



[REDACTED]

[REDACTED]

[REDACTED]

Subject; Winnipeg Square Escalators water damage
Site progress report to June 12, 2015

We attended to the site today for the purpose of site inspection progress and workmanship report. The following summarizes our findings;

- The "UP" escalator of the RICHARDSON pair of escalators has now been completed. Both RICHARDSON escalators have been completed and placed back into operation.

We completed a final inspection and testing of the RICHARDSON and BMO escalators. We have verified and tested the following;

BMO Escalators

1. Power transformer and rectifier has been removed and replaced from the escalator control system.
2. All steps were removed and cleaned.
3. All rollers on all steps were removed and replaced.
4. One broken step was removed and replaced with a new step.
5. Both step chains were removed and replaced with new step chains.
6. The upper demarcation fixture and light was installed on one escalator (it was missing / damaged)
7. The main brake was removed, dismantled. New brake pads were installed. The brake was re installed, and torqued to the

[REDACTED]



correct brake setting. The brake was adjusted for correct brake slide.

8. The friction reversal switch was removed and replaced.
9. The pan of the escalator was cleaned free of grease and dirt
10. The upper and lower escalator pits were thoroughly cleaned free of grease, dirt, sand and debris.
11. The escalator tracks that guide the step chain and step rollers were thoroughly cleaned of all grease, dirt, and debris.

We measured the speed of the escalators and both are at between 28 and 30 feet per minute. The chain drive was adjusted and handrails are also moving at the same speed as the steps. There is no sign of wearing of handrails, and the handrails are not heating up or showing any other signs of lack of adjustment. Both escalators run freely in both direction of travel. The gear cases are both running smoothly. Steps move extremely smoothly on both escalators (as should be expected with all new rollers and clean bearing surfaces. There is no clatter in step chains or handrail drive chains.

RICHARDSON Escalators

1. Power transformer and rectifier has been removed and replaced from the escalator control system.
2. All steps were removed and cleaned.
3. The main brake was removed, dismantled. New brake pads were installed. The brake was re installed, and torqued to the correct brake setting. The brake was adjusted for correct brake slide.
4. The friction reversal switch was removed and replaced.
5. Damaged and falling apart lower handrail drive bearing was removed and replaced.
6. The pan of the escalator was cleaned free of grease and dirt.
7. The upper and lower escalator pits were thoroughly cleaned free of grease, dirt, sand and debris.



8. The escalator tracks that guide the step chain and step rollers were thoroughly cleaned of all grease, dirt, and debris.

We measured the speed of the escalators and both are at between 27 and 29 feet per minute. The chain drive was adjusted and handrails are also moving at the same speed as the steps. Both escalators run freely in both direction of travel. There is no sign of wearing of handrails, and the handrails are not heating up or showing any other signs of lack of adjustment. The gear cases are both running smoothly. Steps move extremely smoothly on both escalators (as should be expected with all new rollers and clean bearing surfaces. There is no clatter in step chains.

The handrail drive chain on the "DOWN" Richardson escalator is clattering slightly. If the escalator is reversed the clatter goes away. The clattering is due to wear on the handrail drive chain. It is stretched, and when the escalator is run in down direction the slack in the chain drags in the chain guide. This chain wear is due to normal wear and tear and is not due to any water damage that occurred to the escalators.

We certify that the BMO and RICHARDSON escalator repair work [REDACTED] has been Substantially Complete and the escalators all returned to beneficial use by the Owner on June 12, 2015. All work was done in a professional and workmanlike manner and no deficiencies remain [REDACTED] to remedy.

[REDACTED]

[REDACTED]

[REDACTED]



Thank you for the opportunity to provide our services. Please contact the undersigned if you have any questions or concerns or if we can provide further information.

Sincerely,

 P. Eng., EDM-F

Gulay Elevator Services Inc.,
Consulting Engineering.

