

ROSSLYN STATION ACCESS IMPROVEMENTS PROJECT
Additional Scope of Services for WMATA Task Order SF5070-FY08-JDAC-1
By WMATA JDAC as of February 9, 2009

WMATA uses the term 'scenario' for a construction sequence alternative and uses 'option' for a design alternative.

Background - General

Under the Phase Two Agreement between WMATA and Arlington County, WMATA is responsible for final design and preparation of an Invitation for Bids for this County project. In turn, WMATA has Task Order FY08-JDAC-1 with its on-call architectural engineering consultant, P2D, for final design and other services for the project. WMATA PRMT has issued to P2D a series a partial Notice-to-Proceed amounts, totalling \$2,900,000. P2D exhausted this budget in August 2008, although design services remain for completion, mainly for additional work. Thus, JDAC has prepared this additional scope of services.

Background - Geotechnical Analysis and Structural Design

One cause for the additional scope of services are the changes to the Rosslyn Central Place (RCP) by its developer, The JBG Companies. Prior to these changes, P2D had conducted geotechnical analysis and performed structural design for the County project with the assumption that JBG would excavate the RCP site and the County would then excavate RSAIP further downward. The void of the RCP excavation above RSAIP would remain during RSAIP construction.

The JBG changes of RCP at the RSAIP were twofold. First were the increases in the RCP column loads. The second was the RCP construction sequence, in which JBG would excavate the RCP site but then build the RCP underground parking structure during the RSAIP excavation below the parking structure. This consequence became Scenario 2. For Scenario 2, P2D would conduct RSAIP geotechnical re-analysis with the increased column loads and with the load of the underground parking structure and perform structural re-design accordingly.

Since JBG had not obtained financing of RCP, the County has contemplated the construction of RSAIP prior to RCP. This became Scenario 3, for which P2D would conduct RSAIP geotechnical re-analysis with the increased column loads and with the load of the existing earth and rock above RSAIP and perform structural re-design accordingly.

The County requested that P2D, via WMATA, prepare cost proposals for Scenarios 2 and 3 and also a cost proposal for a concurrent geotechnical re-analysis of Scenarios 2 and 3, with the expectation of cost efficiencies on P2D's part.

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Since Scenario 3 would have higher construction costs for increased structural elements and for increased excavation (that which JGB would have excavated on behalf of the County in Scenario 2), P2D proposed that there be a task of comparative study of the two scenarios, based on construction costs, in order to aid the County selection between the two scenarios. This became Scenario 4, a study.

As of December 8, 2008, the County is selecting Scenario 2 for its Invitation for Bids, with the assumption that JBG will proceed with RCP concurrent with RSAIP. However, the County will compose the IFB such that it may select Scenario 3, if JBG does not proceed with RCP. Upon selection of Scenario 3, the County will request WMATA to direct P2D to perform the additional scope of services for Scenario 3. The County contract will be on hold until WMATA delivers the revised drawings, specifications and cost estimate of Scenario 3 and until the County approves a major change order based on Scenario 3.

Background on Exit Stairway and Hatches

For the sake of the urban design of the new plaza between the two towers of RCP, Arlington County has striven to reduce the mass of the RSAIP elevator headhouse and to locate the exit stairway and its two surface hatches away from the public areas of the plaza. Prior to the 60 percent submittal, P2D conducted studies and modified its design for the headhouse, stairways and hatches. The design of the stairway and location of the hatches in the 60 percent submittal were still not satisfactory to the County. What followed were a total of six options.

Additional Scope of Services

This additional scope of services is for Scenario 2 and consists of the following:

- 1) Geotechnical re-analysis and structural re-design for Scenario 2, which includes the new Rosslyn Central Place loads and the new RCP construction sequencing in which the RCP contractor builds the RCP underground parking garage to within one column line of the Project's elevator shaft;
- 2) Design revisions for the Option 1 location of the exit stairs and hatches, additional submittal cycle; and
- 3) Three-dimensional computer rendering of the project.

WMATA will notify the Arlington County project manager of its full Notice-to-Proceed to P2D within twenty-four hours of the Notice. Expenditures for services provided under this task shall not exceed 80 percent of the Notice-To-Proceed amount without notification by P2D to the PRMT Contracting Officer and the JDAC Project Manager. WMATA will notify the Arlington County project manager of the P2D notification of expenditures at 80 percent of the Notice-to-Proceed.

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RSM-1 GENERAL

RSM-1.1 Management and Coordination

A. General:

1. In-house coordination between the P2D's design disciplines to ensure compatibility and consistency in the design documents.
2. Coordination with WMATA offices, associated consultants and Arlington County, Rosslyn Central Place developer - The JBG Companies (JBG) and JBG's consultants.
3. Manpower and budget/schedule control.
4. Preparation and distribution of correspondence, telephone memos, meeting minutes, and related materials.
5. Preparation and transmittal of document submittals.
6. Response to questions and requests by WMATA and Arlington County.

B. Progress Reporting:

P2D will verbally report on progress of the additional services on a weekly basis during coordination and review meetings among WMATA, Arlington County, and JBG. P2D will provide a written monthly progress report by task and expense per task within 10 calendar days following the end of each month. WMATA will review the report and, if acceptable, forward the report to the County. If not acceptable, P2D will resubmit the report within 15 next calendar days following the end of the month. WMATA will forward the resubmitted report to the County.

C. Documentation:

P2D will submit hard copy and electronic copy (CD-ROM) of all documents to WMATA.

D. Design Review Meeting:

P2D will participate in a design review conference among WMATA, Arlington County, and JBG for the 100 percent submittal for review and in a design check meeting for the 100 percent submittal for printing.

E. Preparation of IFB.

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The County will prepare its contract document or 'boiler plate'. WMATA in coordination with the County and its input will prepare the General Conditions and Special Provisions of the contract. P2D will review and comment upon the draft Special Provisions.

RSM - 1.2 DATA COLLECTION

This task is not applicable, since it is within the base scope of services.

RSM - 2 SITE ISSUES, UTILITIES, STORMWATER MANAGEMENT ETC.

This task is not applicable, since it is within the base scope of services.

RSM - 3 CIVIL

P2D will update the civil design for the Option 1 location of the exit stair and hatches.

RSM - 4 GEOTECHNICAL

WMATA's primary interest is the safe, secure continuity of operations of the Metrorail Rosslyn Station and the Orange/Blue Line during the construction of the Project.

RSM - 4.1 DATA COLLECTION AND COORDINATION

- P2D will collect structural data from JBG for the geotechnical re-analysis and structural re-design.

RSM - 4.2 GEOTECHNICAL ANALYSES AND RECOMMENDATIONS

- Update and run the computer model for analysis in three dimensions, using Scenario 2. Complement that model with other analytical tools, including other models.
- Complete re-analysis and update the Geotechnical Baseline Report and the Adjacent Construction Report, with updated recommendations.
- Submit both six print copies and PDF files of both reports to WMATA for review.
- Incorporate review comments, prepare a final reports with final recommendations, and complete geotechnical drawings and specifications.

RSM - 5 ARCHITECTURAL

P2D will complete final architectural design for the Option 1 location of

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the exit stair and hatches, including the adjustment of the upper flights of the exit stair.

RSM - 6 STRUCTURAL

Based on the geotechnical re-analysis for Scenario 2, P2D will check design of the initial structural support system, recalculate rock loads, and evaluate the structural design. P2D will provide to WMATA a letter report on the evaluation of the structural design and on any need to perform structural re-design. P2D will await the WMATA direction to proceed with the completion of final structural design, drawings and specifications. P2D will transmit its design and calculations to JBG for its use and future reference during the design of RCP Phase 2.

RSM - 7 MECHANICAL

P2D will complete final mechanical design for the Option 1 location of the exit stair and hatches, including the adjustment of the upper flights of the exit stair.

RSM - 8 COMMUNICATION

This task is not applicable, since it is within the base scope of services.

RSM - 9 ELECTRICAL

P2D will complete final electrical design for the Option 1 location of the exit stair and hatches.

RSM - 10 GENERAL SYSTEMS

P2D will complete final systems design for the Option 1 location of the exit stair and hatches.

RSM - 11 FARE COLLECTION

This task is not applicable, since it is within the base scope of services.

RSM - 12 CONSTRUCTION DETAILS

P2D will complete construction details for the Option 1 location of the exit stair and hatches and Scenario 2 for the geotechnical re-analysis and structural re-design.

RSM - 13 PRESENTATION MATERIALS

P2D will prepare a three-dimensional model of the existing features, the Project and Rosslyn Central Place in AutoCAD and generate JPEG images

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from the model for incorporation into PowerPoint. The model will include, but not be limited to, the following elements:

1. Existing topography: all four County roadways (N. Moore Street with bus bays, N. Lynn Street, Wilson Boulevard, N. 19th Street), WMATA surface grates of its shafts.
2. Existing Rosslyn Station: station vault, platforms, passageway, escalatorway, elevator, mezzanine.
3. Project: elevator headhouse, elevator shaft, exit stair, surface hatchways, mezzanine, ancillary rooms, passageway.
4. Rosslyn Central Place, Phase 1 and Phase 2: underground parking levels, urban plaza, plaza canopy, plaza elevator headhouse, first floor of both towers, WMATA bus alleyway in Phase 1 tower, Project chiller plant in underground parking level.

P2D will differentiate with color and/or texture among the above four classes of features.

P2D will submit the preliminary rendering and images for WMATA and County review and comment.

P2D will provide to WMATA a CD of the AutoCAD files that comprise the model and instructions on use and modification of the model.

RSM - 14 **COST ESTIMATES**

This task is not applicable, since it is within the base scope of services. For clarification, the estimate of construction costs will be in current dollars. WMATA and P2D will propose an escalation factor to mid-point of construction for County concurrence. The mid-point will be based on the County's forecast of the contract award date.

RSM - 15 **CONSTRUCTION SCHEDULE**

This task is not applicable, since it is within the base scope of services.

RSM - 16 **DELIVERABLES AND SCHEDULED DUE DATES**

PRE-FINAL SUBMITTAL (90 Percent).
P2D has submitted sets of 90 percent final drawings, which should incorporate its responses to the 60 percent submittal review comments. WMATA will compile its review comments and those of the County on this submittal and transmit the comments to P2D for incorporation into

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the 100 percent submittal for review. P2D will respond to each review comment in an EXCEL matrix.

FINAL SUBMITTAL FOR REVIEW (100 Percent for Review).

The submittal will include:

1. EXCEL file of P2D responses to 60 percent and 90 percent review comments.
2. Thirty (30) half-size sets of drawings
3. Thirty (30) sets of specifications
4. Ten (10) sets of construction cost estimate.
5. Ten (10) copies of updated Geotechnical Baseline Report.
6. Ten (10) copies of updated Adjacent Construction Report.
7. Two (2) sets of CD's containing:
 - a. PDF files of drawings, specifications, estimate and reports.
 - b. WordPerfect files of specifications.

P2D will respond to each review comment in an EXCEL matrix, at least two days prior to the design review conference. P2D will participate fully in the conference and respond to any additional comments within four days after the conference.

FINAL SUBMITTAL FOR PRINTING (100 Percent for Printing)

1. EXCEL file of P2D responses to 100 percent review comments.
2. Four (4) half-size sets of drawings.
3. Four (4) sets of specifications.
4. Four (4) sets of construction cost estimate.
5. Thirty (30) copies of Final Geotechnical Baseline Report.
6. Thirty (30) copies of Final Adjacent Construction Report.
7. Two (2) sets of CD's containing:
 - a. PDF files of drawings, specifications, estimate and reports.
 - b. WordPerfect files of specifications.

Attachment 1 presents the scheduled due dates in the format of X days after the full Notice-to-Proceed.

RSM - 17 TECHNICAL SUPPORT DURING PROCUREMENT

This task is not applicable, since it is within the base scope of services.

Attachment 1 - Scheduled Due Dates

Attachment 1
Scheduled Due Dates

WMATA	Full Notice to Proceed to P2D	NTP
WMATA	Transmittal of 90% Comments to P2D	NTP + 2
WMATA	Restart of Design by P2D	NTP + 7
P2D	Submittal of Final NFPA Report	NTP + 45
P2D	Submittal of ADA Compliance Report	NTP + 45
P2D	Geotechnical Re-Analysis	NTP + 45
All	Conference Call on GeoTechnical Legal Aspects	NTP + 45
P2D	Structural Evaluation with Letter Report	NTP + 45
WMATA	Direction on completion of structural design	NTP + 50
P2D	Submittal of Geotechnical Baseline Report	NTP + 50
P2D	Submittal of Adjacent Construction Report	NTP + 50
WMATA	Input from Divisions 0 and 1 Review	NTP + 60
WMATA	Geotechnical Reports Review	NTP + 70
WMATA	Safety and Security Plan	NTP + 90
Both	General Conditions and Special Provisions	NTP + 90
P2D	Final Submittal (100%) for Review	NTP + 90
WMATA	Final Submittal Review	NTP + 110
WMATA	Final Submittal Design Review Conference	NTP + 115
P2D	Final Submittal (100%) for Printing	NTP + 130
WMATA	Final Submittal Check	NTP + 140
P2D	Replacement of sheets and pages per check	NTP + 145