



Board of Directors Agenda Report

MEETING DATE: MAY 27, 2021 ITEM NUMBER: 9D

SUBJECT: Consider Staff Proposal and Vote on Whether or Not to Approve the Unbudgeted Expense for New Gate Screening Technology

DATE: May 21, 2021

FROM: Michele Richards, CEO

PRESENTATION BY: Ken Karns, Chief Operating Officer and Nick Buffa, Director - Security & Traffic

RECOMMENDATION

At the Board of Director's discretion. Staff recommendation to review and approve the operational expense of \$263,700.00 for the Evolv Technology equipment lease and related costs for the 2021 annual OC Fair.

BACKGROUND

ANNUAL FAIR GATE SECURITY SCREENING

Since 2016, Magnetometers or walk-thru metal detectors have been utilized to screen persons entering the fair footprint for weapons or other items which may be hazardous or prohibited. Bag/personal item inspection is conducted while persons pass through the magnetometer and if alarmed indicating magnetic interference occurs, an additional inspection is conducted using a hand-held metal detecting wand to pinpoint the area or item in question.

Effective in preventing lethal, less-than-lethal and other prohibited items from entering the fair, the current airport like step-by-step screening of each guest presents several challenges in regard to customer satisfaction, labor costs and health & safety. Longer than average entry wait times, the need for additional staff members, labor costs, staff/guest interaction touchpoints, amount of area needed and several other issues are encountered during the annual fair as a result of the current Gate Security Screening process.

Evolve Technology and Velasea Security Solutions have developed and made available security screening devices specifically designed to address many of the

challenges associated with traditional magnetometer usage. Currently used by several Major League Baseball franchises, Six Flags Magic Mountain and other high profile sports and entertainment venues, Evolv Technology security screening devices appear to be the future of effective, no-to-low touchpoint, rapid entry security screening.

Since the fall of 2020 we have been working with a team of professionals from Evolv Technology and their partner Velasea Security Solutions to determine how the utilization of Evolv equipment could help address or eliminate current challenges faced. Use of Evolv Technology equipment will provide significant immediate positive impact regarding the following:

GUEST INGEST RATE

Evolv equipment does not require a bag or personal item inspection in addition to technology based screening as Evolv equipment can identify/dDismiss harmless items known to trigger security screening equipment alarms. Mobile phones, keys, jewelry, belt buckles, etc. often trigger traditional magnetometer alarms requiring additional screening and additional processing time. As well, use of Evolv equipment does not require persons to empty their pockets of the aforementioned harmless items resulting in more expedited screening. The elimination of precursory bag/item inspection and the need to empty one's pockets results in far fewer touchpoints or direct contact between staff and guests significantly reducing pandemic related concerns.

Current Gate Security operations require that persons being screened pass through the screening area one at a time in a single file fashion. Another benefit of Evolv equipment is that persons do not need to stop, slow down or pass through the screening device one at a time. Persons can walk through the Evolv device at a normal pace with their bag or belongings. Persons who trigger the alarm are identified and guided to a side area for further inspection as to not slow down or impact the pace of the entry lines.

Use of Evolv equipment eliminates:

- Precursory bag/item inspection unless alarm is triggered
- Stop-n-go Single File lines
- Emptying of pockets
- Most touchpoints resulting in reduced exposure regarding health & safety
- Most claims of missing, broken or left behind items due to precursory bag/item inspection process
- Customer satisfaction issue related to long wait times for entry

STAFFING

Precursory bag/item inspection, magnetometer, wand inspection process requires 2 to 3 staff members per entry lane. Evolv technology equipment

requires 2 persons per lane but due to the vastly improved ingest rate benefits, the number of entry lanes and associated staffing levels are reduced by more than 50% when using Evolv equipment.

In addition to the labor cost reduction realized by use of Evolv equipment, the difference between the number of team members currently required for Gate Security Operations and the number of team members required if utilizing Evolv equipment forces the OCFEC to utilize a contract staffing provider due to the number of team members required. If utilizing Evolv equipment, staffing could be provided by in-house personnel at a much reduced cost compared to contract staffing provider pricing. Initial estimates project staffing costs for Gate Security using Evolv equipment to be reduced by approximately 75% (\$575,046 to \$136,275) for the annual fair. Additional labor related savings associated with significant staff reduction whether in-house or contract staffing provider include: fewer uniforms, less HR processing, reduced Worker's Compensation Insurance, fewer rental items, fewer parking stalls needed, etc.

Use of Evolv equipment eliminates:

- Need for Contract Staffing provider by significantly reducing staffing needs
- Additional costs associated with Contract Labor hourly rates

WORK AREA/SPACE NEEDED

Due to the reduction in number of entry lanes, less space or square footage is required for Gate Security Screening operations. As such, fewer rental items (divesting tables, stanchions, shade coverings, metal detecting wands) are required which occupy much of the Gate Operations area. Additional space not only provides more area for social distancing but allows the OCFEC to invest in additional Evolv screening equipment in the future to manage a moderate to significant attendance increase while still maintaining the same levels of Security, Customer Service and Guest Ingest rate at future fairs of increased attendance.

Use of Evolv equipment:

- Eliminates the need for additional rental equipment
- Results in additional space or area at Gates for Social Distancing or future expansion

After factoring in projected savings regarding labor and rental equipment combined with the cost for Evolv equipment lease, on-site tech support and stand-by equipment in case of failure, the estimated cost to utilize **Evolv Technology equipment will be \$263,700.00 for the 2021 annual OC Fair.**

Due to the benefits outlined above of which many are unachievable with the current Gate Security screening operation, it is our recommendation that the OCFEC move forward with a one year lease agreement for the use of Evolv Security Screening Equipment for the 2021 annual OC Fair with intent to explore multi-year agreement or capital investment in future years.

2021 OC Fair Gate Security Screening

Evolv-Technology/Velasea Security Solutions Firearm & Explosives Venue Security Screening

Throughout the annual OC Fair, all persons entering the event footprint during operating hours are required to pass through security screening areas prior to entering. Security team members utilize several methods of screening to assure prohibited, illegal or other potentially unsafe items do not enter the event footprint. In addition to situational awareness, non-invasive inspections of personal belongings and behavioral assessment, Gate Security team members utilize technology based screening devices to limit human contact or touchpoints, accelerate the process and reduce the human error factor.

Prior to 2015, personal belonging or “bag checks” were conducted during the annual fair operating hours for guests entering the fair. These checks consisted of an exterior feel of the bag or belonging and only a visual inspection of the interior of any item or bag to assure staff member safety. In 2015, metal detecting wands were introduced as part of the screening process. While the addition of the metal detecting wands was successful in enhancing security inspections, the wand is only as good as the individual using it. As such, in 2016 magnetometers or walk-thru metal detectors were added to the process which now included *Bag or Personal Belonging Inspection, Magnetometer or Walk-Thru Metal Detectors* and the use of a *Metal Detecting Wand(s)* for further inspection if warranted. The magnetometers significantly reduce the human error factor as opposed to only using the wand as the magnetometer operator only needs to monitor magnetometer alarm. If magnetometer alarms, the wand is then used for further inspection.

The most common items that trigger magnetometer or walk-thru metal detector alarms are *mobile phones/devices, keys & key FOBs, belt buckles, jewelry and watches*. While these items are not commonly considered to be weapons or hazardous, they do present unintended safety/security risks by slowing the screening process to a point where large groups of persons waiting to enter remain in the same area for extended periods of time. Customer satisfaction issues, exposure to moving vehicles, weather (heat) related issues and other intentional acts potentially aimed at those outside the secure event perimeter are significant concerns related to untimely or slow entry security screening. Add in the pandemic related guidance for Social Distancing received to date and timely entry is the crucial element in maintaining good flow rate and avoiding large groups of persons in close proximity waiting outside the entry gates.

In 2018 and 2019 our security team made several adjustments to the entry screening operation and personnel training sessions in an effort to speed up the process while maintaining efficiency of screening. After extensive observation over a several year period, it was clear that the number of items annual fair guests bring with them including bags, backpacks and other personal belongings was most impactful in regard to how long the process took. Unlike most large concert or sporting venues which contain and utilize many entry points to spread out crowds between these entry points in an effort to avoid slow entry or large groups gathering outside waiting to enter, the annual OC Fair only has 3 main fair entrance points and the Pacific Amphitheatre entry point. Due to available space concerns, access

routes and additional staffing & operational costs related to creating new entry points, we do not have the ability to create additional entry points to effectively distribute guests between the gates to avoid the aforementioned hazards or concerns. As such, we have been exploring every option available to possibly maintain efficient entry security screening practices while speeding up guest entry.

Through an industry trade group we were introduced to a company deploying state-of-the-art security screening equipment. Peers from Disney World, Six Flags Magic Mountain and Major League Baseball all recommended the company, their product and stated that they were already using or soon will be using this new *almost* touchless cloud-based technology. In the fall of 2020 we began working with Evolv Technology and their partner Velasea Security Solutions who have proprietary technology that is sure to change entry screening in the future.

Evolv and Velasea personnel have worked directly with our team on gate and entry line layout, improved flow-thru rate and enhanced security screening for firearms and explosives which are the most concerning in regard to security. Utilization of the Evolv equipment will result not only in enhanced security screening and flow thru rate, but will also significantly reduce the number of team members required to perform security screening functions as well as the associated costs.

TECHNOLOGY

Traditional magnetometers or walk-thru metal detectors are simple devices that use short bursts of current sent through an electrical coil to generate a brief magnetic field which is disrupted by any item that presents an opposite magnetic field. Used to prevent firearms, explosives and other weapons or items which have potential to cause death or mass destruction, magnetometers also detect harmless items such as mobile phones and devices, keys, belt buckles, watches, jewelry and other personal belongings which are not prohibited from entering the venue. As such, magnetometers require all who pass through to divest all items in their possession for further inspection (*bag check*) or to avoid triggering the alarm on the magnetometer with items that are not prohibited.

Magnetometers are tuned or adjusted to such a level that they are able to detect the most dangerous items but not alarm at every small item which the majority of the time is harmless. Nail files, nail clippers, jewelry, clothing rivets, etc. that trigger the magnetometer alarm slow the entry process significantly. While a decent balance of prevention and acceptable entry times has been achieved, improving gate ingest rates proves to be a significant challenge which in turn presents other issues regarding safety, line queuing, customer satisfaction, staffing levels and associated costs.

Evolv Technology security screening equipment does not require guests to divest or present any personal belonging for further inspection unless the device alarm is triggered. The Evolv device can tell the difference between a mobile phone/device, a set of keys or a belt buckle and a weapon thereby eliminating the need to have the customer empty their pockets or have their belongings or bags inspected unless the device indicates further inspection is warranted.

Another factor that greatly impacts guest ingest rates is “single file security screening”. Magnetometers require one guest at a time (single-file) to pass through, momentarily pausing before doing so until the

guest in front of them is finished. The bag-check, magnetometer “stop and go” process combined with “one at a time” screening is extremely time consuming. Divesting personal belongings, passing through the magnetometer and reclaiming belongings without triggering the magnetometer alarm takes some time for each person. Add in inspection of every bag and triggering the alarm a high percentage of the time for harmless items and the ingest time for each person increases significantly.

The use of Evolv equipment does not require guests to pass through the screening device in single-file fashion nor do guests need be paced through the device one at a time. Guests can pass through the Evolv device side-by-side and do not need to be paced or stopped/started. As there is no need for each guest to divest items in their possession since the Evolv device can eliminate those items as non-threats, guests are free to pass through at a normal walking pace greatly improving guest ingest rates.

The ability to efficiently screen for weapons and prohibited items as well as eliminate the precursory bag/item check is the most identifiable benefit of the Evolv Technology equipment. Bag or personal item inspections will still take place for those that are identified by the device alarm but this occurs after an alarm is triggered and in an adjacent location as to not hold up the entry line while conducting further inspection.

Another concept which led us to Evolv was the idea of “touchless” or “almost touchless” security screening. Prior to learning about Evolv and their product, while planning for a fair heavily impacted by the Covid-19 pandemic bag/personal belonging inspection, entry line waiting areas, crowds & social distancing were all significant concerns in regard to staff and guest safety. Eliminating as many touchpoints and proximity issues as possible was top of mind. The use of Evolv equipment eliminates the majority of these touchpoints, reduces the number of staff members present in the area and greatly improves ingest rates reducing the chances of a significant number of persons in close proximity waiting to enter.

The devices themselves do not require more than standard grounded 110v AC power supply and require less space or area than past entry gate magnetometer set-ups. Devices are have wheels attached can be easily moved by just a few people.



STAFFING

Traditional bag check/magnetometer/wand screening operations typically require 2 to 3 team members for each screening area. Since the introduction of the magnetometer program, Gate Security teams typically consist of 60 to 65 team members at any given time to conduct entry security screening for 24 fair entry lines and 8 to 10 Pacific Amphitheatre entry lines. When divided into 2 shifts due to the length of each day, 120+ personnel are needed. Due to the number of team members required for entry security screening in addition to event security team, a contract staffing provider has had to be retained to provide personnel for entry security screening in 2017, 2018 and 2019. The cost for contract staffing personnel to fill Gate Security Screening positions per year is outlined below:

CONTRACT STAFFING GATE SECURITY SCREENING			
YEAR	DURATION	TOTAL COST	INCREASE/DECREASE
2017	23 Day Fair	\$522,500	NA
2018	23 Day Fair	\$631,000	21% Increase from 2017
2019	23 Day Fair	\$474,100	25% Decrease from 2018

As the above chart shows Staffing Gate Security Screening positions with in-house OCFEC Security personnel is always preferable as it results in significant cost reduction compared to the use of contract staffing personnel. Improved or enhanced operational continuity & consistency, staff training and supervision are other benefits of utilizing in-house personnel however, due to the number of team members required it is not always possible to avoid using contract provider assistance. As an example, filling the same number of positions using existing magnetometer technology with in-house personnel would cost approximately \$296,000 per 23-day fair when applying current cost estimate data however, required utilization of a contract staffing provider would equate to approximately \$575,046 for the run of the fair.

As previously mentioned, our current Gate Security Screening operation requires a substantial number of team members each year. Each lane requires 2 to 3 personnel and there are typically 24 lanes for fair entry + 8 to 10 lanes for Pacific Amphitheatre entry that operate each day for 12+ hours. Due to the pace of entry, additional lanes have been added each year in an attempt to shorten entry waiting times as a whole as there is very little that can be changed in regard to reducing the amount of time the security screening process typically takes. Each new lane resulted in increased cost for personnel and rental equipment and required more area or space to operate.

One of the most beneficial aspects of Evolv Technology security screening equipment is the significant reduction in number of team members needed at each location. Number of team members needed reduced due to improved flow thru rate, reduction in false alarms, significantly reduced need for bag/personal belonging inspections conducted by a team member and number of lanes needed for Evolv Technology usage.

Annual Fair Magnetometer Gate Security Screening has been performed at both Public and Credential entry gates outlined below.

MAGNETOMETER SCREENING - <i>Contract Staffing Avg. \$27/hr</i>			
GATE	ENTRY LANES	PERSONNEL	COST ESTIMATE
BLUE	9	22	\$177,606.00
GREEN	6	20	\$161,460.00
YELLOW (2022)	6	20	\$161,460.00
PAC AMP	10	24	\$74,520.00
TOTAL PERSONNEL		86	\$575,046.00

***2021 Contract Staffing estimate actual = \$413,586.00 due to absence of Yellow Gate entrance.**

The use of Evolv Technology Security Screening equipment will result in the following estimates which require less space, personnel and rental equipment at a much reduced cost.

EVOLVE TECHNOLOGY SCREENING - <i>OCFEC Staffing Avg. \$15/hr</i>			
GATE	ENTRY LANES	PERSONNEL	COST ESTIMATE
BLUE	6	11	\$49,335.00
GREEN	4	7	\$31,395.00
YELLOW (2022)	4	7	\$31,395.00
PAC AMP	8	14	\$24,150.00
TOTAL PERSONNEL		39	\$136,275.00

***2021 Staffing cost estimate actual = \$104,880.00 due to absence of Yellow Gate entrance.**

2021 Gate Security team personnel cost estimates vary significantly dependent upon which equipment is utilized and whether positions can be filled with in-house personnel or if assistance is needed from a contract staffing provider. See below:

TECHNOLOGY	ANNUAL ESTIMATE
Magnetometer (<i>OCFEC Personnel</i>)	\$296,000.00
Magnetometer (<i>Contract Personnel</i>)	\$575,046.00
Evolv Technology (<i>OCFEC Personnel</i>)	\$136,275.00

As can be seen above, utilization of Evolv Security Screening Equipment would equate to a 76% reduction in staffing costs throughout the 23-day annual fair.

Above labor cost estimate for Magnetometer Screening using OCFEC personnel is for comparison only. Due to the number of team members required for Magnetometer/OCFEC Personnel model, the

assistance of a contract staffing provider is almost certain similar to past years. A more accurate comparison is the Magnetometer/Contract Personnel model vs. the Evolv/OCFEC Personnel model as these are most likely our only available choices.

SINGLE YEAR RENTAL/MULTI-YEAR LEASE OPTIONS

Originally only offering a lease option with full technical support for 4 to 5 years, we continued to work with Evolv Technology's partner organization Velasea Security Solutions to explore both rental and purchase options. Our intent was to develop a short term and/or seasonal rental agreement to potentially utilize the Evolv equipment during the 2021 annual OC Fair and then explore longer term options after we have had a chance to review the overall performance of the equipment. If the flow thru rate and weapons detection is as efficient as it should be, purchase or long term lease options would be further explored.

SINGLE YEAR RENTAL

The proposed seasonal (40 Day) rental program was tailored to fit the OCFEC's seasonal needs and includes the following services/products throughout the term of the agreement regardless of length of term: *Equipment Set-up/Removal, On-site Staff Training, Opening Weekend On-site Support, Technical Support, Stand-by Spare Evolv Unit in close proximity.*

As the 2021 annual OC Fair does not include the use of Yellow Gate as a significant public entrance, pricing models for 2021 do not include any costs associated with Yellow Gate.

EVOLV SINGLE YEAR LEASE – 2021 NO YELLOW GATE

EVOLVE TECHNOLOGY	LOCATION	LANES	HOURLY INGEST	2021 COST No Yellow Gate
Express Touchless (3X Double Lane)	Blue Gate	6	5,400	\$190,800.00
Express Touchless (2X Double Lane)	Green Gate	4	3,600	\$127,200.00
Express Touchless (2X Double Lane)	Yellow Gate	0	0	\$0.00
Express Touchless (4X Double Lane)	Pac Amp	8	7,200	\$254,400.00
	TOTAL	18	16,200	\$572,400.00

MULTI-YEAR LEASE/SUBSCRIPTION OPTION

After reviewing the equipment's effectiveness, ease of operation, ingest rate and total staffing costs, the OCFEC has the option of entering into a 4-year lease/subscription. Longer term commitment results in reduced usage rates. The proposed 4-year lease/subscription program includes the following services/products throughout the term of the agreement: *Equipment Set-up/Removal, On-site Staff*

Training, Opening Weekend On-site Support, Technical Support, Stand-by Spare Evolv Unit in close proximity.

EVOLV ANNUAL LEASE vs. 4-YEAR SUBSCRIPTION INCLUDING YELLOW GATE

EVOLVE TECHNOLOGY	LOCATION	LANES	HOURLY INGEST	ANNUAL LEASE COST INC YELLOW GATE	4 YEAR SUBSCRIPTION
Express Touchless (3X Double Lane)	Blue Gate	6	5,400	\$190,800.00	\$446,400.00
Express Touchless (2X Double Lane)	Green Gate	4	3,600	\$127,200.00	\$297,600.00
Express Touchless (2X Double Lane)	Yellow Gate	4	3,600	\$127,200.00	\$297,600.00
Express Touchless (4X Double Lane)	Pac Amp	8	7,200	\$254,400.00	\$595,200.00
	TOTAL	22	19800	\$699,600.00	\$1,636,800.00

SUMMARY

While the investment would take a considerable amount of money in addition to a multi-year agreement if desired to proceed with the use of Evolv equipment beyond 2021, we recommend moving forward due to the benefits associated with the use of Evolv equipment.

Proposed 2021 Evolv Touchless equipment rental & support program cost = \$572,400.

Benefits include:

- Elimination of precursory bag or item inspection and personal item divesting resulting in:
 - o Reduced exposure to Covid-19 due to elimination/reduction of touchpoints
 - o Reduced claims of guests items being broken, stolen or left at the inspection area
 - o Increased ingest rates for persons entering the property resulting in less congestion outside the gates or in line queuing areas.
 - o Reduced staffing levels on Gate Security Team resulting in costs savings and reduced liability or worker's compensation insurance exposure
 - o Reduction in rental equipment needs and associated costs
- Elimination of single-file, paced stop & go screening process resulting in increased ingest rates for persons entering the property and less congestion outside the gates or in line queuing areas.
- Significant reduction in staffing costs resulting in approximately \$308,700 in hourly wages or 74% less than the magnetometer/contract staffing model for 2021.
- Significant reduction of rental equipment (*divesting tables, wands, batteries, bins, table covers, stanchions, etc.*) needs/costs
- Elimination of need for rental items (*team office, chairs, tables, etc.*) and the space required to provide support to the Gate Security Screening team. Reduced size team can easily integrate with existing Security team and utilize existing compound.
- Increased/improved weapons detection ability due to not just relying on the magnetism of items. Many firearms, firearm parts and other harmful items are made of non-magnetic materials which are undetectable using traditional magnetometers. Evolve equipment analyzes

multiple aspects (magnetism, shape, density) of any mass or item to more efficiently detect a weapon or dismiss a mundane or non-hazardous item.

Similar to magnetometers, there are several prohibited items which are able to pass through the Evolv equipment undetected. *Alcoholic beverages in glass or aluminum containers, small keychain/pocket knives, pepper spray/mace, plastic/polymer/porcelain knives or blades, narcotics or other illicit drugs* are not detected by the majority of magnetometers and are typically only discovered during a bag check which is only conducted if the guest is in possession of a bag. If these items are anywhere on a person (pockets or otherwise), detection of them is extremely rare in the absence of airport level technology scanning equipment. The Evolve device operates in a similar fashion by placing emphasis on detection of more lethal or destructive items like firearms, explosives or medium to large sized edged weapons. While incidents involving undetected items have occurred in the past, the rate and severity of these occurrences have been exceptionally low.

Evolv Technology Security Screening equipment presents a host of benefits but not without a significant cost/investment. However, more than half of the cost is offset by the approximate 75% savings in labor. The Magnetometer/Contract Staffing model used in 2017, 2018 and 2019 will cost approximately \$413,580 in hourly wages in 2021 and would result in same guest ingest processing time, same space and rental equipment needs, no reduction in touchpoints and little room for social distancing. Utilization of Evolv Security Screening equipment will result in estimated rental and labor costs of \$572,400 (rental) and \$104,880 (wages) for 2021.

In comparison, Evolv equipment utilization would cost approximately \$677,280 (rental + labor) for 2021. Magnetometer/Contract Staffing utilization would cost approximately \$413,580 for labor alone in 2021. Utilizing Evolv Technology equipment is estimated to cost an additional \$263,700 for the 2021 annual fair compared to using past Magnetometer/Contract Staffing Gate Security Screening model.

TECHNOLOGY	STAFFING	STAFFING ESTIMATE	EVOLV RENTAL	TOTAL
Magnetometer/Bag Check	Contract Provider	\$413,580.00	\$0	\$413,580.00
Evolv Technology Touchless	OCFEC	\$104,880.00	\$572,400	\$677,280.00
			DIFFERENCE	\$263,700.00

Outlined above, the benefits associated with the utilization of Evolv Technology Security Screening equipment are unobtainable using the Magnetometer/Contract staffing model and as such, our recommendation is to proceed with finalizing an agreement with Velasea Security Solutions/Evolv Technology for 2021 and exploring options for future years. While \$263,700 is a significant investment in 2021, the benefits of using Evolv equipment are so significant for 2021 and future years that we believe this to be a worthy investment in the present and future safety of the annual OC Fair.

Thank You,

Nick Buffa

Director, Security & Traffic