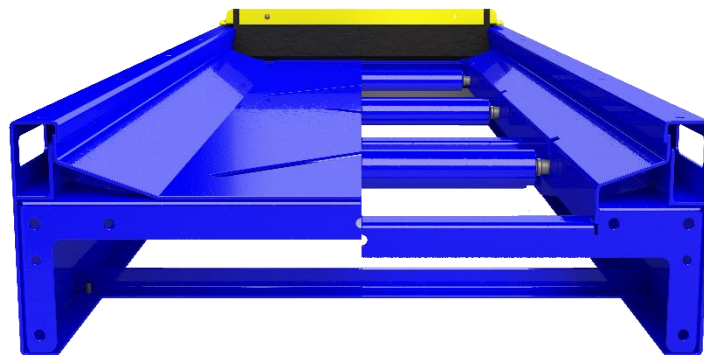


Proposal #2219055

4.2 SLIDER BED CONVEYOR

Medium duty carrying conveyor or sorting conveyor [C-10]

Features	Description	Additional information
FRAME		
Construction	Closed frame 3/16" thick	Flat side conveyor
Section length	12'-0" maximum	Reinforced every 72".
Connecting plates	3/8" thick	
Carrying rollers	Ø3" (steel-CEMA "C") or Steel plate 3/16"	Based on application 3/16" steel plate or bearing will be prioritized. Tapered roller bearings with sealed bearings and slide in type brackets.
Return rollers	Ø3" (steel-CEMA "C")	Tapered roller bearings with sealed bearings and slide in type brackets.
Side skirts	6" minimum height	12 gauge
BEARINGS, SHAFT AND PULLEYS		
Tail bearing	Minimum Ø2 7/16" (60mm) pillow block	Mounted on take-up mechanism; Taper hub bushings with key ways and set screws.
Tail pulley	Minimum Ø8"	Winged, crowned and self-cleaning.
Head bearing	Minimum Ø2 7/16" (60mm)	Four (4) bolts flange
Head pulley	Minimum Ø8"	Crowned with 1/4" lagging. Taper hub bushings with key ways and set screws.
RUBBER BELT		
Belt	2 ply 220 PIW	One (1) piece with one mechanical joint
Belt cover	Top 3/16" thick Low friction bare back	



4.3 PLASTIC PERFORATOR

Dual stage model [PP-11]

SIZE AND PERFORMANCES

- 1) Inlet dimensions: approximately 26" x 44"
- 2) Design: First stage consists of two (2) rollers that will crush big containers. Second stage consists of two (2) rollers equipped with teeth to perforate big containers.
- 3) Drum size: 24" dia. nom. (27" c/w teeth) approx.
- 4) Operate in normal duty with containers up to 20 liters.

MOTORS AND SHAFTS

- 5) Perforator motor: 2 x 5HP, 575/3/60,
- 6) Flattener motor: 2 x 5HP, 575/3/60,
- 7) All motors are mounted on reducers and are PREMIUM efficiency type, 1.15 Service factor.
- 8) Four (4) heavy duty gas springs that will apply pressure on all of the four (4) drums.

GUARDS AND FRAME

- 9) Guards and access doors for easy maintenance.
- 10) Teeth: Hardened steel
- 11) Removable sections of teeth for easy maintenance

OPTIONS:

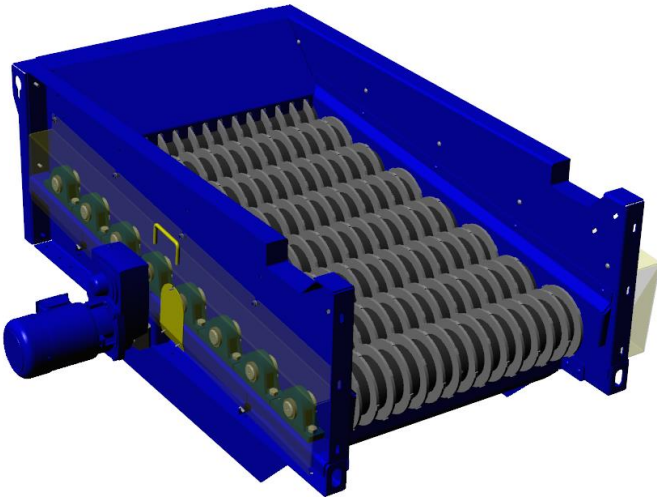
- 12) Perforator can be installed on rails (shuttle system) so it can be moved away and be completely by-passed
- 13) Shuttle system can be manual or automated



4.4 FINES SCREEN 2 1/2" MINUS

Steel Shaft Screen [S-12]

Features	Description	Additional information
FRAME		
Frame	Closed frame 3/16" thick	Inside working width range from 36" to 72" (refer to Equipment List)
Deck	Modular	Disk quantity is variable based on the application and tonnage
MOTOR AND DISKS		
Disk	3/16" thick AR Steel round disks	Optional (Excluded unless specified otherwise) <ul style="list-style-type: none">○ 1/4" thick○ Star shaped
Motor	3 HP minimum (refer to Equipment List)	Flange mounted Premium efficiency



One (1) Deck Screen shown

5. ELECTRICAL INFORMATION

5.1 Controls and wiring

Infeed wiring: Bringing or removing main power from the electrical room / switchgear to new Machinex control panels: *LCP's Optical Units, Air Compressors, Balers, Compactors, Shredders, or any other control panel is **NOT part of Machinex's scope of supply.***

Field wiring: Bringing power and control wiring (armoured cables or "teck cables") from control panels to each piece of equipment is however part of Machinex scope of supply.

Additional Information

IS INCLUDED:

- Dismantling wiring from equipment being removed to existing control panel
- Integration with existing System Control Panels
- HMI update

ARE NOT INCLUDED:

- Replacing defective parts in existing control panels

GENERAL NOTES:

- This proposal considers that Machinex still have the last version of the PLC and HMI program. If modifications have been done by others over the last years, extra charge may apply. For example, modifications that would be considers as such could be:
 - PLC and HMI program protected by a password
 - Modifications that would require to reprogram the existing line in order to do this system upgrade
 - Etc...

6. MECHANICAL INSTALLATION

ARE INCLUDED

- All necessary labor and travel expenses to install all the listed equipment and associated;
- All necessary tools for the technicians;
- Touch-up & Start-up;
- Fork lift, Crane and Scissors lift.
- Any misfit will be corrected in a timely fashion by the installation crew always in contact with the project manager.

ARE NOT INCLUDED

- Dismantling of the existing equipment
- Any form of dismantling or general cleaning of the area;
- Disposal of used equipment, if any by buyer;
- Building work (by buyer);
- Necessary building modifications (footing if required);
- Access to facilities for Machinex employee responsibility of customer;
- Sprinkler work;
- Filling pits if required
- Any misfit resulting of building or other work not included will be managed together under a change order agreement and additional charges may apply.

GENERAL NOTES

- Local EPA permits, i.e. EPA & Planning and/or construction are not included;
- Price reflects the use of non-union labor for equipment installation (Machinex crew);
- We reserve the right to modify pricing should the use of union labor be required;
- Installation cost will also be adjusted if prevailing wage apply;
- Wiring price & installation is based on a Machinex crew;
- We reserve the right to change the price if permits or ON licensed electrician is required;
- Installation price reflects the use of Wedge anchor bolts;
- All main electrical drops are the responsibility of the customer (Main control panel (575/3/60).

ADDITIONAL INFORMATION

- This proposal is for a turnkey installation and includes all equipment shown on layout drawing referred to within this proposal;
- All necessary controls & equipment field wiring meeting local codes are included;
- Machinex will be included as named insured to the Buyer's Builder's Risk Insurance, while on site performing installation, start-up, commissioning and punch-list as specified within our term and conditions.

7. SCHEDULE

7.1 Preliminary Installation Schedule

Below is a tentative installation schedule that will need to be coordinated during project planning with all the parties involved.

Mechanical Installation on to happen on 24 hours and we do require a full customer shutdown for ten (10) days (Thursday @ 4pm until Monday 7am).

To perform the installation, we do need to remove the following equipment:

- C-31 head Section
- C-14 (Entire Conveyor)
- C-32 Tail Section
- Large Structure Tower that supports 3 conveyors above.
- Possibility for head of C-13

8. LIMITED SCOPE OF SUPPLY

Despite the fact that Machinex is providing a turn-key project, hereunder is a list of items not included in Machinex scope of work. However, after the award, Machinex would be truly opened to insert some of those tasks back in our scope of supply, if it is the customer's desire. Additional cost shall be forecasted and will be provided in due time.

ITEM NOT INCLUDED IN MACHINEX SCOPE OF SUPPLY

EQUIPMENT

- Any enclosure or cabin modifications or opening.
- Any refurbish or new components on existing equipment (unless otherwise mentioned).

BUILDING

- Any building modifications as such but not limited to: building extension, pits, wall openings, ceiling and trusses.
- Any fire protection system (Sprinklers) neither in the building nor any additional sprinklers underneath the proposed equipment (if required).
- Electrical switchgear
- Any concrete blocks
- Concrete slab calculations, modifications if needed (in time, equipment loads would be provided)
- Any dust collection/suppression system. It also excludes all dust collection/suppression system supporting structure, fixing or hoods to our equipment.
- Any supplemental lighting.

CONTROLS & WIRING

- Any switchboard, breaker, load drops or any electrical components in the electrical switchgear. However, Machinex will advise on the location & the level of each load drops required once project is awarded.
- In-feed wiring that brings power from the electrical room to all control panels, main peripheral equipment (baler, optical units, aspiration system and compressor). More information regarding our needs will be released few weeks after the project approval.
- Any video system (CCTV).
- Any furniture or computer.
- Any internet hook-up.

COMMISSIONING & TESTING

- Labor costs associated with cleaning and maintenance of plant during commissioning testing period. These tasks need to be done by the Employer which is part of the essential operational learning curve.
- Supply of sufficient baling wire and other consumables (fuel, oil, lubricants, water, chemical, etc.) items throughout the commissioning testing period. It is the Employer's responsibility to forecast and order a sufficient amount of in-feed material and any necessary consumables. Machinex could however bring on-site some consumables to avoid any emergency situations.
- Any fee for the Independent testing agency.

MISCELLANEOUS

- Any enclosure or compressor cabin.
- Any dust collection system
- Any rolling stocks.
- Any containers or bins
- Any security fences
- Life lines or restrain lines on conveyors
- Double emergency pull-cords
- Any insurance costs
- Building permit
- Machinex will not act as the principal contractor.
- Any fee for the Independent CE marking audit inspection.
- Any fee for the Independent CSA/ESA marking audit inspection.
- Any fee for TSSA approval
- FAT (factory testing) only realized on the control program before shipping.
- The provision of all necessary safety equipment (fire blanket, eyes washer station, extinguishers, etc.)
- Noise or Dust Monitoring surveys
- The cleaning of the equipment after the installation (ex: snow and mud)

9. INDUSTRIES MACHINEX GENERAL CONDITIONS OF SALE

All products shall be supplied by Industries Machinex Inc. and accepted by the buyer in accordance with the following Terms and Conditions of Sale:

PRICES

Our prices for the technical equipment are valid for 30 days.
Prices are subject to change after that period.
Clerical and stenographic errors are subject to correction.

Note : Actual fluctuation in steel cost and exchange may cause price increase in short term on some equipment. Final review of the proposal will be done at time of final design

Our prices exclude payment of all taxes, if applicable.

TERMS OF PAYMENT

- 15% with order;
- 35% prior shipment;
- 50% due upon start-up not to exceed 30 days from arrival on site;

NOTES

Industries Machinex Inc. will remain the owner of all the supplied equipment (or any part or portion thereof) until final and complete payment. The buyer shall do all things necessary to perfect and maintain such right and title to Industries Machinex Inc.

In the case where the buyer would not respect the terms of payment and that Industries Machinex Inc. would have to take back the equipment, the buyer accepts that Industries Machinex Inc. will keep, as compensation, all sums already paid by the buyer.

INFORMATION

We have assumed that the customer, without any delay, will give Industries Machinex Inc. Information about all circumstances that may have an effect on the time schedule.

INSTALLATION

- The installation is **included** in the price

FREIGHT

- The freight is **included** in the price (London, On)

D.D.P. (Incoterms 2010)

- London, On

WARRANTY

All new equipment is covered with a warranty of **12 months (2 200 hours)** whichever comes first against manufacturer's equipment defaults (material) while in normal use.

The warranty period starts from the date of delivery.

The warranty will lapse if the equipment is repaired or altered by personnel that has not been authorized by Industries Machinex Inc. to carry out repairs, or if operation and maintenance instructions for the equipment have not been followed and approved.

Industries Machinex Inc. shall not be responsible for loss or damages of any kind, or from any cause, to any person or property of any person, or for loss of revenue or profit, or for any other special, incidental or consequential damages.

Any parts or equipment which Industries Machinex Inc. supplies but does not manufacture shall be subject only to the warranties of Machinex's vendors to the extent Industries Machinex Inc. can enforce such warranties.

The warranty covers replacement parts only, and excludes labor and consequential damages.

Buyer shall notify Industries Machinex Inc. in writing within fifteen (15) days of discovery, within the warranty period, of any alleged defect and permit Industries Machinex Inc. and/or its representatives to make such investigation, examination and tests deemed appropriate. Upon request from Industries Machinex Inc., the buyer shall return the alleged defective product to Machinex's factory for examination and testing. If the product is defective, and provided that the warranty of quality applies, Industries Machinex Inc. will repair or replace same at its own cost.

Any action for breach of warranty or other action under this agreement must be commenced within one (1) year after such cause of action arises.

In regards to equipment that is sold as "used" and "as is", if applicable, Machinex declines all warranties, whether expressed or implied, and assumes no responsibility nor authorizes any person to assume any liability on its behalf in regards to the sale of said equipment. Machinex declines any responsibility in regards to security related to the equipment being sold as "used". Since the buyer is responsible for the integration of this equipment, the Buyer has the responsibility to ensure compliance with regulations. The Buyer is entirely responsible for the security of this equipment during operation and in accordance with regulation standards.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS.

INSURANCE

The Owner (customer) is responsible for the insurance of the equipment after arrival on site and unloaded from trucks or containers.

The Owner shall obtain and maintain Builder's Risk Property Insurance including Work and Products, upon the entire Project for the full replacement cost and including Sales Taxes at the time of loss. This insurance shall include as named insured the Owner, Contractor and Subcontractors. The policy shall insure against direct risk of physical loss or damage including flood or other water damage, earthquake, act of terrorism, transit, off premises storage, boiler & machinery. The coverage shall be maintained continuously until 10 Days after the date of the final certificate for payment (or after the date of start-up testing and commissioning). In case of loss, the Owner is responsible for the insurance deductibles. Maximum deductible for all risk perils is \$10,000 except flood and earthquake, which shall be \$25,000 and \$100,000 respectively.

Evidence of coverage as shown in a certificate of Insurance will have to be presented to Machinex before beginning of work. In addition, the policy or policies will have to be endorsed with an undertaking by the Insurer to provide Machinex with not less than Thirty (30) days advance written notice of cancellation, change or amendment restricting coverage.

DELIVERY

Deliveries are scheduled for with reception of a purchase order and down payment, clarification of required technical information, resolution of commercial issues, and customer approval of drawings when required. In the event where the customer has to delay the equipment delivery, storage fees may apply.

Industries Machinex Inc. shall not be liable for delays in delivery or failure to manufacture due to force majeure or causes beyond its reasonable control such as Acts of God, acts of omissions of the buyer, acts or omissions of civil or military authority, priorities, fire, strikes, floods, epidemics, quarantines, restrictions, riot, war, act of terrorism, delays in transportation, transportation vehicle/vessel shortages and inability to perform due to inability to obtain necessary labor, materials or manufacturing facilities. In the events of any delay such as above described, the date of delivery shall be extended for a period equal to the time lost by such delay.

CANCELLATION

No order may be canceled by the buyer except upon written notice to Industries Machinex Inc. and upon payment to Industries Machinex Inc. of all costs incurred by it arising out of, or in connection with the order, determined on a basis consistently observed by Machinex and in accordance with sound accounting principles. Industries Machinex Inc. shall have the right to cancel any order or to refuse to deliver or to delay shipment in the event buyer fails to submit payments when due or perform any other obligations of buyer.

SPECIAL CLAUSE

Industries Machinex Inc. reserves the possibility to make any modifications or adjustments to the design or equipment shown on drawing MR-2389A17, Rev 0. Although the layout will remain the same, any adjustments such as but not limited to: the horsepower of motors, conveyor frame, conveyor type, safety features or others that can improve or standardize the equipment shown on the previously mentioned drawing and specification detail is under Industries Machinex discretion.

In a circumstance where the buyer purchases in whole or in part an equipment, that is to be utilized in this system, directly from another manufacturer than Industries Machinex Inc. the buyer is responsible for all costs as well as the management related to the equipment's integration, unless otherwise specified in this proposal. These costs may include, but are not limited to, the items listed in the section "Limited Scope of Supply" such as: delivery charges and unloading, insurances, warranties, performance guarantees, integration, mechanical and electrical installation (wiring and controls), civil work (building, permits, safety and environmental standards), start-up, testing and any other cost related to these including redoing these if necessary.

In the case where Machinex will commit to such equipment's integration, certain information will be required throughout the project and dates will be assigned that such information needs to be provided by the buyer and will remain under the buyer's responsibility and management. If such information is not supplied within the expected timeline, additional costs will be charged to the buyer.

Whether the equipment is being integrated by the buyer or Machinex, any delays and additional costs in the project that are related to that equipment such as but not limited to: communication with supplier to validate equipment integration protocol, communication and control protocol, performances and mechanical / physical equipment integration are solely the responsibility of the buyer. Any additional cost related to these delays will be at the Buyer's expense.

MODIFICATIONS

No waivers or modification of any of the foregoing Terms and Conditions of Sale shall be valid unless made in writing and signed by both parties. The failure of Industries Machinex Inc. to enforce any right it possesses under the foregoing Terms and Conditions of Sale shall not constitute a waiver thereof or establish a custom. In the event any Terms and Conditions of any submitted by buyer to Industries Machinex Inc. shall be in conflict with any Terms and conditions herein, the Terms and Conditions set forth herein shall govern and prevail.

SIGNATURES

INDUSTRIES MACHINEX
INC.

Miller Waste Systems

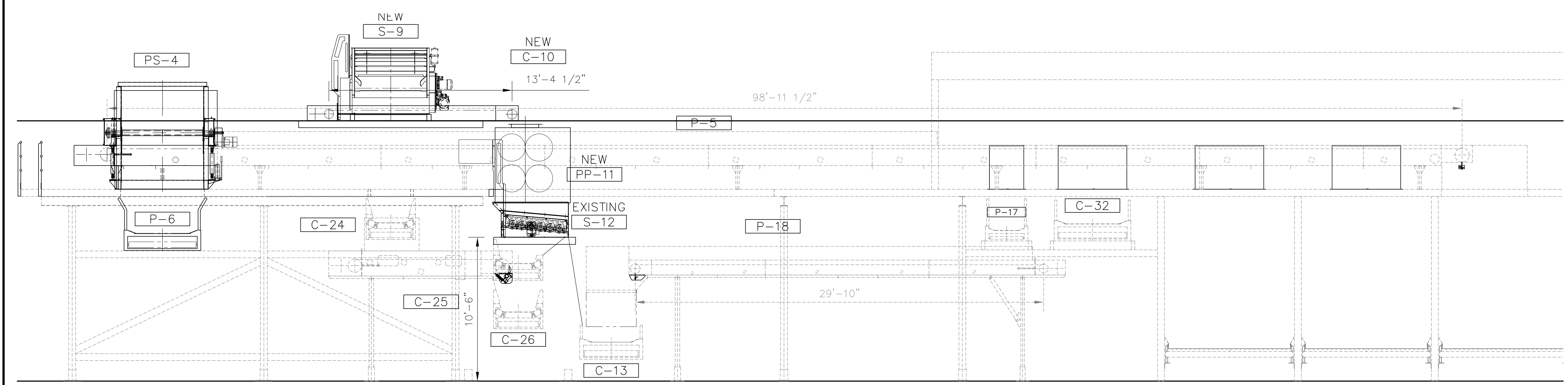
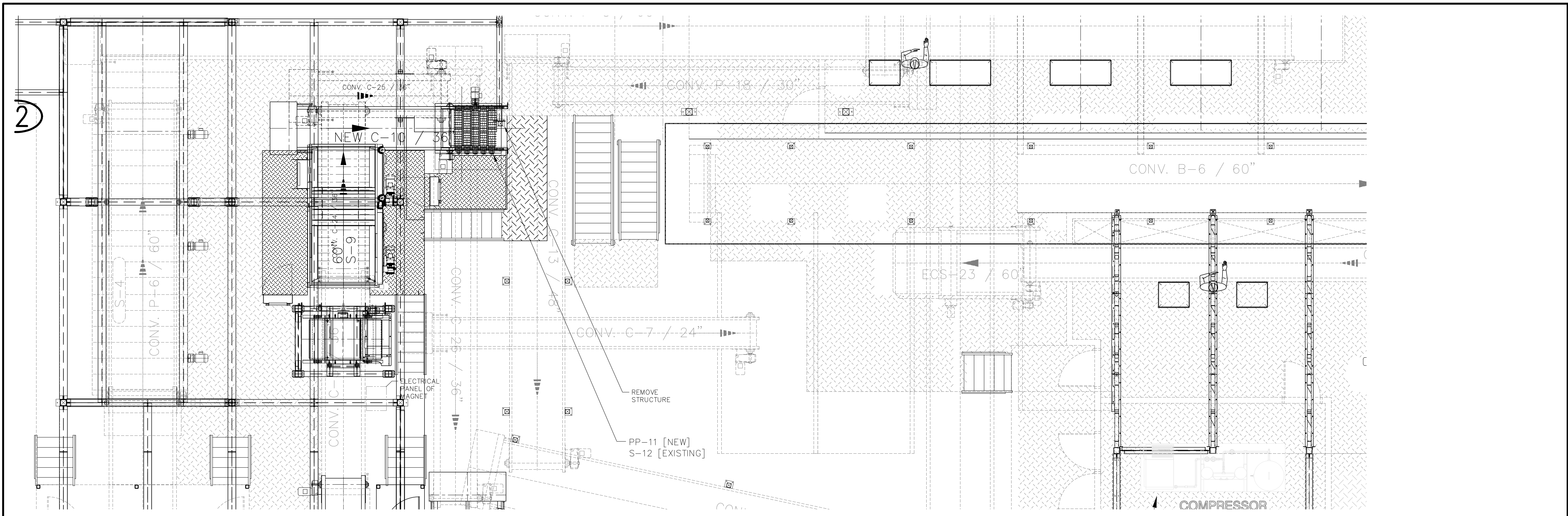
Charles-Étienne Simard,
Pr. Eng.

Date

Adrian Kleywegt

Date

APPENDIX A - LAYOUT



BOX BOARD MMF-1 MISC. FIBERS MMF-2 OCC MMF-3

M

DWG ISSUED ON : 2019-11-19
 DWG ISSUED BY : CHARLES-E. SIMARD
 ENG.

APPROVED
 NOT APPROVED
 APPROVED WITH MODIFICATION

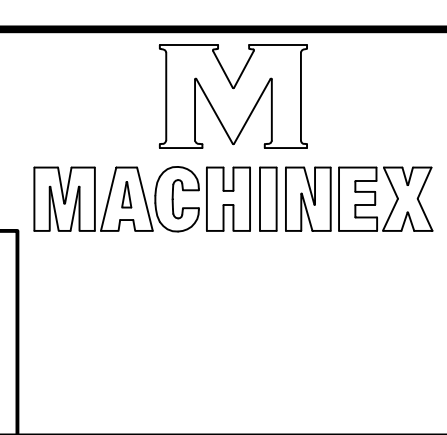
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 SIGNATURE : _____
 DATE : _____

DWG. No.	TITLE	No.	DESCRIPTION	DATE	BY
		0	RELEASED FOR APPROVAL	2019-11-19	CES

STAMP	STAMP

SCALE : 1/4" = 12"
DESIGNED : CES DATE : 2019-11-19
DRAWN : CES DATE : 2019-11-19
CHECKED : DATE :
APPROVED : DATE :

DESIGNED BY : **MACHINEX INDUSTRIES INC.**
 2121, Olivier Street
 Piessisville, Quebec, Canada, G6L 3G9
 Phone: (819) 362-3281
 Fax: (819) 362-2280 E-Mail sales@machinex.ca



CLIENT : **MILLER WASTE SYSTEM**
 3438, MANNING DRIVE
 LONDON, ON
 N6L 1K6

MATERIAL RECOVERY FACILITY
 DUAL STREAM PROCESSING PLANT
 NEW GLASS BREAKER & PERFORATOR
 GENERAL ARRANGEMENT DRAWING

PROJECT NO : 2219055 DRAWING NO : MR-2389A17