



**Board Report**

**File #:** 2017-0404, **File Type:** Plan

**Agenda Number:** 33

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE  
JULY 20, 2017**

**SUBJECT: STAFFING REQUEST FOR CRENSHAW LINE**

**ACTION: APPROVE FULL TIME EQUIVALENT (FTE) POSITION INCREASE**

**RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to amend the FY18 Budget to add 59 positions, as shown below:
  - 1. Add 8 (eight) non-contract positions to manage and plan for integrated testing, system readiness drills, asset inspection and acceptance, turnover coordination, opening a new Rail Maintenance Facility and pre-revenue service testing of the Crenshaw Line rail project.
  - 2. Add 51 contract positions to support training and certification, asset inspection and acceptance, turnover coordination, integrated testing, system readiness drills, the opening of a Rail Maintenance Facility, pre-revenue service testing and the opening of the Crenshaw Line to the public.
- B. RECEIVING AND FILING staff analysis of a comprehensive rail expansion staffing plan to add up to a total of 130 positions in FY19 and FY20. The staffing plan assumes a time-phased, milestone-based hiring construct using the best available current scope of work estimates. These FTE requirements will be brought forward for board consideration during the respective FY19 and FY20 budget development cycles.

**ISSUE**

The overall effort to prepare Metro for this new rail line, new maintenance facility, and light-rail vehicles for revenue service beginning no later than October 2019 will require a substantial amount of technical and support staff across several departments. For technical operations staff, Metro must begin recruitment well in advance of actual need in order to ensure adequate training and qualification requirements can be met. These positions will be phased in throughout FY18, FY19 and FY20 and recruitment will be aligned with system safety, critical path activities, systems testing and project milestones.

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**DISCUSSION**

The Crenshaw Line Rail Project is currently under construction and scheduled to commence revenue service in October 2019. Upon completion, Metro will receive one (1) new light-rail Maintenance Facility (Division 16), 8.5 new route miles for passenger service, eight (8) new stations, and employ 29 light-rail vehicles, all of which must be fully-integrated into the existing Metro Rail network prior to the start of revenue service to ensure the new system meets Metro’s safety standards.

The Crenshaw line is unique in comparison to existing rail lines within our current system with the Right-Of-Way having a combination of below grade, at grade and aerial sections. 2.9 miles of the line will be below grade, supported by three (3) stations. One (1) station will support the 1.4 miles of aerial Right-Of-Way and the final four (4) stations will support the 4.2 miles of at-grade track. The signaling systems are more complex with an 84 mainline and yard switch machines and 100 mainline and yard signals being added to the infrastructure to support the revenue service and the tie into Metro’s Green Line. There will be 17 fully gated crossings to support our new standards and will require a higher level of maintenance compared to the previous design standards.

This project will increase Metro’s light-rail system route miles by almost nine (9) percent and stations along the entire Metro Rail network by seven-and-a-half (7.5) percent. Additionally, the new light-rail Maintenance Facility will increase Metro’s total light-rail maintenance capacity by 20 percent.

As the full-time “owners” of the line, shop and systems, Operations personnel are required to provide day-to-day decisions and support of the construction and outfitting of the line, yard and shop including systems testing, inspections, development of punch list items and other start-up activities. Pre-revenue service testing of the rail line is scheduled for August 2019. Given Metro’s intention to operate full revenue service no later than October 2019, there is an immediate need to recruit, hire and train the staff needed to perform these critical path activities, prevent project delays and eventually deliver daily revenue service.

This agency-wide request for increased staffing in FY18, FY19 and FY20 supports personnel needs for the start-up and operation and maintenance of the Crenshaw Line as well as adjunct departments and considers the time frame needed for recruitment and training of new personnel in conjunction to project deliverables. The comprehensive staffing plan with related rationale is presented in Attachment B: Crenshaw Staffing Timeline. To develop this staffing request, staff considered several factors including revenue service, rail car and infrastructure state of good repair, system complexity, current labor ratios and lessons learned from the recent Gold Line and Expo Line extension start up.

The initial authorization to add positions will allow Metro to hire, provide training and manage critical path activities to prevent project delays and to provide and sustain proper staffing levels to operate and maintain our current rail service. Metro will continue conducting a comprehensive review of budgeted FTEs for Rail Facilities Maintenance, Rail Fleet Services, Rail Transportation, and Wayside. Metro will report back to the Board as part of the FY19 and FY20 Budget process detailing ongoing staffing needs and non-labor expenses for full light rail network integration of the Crenshaw Line.

**DETERMINATION OF SAFETY IMPACT**

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The authorization to add positions will have a positive impact on safety. This authorization will add the staff needed to plan, manage, and implement start-up activities.

Metro staff will monitor and inspect third-party construction, installations and systems testing. For example, Metro personnel will work closely with constructors during integration testing to check all systems for the ability to operate trains safely through stations, switches, ventilation zones, at-grade crossings or other systems. This testing will also include operating and testing multiple train scenarios to examine the integrity, reliability and redundancy of safety systems. This authorization will allow Metro to maintain existing staffing levels for revenue service on the existing rail network and achieve Crenshaw Project milestones in parallel.

### **FINANCIAL IMPACT**

The projected hiring plan and milestones support a Revenue Operations Date (ROD) of October 2019. New staff will begin to arrive during the first three months of FY18. The FY18 annual budget impact is estimated to be \$12,000,000.

Funding for the recruitment and training of the added positions will be supported by Operating projects within respective cost centers. Funding for Systems Integration and Pre-ROD testing estimated at \$8.2 million is included in the Capital Life of Project (LOP) budget for the Crenshaw Line.

Since this is a multi-year effort, the cost center managers, project managers, and Executive Directors will ensure that planned resources are budgeted in future fiscal years. In FY19 and FY20, it is anticipated that additional funds must be identified to complete and sustain the staffing plan. Staff will identify the funding and continuing Operations support requirements for Board consideration during the FY19 and FY20 budget process.

#### **Impact to Budget**

Funding for this effort is Measure R Transit Capital New Rail 35%. These funds are eligible for new rail system integration and pre-revenue activities. No other funds were considered for these Measure R Transit Capital projects.

### **ALTERNATIVES CONSIDERED**

Authorization to amend the FY18 Budget to add 59 positions will support Metro's mission for the continuous improvement of an efficient and effective transportation system for Los Angeles County. Delaying the recruitment, hiring, and training of personnel needed to plan, manage, and implement start-up activities could delay the project.

One alternative would be to reassign existing Metro personnel from current duties to support the project. This approach is not recommended because it would have a negative impact on Metro's ability to adequately maintain the current level of staffing to meet required regulatory inspections, maintenance and would significantly increase response times to incidents affecting service on our current rail network .

The impacts of not staffing the Crenshaw Project at suitable levels include, but are not limited to, the following risks: lack of Metro oversight and inspection; foregone opportunities to evaluate safety,

design, and construction activities; third-party reliance for completion of systems to acceptable standards; failure to satisfy acceptance and delivery schedules; insufficient time to hire, recruit and train staff; and delays to project milestones including revenue operations.

**NEXT STEPS**

If approved, Metro will proceed with the recruitment, hiring and training of personnel. Additionally, Metro will advance start-up planning and activities to ensure timely delivery of the Crenshaw Line.

FY19 and FY20 positions will be requested and added through the FY19 and FY20 Budget process and will be based upon revenue service projections. Metro will continue ongoing efforts to finalize plans for Public Safety, Communications, Marketing, Rail Activation, Fleet Management and Operations for the Crenshaw Line project. These plans document Metro’s strategy including roles and responsibilities for directing and managing work through project closure and beyond.

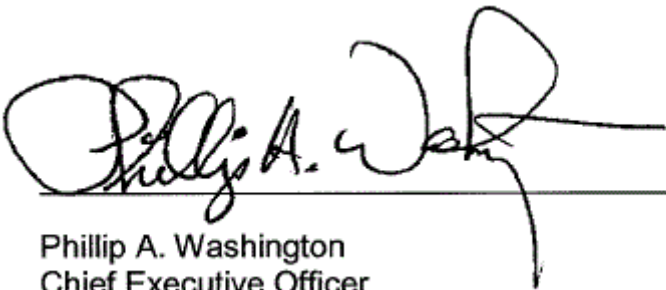
**ATTACHMENTS**

Attachment A - Agency-Wide Staffing Summary by Department and Union

Attachment B - Crenshaw Staffing Timeline

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Phillip A. Washington  
Chief Executive Officer

## AGENCY-WIDE STAFFING SUMMARY BY DEPARTMENT & UNION

| OPERATIONS |                                   | Total # of FTEs | FY18 Budget Amendment | FY19       | FY20      |
|------------|-----------------------------------|-----------------|-----------------------|------------|-----------|
| 1          | MAINTENANCE OF WAY                | 20              | 17                    | 2          | 1         |
| 2          | FACILITIES MAINTENANCE            | 17              | 1                     | 16         | 0         |
| 3          | CENTRAL MAINTENANCE               | 1               | 0                     | 1          | 0         |
| 4          | TRANSPORTATION                    | 50              | 16                    | 33         | 1         |
| 5          | RAIL FLEET SERVICES               | 54              | 21                    | 31         | 2         |
| 6          | VEHICLE ENGINEERING & ACQUISITION | 4               | 2                     | 3          | 0         |
| 7          | SERVICE PLANNING & SCHEDULING     | 3               | 1                     | 2          | 0         |
| 8          | <b>Subtotal</b>                   | <b>149</b>      | <b>58</b>             | <b>88</b>  | <b>4</b>  |
| SUPPORT    |                                   | Total # of FTEs | FY18 Budget Amendment | FY19       | FY20      |
| 9          | COMMUNICATIONS                    | 3               | 0                     | 3          | 0         |
| 10         | RISK, SAFETY & ASSET MANAGEMENT   | 3               | 0                     | 3          | 0         |
| 11         | HUMAN CAPITAL & DEVELOPMENT       | 2               | 1                     | 1          | 0         |
| 12         | INFORMATION TECHNOLOGY SERVICES   | 6               | 0                     | 6          | 0         |
| 13         | VENDOR/CONTRACT MANAGEMENT        | 12              | 0                     | 5          | 7         |
| 14         | FINANCE & BUDGET                  | 7               | 0                     | 7          | 0         |
| 15         | SYSTEM SECURITY & LAW ENFORCEMENT | 6               | 0                     | 0          | 6         |
| 16         | <b>Subtotal</b>                   | <b>39</b>       | <b>1</b>              | <b>25</b>  | <b>13</b> |
| 17         | <b>Total</b>                      | <b>188</b>      | <b>59</b>             | <b>113</b> | <b>17</b> |
| 18         |                                   |                 |                       |            |           |
| 19         |                                   |                 |                       |            |           |
| 20         |                                   |                 |                       |            |           |
| BY UNION   |                                   | Total # of FTEs | FY18 Budget Amendment | FY19       | FY20      |
| 21         | SMART                             | 26              | 0                     | 26         | 0         |
| 22         | ATU                               | 66              | 32                    | 34         | 0         |
| 23         | TCU                               | 28              | 0                     | 17         | 11        |
| 24         | AFSCME                            | 32              | 19                    | 13         | 0         |
| 25         | TEAMSTERS                         | 6               | 0                     | 0          | 6         |
| 26         | NON-CONTRACT                      | 30              | 8                     | 23         | 0         |
| 27         | <b>Total</b>                      | <b>188</b>      | <b>59</b>             | <b>113</b> | <b>17</b> |
| 28         |                                   |                 |                       |            |           |

# CRENSHAW STAFFING TIMELINE

| Fiscal Year | FY2018 |   |   |   |   |   |      |   |   |   |   |   | FY2019 |   |   |   |   |   |      |   |   |   |   |   | FY2020 |   |   |   |   |   |  |  |  |  |  |  |
|-------------|--------|---|---|---|---|---|------|---|---|---|---|---|--------|---|---|---|---|---|------|---|---|---|---|---|--------|---|---|---|---|---|--|--|--|--|--|--|
|             | 2017   |   |   |   |   |   | 2018 |   |   |   |   |   | 2018   |   |   |   |   |   | 2019 |   |   |   |   |   |        |   |   |   |   |   |  |  |  |  |  |  |
|             | J      | A | S | O | N | D | J    | F | M | A | M | J | J      | A | S | O | N | D | J    | F | M | A | M | J | J      | A | S | O | N | D |  |  |  |  |  |  |

| OPERATIONS DEPARTMENT         |      |                              | Total # of FTEs | FY18 | FY19 | FY20 |
|-------------------------------|------|------------------------------|-----------------|------|------|------|
| <b>MAINTENANCE OF WAY</b>     |      |                              |                 |      |      |      |
| <i>Signals</i>                |      |                              |                 |      |      |      |
| ATU                           | 764  | SIGNAL INSPECTOR             | 4               | 4    |      |      |
| ATU                           | 757  | SIGNAL INSPECTOR LDR         | 1               | 1    |      |      |
| AFSCME                        | 4609 | RAIL SIGNAL SUPERVISOR       | 1               | 1    |      |      |
| NC                            | 7210 | MGR, WAYSIDE SYS             | 1               | 1    |      |      |
| TCU                           | 891  | GENERAL CLERK III            | 1               |      |      | 1    |
| <i>Track</i>                  |      |                              |                 |      |      |      |
| ATU                           | 765  | TRACK INSPECTOR              | 2               | 2    |      |      |
| ATU                           | 756  | TRACK INSPECTOR LDR          | 1               | 1    |      |      |
| <i>Power</i>                  |      |                              |                 |      |      |      |
| ATU                           | 766  | TRACTION POWER INSPECTOR     | 5               | 5    |      |      |
| ATU                           | 755  | TRACTION POWER INSPECTOR LDR | 1               | 1    |      |      |
| AFSCME                        | 4610 | RAIL TRACTION SUPERVISOR     | 1               | 1    |      |      |
| <i>Rail Communications</i>    |      |                              |                 |      |      |      |
| ATU                           | 763  | RAIL ELECTRO COMM INSP       | 2               |      | 2    |      |
| <b>FACILITIES MAINTENANCE</b> |      |                              |                 |      |      |      |
| ATU                           | 789  | FACILITIES SYS TECH          | 2               |      | 2    |      |
| ATU                           | 790  | FACILITIES SYS TECH LDR      | 1               |      | 1    |      |
| TCU                           | 898  | CUSTODIAN                    | 8               |      | 8    |      |
| TCU                           | 896  | LEAD CUSTODIAN               | 2               |      | 2    |      |
| AFSCME                        | 4606 | FACILITIES MAINTENANCE SUPV  | 3               |      | 3    |      |
| NC                            | 4602 | DIR, FACILITIES MAINTENANCE  | 1               | 1    |      |      |

Sys. Int. Test 1  
 Yard Substantial Completion  
 Mainline Substantial Completion  
 Sys. Int. Test 2

Pre-Revenue Service Simulation

ROD - 10-30-2019

# CRENSHAW STAFFING TIMELINE

| Fiscal Year | FY2018                                       |      |                                  |                        |             |             |             |             |   |          |   |             | FY2019                          |          |   |   |   |   |      |   |   |   |   |   | FY2020      |   |   |             |   |   |   |  |  |  |  |  |
|-------------|--|------|----------------------------------|------------------------|-------------|-------------|-------------|-------------|---|----------|---|-------------|---------------------------------|----------|---|---|---|---|------|---|---|---|---|---|-------------|---|---|-------------|---|---|---|--|--|--|--|--|
|             | 2017   |      |                                  |                        |             |             | 2018        |             |   |          |   |             | 2019                            |          |   |   |   |   | 2020 |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
|             | Month  | J    | A                                | S                      | O           | N           | D           | J           | F | M        | A | M           | J                               | J        | A | S | O | N | D    | J | F | M | A | M | J           | J | A | S           | O | N | D |  |  |  |  |  |
|             |  |      |                                  |                        |             |             |             |             |   |          |   |             | Sys. Int. Test 1                |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
|             |  |      |                                  |                        |             |             |             |             |   |          |   |             | Yard Substantial Completion     |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
|             |  |      |                                  |                        |             |             |             |             |   |          |   |             | Mainline Substantial Completion |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
|             |  |      |                                  |                        |             |             |             |             |   |          |   |             | Sys. Int. Test 2                |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
|             |  |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   | Recruitment |   |   |             |   |   |   |  |  |  |  |  |
| 24          | <b>OPERATIONS DEPARTMENT</b>                 |      |                                  | <b>Total # of FTEs</b> | <b>FY18</b> | <b>FY19</b> | <b>FY20</b> |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 25          | <b>CENTRAL MAINTENANCE</b>                   |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 26          | ATU  | 775  | NON-REV RL EQUIP MECH            | 1                      |             | 1           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 27          | <b>TRANSPORTATION</b>                        |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 28          | <i>Division 16</i>                           |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 29          | TCU  | 733  | TRANSPORTATION CLERK             | 1                      |             |             | 1           |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 30          | SMART  | 859  | TRAIN OPERATOR                   | 24                     |             | 24          |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 31          | NC   | 7204 | MGR, RAIL DIV TRANSP             | 1                      |             | 1           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 32          | NC   | 7203 | DIR, RAIL TRANS                  | 1                      | 1           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 33          | <i>Field Operations</i>                      |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 34          | AFSCME                                       | 7205 | RAIL TRANSIT OPS SUPV            | 6                      | 3           | 3           |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 35          | <i>ROC</i>                                   |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 36          | TCU  | 950  | CCTV OBSERVER/TCU                | 3                      |             | 3           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 37          | AFSCME                                       | 7205 | RAIL TRANSIT OPS SUPV            | 5                      | 5           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 38          | AFSCME                                       | 7205 | RAIL TRANSIT OPS SUPV (YARD)     | 5                      | 5           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 39          | NC   | 9597 | MGR, OPERATIONS CONTROL          | 1                      |             | 1           |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 40          | NC   | 7203 | DIR, RAIL TRANS                  | 1                      |             | 1           |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 41          | <i>Instruction</i>                           |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 42          | AFSCME                                       | 7205 | RAIL TRANSIT OPS SUPV            | 2                      | 2           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 43          | <b>RAIL FLEET SERVICES</b>                   |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 44          | <i>Division 16</i>                           |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 45          | TCU  | 891  | GENERAL CLERK III                | 1                      |             |             | 1           |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 46          | ATU  | 829  | SERVICE ATTENDANT                | 13                     |             | 13          |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 47          | ATU  | 827  | SERVICE ATTENDANT LDR            | 1                      |             | 1           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 48          | TCU  | 907  | EQUIPMENT RECORDS SPECIALIST     | 1                      |             |             | 1           |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 49          | ATU  | 762  | MAINTENANCE SPECIALIST (phase 1) | 15                     | 15          |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 50          | ATU  | 762  | MAINTENANCE SPECIALIST (phase 2) | 11                     |             | 11          |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 51          | ATU  | 769  | MAINTENANCE SPECIALIST LDR       | 3                      | 3           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 52          | AFSCME                                       | 7007 | RAIL EQUIP MAINT INSTRUCTOR      | 1                      | 1           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 53          | AFSCME                                       | 7005 | RAIL EQUIP MAINT SUPV            | 6                      | 1           | 5           |             | Recruitment |   | Training |   | Recruitment |                                 | Training |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 54          | NC   | 7211 | MGR, RAIL FLEET SERVICES         | 1                      |             | 1           |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 55          | NC   | 7002 | DIR, RAIL FLEET SERVICES         | 1                      | 1           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 56          | <b>VEHICLE ENGINEERING &amp; ACQUISITION</b> |      |                                  |                        |             |             |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 57          | ATU  | 743  | RAIL WRNTY EQUIP SPCLST          | 1                      |             | 1           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 58          | AFSCME                                       | 7005 | RAIL EQUIP MAINT SUPV            | 1                      |             | 1           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |
| 59          | NC   | 3806 | SR ENGINEER                      | 1                      | 1           |             |             | Recruitment |   | Training |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   |             |   |   |   |  |  |  |  |  |
| 60          | NC   | 3807 | ENGINEER                         | 1                      |             | 1           |             |             |   |          |   |             |                                 |          |   |   |   |   |      |   |   |   |   |   |             |   |   | Recruitment |   |   |   |  |  |  |  |  |

# CRENSHAW STAFFING TIMELINE

|  |      |   | Total # of FTEs | FY18 | FY19 | FY20 |
|--|------|---|-----------------|------|------|------|
| <b>OPERATIONS DEPARTMENT</b>                 |      |   |                 |      |      |      |
| <b>SERVICE PLANNING &amp; SCHEDULING</b>     |      |   |                 |      |      |      |
| NC   | 7008 | SR MGR, DIVISION PERFORMANCE SUPPORT        | 1               | 1    |      |      |
| SMART  | 327  | SCHEDULE MAKER II                           | 1               |      | 1    |      |
| SMART  | 853  | SCHEDULE CHECKER                            | 1               |      | 1    |      |
| <b>SUPPORT DEPARTMENTS</b>                   |      |   |                 |      |      |      |
| <b>COMMUNICATIONS</b>                        |      |   |                 |      |      |      |
| NC   | 4169 | PROJECT MANAGER, TRANSIT ASSET MANAGEMEN    | 1               |      | 1    |      |
| NC   | 5030 | MANAGER, COMMUNITY RELATIONS                | 1               |      | 1    |      |
| NC   | 5031 | SR COMMUNITY RELATIONS OFFICER              | 1               |      | 1    |      |
| <b>RISK, SAFETY &amp; ASSET MANAGEMENT</b>   |      |   |                 |      |      |      |
| NC   | 8012 | SR. WKR COMP ANALYST & PL/PD ANALYST        | 1               |      | 1    |      |
| NC   | 8019 | SR SAFETY SPECIALIST                        | 2               |      | 2    |      |
| <b>HUMAN CAPITAL &amp; DEVELOPMENT</b>       |      |   |                 |      |      |      |
| NC   | 5227 | PRINCIPAL HR ANALYST                        | 1               | 1    |      |      |
| NC   | 5235 | PRINCIPAL DISABILITY COMPLIANCE ADMINISTRAT | 1               |      | 1    |      |
| <b>INFORMATION TECHNOLOGY SERVICES</b>       |      |   |                 |      |      |      |
| ATU  | 701  | MASTER SYS COM TECHNICIAN                   | 2               |      | 2    |      |
| NC   | 3804 | SUPERVISING ENGINEER                        | 3               |      | 3    |      |
| NC   | 5413 | SR DIRECTOR, INFORMATION SYSTEMS            | 1               |      | 1    |      |
| <b>VENDOR/CONTRACT MANAGEMENT</b>            |      |   |                 |      |      |      |
| AFSCME                                       | 6211 | MATERIEL SUPERVISOR                         | 1               |      | 1    |      |
| TCU  | 963  | STOREKEEPER                                 | 2               |      |      | 2    |
| TCU  | 931  | TRUCK DRIVER/CLERK                          | 1               |      |      | 1    |
| TCU  | 947  | STOCK CLERK                                 | 4               |      |      | 4    |
| NC   | 6221 | MATERIEL PLANNER                            | 1               |      | 1    |      |
| NC   | 2403 | PRINCIPAL CONTRACT ADMINISTRATOR            | 1               |      | 1    |      |
| NC   | 6225 | PRINCIPAL INVENTORY CONTROL ANALYST (Rail)  | 1               |      | 1    |      |
| NC   | 6212 | SR BUYER                                    | 1               |      | 1    |      |
| <b>FINANCE &amp; BUDGET</b>                  |      |   |                 |      |      |      |
| TCU  | 903  | CASH CLERK                                  | 4               |      | 4    |      |
| NC   | 3807 | ENGINEER                                    | 1               |      | 1    |      |
| NC   | 5450 | SR DEPTMENTAL SYSTEMS ANALYST               | 1               |      | 1    |      |
| NC   | 5404 | SR MANAGER, SYSTEMS PROJECTS                | 1               |      | 1    |      |
| <b>SYSTEM SECURITY &amp; LAW ENFORCEMENT</b> |      |   |                 |      |      |      |
| TEAMSTERS                                    | 363  | TRANSIT SECURITY OFFICER II                 | 2               |      |      | 2    |
| TEAMSTERS                                    | 363  | TRANSIT SECURITY OFFICER I                  | 4               |      |      | 4    |

| Fiscal Year | FY2018               |   |   |   |   |   |      |   |   |   |   |   | FY2019                      |   |   |   |   |   |      |   |   |   |   |   | FY2020                          |   |   |   |   |   |   |  |  |  |  |  |
|-------------|----------------------|---|---|---|---|---|------|---|---|---|---|---|-----------------------------|---|---|---|---|---|------|---|---|---|---|---|---------------------------------|---|---|---|---|---|---|--|--|--|--|--|
|             | 2017                 |   |   |   |   |   | 2018 |   |   |   |   |   | 2019                        |   |   |   |   |   | 2020 |   |   |   |   |   |                                 |   |   |   |   |   |   |  |  |  |  |  |
|             | Month                | J | A | S | O | N | D    | J | F | M | A | M | J                           | J | A | S | O | N | D    | J | F | M | A | M | J                               | J | A | S | O | N | D |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   | Sys. Int. Test 1            |   |   |   |   |   |      |   |   |   |   |   |                                 |   |   |   |   |   |   |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   | Yard Substantial Completion |   |   |   |   |   |      |   |   |   |   |   |                                 |   |   |   |   |   |   |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   |                             |   |   |   |   |   |      |   |   |   |   |   | Mainline Substantial Completion |   |   |   |   |   |   |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   |                             |   |   |   |   |   |      |   |   |   |   |   | Sys. Int. Test 2                |   |   |   |   |   |   |  |  |  |  |  |
|             | Recruitment Training |   |   |   |   |   |      |   |   |   |   |   |                             |   |   |   |   |   |      |   |   |   |   |   |                                 |   |   |   |   |   |   |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   | Recruitment Training        |   |   |   |   |   |      |   |   |   |   |   |                                 |   |   |   |   |   |   |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   | Recruitment Training        |   |   |   |   |   |      |   |   |   |   |   |                                 |   |   |   |   |   |   |  |  |  |  |  |
|             |                      |   |   |   |   |   |      |   |   |   |   |   |                             |   |   |   |   |   |      |   |   |   |   |   | Sys. Int. Test 2                |   |   |   |   |   |   |  |  |  |  |  |