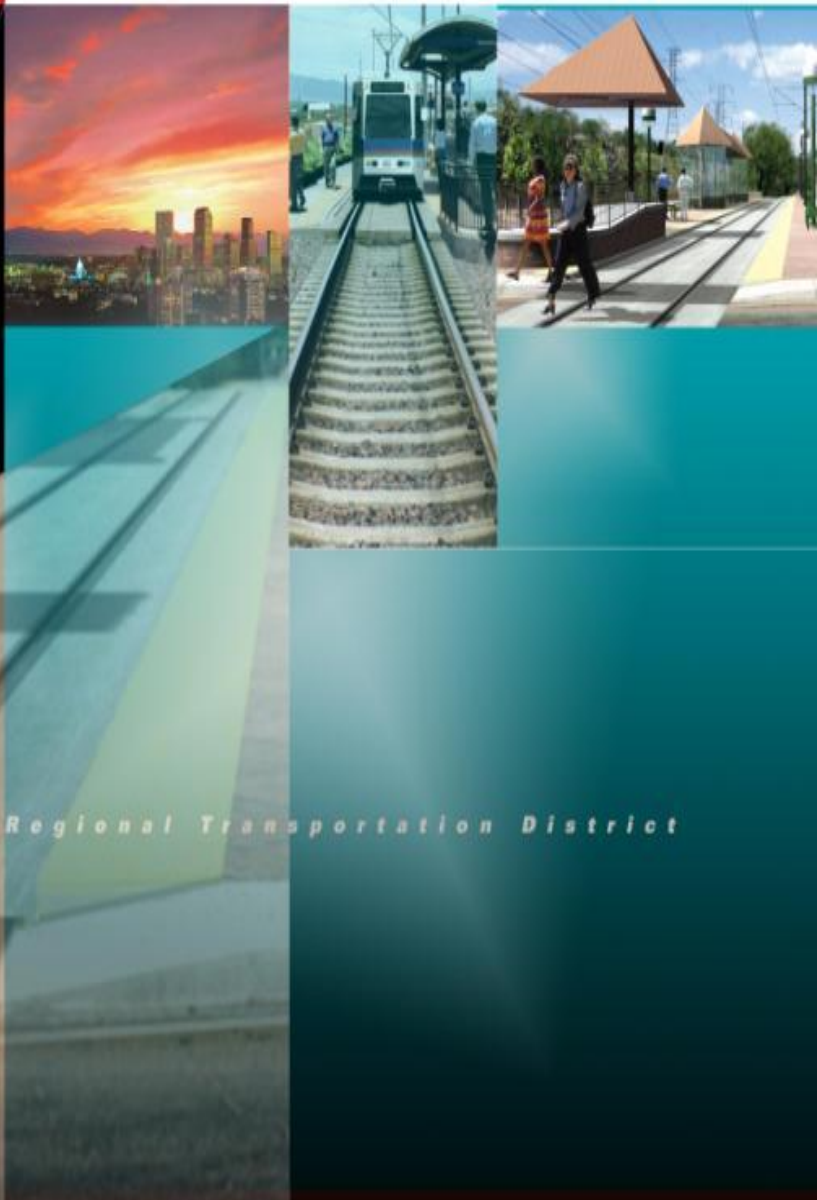




# West Corridor LRT Project Progress Report



*Regional Transportation District*



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## LIST OF ACRONYMS

CCD	City and County of Denver
CDOT	Colorado Department of Transportation
CEI	Cost Effectiveness Threshold
CMGC	Construction Manager/General Contractor
CNPA	Concurrent Non Project Activity
COL	City of Lakewood
CPUC	Colorado Public Utilities Commission
CPV	Central Platte Valley
CSP	Construction Safety Program
DEA	David Evans and Associates
DBE/SBE	Disadvantaged Business Enterprise/Small Business Enterprise
DTCG	Denver Transit Construction Group
EA	Environmental Assessment
EOL	End of Line
FD	Final Design
FDC	Final Design Consultant
FFGA	Full-Funding Grant Agreement
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FRSC	Front Range Systems Consultant
FTA	Federal Transit Administration
GMP	Guaranteed Maximum Price
GSA	Governmental Services Administration
IGA	Inter-governmental Agreement
LONP	Letter of No Prejudice
LRT	Light Rail Transit
LRV	Light Rail Vehicle
NFPA	National Fire Prevention Association
NTP	Notice to Proceed
OCS	Overhead Catenary System
PE	Preliminary Engineering
PI	Public Involvement
PIC	Public Information Consultant
PSC	Program Support Consultant
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
PPI	Public-Private Initiative
QA/QC	Quality Assurance / Quality Control
QMC	Quality Management Consultant
QMO	Quality Management Oversight
QMP	Quality Management Plan
QPRM	Quarterly Progress Review Meeting



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### LIST OF ACRONYMS (Cont.)

RA	Risk Assessment
RAMP	Real Estate Acquisition and Management Plan
RFQ	Request for Qualifications
RFP	Request for Proposals
RFMP	Rail Fleet Management Plan
ROD	Record of Decision
ROW	Right of Way
RTD	Regional Transportation District
SCC	Standard Cost Categories
SCP	Safety Certification Program
SSOA	State Safety Oversight Agency
SSMP	System Safety Management Plan
SSPP	System Safety Program Plan
SSPS	System Safety Program Standards
SSWG	System Safety Working Group
TEM	Technical Evaluation Memorandum
TOD	Transit Orientated Development
T-REX	Transportation Expansion Project
UDFCD	Urban Drainage Flood Control District
VE	Value Engineering
WBS	Work Breakdown Structure



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## **Project Summary - Baseline**

The West Corridor project is a component of the FasTracks program and will serve west Denver Metro, the City of Lakewood central area, mid-Jefferson County, and the City of Golden east area by providing light rail service to and from Downtown Denver. The FasTracks program is being managed through a team approach consisting of RTD staff, supported by a Program Management Consultant with expertise in program management, budget and schedule controls; a Quality Management Consultant for documentation and quality oversight; a Public Involvement /Information Consultant; and other expertise required to form an integrated team to manage, oversee design and deliver the FasTracks program on schedule and within budget. Individual corridor consultants have been retained for environmental, preliminary engineering, final civil design and systems design.

The West Corridor project consists of 12.1 miles of Light Rail Transit (LRT) extending from the existing light rail line at Auraria West Station, west across the South Platte River, then west traversing the existing Associated Railroad right-of-way between Decatur Street in Denver and Quail Street in Lakewood as well as through the Lakewood Industrial Park, and crossing West 6<sup>th</sup> Avenue into the Denver Federal Center. West of the Denver Federal Center, the alignment, which was to run on the north side of West 6<sup>th</sup> Avenue along US 6 is being shifted to the south side of US 6 up to Indiana street where it will cross back over to the north side and parallel the highway at-grade within the CDOT right-of-way to the Jefferson County Government Center. The shift in alignment is being cleared in an Environmental Assessment now underway. The LRT Alternative includes the development of twelve stations: Auraria West, Federal/Decatur, Knox, Perry, Sheridan, Lamar, Wadsworth, Garrison, Oak, Denver Federal Center, Red Rocks and Jefferson County Government Center. Parking will be provided at six of the 12 stations, providing approximately 5,614 parking spaces.

The LRT line will be double tracked except between the Denver Federal Center and Jefferson County Government Center (see proposed baseline modifications below) and grade separated when required, but generally would be at-grade. Grade separations will include existing grade separated crossings at I-25, Federal Boulevard, and Colfax Ave; and new grade separations at Sheridan Boulevard, Wadsworth Boulevard, Kipling Street, US 6 from Lakewood Industrial Park to Denver Federal Center, Union at US 6, Indiana Street at US 6, I-70, and US 6/US 40.

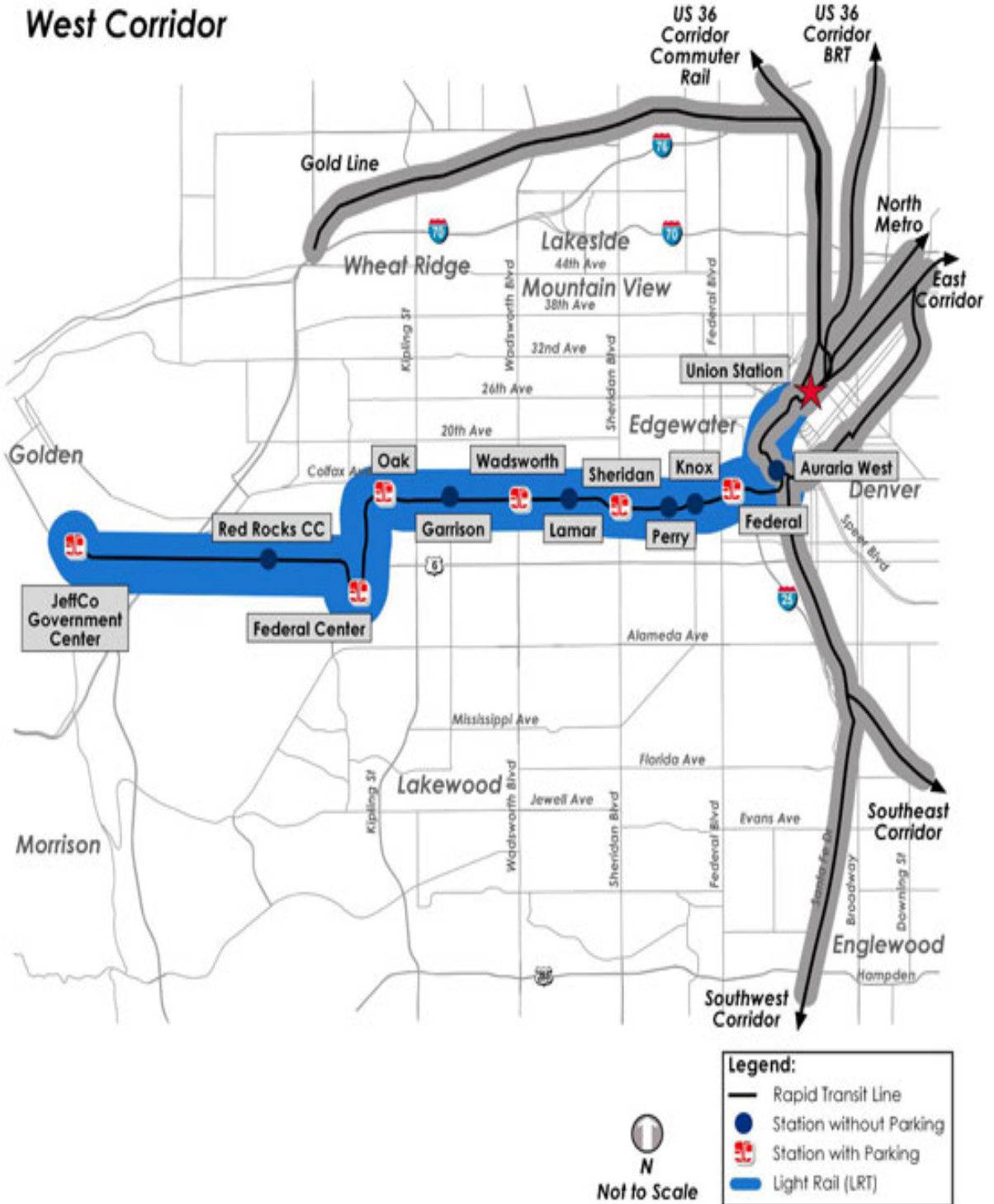
### **Baseline Modifications**

A formal Value Engineering was concluded in August 2007 with approval of the remaining single tracking VE proposal and was addressed in an updated second 65% design submittal received in July 2007. The baseline modifications were addressed in the Environmental Assessment and RTD; a public hearing was held on September 19, 2007 and a FONSI was approved by FTA and completed the week of November 19, 2007.

The RTD Board adopted the new budget of \$635 million in YOE dollars for total project cost excluding finance costs. This includes opening day vehicles and Concurrent Non Project Activities.

Any further baseline modifications are dependent on negotiation of a Guaranteed Maximum Price with the CM/GC contractor.

**Project Map**



**Alignment Segments**



***City/County of Denver Segment***

**Auraria - Sheridan:** Starting at a relocated Auraria West Station on the Central Platte Valley Corridor, the line will head southward under the Colfax viaduct and cross at-grade with Old Colfax Avenue. The alignment becomes elevated and turns westward while flying over the Consolidated Main Line freight tracks. The line will then continue westward, crossing under the existing Interstate 25 structure and transitioning to the former Associated Railroad and Denver Interurban Transit line through Denver across the South Platte River through Rude and Paco Sanchez Park to Sheridan Boulevard which is the boundary between Denver and the City of Lakewood. Stations proposed for this segment include: Auraria West, Federal/Decatur, Knox, Perry and Sheridan.

***City of Lakewood Segment***

**Sheridan - Indiana Street** Leaving Sheridan, the line continues along the Associated Railroad right-of-way up to Quail Street and continues through the Lakewood Industrial Park, and crossing West 6<sup>th</sup> Avenue into the Denver Federal Center. From the Denver Federal Center, a single track alignment is being implemented as part of Value Engineering with the light rail line on the south side of US 6 under Union in a reduced tunnel configuration into the south side frontage road within CDOT right-of way, continuing westward up to Indiana, then cross back over to the north side of US 6. Stations proposed for this segment include: Lamar Street, Wadsworth Boulevard, Garrison Street, Oak Street, Denver Federal Center and Red Rocks.

***Jefferson County Government Center (Jefferson County/Golden Segment)***

**Indiana Street - End of Line:** An adopted single track alignment follows the right-of-way to an end of line station and parking facility at the Jefferson County Government Center. Stations proposed for this segment include the Jefferson County Government Center end-of-line station, which has been shifted from the west side of the Government Center building to the front (east) side of the campus.

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## **Key Project Challenges**

- **Cost Containment on West Corridor Project:** An updated 90% design submission and cost estimate was received in March 2008 that is under review and discussion with the CM/GC contractor. Cost containment continues to be a challenge on the project as RTD and the design team negotiate the GMP with the CM/GC.
- **Stakeholder Participation:** Stakeholder expectations need to be cognizant of the numerous budget challenges facing RTD on the FasTracks program and the need to move forward with Value Engineering and Cost Containment measures. Enhancements and any change that affect the project schedule and budget need to be minimized. All IGA's have RTD Board approval and are executed.
- **Final Design Project Management** – Project Management tasks continue, including Project Progress meetings with DEA, Agency Stakeholder and Elected Officials meetings, Quality Management, coordination with DTCG and FRSC, and administrative activities in support of the contract. Key activities during the past month included design workshops with and responding to 90% review comments by stakeholders, interdisciplinary design review meetings between the entire DEA team and FRSC as a part of the internal QMP, and answering DTCG questions about the 90% design preparatory to their submittal of the GMP.
- **Utilities** – RTD continues to coordinate with DEA and the private utilities to initiate early utility relocation, beginning with Xcel and Qwest facilities along 13<sup>th</sup> Avenue. Other continuing design discussions involved placement of Xcel transformers at stations and additional lighting requirements for emergency egress points and under bridges.
- **Drainage** – The 404 Permit application remained in process, although initial COE comments were being reviewed by FERG and the designers. The CLOMR application was submitted this month.
- **Civil, Track Design, and Roadway** – Coordination continued with the systems consultant regarding TPSS locations and other systems elements. Current designs were reviewed in conjunction with responding to stakeholder review comments of the 90% submittal.
- **Track Alignment** – Track alignment relative to walls and grading was reviewed for consideration of cost and ROW impacts.
- **Structures** – Bridges and Tunnels: Clarifications were provided for the Kipling Street Bridge drawings and specifications in preparation for early construction anticipated to begin next month. Designers responded to questions from DTCG regarding the 90% submittal for other structures. Retaining Walls: Work was done to finalize wall types and locations for design, including coordination of supporting geotechnical data and reviews with DTCG. Coordination continued on aesthetic treatments for walls and bridges.
- **Noise Walls:** Development of structural and aesthetic design details continued for the noise walls along the 13<sup>th</sup> Ave corridor. There has been very little response from property owners electing to "opt-out" of this noise mitigation measure along their property frontages.
- **Stations** – Continued development of station site and amenity details as well as coordination of final placement for systems equipment at the stations and civil interface.

### **Key Project Challenges (Cont.)**

- Parking Structures – The design for a two-story parking garage at Jeffco Government Center is being advanced for the 100% submittal.
- Park-n-Rides – With the exception of the Denver Federal Center, park-n-ride locations have been advancing to the 100%. With the selection of a developer team to engage in a PPP for the site, DEA will begin coordinating the development of this location.
- System Safety and Security – Security and Safety Group meetings continue. IEI has been conducting safety certification of design elements from the Certifiable Items List (CIL) and finalizing the PHA and station egress analyses. RTD received and is reviewing a final design variance submittal from DEA.
- Surveying – Upon review of ROW Plans for entire corridor RTD has decided to convert many parcels to permanent easements revised format for some legal descriptions. During month, surveyors coordinated with civil designers on final impacts to configuration of ROW parcels to minimize acquisition.
- Geotechnical – Details and specifications for earthwork treatment were being developed to handle artificial fill along the corridor from Wadsworth Blvd to Auraria. Final geotechnical reports supporting structure and pavement designs continued to be finalized and delivered.
- 

Key remaining milestone dates for completing final design during 2008 will be:

- Through an LONP approved by FTA for early construction and procurement, the 100% design for the Kipling St LRT Bridge and bike bridges was accelerated in February for contracting with DTTCG and CDOT permit. It is expected that the DTTCG will receive NTP and begin construction in April.
- The checked 90% design package of February 4, 2008, was used by DTTCG to verify quantities and pricing initiated with the interim design submittal of December 2007; a GMP was submitted to RTD on March 28.
- Based on discussions with RTD and FRSC, May 23 was set for submitting the 100% design package. Any significant design changes made subsequent to the 90% submittal (as well as the GMP) would be reflected by clouding to assist in adjustments to the final contract price. A conformed, "Issued for Construction" package is to be delivered on June 27.

## Summary of Previous Month's Activities

This report covers the work in the combined months of February-March 2008.

### General Progress

- Clarification of 90% design documents on March 3-4 with Stakeholder agencies (CDOT, COL and CCD)
- Reviewed ROW impacts with CDOT on March 10.
- Conducted internal interdisciplinary design (IDR) workshop on March 11-13, including participation by systems design consultant, as part of team quality management program.
- Attended Elected Officials Briefing on March 14.
- Attended Stakeholder focus group meeting at CCD on March 18.
- Attended FTA/PMOC quarterly progress review meeting on March 18.
- Hosted monthly Safety and Security Working Group meeting on March 19.
- Attended Golden City Council meeting on March 20 RTD's application for revised ODP at Jeffco EOL station facilities.
- Conducted review of fence type and location disposition with DEA on March 21.
- Reviewed status of DFC issues with DEA on March 27.

### For The Month of April 2008:

- Meeting on April 4 with DEA and DTCG to discuss potential plan for design adjustments pursuant to GMP estimate.
- Workshop with DEA and DTCG on April 8-10 to review the GMP estimate in conjunction with further cost containment measures.



**For The Month of April 2008 continued:**

- Meeting on April 11 with RTD, COL, GSA and developers regarding disposition of property and project design and construction schedule.
- Next quarterly Fire Life Safety Committee meeting on April 16.
- Stakeholder Focus Group coordination meeting on April 22 at CDOT.
- Internal Senior QA Review of design documents week of April 28 as part of team quality management program.



## Systems Progress

The systems elements are a major component of the project and include the light rail vehicles, train signaling system, communications systems, traction electrification system, system wide electrical, fare collection equipment and trackwork. The careful integration of these elements into the project is essential to the safe and efficient operation of the LRT system.

### System Progress this Period:

- QC reviews for all aspects of the 90% systems cost estimates were completed.
- The final Traction Power Simulation report was completed and submitted to the RTD.
- A decision was reached regarding the type of Programmable Logic Controllers which will be used in the West Corridor Traction Power Substations.
- The OCS layout drawings were updated to reflect recent changes in the alignment.
- An OCS construction phasing plan for the Auraria Station area was developed.
- Draft Threat and Vulnerability Assessment, and Preliminary Hazard Analysis tables were presented to RTD.
- Work continued on the determination of the actual as-built configuration of OCS feeders in the complex area near TPSS 14.
- OCS layout drawings were modified to accommodate the design of civil structures on the alignment.
- Progress continued in all areas toward the 100% design submittal.
- The new locations for Ticket Vending Machines (TVMs) and Stand Alone Validators (SAVs) were coordinated with the platform conduit system designs.
- Several signals and signal houses were relocated to avoid conflicts with other elements of the design.

### System Activities Planned for Next Month:

- The full 90% systems cost submittal will be distributed to internal RTD stakeholders for review.
- Design details of the traction power substation control systems will be finalized.

Transit Oriented Development (TOD)

- RTD selected the Aardex team and have entered negotiations for the Federal Center Parking Structure.

TOD Activities Planned for Next Month

- Board Approval of the Aardex Team for the design and construction of the Federal Center Parking Structure.

*Construction Progress Photo—Ongoing Private Utility Relocation*



## Construction Management/General Contractor (CM/GC) General Progress

*The CM/GC has received the following task orders to date.*

- Task Order No. 1 – Civil/Systems Consultation*
- Task Order No. 2 – Full Time Project Manager*
- Task Order No. 3 – Value Engineering Support*
- Task Order No. 4 – Conduct of Construction Plan*
- Task Order No. 5 – Work Schedule and Work Plan*
- Task Order No. 6 – Recycling Report*
- Task Order No. 7 – QA Reviews at 65% and 90%*
- Task Order No. 8 – DBE Plan*
- Task Order No. 9 – Long Lead Item / Early Procurement Review*
- Task Order No. 10 – Contracting Plan*
- Task Order No. 11 – CPM Schedule*
- Task Order No. 12 – Public Meetings*
- Task Order No. 13 – Construction Cost Estimates*
- Task Order No. 14 – Safety Plan*
- Task Order No. 15 – QA Plan*
- Task Order No. 16 – HazMat Plan*
- Task Order No. 17 – Workforce Training/Mentoring*
- Task Order No. 18 – Stormwater Management*
- Task Order No. 20 – Risk Management*
- Task Order No. 21 – Public Involvement*
- Task Order No. 22 – GMP Preparation/Negotiation*

The CM/GC achieved the following progress through the period of **February and March, 2008**

Task 1- DTCG developed and submitted change order requests for early procurement and early work that could be completed in advance of the full project Notice to Proceed. In response to these requests, seven change orders were issued in March, including the purchase of cable for the systems-related work and the purchase of steel for five bridge superstructures.

In addition to the early procurement change orders, the primary change order for early construction was for early bridge work, including the Kipling Street Bridge, East and West Dry Gulch LRT Bridges and the Wolff, Tennyson and Hazel Court Pedestrian Bridges. Additional change orders increased the preconstruction-phase budget for Public Information, assistance to RTD's staff in coordinating private utility work, permitting investigation and assistance and in establishing a corridor-wide baseline survey.

DTCG continues to revise the baseline schedule in collaboration with Balfour Beatty and with RTD's utility and right of way staff. The "Early Start, Total Float" schedule and narrative that were submitted to RTD on December 7, 2007, created the baseline document for review and discussion relative to utility relocations, property acquisition and other third-party activities that may impact planned start dates or limit our unrestricted access to work areas.

Construction Management /General Contractor (CM/GC) Progress (Cont.)

The integration and continuing involvement of Balfour-Beatty (BBRI), our Systems sub-contractor into the systems design effort has continued with 80% of this change order having been completed as of March. BBRI and its major subcontractors and suppliers have actively participated in many meetings and telephone conferences with FRSC, DTCG and RTD's systems design team.

- Task 2 - The CM/GC Project Manager's primary effort during the February and March period was focused on the 90% estimate that was submitted on March 28<sup>th</sup>. In addition to meeting with potential subcontractors and suppliers as part of the 90% estimate, the Project Manager coordinated with the DTCG estimating team to provide information that has been gathered from meetings with RTD and its engineers during the design development. In addition, the Project Manager continued to participate in regular meetings with stakeholders, utility owners, engineers and RTD staff to support ongoing project progress. Meetings continue to be held with RTD's Small Business Opportunity Office regarding potential work opportunities and mentor support for DBE contractors and suppliers and discussions of work opportunities. Other meetings have addressed RTD's property acquisition, Terms and Conditions of the Contract, Project Specifications, the Rolling Owner Controlled Insurance Program and the Subcontractor Performance Self-Insured Program.
- Task 3 - This task has been closed. The CM/GC continues to work closely with RTD and its engineers to seek and refine other potential cost reduction concepts.
- Task 4 - DTCG submitted its draft Conduction of Construction Plan in January. Meetings have now been held with Lakewood, Jefferson County, the City and County of Denver and the West Corridor Elected Officials to present the Plan and respond to questions and comments.
- Task 5 – A draft work sequencing plan and schedule for major activities has been prepared by the CM/GC for RTD comments. A final submittal to close out this task will be completed in conjunction with the GMP negotiations.
- Task 6 – The work that was added to this task through Change Order #1 for track take-up and track bed stabilization has been completed. The recycling report will be completed in the spring of 2008.
- Task 7 - The QA review and comments for the 90% estimate were submitted and the data base for these questions and comments has been substantially closed out. Multiple-day meetings were conducted relative to the Division 1 specifications and the Contract Terms and Conditions. Although the 90% documents reflect many of the issues raised in those meetings, these discussions continue as part of the GMP negotiations.
- Task 8 – RTD's initial written comments on the draft DBE Plan have been incorporated into the revised Draft Plan that was submitted in November. Interviews with DBE subcontractors and the assembly of subcontractor information continue as early construction items have been analyzed for DBE opportunities. DTCG is finalizing this plan concurrent with the GMP negotiations.

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Construction Management /General Contractor (CM/GC) Progress (Cont.)

- Task 9 - This task has been completed and closed. Coordination with RTD and its design team continues with response to specific requests. DTCG initially solicited prices for rail, ties and structural steel as part of the early procurement and has worked with RTD in the preparation of its contracts for rail and ties purchase. DTCG has now received change orders for the early purchase of cable materials and steel for bridges. Early purchase of each of these materials will reduce RTD's risk from inflation during the period of the contract.
- Task 10 - Work continues on refinement of the Contracting Plan that was originally included in DTCG's proposal. As part of the GMP negotiations, the quantities and types of work relative to each potential subcontracting area will be refined and incorporated into the Plan. The subcontractor and supplier solicitation process that was utilized for the 90% estimate was much more comprehensive than utilized for the prior estimates.
- Task 11 - An important objective required by this task was DTCG's submittal of the "Early Start, Total Float" schedule and narrative on December 7, 2007. Many meetings have been held to discuss potential third party impacts to the schedule, particularly in the areas of property acquisition, utility relocations and potential design changes. Work on this task continues on a daily basis with the goal of submitting the schedule to reflect the work scope determined through the GMP negotiations.
- Task 12 - The CM/GC continues to participate in public meetings scheduled by RTD, stakeholders and the design team. The Stakeholder Meeting and the monthly Elected Officials Meeting are examples of events in which DTCG regularly participates
- Task 13 - With completion of the 90% submittal, four cost estimates have now been completed. Submittal of the 90% estimate completed the requirements of this task.
- Task 14 - The revised Safety Plan was submitted by DTCG in December and has now been accepted by RTD.
- Task 15 - The Quality Management Plan that was submitted in February has now been reviewed and approved by RTD with minor comments. Minor refinement of specific attachments will continue
- Task 16 – Development of the HazMat Notification Plan continues and it will be submitted to RTD prior to the performance of any work that has a likelihood of exposing any contaminated or hazardous materials.
- Task 17 – It is planned that a draft text for the Mentoring Plan will be completed and submitted in the spring of 2008.



Construction Management /General Contractor (CM/GC) Progress (Cont.)

Task 18 – Preliminary work on a West Corridor Stormwater Management Plan has commenced in coordination with a local consultant. A site-specific stormwater plan was submitted and approved for the Kipling Street Bridge work and DTCG is currently preparing a corridor-wide plan. Meetings have been held with the Colorado Department of Public Health, CDOT, local jurisdictions, major stakeholders and RTD to discuss development and implementation of a plan that would address work by any contractor working in the West Corridor.

Task 20 – Work on the task order for development of a Risk Management Plan commenced in the summer of 2007 and is planned to be completed concurrent with the GMP negotiations.

Task 21 - In addition to taking over responsibility for the coordination of the Elected Officials meetings, DTCG team member Xcelente has become much more actively involved in the day-to-day preconstruction activities. Kathy Berumen, the West Corridor PI Manager is co-located in the FasTracks office and works side by side with RTD's PI team.

Task 22 – GMP Preparation/Negotiation is ongoing with the intent of achieving an agreement in mid-May that will allow RTD to proceed with the submittal of its Full Funding Agreement application. Changes to the plans and specifications, during development of the 100% design that affect cost, scope or time, will be considered a change order to the GMP.

Remaining Task Orders – Task order number 19 is the only one remaining to be released. All others have been released and work has begun on most of them with the goal of having all required plans completed in advance of the deadlines established in the Contract.

Activities planned for April.

- The primary emphasis during the month of April is the negotiation of a mutually acceptable GMP. Meetings will be held to discuss project scope, quantity takeoffs and unit cost analysis relative to RTD's West Corridor budget.
- DTCG will continue to work together with RTD and Balfour-Beatty Rail, Inc. (BBRI), in the review of their 90% estimate to develop an acceptable scope for the GMP.
- DTCG will develop a white paper to present an alternative concept for the I-70 tunnel. Because of the significant difference between the bids previously received by DTCG for this work and the engineer's estimate, an alternative to the tunnel is necessary. DEA has prepared a white paper relative to this option and DTCG is working with its bridge contractors and the Engineer to explore the cost, constructability and benefits of this and other options.
- Regular meetings with RTD, the dry utility owners and contractors will be held to coordinate the ongoing relocation of the lines and to attempt to avoid conflict with the planned improvements for the West Corridor. As part of the early work Change Order, DTCG has taken a more active role in the coordination of the dry utility relocations.



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Construction Management /General Contractor (CM/GC) Progress (Cont.)

- DTCG is preparing an assessment of early utility work that can be performed concurrent with the 'dry' utility relocation to minimize disruption to local traffic and the need to repeatedly patch areas disturbed by multiple utility relocations.
- DTCG will continue to work with DBE team member Meza Construction in the preparation and refinement of its proposal to construct the pedestrian bridges over Lakewood Gulch as early work items. Early construction of these structures will reduce pedestrian impact during future construction along Lakewood and Dry Gulch.
- Review of opportunities for Small and Disadvantaged Business Enterprises will continue as part of the GMP scope and contract negotiations.
- DTCG will continue to participate in Stakeholder Meetings, Elected Officials Meetings, local neighborhood meetings and other public meetings where our involvement is requested or helpful.
- DTCG's Public Information team will continue to manage the ongoing preconstruction activities, monthly updates and information related to the early work activities.
- Preparation of shop drawings will continue for steel for bridge structures.
- Permit applications required for early work will be finalized and the need for other potential permits required for construction will be documented.
- A subcontract will be issued for performance of a baseline survey and installation of survey monuments throughout the Corridor.
- Coordination with RTD's ROCIP team will continue as specific ROCIP policies are released and DTCG and its subcontractors begin the enrollment process.

**Project Cost Summary**

The current project federal baseline budget is \$606.5 million in Year of Expenditure (YOE) Dollars with 32 opening day LRVs as shown in the table below. The numbers below are shown as both base year 2007 dollars and YOE dollars, and was the basis of the New Starts re-submittal in November. This cost excludes concurrent non project activities (CNPAs). With FTA's policy decision on CNPAs., the federal project was adjusted for the New Starts re-submittal. The project budget remains unchanged at \$635 million (YOE) that was approved by the RTD Board. Finance costs have been developed separately for the federal project, 2030 LRV fleet requirements, CNPAs and are reflected in RTD's financial plan.

**WEST CORRIDOR - CURRENT WORKING ESTIMATE**

SCC	Standard Cost Category Definition	Amount 2007 Dollars
		Year of Expenditure (x000)
<b>10</b>	<b>Guideway &amp; Track Elements</b>	<b>162,521</b>
10.01	Guideway: At-grade exclusive right-of-way	
10.02	Guideway: At-grade semi-exclusive (allows cross traffic)	11,962
10.03	Guideway: At-grade in mixed traffic	
10.04	Guideway: Aerial structure	42,617
10.05	Guideway: Built-up fill	2,796
10.06	Guideway: Underground cut & cover	4,712
10.07	Guideway: Underground tunnel	8,264
10.08	Guideway: Retained cut or fill	45,423
10.09	Track: Direct fixation	2,471
10.10	Track: Embedded	382
10.11	Track: Ballasted	38,629
10.12	Track: Special ( switches, turnouts )	5,145
10.13	Track: Vibration and noise dampening	120
VE	Less VE Recommendations	
<b>20</b>	<b>Stations, Stops, Terminals, Intermodal</b>	<b>37,762</b>
20.01	At-grade station, stop, shelter, mall, terminal, platform	22,506
20.02	Aerial station, stop, shelter, mall, terminal, platform	1,528
20.03	Underground station, stop, shelter, mall, terminal, platform	
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	
20.05	Joint development	
20.06	Automobile parking multi-story structure @ Jeffco	8,610
20.07	Elevators, escalators	5,118
VE	Less VE Recommendations	
<b>30</b>	<b>Support Facilities: Yards, Shops, Admin. Bldgs</b>	<b>2,000</b>
30.01	Administration Building: Office, sales, storage, revenue counting	
30.02	Light Maintenance Facility	2,000
30.03	Heavy Maintenance Facility	
30.04	Storage or Maintenance of Way Building	
30.05	Yard and Yard Track	
VE	Less VE Recommendations	

WEST CORRIDOR - CURRENT WORKING ESTIMATE

SCC	Standard Cost Category Definition	Amount Year of
<b>40</b>	<b>Sitework &amp; Special Conditions</b>	<b>84,035</b>
40.01	Demolition, Clearing, Earthwork	7,307
40.02	Site Utilities, Utility Relocation	11,294
40.03	Haz mat'l, contam'd soil removal/mitigation, ground water treatments	4,281
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	1,224
40.05	Site structures including retaining walls, sound walls	5,342
40.06	Pedestrian/bike access and accomodation, landscaping	4,342
40.07	Automobile, bus, van, accessways including roads, parking lots	16,901
40.08	Temporary facilities and other indirect costs during construction	33,344
VE	Less VE Recommendations	
<b>50</b>	<b>Systems</b>	<b>77,968</b>
50.01	Train control and signals	31,834
50.02	Traffic signals and crossing protection	0
50.03	Traction power supply: substations	16,133
50.04	Traction power distribution: catenary and third rail	14,883
50.05	Communications	6,544
50.06	Fare collection system and equipment	3,264
50.07	Central Control	5,310
50.08	Testing & Compliance	
VE	Less VE Recommendations	
	<b>TOTAL COST</b>	<b>364,286</b>
<b>60</b>	<b>ROW, LAND, EXISTING IMPROVMENTS</b>	<b>49,747</b>
60.01	Purchase or lease of real estate	42,452
60.02	Relocatio of existing household and businesses	7,295
<b>70</b>	<b>VEHICLES (NUMBER)</b>	<b>76,933</b>
70.01	Light Rail	76,933
70.02	Heavy Rail	
70.03	Commuter Rail	
70.04	Bus	
70.05	Other	
70.06	Non-revenue vehicles	
70.07	Spare parts	
<b>80</b>	<b>PROFESSIONAL SERVICES</b>	<b>79,076</b>
80.01	Preliminary Engineering	11,246
80.02	Final Design	31,588
80.03	Project Management for Design and construction	4,970
80.04	Construction Administration and Management	19,877
80.05	Insurance	7,098
80.06	Legal; Permits, Review Fees by other agencies, cities, etc	
80.07	Surveys, Testing, Investigation, Inspection	2,727
80.08	Startup	1,571
	<b>SUBTOTAL (10 - 80)</b>	<b>570,042</b>
<b>90</b>	<b>UNALLOCATED CONTINGENCY</b>	<b>36,467</b>
	<b>SUBTOTAL (10 -90)</b>	<b>606,509</b>
<b>100</b>	<b>FINANCE CHARGES</b>	<b>0</b>
	<b>Total Project Cost</b>	<b>606,509</b>



**Project Cost Summary (cont.)**

Estimate at Completion (EAC) Variance

The Current EAC is equal to the Baseline Budget of **\$606,509,000**

Contingency Status

The project budget includes an allocated design contingency and unallocated contingency:

- The unallocated contingency is primarily assigned to current or future contracts to address changes in scope and unknowns during construction.

Contract Awards: The Table below covers the period through February 28, 2008.

Major Contract #	Contractor	Scope	Approved Amount	Award Date
12FR201	Siemens Transportations Systems	Light Rail Vehicles	\$76,815,235	12/28/04
13FR019	Booz, Allen & Hamilton	Vehicle Inspection	\$643,434	11/25/03
15DH001	Carter::Burgess	Program Management	\$2,906,403	7/5/05
15DH006	Front Range Sys.Consultant	System Consultant	\$7,698,667	10/21/05
15DH007	David Evans and Associates	Final Design	\$20,745,178	11/9/05
15DO007	LT Environmental Inc.	Environmental Service	\$67,704	9/13/05
15DO028	Kaplan Kirsh Rocksell, LLP	Legal Services	\$100,000	8/30/05
15DO031	AECOM Consultants Inc.	Traffic Modeling	\$85,031	1/9/06
15DO041	Bonnie Roerig & Associates	Property Appraisal	\$66,600	7/1/06
15DO043	Hegarty & Green Inc.	Property Appraisal	\$66,600	7/1/06
15DO044	Civil Technology	Property Appraisal	\$66,600	7/1/06
15DO045	Rothweiler Group Inc	Property Appraisal	\$66,600	7/1/06
15DO046	Joel C. Griffen	Property Appraisal	\$66,600	7/1/06
15DO047	Associated Value Consultants	Property Appraisal	\$66,600	7/1/06
16DR003	Mass Electric Construction Co.	Elati Yard Improvements	\$201,154	6/15/06
16FFW01	Denver Transit Const. Group	Pre-Construction Service	\$1,684,769	6/30/06
17DH001	Briggs Field Services, Inc.	Property Acquisition	\$400,000	9/7/07
17DH001	H.C. Peck & Associates	Property Acquisition	\$800,000	9/10/07
17DH014	Universal Field Services, Inc.	Property Acquisition	\$800,000	9/14/07
17FO034A	Duncan, Ostrander & Dingess, P.C.	Legal Services	\$900,000	1/15/08
17FO034B	Icenogle, Norton, Smith, Blieszner, & Gilida	Legal Services	\$700,000	1/15/08
17FO034C	May & Associates, P.C.	Legal Services	\$900,000	1/24/07
23FR015	GE Transportation	Automatic Train Stops	\$775,608	7/7/03
27FH024	Progressive Rail Services Corp.	Running Rail	\$4,357,000	1/8/08
27FH025	Rocla Concrete Ties Inc.	Concrete Ties	\$3,170,000	1/8/08
35FR015	Queen City Railroad Construction	Elati Yard Improvements	\$1,699,509	4/7/06
47DH008	GSA - Federal Center Station	ROW Acquisition	\$5,363,836	9/1/07
56DU001	Denver City & County	FasTracks Liason	\$123,693	10/31/05
572031CR	Urban Engineers Inc.	Risk Assessment	\$49,547	3/15/05
57DH016	Xcel Energy	Utility Relocation	\$7,574	10/01/07
672047CR	Burlington Northern and Santa Fe	Flagging	\$3,000	4/18/05
672122SR	A.J. Ventures, Inc.	Potholing	\$2,400	9/18/06
PO5083	CDOT	Utilities - Kevin Kusty	\$29,200	6/1/07
PO9901	Comcast WO #64	Utility Relocation	\$11,243	12/15/07
PR 91345	Qwest Communications	Utility Relocation	\$17,635	10/100/7
<b>Contracts Total</b>			<b>\$131,457,420</b>	



**Project Cost Summary (cont.)**

Corridor Element	(YOE\$)		Approved Budget (BUD)	Committed to Date	Actual to Date	Estimate at Completion (EAC)	Budget Variance BUD-EAC
	Baseline Budget	Approved Changes					
Thru 2/29/08							
10 Guideway & Track Elements	\$182,521,000	\$0	\$182,521,000	\$7,527,000	\$0	\$182,521,000	\$0
20 Stations, Stops, Terminals	\$37,762,000	\$0	\$37,762,000	\$0	\$0	\$37,762,000	\$0
30 Support Facilities: Yards, Shops, Admin Bldgs	\$2,000,000	\$0	\$2,000,000	\$2,024,318	\$1,900,864	\$2,000,000	\$0
40 Sitework & Special Conditions	\$84,035,000	\$502,358	\$84,537,358	\$568,810	\$301,764	\$84,537,358	\$0
50 Systems	\$77,968,000	\$0	\$77,968,000	\$0	\$0	\$77,968,000	\$0
60 ROW, Land, Existing Improvements	\$49,747,000	\$0	\$49,747,000	\$7,946,276	\$5,818,013	\$49,747,000	\$0
70 Vehicles	\$76,932,000	\$0	\$76,932,000	\$76,938,060	\$53,542,055	\$76,932,000	\$0
80 Professional Services	\$79,077,000	\$8,086,214	\$87,163,214	\$38,912,016	\$27,740,476	\$87,163,214	\$0
90 Unallocated Contingency	\$38,467,000	\$ 8,588,572	\$27,878,428	\$0	\$0	\$27,878,428	\$0
<b>Capital Total</b>	<b>\$606,509,000</b>	<b>\$0</b>	<b>\$606,509,000</b>	<b>\$133,916,480</b>	<b>\$89,302,972</b>	<b>\$606,509,000</b>	<b>\$0</b>

**Notes:**

The above figures do not include finance charges.

The actual cost for EIS/PE is not included in the actual cost to date.

**Project Schedule**

The schedule has been updated to show the Final Design Submittal date of May 23, 2008. The project continues to reflect the acceleration of the project by two years for design and construction and one year for revenue service.

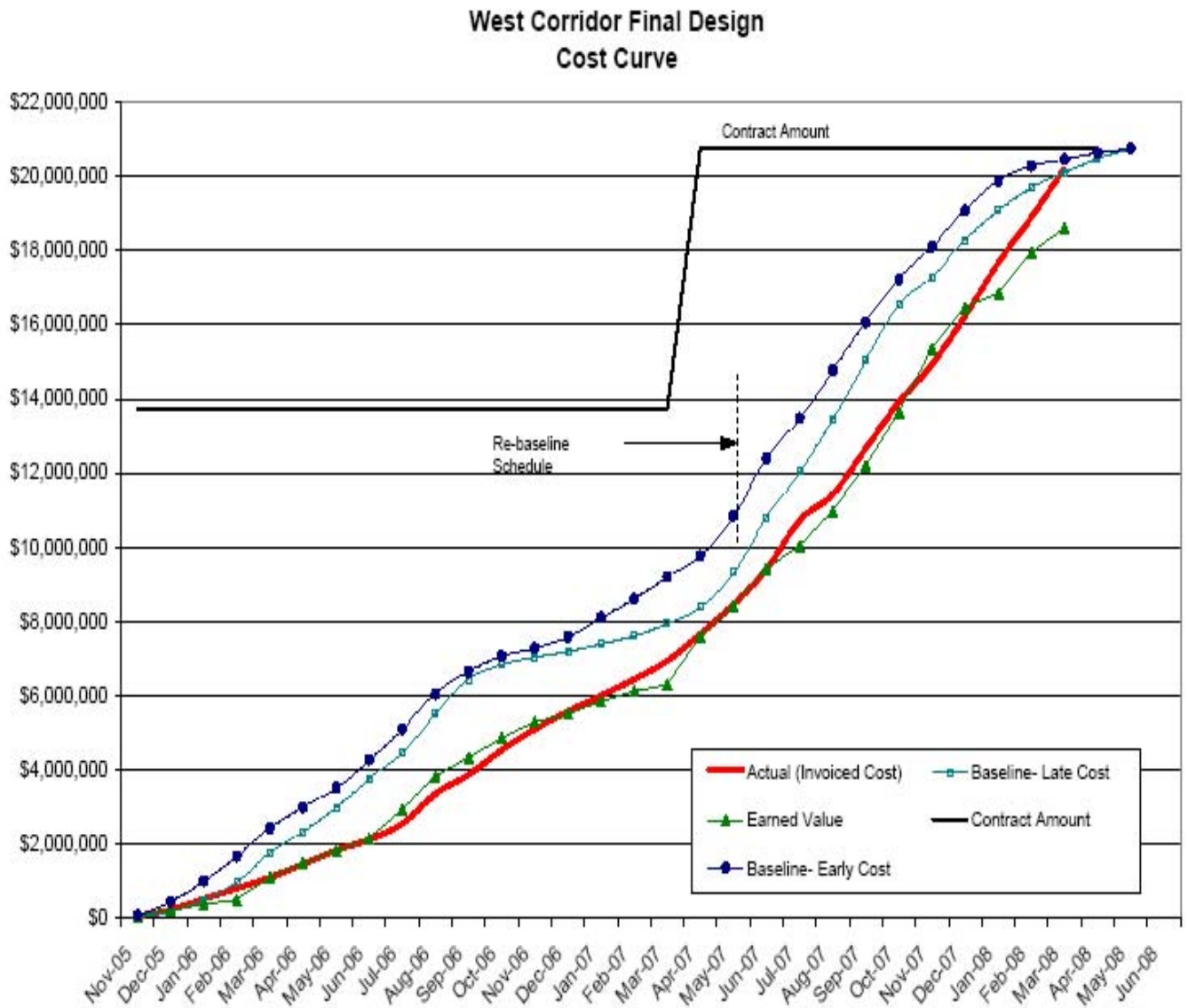
WC - Corridor Milestones				WC - Internal FasTracks Schedule											
Activity Name	Start	Finish	Task ID	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
<b>West Corridor</b>	<b>09-May-09</b>	<b>31-Dec-12</b>	<b>0</b>												
Summary \ Milestones	09-May-...	31-Dec-12	0												
<b>Railroad Milestones</b>	14-Apr-10	14-Apr-10	67												
Burnham Yard Lead Relocation Complete		14-Apr-10	67												
◆ Burnham Yard Lead Relocation Complete															
<b>NTPA</b>	30-Apr-08	30-Apr-08	126												
Section 404 Permit Received		30-Apr-08	126												
◆ Section 404 Permit Received															
<b>Engineering/Design</b>	25-Apr-08	23-May-08	114												
ROW Design Drawings		25-Apr-08*	-161												
◆ ROW Design Drawings															
Final Design Complete		23-May-08*	114												
◆ Final Design Complete															
CLOMR		23-May-08*	114												
◆ CLOMR															
<b>FF&amp;A</b>	01-Mar-0...	03-Dec-08	70												
FF&A Preparation/Application/Executed/	01-Mar-0...	03-Dec-08	70												
◆ FF&A Preparation/Application/Executed/Board Approval/NTP															
FF&A Final Application Submitted		16-Jun-08	5												
◆ FF&A Final Application Submitted															
FF&A Executed		30-Sep-08	5												
◆ FF&A Executed															
<b>ROW / Material / Vehicles</b>	09-May-...	18-Jun-10	501												
Vehicle Procurement / Testing (First 29 \	09-May-...	25-Nov-08	797												
◆ Vehicle Procurement / Testing (First 29 Vehicles)															
ROW Acquisition	01-Aug-0...	18-Jun-10	-161												
◆ ROW Acquisition															
Vehicle Procurement / Testing (Last 3 Vel	01-Oct-08	14-Jun-10	505												
◆ Vehicle Procurement / Testing (Last 3 Vehicles)															
ROW Acquisition/Relocates Complete		18-Jun-10	-161												
◆ ROW Acquisition/Relocates Complete															
<b>Contract</b>	21-Dec-0...	03-Dec-08	70												
CM/GC GMP Negotiations	21-Dec-0...	05-May-08	168												
◆ CM/GC GMP Negotiations															
Early NTP Constr/Procurement		15-Apr-08*	207												
◆ Early NTP Constr/Procurement															
CM/GC GMP Board Approval		28-Oct-08	5												
◆ CM/GC GMP Board Approval															
CM/GC NTP tied to executed FF&A		03-Dec-08	70												
◆ CM/GC NTP tied to executed FF&A															
<b>Utilities</b>	30-Jul-0...	31-Dec-09	120												
Utility Relocations	30-Jul-0...	31-Dec-09	120												
◆ Utility Relocations															
Complete Utility Relocations		31-Dec-09	120												
◆ Complete Utility Relocations															
<b>Construction</b>	03-Dec-08	01-Jun-12	5												
Mobilize for Civil Construction		03-Dec-08	70												
◆ Mobilize for Civil Construction															
Civil & Systems Construction	03-Dec-08	01-Jun-12	5												
◆ Civil & Systems Construction															
Construction Complete		01-Jun-12	5												
◆ Construction Complete															
<b>Startup/Testing</b>	01-Jun-12	31-Dec-12	0												
Testing	01-Jun-12	31-Dec-12	0												
◆ Testing															
Testing Complete / Revenue Service Ready		31-Dec-12*	0												
◆ Testing Complete / Revenue Service Ready															

█ Remaining Level of Effort   
 █ Actual Work   
 █ Actual Level of Effort   
 █ Remaining Work   
 ◆ ◆

Earliest Data Date: 01-Apr-08

**Cost Curve - Civil Design**

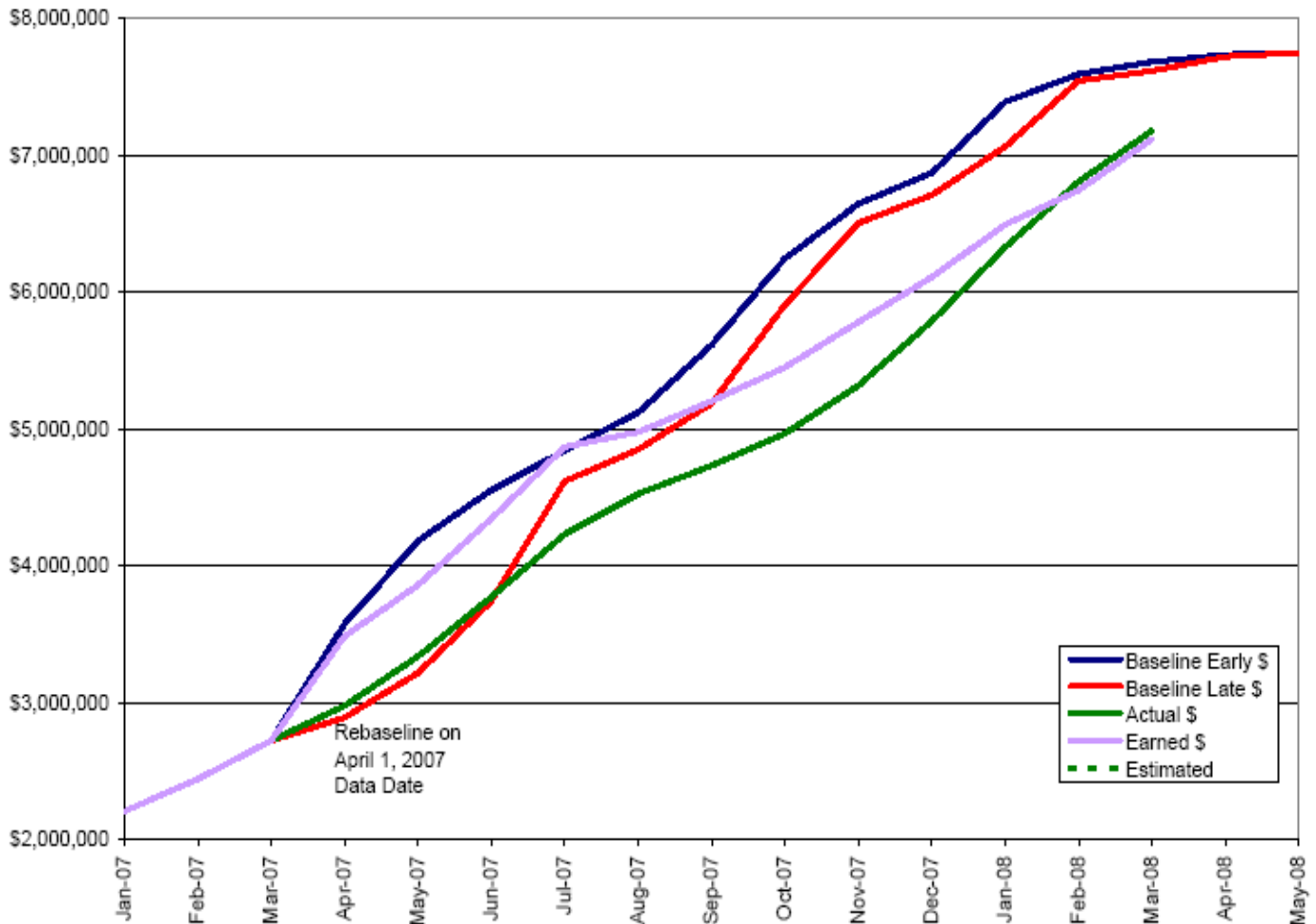
The earned value reported this period incorporates the re-baselining of the project. The consultant's design budget and schedule has been incorporated into the re-baseline. Earned costs are running fairly consistent with actual costs expended.



**Cost Curve - Systems Design**

The earned value reported this period incorporates the re-baselining of the project. The consultant's design budget and schedule has been incorporated into the re-baseline. Earned costs continue to run slightly ahead of actual costs.

West Corridor - System Design  
Overall Progress Curve



## **Overall Schedule Status**

DEA prepared and submitted the 90% Contract Drawings and Technical Specifications on February 4, 2008, for RTD and stakeholder review and for the CM/GC to finalize their GMP. The package included alternate designs for the Wadsworth and Oak Street Stations as bid options (design by others) and Matrix's design of CCD's Lower Lakewood Gulch Improvements for the CM/GC's information.

Under a separate contract with the City and County of Denver, DEA has been developing various potential concepts for an alternative LRT station east of Decatur Street. Preliminary design of a preferred concept and associated cost estimates were provided to CCD and RTD on March 27, 2008. RTD will next confirm whether all essential elements have been included in the conceptual design and the differences in cost between the baseline and alternative station sites.

A brief summary of the major schedule design elements is presented below:

Final Design Project Management – Project Management tasks continue, including Project Progress meetings with RTD, Agency Stakeholder and Elected Officials meetings, Quality Management, coordination with DTCG and FRSC, and administrative activities in support of the contract. Key activities during the past month included design workshops with and responding to 90% review comments by stakeholders, interdisciplinary design review meetings between the entire DEA team and FRSC as a part of the internal QMP, and answering DTCG questions about the 90% design preparatory to their submittal of the GMP.

Utilities – DEA continued to coordinate with RTD and the private utilities to initiate early utility relocation, beginning with Xcel and Qwest facilities along 13<sup>th</sup> Avenue. Other continuing design discussions involved placement of Xcel transformers at stations and additional lighting requirements for emergency egress points and under bridges.

Drainage – The 404 Permit application remained in process, although initial COE comments were being reviewed by FERG and the designers. The CLOMR application was submitted this month.

Civil, Track Design, and Roadway – Coordination continued with the systems consultant regarding TPSS locations and other systems elements. Current designs were reviewed in conjunction with responding to stakeholder review comments of the 90% submittal.

Track Alignment – Track alignment relative to walls and grading was reviewed for consideration of cost and ROW impacts.

Structures – Bridges and Tunnels: Clarifications were provided for the Kipling Street Bridge drawings and specifications in preparation for early construction anticipated to begin next month. Designers responded to questions from DTCG regarding the 90% submittal for other structures.

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## **Overall Schedule Status (Cont.)**

**Retaining Walls:** Work was done to finalize wall types and locations for design, including coordination of supporting geotechnical data and reviews with DTCG. Coordination continued on aesthetic treatments for walls and bridges.

**Noise Walls:** Development of structural and aesthetic design details continued for the noise walls along the 13<sup>th</sup> Ave corridor. There has been very little response from property owners electing to "opt-out" of this noise mitigation measure along their property frontages.

**Stations** – Continued development of station site and amenity details as well as coordination of final placement for systems equipment at the stations and civil interface.

**Parking Structures** – The design for a two-story parking garage at Jeffco Government Center is being advanced for the 100% submittal.

**Park-n-Rides** – With the exception of the Denver Federal Center, park-n-ride locations have been advancing to the 100%. With RTD's selection of a developer team to engage in a PPP for the site, DEA will begin coordinating the development of this location.

**System Safety and Security** – Security and Safety Group meetings continue. IEI has been conducting safety certification of design elements from the Certifiable Items List (CIL) and finalizing the PHA and station egress analyses. The DEA team has also submitted final design variances for review and approval by RTD and local jurisdictions.

**Surveying** – Upon review of ROW Plans for entire corridor RTD decided to convert many parcels to permanent easements revised format for some legal descriptions. During month, surveyors coordinated with civil designers on final impacts to configuration of ROW parcels to minimize acquisition.

**Geotechnical** – Details and specifications for earthwork treatment were being developed to handle artificial fill along the corridor from Wadsworth Blvd to Auraria. Final geotechnical reports supporting structure and pavement designs continued to be finalized and delivered.

### Overall Schedule Status (Cont.)

Key remaining milestone dates for completing final design during 2008 will be:

- Through an LONP approved by FTA for early construction and procurement, the 100% design for the Kipling St LRT and bike bridges was accelerated and submitted to RTD in February for contracting with DTCG and CDOT permit. It is expected that the DTCG will receive NTP shortly and begin construction in April.
- The checked 90% design package of February 4, 2008, was used by DTCG to verify quantities and pricing initiated with the interim design submittal of December 2007; the GMP was submitted March 14 and is currently being reviewed by RTD.
- Based on discussions with RTD and FRSC, May 23 was set for submitting the 100% design package. Any significant design changes made subsequent to the 90% submittal (as well as the GMP) would be reflected by clouding to assist in adjustments to the final contract price. A conformed, "Issued for Construction" package is to be delivered on June 27.

Activity groups within the schedule that are critical for meeting these milestones are:

- Internally, the team must: complete geotechnical investigations; prepare ROW Plans and legal descriptions to support property acquisition; and develop design elements, with appropriate quality control checks, to a level sufficient for a consistent project definition along the entire corridor.
- Externally, RTD and agency stakeholders and other third parties must resolve policy and administrative issues to finalize the program for the LRT stations, bridge, wall and pedestrian facilities design, and drainage improvements to allow civil, structural, architectural and urban design to proceed in an integrated, effective, and time-efficient manner.



### **Third Party Agreements**

Agreements are defined as intergovernmental (or Agency) agreements between the stakeholders along the FasTracks corridors. The stakeholders for the West Corridor project include:

City and County of Denver	City of Lakewood
City of Golden	Jefferson County
GSA/DFC	CDOT
Utility Companies	BNSF

### **Status on IGAs:**

- CDOT - Master IGA signed and executed; draft completed on IGA for construction phase; awaiting review comments from CDOT. A special use permit has been approved and will be used for early construction work.
- City of Lakewood - Master IGA signed and executed.
- City of Lakewood - Separate IGA for City funding of two bike bridges at Wadsworth and Kipling signed and executed. Final design was included as part of updated second 65% submittal in July; a construction amendment to IGA was executed by RTD and the City.
- City of Lakewood - ROW IGA covering the disposition of excess RTD ROW, and establishing a joint RTD/City petitioner process for acquiring private ROW for necessary public improvements along the corridor executed.
- City of Lakewood - Wadsworth Station IGA covering the proposed station enhancements to be funded separately by the city has been executed. A decision is required from the City in May 2008 on whether funding for construction has been secured.
- City of Lakewood - Tree replacement IGA to establish a program to be administered by the City to plant new trees on properties impacted along the 13th Avenue corridor; City is supportive of this program is executed.
- Jefferson County - Master IGA was completed to reflect incorporation of the single tracking VE proposal; comments and resolution of the impasse on single tracking, conveyance of property and parking were addressed in the IGA. An amendment to the IGA is pending but the master agreement has been executed.
- City of Golden - Master IGA updated and re-issued to reflect incorporation of the VE proposals and other changes. City of Golden approved the IGA in February; and is executed.
- City/County of Denver - CCD and RTD have reviewed and discussed an updated draft IGA provided by the City. RTD and the City have reached a tentative agreement on the outstanding deal points. RTD completed a final draft and is executed.
- UDFCD - MOU signed and executed by both parties.
- GSA - No IGA is required.



**Third Party Agreements—Utility Relocation Agreements**

Status on Master Utility Relocation Agreements:

The West Corridor project requires the development, negotiation and execution of corridor agreements with local public agencies and with private utility companies. The West Corridor has identified approximately 459 utilities as having conflicts with the planned LRT facilities. RTD has negotiated and signed separate utility agreements with the majority of the utilities.

Eighteen of the 20 URA’s have been signed and are as follows:

XCEL -	Signed	<b>Qwest - Not signed</b>	
Consolidated Mutual Water -	Signed	CDOT ITS -	Signed
CDOT CTMC-	Signed	Adesta Communications -	Signed
City of Golden -	Signed	Denver Water -	Signed
Daniels Sanitation -	Signed	High View Water District -	Signed
<b>Denver Waste Water -</b>	<b>Not Signed</b>	IGG Communications (Level 3) -	Signed
Lakewood Water -	Signed	Lakewood Waste Water -	Signed
Comcast Cable -	Signed	College Park Sewer District -	Signed
Metro Waste Water -	Signed	GSA -	Signed
McLeod USA -	Signed	Pleasant View Water/Sanitation -	Signed

**General Overview**

- The utility relocation work for the West corridor is progressing well. RTD has signed 18 of the 20 Utility Relocation Agreements (URA's) with the Utility owners, one of the remaining two are expected to be signed this month by the City and County of Denver, and Qwest will not sign the URA but is cooperating with their relocations and signing work orders on all their work.
- RTD has received the 90% design drawings and specifications from David Evans & Associates for an in-house review to be completed by March 7, 2008. Utility locations are shown on these drawings based on field survey locates and potholing. Proposed relocations are shown on these drawings based on utility owner design and one on one meetings with the utility owners. RTD has a developed a utility tracking spreadsheet that tracks each utility conflict with cost, cost responsibility, and status. This was isused to FTA/PMOC at their request.
- The drawings have been reviewed for utility right of way needs so those longer term needs can be started ahead of time.
- RTD staff has prepared 144 work orders for utility relocations to be completed by the utility owners. The estimated total number of utility owner work orders for this project is 200. The work orders have been prioritized by completing the most complicated relocation work and those most critical to the contractor schedule as the highest priority.

### **Utility Status Continued**

- RTD has met with Denver Transit Construction Group to identify early work utility work that they can begin and coordinate with other utility owner relocations.
- RTD has been meeting weekly with the utility owners to coordinated construction issues. The staff of the City of Lakewood will attend to address permitting and construction related issues.
- **Construction**
- Xcel Energy-Electric has completed relocation construction along 13<sup>th</sup> Avenue from Oak to Independence. Xcel continues to progress through the most congested portion of the project Independence to Harlan. Xcel has completed the removal of all overhead facilities along 13<sup>th</sup> Avenue from Oak to Independence.
- Xcel Energy-Gas Operations has completed relocation construction along 13<sup>th</sup> Avenue from Harlan to Marshall in preparation of the City of Lakewood's Sanitary Sewer Relocation project which is due to start Construction May 12, 2008.
- Qwest has completed relocation of their overhead communication facilities along 13<sup>th</sup> Avenue from Oak to Kipling. Qwest has started phase one of their underground relocation along 14<sup>th</sup> Avenue from Independence to Wadsworth. Phase one relocation construction is for constructing the infrastructure for the duct bank communication facilities which consists of 30, 4-inch conduits and manhole vaults. Phase two of the construction will be the splicing of all copper and fiber optic facilities.
- Comcast has completed relocation of their overhead facilities along 13<sup>th</sup> Avenue from Oak to Independence. Comcast continues to relocate their overhead facilities along 13<sup>th</sup> Avenue from Independence to Harlan. All of the work orders for relocating Comcast facilities has been written and are in design or construction.
- The City of Lakewood will begin a major sewer relocation project in 13th street in May with construction to be completed by December 2008.
- Consolidated Mutual Water Company will relocate their water lines in conjunction with the City of Lakewood's Sanitary Sewer Relocation Project.

### **Concerns**

- The schedule that Qwest has provided for the relocation of their duct bank in 13th street is not acceptable for the overall project schedule.

**Third Party Agreements—Utility Relocation Agreements: (Cont.)**

TOTAL Work Orders	TOTAL # WOs WRITTEN	TOTAL # NEGOTIATED	DSN WOs STARTED*	DSN WOs COMPL	CONST WOs START	CONST WOs COMPL	% DSN STARTED	% CONST STARTED
200	144	75	120	60	20	16	72%	10%

\* UTILITY OWNERS WILL START DESIGN PRIOR TO NEGOTIATION IF THEY ARE FUNDING THE WORK

**Environmental Compliance**

RTD has established a FasTracks Environmental Resource Group (FERG) assisted by the design team that is responsible for performing oversight on the West Corridor project, reviewing project designs for compliance with the mitigation measures identified during the EIS phase, and preparation of an EA to address scope changes on the project.

The following environmental related work on West Corridor was in process this period:

- Worked with Corps of Engineers to address comments in RTD’s 404 permit application.
- Supported discussion on MS4 requirements in CDOT ROW.

*Activities Planned for Next Period:*

- Complete discussions with Corps of Engineers on RTD’s 404 permit application.
- Continue to support discussions on MS4 requirements in CDOT ROW.





### **Quality Management**

- The RTD FasTracks team has implemented a systematic quality management oversight (QMO) program based on the FTA Quality Assurance/Quality Control Guidelines, and the international standard for quality systems, ISO 9001. RTD's Quality Management system is described in the RTD FasTracks *Quality Assurance Program Plan*. Specific processes are further described in the *Quality Oversight Program Manual*, and accompanying procedures, which were revised this month to account for general program updates.
- Also during the month of March 2008, the RTD FasTracks team completed a 90% design review of civil and systems plans and specifications. Comments from the RTD team and stakeholders are being responded to by the designers.
- In preparation for major construction, RTD received six proposals for Owner's Material Verification Testing Services on March 28, 2008. The selected firm will perform verification testing of construction materials on behalf of RTD in order to validate the QA results of the CM/GC.
- A final draft of the Construction Quality Management plan was submitted March 31 by DTCCG for RTD review. RTD will review and provide comments to the contractor. It is expected that the plan will be approved in time for early construction.
- Finally, the RTD Quality Management team completed an internal quality audit of the contract change control process.

#### *Activities Next Month:*

- Review Proposals for Owner's Material Verification Testing Services
- Approval of construction quality plan
- Design review comment resolution

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## **Public Involvement**

The West Corridor Public Involvement program continues with good support and feedback from all participants. There are three specific groups where we have focused outreach; Elected Officials, Jurisdictional staff and other technical persons (Stakeholders), and the community.

### **Elected Officials**

RTD conducts a monthly elected officials meeting for elected officials to hear the latest information and status on the project and also provides the opportunity for elected officials and stakeholders to speak with Cal Marsella, Liz Rao and Dennis Cole.

The elected officials briefing was held December 14, 2007.

### **Stakeholders**

Monthly stakeholder meetings are held where the staff members from RTD and the cities/counties can hear from each other and RTD regarding the West Corridor. Stakeholders are encouraged to submit agenda items ahead of time if there is something they would like to discuss.

The monthly meeting is being changed to a quarterly basis in 2008..

### **Community**

.During the reporting period, Community Involvement Program (CIP) services by the DEA team included the following activities:

- Prepared and distributed March Newsletter to UDC, Elected Officials and agency stakeholders regarding project status and public meetings.
- Maintained Web site with updates on project calendar and public comments.
- Responded to questions from public regarding project and requests from media for public hearing images.
- Updated contact lists for general public, UDC, agency stakeholders, and elected officials.



**Right-of-Way Status**

Approximately 260 parcels were identified in Preliminary Engineering as being impacted by corridor construction. These parcels have been re-evaluated as part of the updated second 90% design submittal for: current property use, partial or full take considerations, easements (construction, permanent, drainage, etc.), environmental factors, and relocations.

A corridor Real Estate Acquisition and Management Plan (RAMP) was developed and submitted to the PMOC on September 7, 2006. Re-submittal of the RAMP was dependent on final disposition of the Value Engineering proposals and additional design development that incorporated VE proposals; the final RAMP was submitted the end the end of March, 2008. Approval of RAMP is expected by May 2008.

Progress this Period:

- The Right-of-Way plan review (ROWPR) was held on Feb 8 at DEA. All sheets were reviewed and each parcel discussed. An effort to minimize impacts and adjust some ROW takes to easements was completed. DEA was to have all revisions to the plans and legal descriptions to RTD by Feb 29.
- DEA indicated they will not be able to deliver the legal descriptions by the 29<sup>th</sup>, they incorrectly interpreted RTD's request to adjust specific parcels from takes to easements to apply to all parcels and have added 200 additional legal descriptions.
- Met with CMGC and Jim Kelley on the coordination of survey on the west corridor construction
- Provide direction to appraisal, acquisition and relocation personnel
- Provide information regarding project status and activities to property owners, legal representatives, internal staff and media, as required.
- Completed schedule and budget information for Real Estate Acquisition Management Plan (RAMP).

# OF PARCELS IMPACTED	# OF PARCELS CERTIFIED	# OF APPRAISALS IN PROCESS	# OF APPRAISALS COMPLETE	FMV DETERMINATIONS	ACCEPTANCE	READY FOR CONSTR
<b>280</b>	<b>19</b>	<b>16</b>	<b>13</b>	<b>13</b>	<b>0</b>	<b>0</b>

*Anticipated Progress for Next Period:*

- Continued review of the final ROW plans for West Corridor.
- Obtain certification for all parcels required for West Corridor.
- Initiate the appraisal process for West Corridor.
- Coordinate the survey layout and audit process for the CMGC as construction begins on the project.
- Review the staffing requirements for ROW coordination.
- Continue to provide direction to appraisal, acquisition and relocation personnel.
- Continue to provide information regarding project status and activities.
- Provide direction to contract acquisition firms for acquisition/relocation services.





**DBE Participation**

RTD has adopted a DBE/SBE policy to ensure nondiscrimination in the award and administration of the District's construction contracts, professional services contracts, and in the procurement of common goods and services. It is RTD's intention to create a level playing field on which DBEs and SBEs can compete fairly for DOT assisted contracts. and ensure that the RTD DBE/SBE program is narrowly tailored in accordance with applicable law.

RTD has implemented a DBE/SBE outreach program that includes: mass mailings, use of electronic and mass media (radio/television advertisements/appearances), technical assistance workshops, newsletters, public service announcements, meet and greet/Q&A sessions and business opportunity workshops.

The DBE goals established for the West Corridor project and the actuals to-date are shown below. David Evans & Associates have dropped below their goal of 21.0%, and will not be able to meet the established goal. FRSC continues to meet and exceed its established goal of 10.0%. DTCG's is significantly above the 13% preconstruction goal.

<b>Firm</b>	<b>DBE Goal</b>	<b>Actual for March 2008</b>
David Evans & Associates	21%	18%
FRSC	10%	12.99%
Denver Transit Construction Group (DTCG)	13% Pre-Construction	31.49%