

# Conveyance Program Stakeholder Presentations



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Conveyance Program  
Outreach  
Division of Oil and Public  
Safety







Mr. James Calder  
Building Services  
Manager  
2001 Colorado  
Blvd.  
Denver, CO 80205









Equipment	DMNS Ref	Service	Machine	Comments	Phone ID	State ID	Mfct	Notes	CO Expires	5-Year Load Test
West Atrium Elevator (Left)	#1	Otis	518132	Traction	303-331-4003	CP08-002800	Otis		April 2019	Done 2018
West Atrium Elevator (Right)	#2	Otis	919559	Traction	303-331-4007	CP08-002801	Otis		April 2019	Done 2018
North Passenger Elevator	#3	Kone	2E+07	Traction	303-331-4008	CP08-002802	Kone		February 2020	Done 2018
South Passenger Elevator	#4	Kone	2E+07	Traction	303-331-4009	CP08-002803	Kone		February 2020	Done 2018
Freight Elevator	#5	Otis	906463	Hydraulic	303-331-3869	CP08-002804	Otis		April 2019	Done 2018
IMAX Elevator	#6	Otis	814532	Hydraulic	303-331-4017	CP08-002805	Otis		April 2019	Done 2018
NLD Freight	#7	TKE	34EAX315	TAC 32 / Hydraulic	303-331-3888	CP11-001558	TKE	First in Service : October 20, 2011 / SN 33853	April 2019	Done 2018
ECF Freight	#8	TKE	CBD270	Traction	303-331-4030	CP12-000807	TKE	Registration to OPS 1-25-13 / SN 57363	April 2019	Done 2018
ECF Passenger	#9	TKE	CBD269	Traction	303-331-4059	CP12-000808	TKE	Registration to OPS 1-25-13	April 2019	Done 2018
Escalator (1 st to 2nd)	#9	Kone	9	Escalator	N/A	CP15-000230	Kone	First in Service : March 21, 2016	April 2019	Annual Witness Required
Escalator (2nd to 3rd)	#10	Kone	10	Escalator	N/A	CP15-000231	Kone	First in Service : March 21, 2016	April 2019	Annual Witness Required
Escalator (3rd to 2nd)	#11	Kone	11	Escalator	N/A	CP15-000229	Kone	First in Service : November 10, 2015	April 2019	Annual Witness Required
Escalator (2nd to 1st)	#12	Kone	12	Escalator	N/A	CP15-000228	Kone	First in Service : November 10, 2016	April 2019	Annual Witness Required
Prehistoric Journey Lift	#13	Otis	C31895	Lula Unit	303-331-4041	CP08-002806	Cemco	Code Plate 1993 / Installed 1995	April 2019	Done 2018
Prehistoric Journey Lift	#14	Otis	C31900	Lula Unit	303-331-4018	CP08-002807	Cemco	Code Plate 1993 / Installed 1995	April 2019	Done 2018
Parking Garage (Left)	#1	TKE	EP7274	TAC 20 Unit / Hydraulic	303-331-4042	CP08-002808	TKE	EO6294-001	April 2019	Done 2018
Parking Garage (Right)	#2	TKE	EP7275	TAC 20 Unit / Hydraulic	303-331-4043	CP08-002809	TKE	EO6294-002	April 2019	Done 2018
Vertical Material Lift	Kitchen Lift	Welch	17993	Hydraulic	N/A	N/A	P-Flow	First in Service - November 8, 2018	N/A	

Otis Line	800-233-6847									
Otis - DMNS Building ID	TMN155282									
										South Freight / Tank Capacity 597 gallons / uses 418 gallons
Kone Line	877-276-8691									North Freight / uses 220 gallons of hydraulic oil
Kone - DMNS Building ID	5184941									IMAX / Tank Capacity 123 gallons / uses 48 gallons
										Parking Garage #1 / Tank capacity 156 gallons / uses 89 gallons
TKE Line	303-790-8566									Parking Garage #2 / Tank capacity 156 gallons / uses 89 gallons
TKE - DMNS Building ID	Denver Museum of Nature & Science									VML - P-flow Lift - 5 Gallon Capacity
Welch Equipment	303-393-8181									
Josh McCaslin - Service Rep	303- 550-1476									
State Facility ID	08-001761									





# Helpful Tips to Compliance

- Know your equipment and location of equipment rooms (Types and age, State CP numbers, inspection dates, CO expiration)
- Establish good working relationships and lines of communication with service providers, inspector and AHJ (Account reps, service supervisors, mechanics, inspector, AHJ contact)
- Hold service providers accountable (PM, MCP's, response times)
- Schedule annual inspections in advance and follow up on TCO's
- Commit to workplace and building safety
- Simplify (Align inspection dates, utilize e-services, create building log)
- Stay informed of changes in code and regulatory requirements
- Utilize resources for information and support (OPS, AHJ, regulations stakeholders, industry consultants)









James Calder

[James.Calder@dmns.org](mailto:James.Calder@dmns.org)

303-370-6375



John Bole  
King Soopers / City Market  
Facility Engineering



Elevator  
Maintenance





# Overview

- Owner responsibility for over 50 elevators for a variety of uses
- My experiences learning about elevator maintenance and regulations
- Methods I use to manage King Soopers/City Market Elevators
- Conclusion



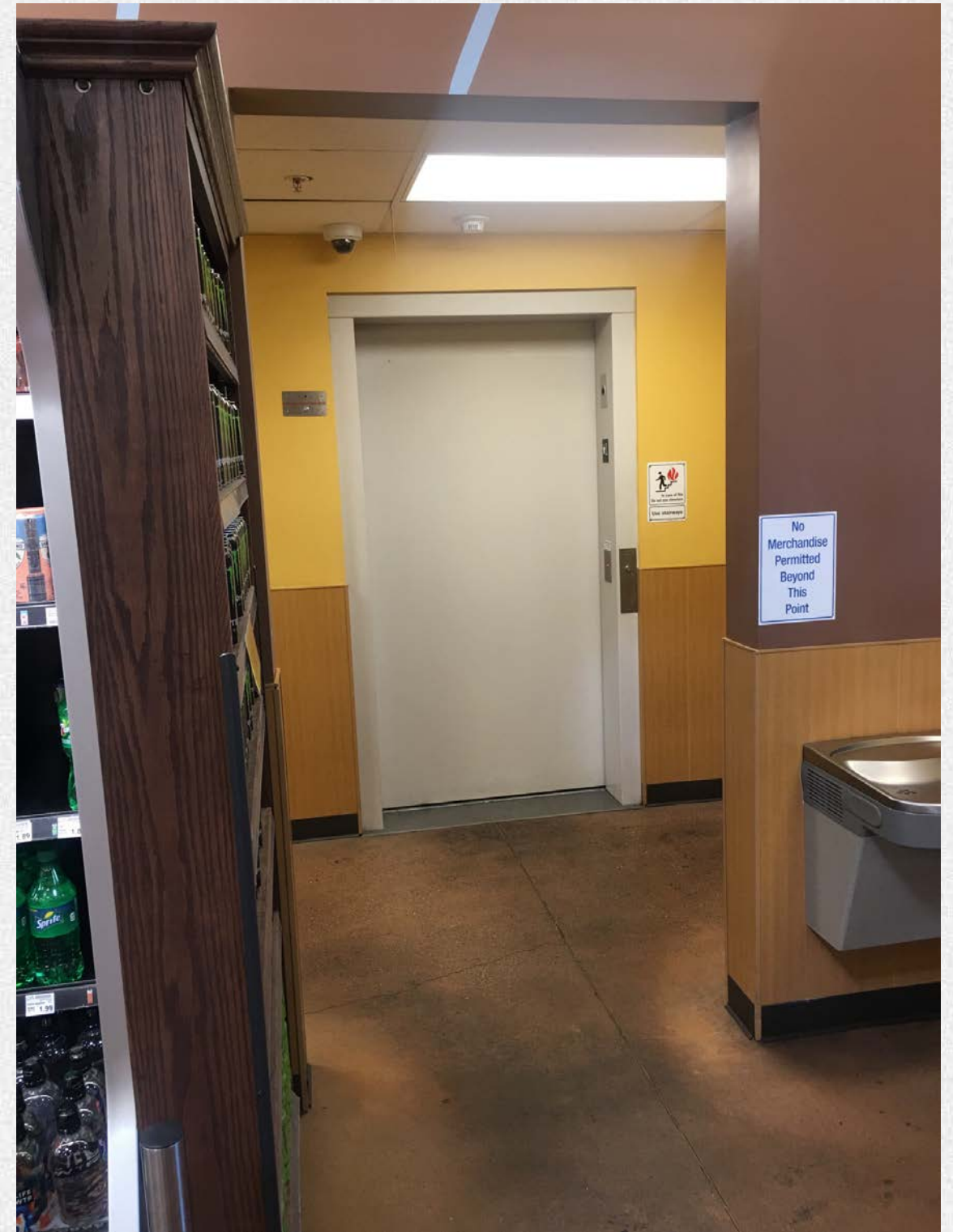
















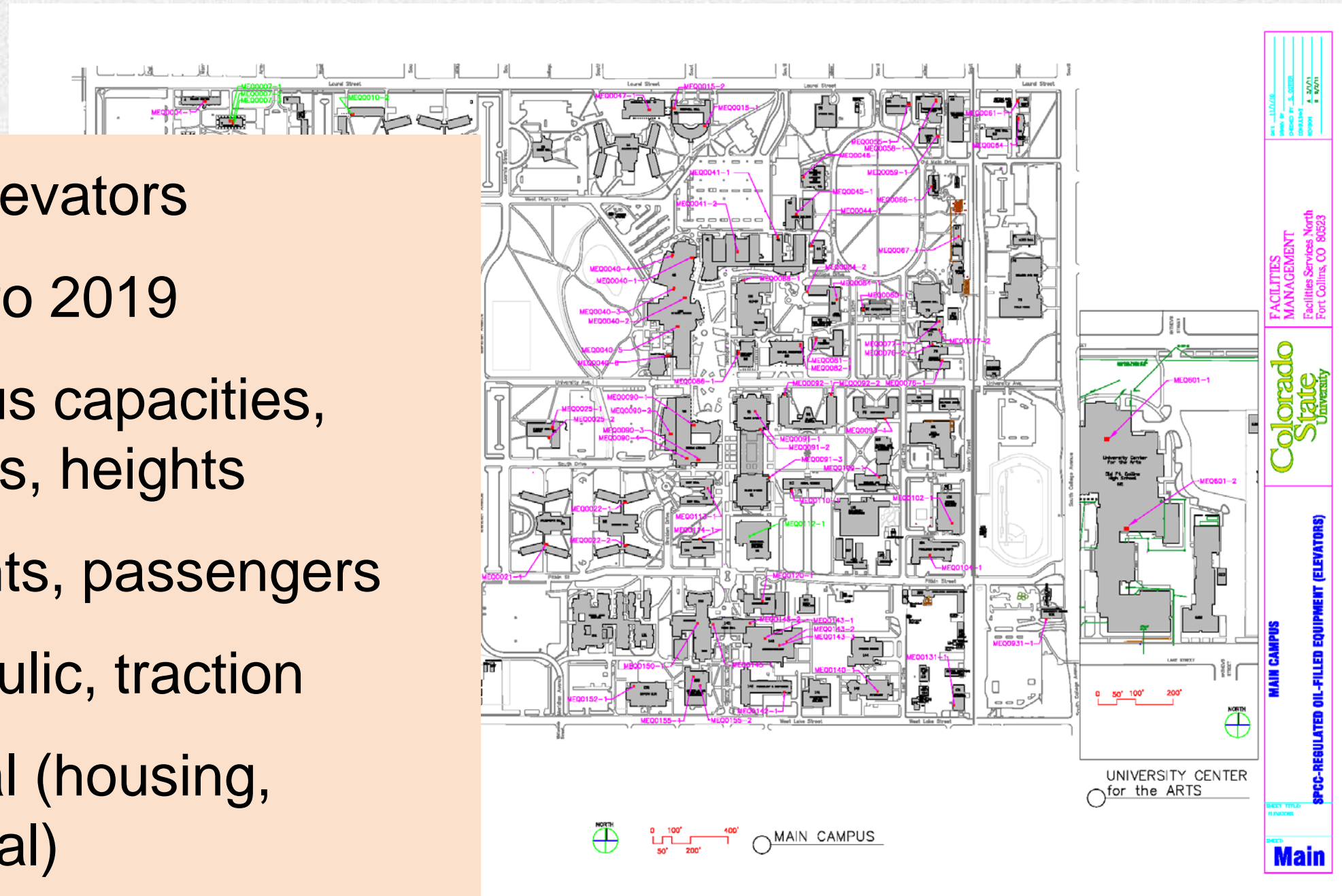
# Elevators.... An Owner's Perspective





# CSU Owns Elevators.

- 178 elevators
- 1956 to 2019
- Various capacities, speeds, heights
- Freights, passengers
- Hydraulic, traction
- Critical (housing, medical)
- Not so critical





# I am an Owner – I need to know...

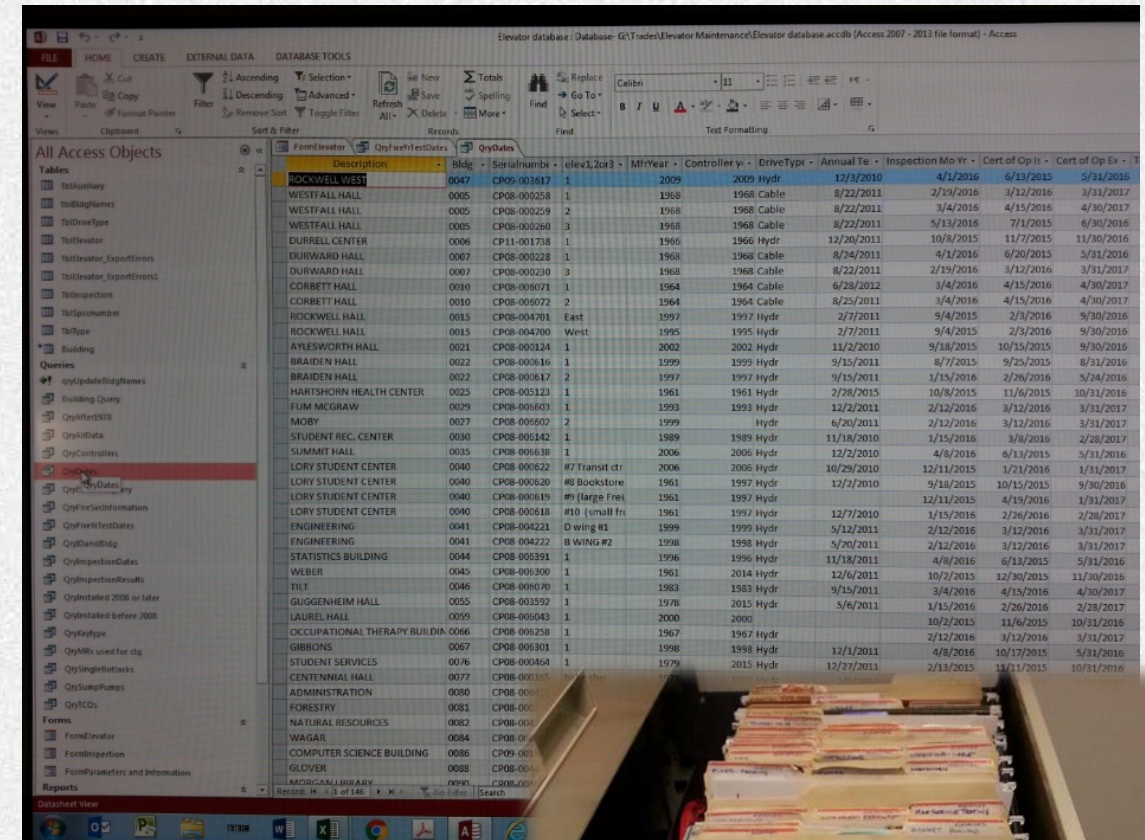
- Maintenance contract
- Inspections
  - Annual
  - Five-year
  - Monthly fire service and phones
- Certificates of Operation
- Entrapments
- Repairs
- Upgrades/modernizations





# How to keep track?

- Your own spreadsheet or database
- Filing cabinet
- Always use the CP number.



The screenshot shows an Access database titled 'Elevator database - Database - G:\Trieder\Elevator Maintenance\Elevator database.accdb (Access 2007 - 2013 file format) - Access'. The 'All Access Objects' pane on the left lists various tables and queries. The main window displays a table with the following columns: Description, Bldg, Serialnumb, elev, MfrYear, Controller yr, DriveType, Annual Te, Inspection Mo Yr, Cert of Op Is, and Cert of Op Ex. The table contains numerous rows of data, including entries for 'ROCKWELL WEST', 'WESTFALL HALL', 'DURRELL CENTER', 'DURWARD HALL', 'CORBETT HALL', 'ROCKWELL HALL', 'AYLESWORTH HALL', 'BRADEN HALL', 'HARTSHORN HEALTH CENTER', 'FUM MCGRAW', 'MOBY', 'STUDENT REC. CENTER', 'SUMMIT HALL', 'LORY STUDENT CENTER', 'LORY STUDENT CENTER', 'LORY STUDENT CENTER', 'ENGINEERING', 'STATISTICS BUILDING', 'WEBER', 'TILT', 'GUGGENHEIM HALL', 'LAUREL HALL', 'OCCUPATIONAL THERAPY BUILDING', 'GIBBONS', 'STUDENT SERVICES', 'CENTENNIAL HALL', 'ADMINISTRATION', 'FORESTRY', 'NATURAL RESOURCES', 'WAGAR', 'COMPUTER SCIENCE BUILDING', and 'GLOVER'.

Description	Bldg	Serialnumb	elev	MfrYear	Controller yr	DriveType	Annual Te	Inspection Mo Yr	Cert of Op Is	Cert of Op Ex
ROCKWELL WEST	0047	CP09-001617	1	2009	2009 Hydr	12/3/2010	4/1/2016	6/13/2015	5/31/2016	
WESTFALL HALL	0005	CP08-000258	1	1968	1968 Cable	8/22/2011	2/19/2016	3/12/2016	3/31/2017	
WESTFALL HALL	0005	CP08-000259	2	1968	1968 Cable	8/22/2011	3/4/2016	4/15/2016	4/30/2017	
WESTFALL HALL	0005	CP08-000260	3	1968	1968 Cable	8/22/2011	5/13/2016	7/1/2015	6/30/2016	
DURRELL CENTER	0006	CP11-001738	1	1966	1966 Hydr	12/20/2011	10/8/2015	11/7/2015	11/30/2016	
DURWARD HALL	0007	CP08-000228	1	1968	1968 Cable	8/24/2011	4/1/2016	6/20/2015	5/31/2016	
DURWARD HALL	0007	CP08-000230	3	1968	1968 Cable	8/22/2011	2/19/2016	3/12/2016	3/31/2017	
CORBETT HALL	0010	CP08-000701	1	1964	1964 Cable	6/28/2012	3/4/2016	4/15/2016	4/30/2017	
CORBETT HALL	0010	CP08-000702	2	1964	1964 Cable	8/25/2011	3/4/2016	4/15/2016	4/30/2017	
ROCKWELL HALL	0015	CP08-004701	East	1997	1997 Hydr	2/7/2011	9/4/2015	2/3/2016	9/30/2016	
ROCKWELL HALL	0015	CP08-004700	West	1995	1995 Hydr	2/7/2011	9/4/2015	2/3/2016	9/30/2016	
AYLESWORTH HALL	0021	CP08-000124	1	2002	2002 Hydr	11/2/2010	9/18/2015	10/15/2015	9/30/2016	
BRADEN HALL	0022	CP08-000616	1	1999	1999 Hydr	9/15/2011	8/7/2015	9/25/2015	8/31/2016	
BRADEN HALL	0022	CP08-000617	2	1997	1997 Hydr	9/15/2011	1/15/2016	2/26/2016	5/24/2016	
HARTSHORN HEALTH CENTER	0023	CP08-005123	1	1961	1961 Hydr	2/28/2015	10/8/2015	11/6/2015	10/31/2016	
FUM MCGRAW	0029	CP08-006603	1	1993	1993 Hydr	12/2/2011	2/12/2016	3/12/2016	3/31/2017	
MOBY	0027	CP08-006602	2	1999	1999 Hydr	6/20/2011	2/12/2016	3/12/2016	3/31/2017	
STUDENT REC. CENTER	0030	CP08-006142	1	1989	1989 Hydr	11/18/2010	1/15/2016	3/8/2016	2/28/2017	
SUMMIT HALL	0035	CP08-006638	1	2006	2006 Hydr	12/2/2010	4/8/2016	6/13/2015	5/31/2016	
LORY STUDENT CENTER	0040	CP08-000622	#7 Transit cl	2006	2006 Hydr	10/29/2010	12/11/2015	1/21/2016	1/31/2017	
LORY STUDENT CENTER	0040	CP08-000620	#6 Bookstore	1961	1997 Hydr	12/7/2010	9/18/2015	10/15/2015	9/30/2016	
LORY STUDENT CENTER	0040	CP08-000619	#9 (large fri)	1961	1997 Hydr	12/7/2010	9/18/2015	10/15/2015	9/30/2016	
LORY STUDENT CENTER	0040	CP08-000618	#10 (small fri)	1961	1997 Hydr	12/7/2010	1/15/2016	2/26/2016	2/28/2017	
ENGINEERING	0041	CP08-004221	D wing #1	1999	1999 Hydr	5/12/2011	2/12/2016	3/12/2016	3/31/2017	
ENGINEERING	0041	CP08-004222	B wing #2	1998	1998 Hydr	5/20/2011	2/12/2016	3/12/2016	3/31/2017	
STATISTICS BUILDING	0044	CP08-006391	1	1996	1996 Hydr	11/18/2011	4/8/2016	6/13/2015	5/31/2016	
WEBER	0045	CP08-000300	1	1961	2014 Hydr	12/6/2011	10/2/2015	12/30/2015	11/30/2016	
TILT	0046	CP08-000670	1	1983	1983 Hydr	9/15/2011	3/4/2016	4/15/2016	4/30/2017	
GUGGENHEIM HALL	0055	CP08-001592	1	1978	2015 Hydr	5/6/2011	1/15/2016	2/26/2016	2/28/2017	
LAUREL HALL	0059	CP08-000043	1	2000			10/2/2015	11/6/2015	10/31/2016	
OCCUPATIONAL THERAPY BUILDING	0066	CP08-006258	1	1967			2/12/2016	3/12/2016	3/31/2017	
GIBBONS	0067	CP08-000301	1	1996	1996 Hydr		12/1/2011	4/8/2016	10/17/2015	5/31/2016
STUDENT SERVICES	0076	CP08-000454	1	1979	2015 Hydr	12/27/2011	2/13/2015	11/17/2015	10/31/2016	
CENTENNIAL HALL	0077	CP08-000168	1	1967						
ADMINISTRATION	0080	CP08-000648	1	1968						
FORESTRY	0081	CP08-000649	1	1968						
NATURAL RESOURCES	0082	CP08-000650	1	1968						
WAGAR	0084	CP08-000651	1	1968						
COMPUTER SCIENCE BUILDING	0086	CP09-000652	1	1968						
GLOVER	0088	CP08-000653	1	1968						
ADDITIONAL LIBRARY	0090	CP08-000654	1	1968						





# Most Important for owners:

- Inspection report
- Certificate of Operation
- Safety Test Report

Colorado Department of Labor and Employment  
Division of Oil and Public Safety - Conveyance Program  
633 17th Street, Suite 500  
Denver, CO 80202-3610  
Phone: 303-318-8497  
Fax: 303-318-8534  
Email: cdle\_conveyance@state.co.us  
Web: www.colorado.gov/ops

## Elevator Inspection Report - Private Third-Party Inspector

(Revised 8/2018)

To receive a Certificate of Operation, the Conveyance Responsible Party (owner/operator) must submit this Inspection Report to the Conveyance Program via email or postal mail, and then we will email the Certificate of Operation and an invoice to pay the certificate fee to the Responsible Party Contact you list below.

Facility Name: CSU Multi-Purpose Center  
Facility Address: 701 W. Platteau St., Fort Collins, CO 80523  
Contact Name: Susanne Cordery  
Address: 6030 Campus Dr., Fort Collins, CO 80523  
Phone #: (970) 491-0117  
Responsible Party Type: ☐ Owner ☒ Other

Facility ID #: 37174  
Phone #: (970) 491-0137  
County: Larimer  
ZIP: 80523

OPS Conveyance #: CP  
Original Code Data Plate Year: 2013  
Altered Code Data Plate Year: 2013  
Conveyance Use: ☒ Passenger ☐ Freight  
Conveyance Type: ☒ Traction ☐ Hydraulic  
Front Landings: 5  
Capacity: 4000

Inspection Date: 03/15/2019  
Inspection Type: ☒ Pre-Operational ☐ Annual  
Annual Safety Test Date: 03/21/2019  
Code Reference: A17.1 2013

Property/Facility #: CSU MUL  
Conveyance #: CP16-000063  
Conveyance Type: Elevator  
Local ID: E-05  
Contract / Job #: 4249506  
Capacity lbs: 4000.0

Total Rise (ft): 103' 9"  
Rated Speed (fpm): 320

Owner/Manager: CSU FACILITIES  
6030 CAMPUS DR.  
FORT COLLINS, CO 80523

This certificate is issued on the condition that the owner shall keep this Certificate of Operation on file as evidence of compliance. It is also recommended that a copy be posted in the conveyance machine room along with a copy of the last inspection report to facilitate communication and coordination between the inspector and maintenance personnel. Report inaccuracies to the Conveyance Section at (303) 318-8497.

**Note: All deficiencies noted on the inspection report must be corrected prior to the next annual inspection.**

## Conveyance Annual Certificate of Operation

Property/Facility #: CSU MUL  
Conveyance #: CP16-000063  
Conveyance Type: Elevator  
Local ID: E-05  
Contract / Job #: 4249506  
Capacity lbs: 4000.0

Inspection Date: 03/15/2019  
Certificate Issue Date: 03/21/2019  
Expiration Date: 03/31/2020

## Electric Traction Elevator Safety Test Report

DEPARTMENT OF LABOR AND EMPLOYMENT  
Division of Oil and Public Safety  
Conveyance Section  
(303) 318-8550 Fax (303) 318-8534

Building Name: CSU STADIUM  
Address: 701 W. Platteau St., Fort Collins, CO 80523  
City: Fort Collins  
Zip: 80523

Circle One  
Date Tests Performed: 03-15-19  
Mechanical and Visual Check of Governor Operation: ☒ Pass ☐ Fail

Speed at which Governor Tripped: ☒ Pass ☐ Fail  
Governor Trapping Speed Setting in Need of Adjustment: ☐ Yes ☒ No

Black Rope Device (winding drum machines): ☒ Pass ☐ Fail  
Car Safety: No Load, Slow Speed: ☒ Pass ☐ Fail  
Elevator out of Level after Safety Test: ☒ Pass ☐ Fail

Stop Switches: ☒ Pass ☐ Fail  
Directional & Final Limits: ☒ Pass ☐ Fail  
Broken Rope, Tape or Chain Switch: ☒ Pass ☐ Fail  
Ascending Car Overspeed Protection and Unintended Car Movement (no load / up direction): ☒ Pass ☐ Fail

Broken Suspension Member & Headrail Strength Detection Means: ☒ Pass ☐ Fail  
E/E/P/S Electrical Protective Devices Operate as Intended: ☒ Pass ☐ Fail  
The person or firm maintaining the equipment shall provide a written checkout procedure and demonstrate that all E/E/P/S electrical protective devices operate as intended: ☒ Pass ☐ Fail

Over-Buffer-Related Load Limit: ☒ Pass ☐ Fail  
Closing Force (Max 300lb): ☒ Pass ☐ Fail  
Closing Time: ☒ Pass ☐ Fail  
Controller Fuses Installed: ☒ Pass ☐ Fail  
Phase I Recall: ☒ Pass ☐ Fail  
Phase II Operation: ☒ Pass ☐ Fail  
Emergency Standby or Emergency Power Operation: ☒ Pass ☐ Fail  
Logs Properly Maintained: ☒ Pass ☐ Fail  
I certify all statements are true to the best of my knowledge and that all testing was performed in accordance with CRIS § 9-5.5, Conveyance Regulations 7 CCR 1001-1002-1003, and 12/Jan12

Inspector Name: [Signature]  
Signature: [Signature]  
dated 12/Jan12

**Note: 125% of rated speed**





# Maintenance Control Program (MCP)

How CSU solved the MCP  
dilemma

QR code!

Affixed to controller

Readable using smart phone

Contains all requirements

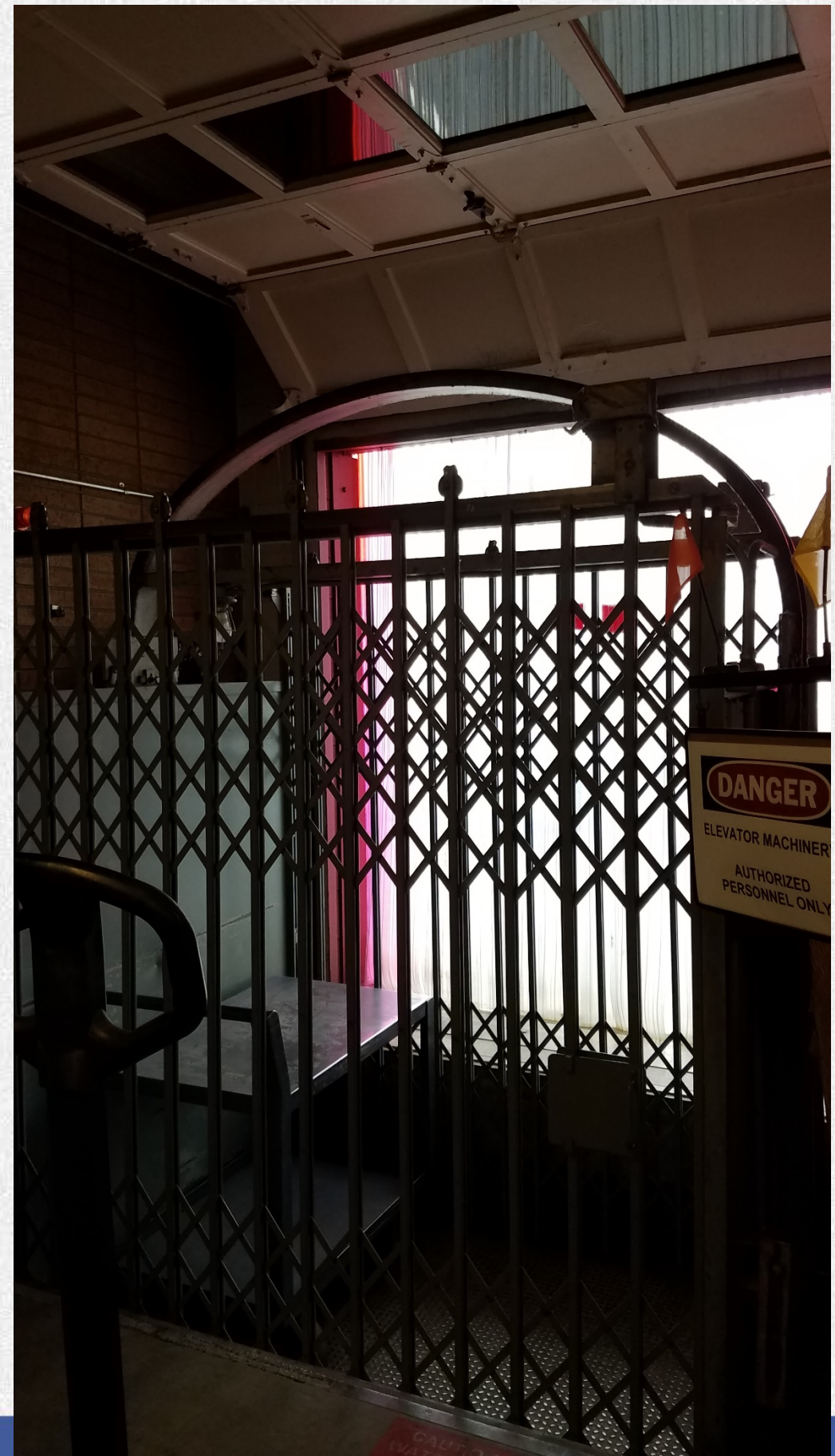
Easy to update from office





# Where to get help?

Elevator consultant  
OPS  
Peers  
Third party inspector  
Elevator service  
company





# Common Owner Issues

Inspection report inaction

Violations, TCO affidavits

Elevator maintenance contractor  
relationship

Missing deadlines (know how to search the  
database)





# Tips for success?

Track your elevator using  
the CP number

Take action, don't sit on it

Know how to find the three  
important documents for  
each elevator

Don't be afraid to call OPS





# Thank you.



Susanne Cordery 970-491-0117  
Steve Helburg 970-561-1023





# Northwest Colorado Council Of Governments (NWCCOG)

## Elevator Inspection Program (EIP) Overview and Q/A





# Program Overview

David Harris – Director





- NWCCOG's EIP represents five counties and 23 cities/towns covering nearly 2,000 conveyances.
- The EIP was created in 1993. Prior to that, conveyances within the region were not inspected for safety.
- After the creation of a single State wide standard, the EIP entered into an agreement to become the authority enforcing the states minimum standard within its jurisdiction





- Inspect all regulated conveyances on an annual basis.
- Performs acceptance or “final” inspections on all newly installed equipment to insure that all violations are addressed before turning the equipment over to the owner
- Work with conveyance owners and contractors in scheduling any required witness tests.



- Performs plan review and issues permits for all newly installed or altered conveyances.
- Issues all temporary or annual Certificates of Operation (CO).
- Work directly with conveyance owners, building departments and fire authorities in explaining regulations and policies.



- Employs staff inspectors.
- Will use contract inspectors to help with work load when necessary.
- Third Party Inspectors are not permitted to perform inspections with the EIP Jurisdiction.



# Enforcement

Enforcement





- After an audit by State officials in 2017, it was found that the EIP program was not enforcing the State minimum requirements as outlined in the Memorandum of Operating Agreement (MOA).
- In January of 2018 a new director was hired to help address this issue.



- Early Spring of 2018 EIP starts working on a database to address compliance and enforcement.
- Summer of 2018 the enforcement program is launched.
- At the time of implementation 800 plus conveyances were operating without a valid Certificate of Operation.



- Current Status –
- As of August 2019 72% percent of conveyances are now operating with a valid certificate of operation.
- EIP is striving for a compliance rate of around 95% percent by August 2020.



## Enforcement Process

- Annual Inspection with no TCO violations found, a Certificate of Operation is issued.
- Annual inspection with TCO violations found, a Temporary Certificate of Operation (TCO) is issued with 90 days to correct by submitting an affidavit to NWCCOG.



- TCO violations not corrected by TCO expire date, a Notice of Violation (NOV) with a \$500.00 fine per conveyance is issued. This must be corrected within 30 days of issuance by submitting an affidavit to NWCCOG
- NOV not corrected and fine not paid by due date, a Notice of Enforcement Order (NEO) with a \$1,000.00 penalty per conveyance is issued. This must be corrected within 30 days of issuance by submitting an affidavit to NWCCOG.



- NEO not corrected, then possible shut down of the conveyance(s)
- All fines and any outstanding invoices must be paid before NWCCOG will close the enforcement procedure and issue a CO.



## By the Numbers

- As of July 2018 the EIP as issued a total of 1,069 TCOs
- 293 Notice of Violations
- 80 Notice of Enforcement Orders



## New Requirements for 2019/2020

- Effective December 1<sup>st</sup>, 2019 EIP will move away from 90 day TCOs and start issuing 60 day TCOs.
- All conveyance contractors now must use new test forms approved by the EIP for consistency.



# Website Overview

Sue Hobrock; Operations Manager

Bryananne Busato: Administrative Assistant

