

## **EVACUATION CHAIR STANDARDS**

### Recommendations and Guidelines for Implementation

At the request of the Health & Safety Committee, a recommendation was made to form a Task Force to investigate and create standards for the use of evacuation chairs on campus for assisting individuals with disabilities. The Task Force met for the first time on September 23, 2013 to discuss scope and purpose to include an implementation schedule, standard specifications for equipment, training requirements for staff, and placement of devices on campus. The Task Force consists of the following representatives:

|                                                                     |                                                          |
|---------------------------------------------------------------------|----------------------------------------------------------|
| Grace Hanson, Director, DSPS                                        | Karen Saldana, Director, Risk Management                 |
| Mark DiMaggio, Director, Public Safety                              | Lorraine Jones, Director, EEO                            |
| Marti Whitford, Director, Health Services                           | Teresa Patterson, Manager, Purchasing                    |
| Tim Engle, Counselor, DSPS                                          | Bill Asher, Asst. Dir., Facilities Planning & Management |
| Louis "Joe" Spana, Skillscraft II, Facilities Planning & Management |                                                          |

### **CRITERIA FOR EQUIPMENT SPECIFICATIONS**

The Task Force used the following criteria to evaluate each evacuation chair model:

- Transports 300 lbs
- Operated by 1 person\*
- Easily transported
- Safety Harness
- Ease of use
- Warranty
- Strong construction
- Up & down stairs
- Mount on wall
- Light weight
- Full back/one piece

\* After chair demonstrations, the Task Force recommends that when possible the chair be operated by two persons.

The Task Force met with vendors and participated in demonstrations of the chairs on January 16 and March 25, 2014. The Task Force evaluated each chair and rated the chair based on the criteria. A summary of the Task Force evaluations is included in the appendix of this document.

## SELECTED MODELS

After reviewing the collected ratings of each chair, the committee discussed which chairs would best meet the needs of the College. The **Garaventa Evacu-Trac CD 7** was selected for stairway descent. The **powered Garaventa Evacu-Trac CD 7** was selected for buildings with basements for stairway ascent. The Garaventa **Super-Trac Wheelchair Lift** was selected to accommodate all types of wheelchairs where transferring a person is not feasible. District personnel in charge of purchasing evacuation chairs should select one of these models or its current version.

## RATIONALE FOR SELECTION

### Ease of use/Intuitive Design:

The Task Force discussed the ease of use and intuitive design of the Garaventa units. Also mentioned was the one-step setup, comfort of seating and comfortable ride.

### Training:

Garaventa will provide assistance with assessments of building sites for best storage solutions and also provides training for staff members.

### Operation and Other Criteria:

Some models tested required two person operation while Garaventa models only required one person for descent of stairs.

Individuals who sat in the chairs while they were being tested in the stairwells reported that they felt most secure in the Garaventa chair models. The reclining feature of the chair did not make them feel as if they were being pushed forward over the stairwell, as was common with some of the other models. They also stated that there was less of a "jolt" with the Garaventa chair models when descending the stairs.

Garaventa non-powered chair model comes with a surface mount storage unit.

The Garaventa non-powered chair model is 46 pounds and the Task Force assessed that an average person could lift this model from the steel storage cabinet.

Sturdy construction and stability of the Garaventa models were noted in comparison to other chairs tested.

The Garaventa powered Evacu-Trac and Wheelchair Lift were also tested and ease of operation was also noted with these models.

### IMPLEMENTATION PLAN

The Task Force:

- Discussed the plan for implementation, with the understanding that the college does not currently allocate funds for purchasing emergency supplies and equipment.
- Highly recommends that the College budget funds for this implementation plan for current and future placement.
- Recommends that the following “**criterion for placement**” of chairs be implemented:
  - a.)at least one evacuation chair be placed in each multi-story building where one or more floors do not have access to ground level egress;
  - b.)that one powered evacuation chair be placed in each building where a basement contains classrooms and/or multi-purpose rooms; and
  - c.)that one wheelchair lift be purchased for situations where it would not be feasible to transfer a person from a wheelchair to an evacuation chair. This is to comply with federal mandates for “equal access.
- Endorses that it is the responsibility of the College to purchase the specified chair for all future building projects meeting the criterion for placement

| PURCHASE AND PLACEMENT SCHEDULE |                                                                         |                   |                              |
|---------------------------------|-------------------------------------------------------------------------|-------------------|------------------------------|
| Year                            | Building(s)                                                             | Evacu-Trac<br>CD7 | Powered<br>Evacu-Trac<br>CD7 |
| 2014-15                         | 1A, 2T, 7, 10, 11, 13, 26A, 26B, 26D, 28B, 48, 60, 61, 66, 67A, 67B, 80 | X                 |                              |
|                                 | 28B                                                                     |                   | X                            |
|                                 | Super Trac Wheelchair Lift                                              |                   |                              |

**Cost Proposal**

| Item                     | Qty | Price       | Extended            |
|--------------------------|-----|-------------|---------------------|
| Basic Evac Chair         | 17  | \$1,950.00  | \$33,150.00         |
| Powered Chair            | 1   | \$4,600.00  | \$4,600.00          |
| Storage Cabinet          | 17  | \$325.00    | \$5,525.00          |
| Alarms                   | 17  | \$35.00     | \$595.00            |
| Super Trak               | 1   | \$12,500.00 | 12,500.00           |
| <b>Subtotal</b>          |     |             | <b>\$ 56,370.00</b> |
| Tax (9%)                 |     |             | \$5,073.30          |
| Shipping (Chair/Cabinet) | 17  | \$50        | \$850.00            |
| Shipping Power Chair     | 1   | \$100       | \$100.00            |
| Super Trak               | 1   | \$300       | \$300.00            |
| <b>Grand Total</b>       |     |             | <b>\$62,693.30</b>  |

## TRAINING

Individuals who should receive initial training and refresher training on an annual basis are:

- Managers
- Building Marshals and Floor Captains
- DSPS Employees
- Health Services Employees
- Public Safety Employees
- Any other interested parties

This training is to be provided by a trained member of one of the above groups or by a vendor with experience in the use of the equipment.

It is the Task Force's recommendation, that Building Marshals and Floor Captains be utilized as "trained trainers," to provide initial and update training on an annual basis.

It is the responsibility of all managers to ensure that individuals in their building are trained in emergency procedures and use of available equipment, and to release employees for proper training.

Risk Management and Public Safety will keep a list of all "trained trainers" for reference. Copies of sign-in sheets of all trainings will be maintained in the Public Safety and Risk Management offices.

Modifications to these guidelines and oversight of training will be the responsibility of the Health & Safety Committee.

## SUMMARY

In order to ensure standardization of emergency equipment, the Task Force recommends that the College purchase powered and non-powered **Garaventa Evacu-Trac CD7** evacuation chairs and **Garaventa Super Trac Wheelchair Lift** (or most current models) for every multi-story building with no ground access on one or more levels, based on the Purchase and Placement Schedule found on page 3 of this document. All construction plans for new or remodeled buildings should include a purchase of one or more of these chairs. Training for employees is a critical part of this implementation plan, and should be prioritized by managers, staff and faculty.

**APPENDIX**  
**Evacuation Chair Evaluation Scoring**

| EVACUATION CHAIR EVALUATION SCORING |                    |                    |                    |                    |                    |                    |                    |                    |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Model</i>                        | <i>Company</i>     | <i>Evaluator 1</i> | <i>Evaluator 2</i> | <i>Evaluator 3</i> | <i>Evaluator 4</i> | <i>Evaluator 5</i> | <i>Evaluator 6</i> | <i>Evaluator 7</i> | <i>Total Score</i> | <i>Comments</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Evac+Chair                          | Life Support       | 32                 | 46                 | 42                 | 36                 | 24                 | 44                 | 38                 | <b>262</b>         | Runners seem flimsy. Possibly less intuitive for the operator. Does not appear to be constructed well. No footrest/legs left dangling. Need 3 people to go down, 4 to go up. Chair does not seem as sturdy as other models. Difficult to operate with one person. Unit wanted to tip sideways. Lightweight design makes for uncomfortable ride. Seemed unstabled and difficult to use when transporting someone down the stairs. Requires lots of user control. Too much room for error. Drops off last step. Style of chair very low. Odd jarring movement required for treads to grip stairs. Uncomfortable ride and operation. |
| Stryker                             | Stryker            | 52                 | 52                 | 45                 | 55                 | 25                 | 47                 | 50                 | <b>326</b>         | Going up stairs may be challenging. Very easy to use. Product is "flimsy", passenger's head appeared to bounce a lot. Did not seem to be a comfortable ride. Unnecessarily complex method of operation (have to remember to push down at a specific angle for treads to glide properly).                                                                                                                                                                                                                                                                                                                                          |
| Ferno EZ Glide                      | Bound Tree Medical | 39                 | 44                 | 33                 | 49                 | 22                 | 48                 | 42                 | <b>277</b>         | No head rest (optional add-on). Recommends two person operation. Chair required 2 person operation. Uncomfortable ride. Straps tangled in transit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Evacu Track                         | Garaventa          | 54                 | 49                 | 54                 | 48                 | 50                 | 50                 | 53                 | <b>358</b>         | Unit was very easy to operate with one person. Stable unit. One step set-up. Sturdy construction. Hair hits brake bar; hair caught up in it. Very easy to use. Comfortable Seat. Product far outshines the others that were demoed. Intuitive use, comfortable ride, ease of placing passenger in chair.                                                                                                                                                                                                                                                                                                                          |