



DENVER
INTERNATIONAL
AIRPORT

PROJECT MANUAL

ON-CALL MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS

CONTRACT NO: 201417353

CONTRACT DOCUMENTS

ISSUED FOR CONSTRUCTION
MARCH 2015

CITY AND COUNTY OF DENVER
DEPARTMENT OF AVIATION

KIM DAY
CEO – Denver International Airport

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PART II TECHNICAL PROVISIONS

(The following documents are published separately; they ARE NOT included in this document)

VOLUME 2:

DIVISION 1: GENERAL REQUIREMENTS

VOLUME 3:

SPECIAL PROVISIONS

**CITY AND COUNTY OF DENVER
DEPARTMENT OF AVIATION - DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

NOTICE OF INVITATION FOR PROPOSALS

Denver, Colorado

November 17, 2014

The Department of Aviation, City and county of Denver, has issued an Invitation for Proposals for the construction project named above. Complete contract documents, including specifications, are available on the DIA Contract Procurement website at <http://business.flydenver.com/bizops/bids.asp> beginning November 19, 2014.

SEALED PROPOSALS will be received no later than **5:00 P.M., Local Time, December 19, 2014** and delivered to Matt Tachibana, Room 8810, Airport Office Building (AOB), Denver International Airport, 8500 Peña Blvd., Denver, CO 80249-6340 and accessed by the Concourse A Walking Bridge. Respondents should submit the Cost Proposal and eight (8) proposals in Adobe format on separate media (i.e. USB Flash Drive, Compact Disc, etc.) indicating Contract number, Contract name and respondents organization.

A PRE-PROPOSAL CONFERENCE will be held at 2:00 PM, Monday, December 1, 2014, in the triple wide trailer, located within the DIA South Campus at 7128 North Trussville Street, Unit A, Denver, CO 80249 (F.K.A. 27301 E. 71st Ave, Unit #2).

GENERAL STATEMENT OF WORK: The project, MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL, calls for the Repair, Maintenance or Improvement of Airport Roadways and Parking Lots including, but not limited to Panel Replacements, Erosion and Drainage issues, Bridge Rehabilitation and preventive maintenance to ensure the life of the roadways and public safety. This On-Call Contract will have project work initiated by a written Task Order which will set forth the scope of the work or services to be provided.

PREQUALIFICATION: Each proposer must be pre-qualified in the category of 1(a) General at the \$9,000,000.00 level, in accordance with the City's Rules and Regulations Governing Prequalification of Contractors. Each proposer must have submitted a prequalification application a minimum of ten (10) calendar days prior to the bid opening date. Applications must be submitted to the Department of Public Works, Prequalification Section, 201 West Colfax Avenue, Department 506, Denver, Colorado 80202. To view the Rules and Regulations and to obtain a prequalification application, please visit our website at www.denvergov.org/prequalification or call 720-865-2539 for prequalification information ONLY.

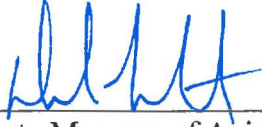
MINORITY/WOMEN BUSINESS ENTERPRISE PARTICIPATION: Pursuant to Article III, Division 1 and 3 of Chapter 28 of the Denver Revised Municipal Code, the Project goal of **20% M/WBE** must be met with certified participants, or through the demonstration of a

sufficient good faith effort. For compliance with good faith requirements, the M/WBE percentage solicitation level required for this project is 100%.

MISCELLANEOUS: As its best interests may appear, the City and County of Denver reserves the right to reject any or all proposals and to waive informalities in proposals.

Published in the Daily Journal: November 19th, 20th, 21st, 2014

DO NOT PUBLISH BELOW THIS LINE



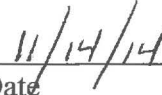
Deputy Manager of Aviation
Airport Infrastructure Management



Date



Director, Division of Small Business Opportunities



Date

INSTRUCTIONS TO PROPOSERS

IP-1 INSTRUCTIONS TO PROPOSERS

These Instructions to Proposers are a part of the Contract Documents and are intended to serve as a guide to Proposers. They are general in nature and may be amended or supplemented as needed to support any one specific invitation to Proposal. Each Proposer shall prepare its Proposal in strict compliance with all requirements of the Contract Documents and by careful application of these instructions.

IP-2 SUBMISSION OF PROPOSALS

These Contract Documents contain Proposal Forms and Proposal Data Forms. The Proposer must complete these Proposal Forms and Proposal Data Forms and submit them as its Proposal.

Each Proposal must be enclosed in a sealed envelope, addressed to the Manager of Aviation, showing on the face of the envelope the name of the Proposer, the project number, and descriptive title of the work for which the offer is made. The Notice of Invitation for Proposals identifies where and when the Proposal must be delivered.

Addenda to the contract documents will be issued by publication in their entirety on the DIA Contract Procurement Website, <http://business.flydenver.com/bizops/rfp.asp>, from which each addendum document may be downloaded by plan holders. Such addenda may include replacements for or additions to some or all of the pages of the Proposal Forms, and all Proposal Form pages added by addendum shall be submitted with the Proposal Forms. Either a complete addendum or a notice of its issuance will be posted on the Contractor's Bulletin Board. Prior to submitting proposals, Proposers shall read the Contractor's Bulletin Board and/or DIA Contract Procurement website to confirm that they have received all addenda.

If Sensitive Security Information ("SSI") will be provided to potential proposers prior to award of the Contract, each proposer shall be required to comply with Department of Aviation, Standard Policies and Procedures No. 6003, "Contractor Protection of Sensitive Security Information," or its successor. A copy of this Policies and Procedures document will be provided with the Proposal Documents, or upon request by the Department of Aviation, Business Management Services Office. Each proposer shall submit one (1) original and one (1) copy of the following, completed and executed in accordance with the Contract Documents:

- (1) The separately bound Proposal Forms booklet;
- (2) All Proposal Form pages not bound in such booklet which are included in any addendum to the Contract Documents;

IP-3 COMPLETING AND SIGNING PROPOSAL FORMS

The Proposer must complete the Proposal Forms by legibly writing or printing in ink, words or figures, or both if required, all the Proposer's offered prices for performing the work. All blank spaces that require a response of the Proposer must be properly filled in. In filling out the Proposal Forms, the Proposer should not make any strikeouts, interlineations, white outs, or erasures.

For any contracts containing unit prices, the Proposer shall specify in the Proposal Forms a unit price for each item for which a quantity is given and shall write in figures the products of the respective unit prices and quantities in the "Amount" column provided for that purpose.

Each Proposer must sign the Proposal Forms and give the Proposer's current business address. If an individual, the signature must be of the individual offering the Proposal; if a partnership, the signature must be that of a general partner; and if a joint venture, by each joint venture participant in their individual capacity as a corporation, partnership, or individual; if a corporation, both the president or a vice president and the secretary must sign and the seal of the corporation must be affixed. Signatures of other persons may be acceptable if the Proposal contains evidence satisfactory to the Manager to prove that the other persons are authorized to bind the Proposer.

IP-4 UNACCEPTABLE PROPOSALS

The City will not accept Proposals from Proposers in arrears to the City upon debt or contract, or which are defaulters (as surety or otherwise) upon any obligation to the City, or that are deemed irresponsible or unreliable by the Manager of Aviation. A history or pattern of litigation against the City and County of Denver by any Proposer, proposed subcontractor, interested party, or any person, firm, or corporation affiliated with any Proposer, among other items, will be considered by the Manager in determining the responsibility and reliability of Proposers. Proposers may be required to submit satisfactory evidence that they have a practical knowledge of the particular work proposed upon and that they have the necessary financial resources to complete the proposed work.

IP-5 ONLY ONE PROPOSAL ACCEPTED

The City will accept only one Proposal for the same work (Contract) from any one Proposer. This includes Proposals that may be submitted under different names by one firm or corporation. Evidence of collusion among Proposers shall be grounds for exclusion of any Proposer who is a participant in any such collusion.

IP-6 CONSIDERATION OF PROPOSALS

After the Proposals are opened and read and any discrepancies have been reviewed, Proposals will be compared based on the evaluation factors stated herein.

If a discrepancy exists between a price or amount written in words and the price or amount written in figures, the price or amount written in words shall govern, except that in the case where a price or amount shown in figures has been crossed out and replaced with a new, legible, initialed figure, the initialed figure shall govern.

Any Proposal discrepancies that the City corrects in accordance with the general rules described above shall be corrected with the understanding that the Selected Proposer waives any claims against the City because of the Proposer's mistakes in its Proposal.

The City reserves the right to waive informalities, to reject any and all Proposals, and to advertise for new Proposals where it is in the best interest of the City.

IP-7 INFORMAL AND UNBALANCED PROPOSALS

Proposals shall be considered informal and may be rejected for the following reasons:

- (a) If the Proposal is on a form other than the Proposal Forms furnished by the City, or if the form is altered or any part thereof is detached.
- (b) If there are unauthorized additions, conditional or alternate Proposals, or irregularities of any kind which may tend to make the Proposal incomplete, indefinite, or ambiguous.
- (c) If the Proposer fails to acknowledge in the Proposal receipt of any or all addenda current on the date of opening of Proposals.
- (d) If the Proposal does not contain a unit price or lump sum amount for each item listed except in the case of authorized alternative items.
- (e) If there are strikeouts, interlineations, white outs, or erasures in the Proposal Forms.
- (f) If the Proposal is unbalanced so that (1) each pay item does not reasonably carry its own proportion of cost, or (2) any pay item contains an inadequate or unreasonable price.

IP-8 EVALUATION FACTORS FOR AWARD

Those proposals which have been properly submitted will be evaluated to determine a competitive range. The requirements in the Invitation for Proposals are considered to be minimum requirements. More points may be awarded for exceeding the minimum requirements. The proposals will be evaluated and scored on the following factors.

(1) Experience/Past Performance

50 %

Proposals that demonstrate in-depth and long-term experience in the specialized work of this contract will receive more points than those with only occasional experience in this work. The proposer's experience with meeting projected schedules, managing costs, solving problems, making repairs during the warranty period and with the ability to satisfy previous customers will contribute to the final score. Points will also be awarded for up to three projects submitted as experience which were performed for federal, state or local governmental agencies, private companies or organizations which the proposers believe will demonstrate its ability to perform under the terms and conditions of this contract. Accuracy of information provided and conformance to the proposal requirements may also affect the final score.

(2) Key Personnel Requirements

30 %

The three key contractor personnel listed below will be evaluated based on the individual's construction experience and/or education. Length of experience, diversity of relevant experience, specific in-depth experience with the wide range of products and techniques used in the specialized work of this contract, a range of experience with site utilities, heavy civil highway construction, drainage improvements, asphalt and concrete placement, or any other items defined in the scope of work will be criteria used for evaluation of personnel. Experience in government, industrial or related construction contract work is considered more valuable than other types of experience. The accuracy of the information provided and conformance to the requirements of this request for proposals may also affect the final score. The four key positions are as follows:

- Contractor's Project Manager
- Project Superintendent
- Project Engineer
- QC Manager

(3) Quality Control Plans

20%

The evaluation will consider whether or not each specified item of concern is addressed. Since the implementation of the quality management/control plans is a contract requirement, the evaluation will consider effectiveness of the plan. Unnecessarily elaborate and perceived inefficient and/or ineffective plans will receive lower scores in the evaluation. Conformance to the proposal requirements may also affect the final score. The Quality Control Plan must address the following:

- a. Describe how you will assure that only high quality work is provided.
- b. Describe what you will do to establish positive attitudes, cooperation and good working relationship between your firm, subcontractors and the City.

- c. Demonstrate that you have the ability and will respond quickly when there is a construction related issue identified by DIA that is negatively affecting DIA operations or construction quality.
- d. Submit a Quality Control Management Plan on the form included in the Proposal Forms.

IP-9 NOTICE TO SELECTED PROPOSER - EXECUTION OF CONTRACT

The Selected Proposer will be given written notice of such status on the form included in the Proposal Documents within sixty (60) days from the date of opening of Proposals.

The Selected Proposer shall execute the contract and return it to the City along with the required bonds and insurance forms within ten (10) consecutive calendar days from and including the date of the Notice to Selected Proposer. When the executed contract and the required bonds and insurance certificates are received, approval for the City to contract with the Selected Proposer shall be sought in accordance with the Charter of the City and County of Denver. Such notice shall not create any rights in the Selected Proposer to any contract with the City.

IP-10 QUANTITIES

Payment to the Contractor will be based on the actual quantities of work performed, measured, and accepted or materials furnished in accordance with the Contract Documents.

IP-11 CONTRACTOR'S BULLETIN BOARD

It shall be conclusively presumed that the Proposer did, before submitting a Proposal, read all addenda, posted decisions, and other information items relevant to the Proposal which appeared on the Contractor's Bulletin Board.

The Contractor's Bulletin Board is located at Denver International Airport, 8500 Peña Blvd., Denver, CO 80249-6340, on the wall south of the entrance to the Airport Office Building (AOB). The AOB entrance is reached by way of the corridor leading to Concourse A from the North end of the Terminal on Level 6, and is located west of the Concourse A security screening area. The AOB entrance and the Contractor's Bulletin Board are both located outside the security screening area.

IP-12 INTERPRETATION OF PROPOSAL DOCUMENTS

During the Proposal period, Proposers shall request, in writing, clarification or interpretation of any apparent errors or omissions in the contract documents, any apparent inconsistencies between different provisions of the contract documents, or any other point in the contract documents which the Proposer believes requires

clarification or interpretation by the City. Any such request must be submitted in writing by email to contract.procurement@flydenver.com, must have the words "Request for Clarification" and "Contract No. 201417353" in the email subject line, and must be received not later than ten (10) calendar days before the date and time set for receipt of Proposals. For purposes of the contract, it shall be conclusively presumed that prior to proposing, the Proposer requested clarification or interpretation of any apparent errors, inconsistencies, or other point in the contract documents believed to require clarification or interpretation, and has waived the right to later claim extra payment or time extensions on account of any such error.

Information about any interpretation or clarification made by the City in response to such request will be posted on the DIA Contract Procurement website, <http://www.flydenver.com/contracts>. It shall be the Proposer's responsibility to ensure it has reviewed all such interpretations or clarifications. After Proposals are opened, all Proposers must abide by the decision of the Manager of Aviation or the Manager's authorized representative as to the interpretation or clarification. If the Manager of Aviation or the Manager's authorized representative determines that the decision or interpretation requires that an addendum to the Proposal documents be issued, such addendum will be posted on the DIA Contract Procurement website and either the complete addendum or a notice of its issuance will be posted on the Contractor's Bulletin Board. It shall be the Proposer's responsibility to ensure it has received all such addenda, and each Proposer must acknowledge receipt of all addenda on the Proposal Forms when it submits its Proposal.

The City shall not be bound by and the Proposer shall not rely on any oral interpretation or clarification of the Proposal Documents.

IP-13 WITHDRAWAL OF PROPOSAL

A Proposer may withdraw its Proposal (s) prior to the due date of submittals.

IP-14 SUBCONTRACTOR LISTS IN PROPOSAL

The Proposer shall, on the forms included in the Proposal Forms, identify each element of the work which the Proposer plans to subcontract and include the name and address of the proposed subcontractor.

IP-15 TAXES

1. General. Proposers are referred to the General Conditions, G.C. 323, as to taxes to which they may be subject in performing the Work under this contract, including but not limited to sales and use taxes and the Denver Occupational Privilege Tax. The following instructions are to be considered along with the General Conditions and not in lieu of them.
2. Sales and Use Tax. Construction and building materials sold to contractors and subcontractors for use on structures, roads, streets, highways, and other

public works owned by the City and County of Denver at Denver International Airport are exempt from state, RTD, and Cultural Facilities District sales and use taxes. However, such materials will be subject to sales and use taxes imposed by the City and County of Denver.

3. Exemption Certificates – Sales and Use Tax. It is responsibility of the Contractor and its subcontractors to apply to the Colorado Department of Revenue (“CDOR”) for a certificate, or certificates, of exemption indicating that their purchase of construction or building materials is for a public project, and to deliver to the City copies of such applications as soon as possible after approval by the CDOR. Proposers shall not include in their Proposal amounts the exempt State, RTD, and Cultural Facilities District Sales and Use Taxes.
4. Denver Occupational Privilege Tax. Any employee working for a contractor or a subcontractor who earns over \$500 working in Denver during a calendar month is subject to the payment of the Employee Occupational Privilege Tax. The Contractor and any subcontractor must pay the Business Occupational Privilege Tax for each of its employees who are subject to such tax.

IP-16 NONDISCRIMINATION IN THE AWARD OF CITY CONTRACTS

It is the policy of the City and County of Denver to prohibit discrimination in the award of construction contracts and subcontracts for public improvements. Further, the City and County of Denver encourages contractors to utilize minority and women owned businesses and to divide the construction work into economically feasible units or segments to allow the most opportunity for subcontracting.

IP-17 MINORITY/WOMEN BUSINESS ENTERPRISE (MBE/WBE) REQUIREMENTS

This Contract is subject to all applicable provisions of Article III Divisions 1 and 3 of Chapter 28 of the DRMC (the “M/WBE Ordinance”) and any Rules or Regulations promulgated pursuant thereto.

In accordance with the requirements of the M/WBE Ordinance, the Contractor is committed to, at a minimum, meet the participation goal of twenty-one percent (20%) established for this Project, utilizing properly certified M/WBE subcontractors and suppliers. The Goal must be met with certified participants as set forth in Section 28-55, D.R.M.C. or through the demonstration of a sufficient good faith effort under Section 28-67, D.R.M.C. For compliance with good faith effort requirements under Section 28-62(b)(2), the percentage solicitation level required for this project is 100%. The Contractor identified in its Proposal MBE and/or WBE firms with which it intends to subcontract for services under this Agreement.

In accordance with the requirements of the M/WBE Ordinance, the Contractor is committed to, at a minimum, meet the participation goal of 20% utilizing properly certified M/WBE subcontractors and suppliers. In accordance with Section 28-60(b)

and Rules and Regulations promulgated pursuant thereto, the Director has authorized the utilization of a compliance plan to address the Goal for this Project. Upon execution of this Contract, the Contractor will prepare and present for the review and approval of the Director a compliance plan for meeting the requirements of the M/WBE Ordinance. At a minimum, the proposed compliance plan shall comply with all requirements of the Rules and Regulations pertaining to such plans and shall be approved in writing by the Director. Upon such approval, the plan will be incorporated into this Contract by Change Order as an Exhibit.

Without limiting the general applicability of the foregoing, the Contractor acknowledges its continuing duty, pursuant to Section 28-72 DRMC, to meet and maintain throughout the duration of this Contract its participation and compliance commitments and to ensure that all Subcontractors subject to the Ordinance also maintain such commitments and compliance. Failure to comply with these requirements may result, at the discretion of the Director of the Division of Small Business Opportunity (“DSBO”), in the imposition of sanctions against the Contractor in accordance with Section 28-77, DRMC. Nothing contained in this Paragraph or in the referenced City ordinance shall negate the City’s right to prior approval of Subcontractors, or substitutes therefore, under this Contract.

The proposer understands that if change orders or any other contract modifications are issued under the contract, the proposer shall have a continuing obligation to immediately inform DSBO in writing of any agreed upon increase or decrease in the scope of work of such contract, upon any of the bases discussed in Section 28-73 of the Ordinance, regardless of whether such increase or decrease in scope of work has been reduced to writing at the time of notification.

The proposer understands that if change orders or other contract modifications are issued under the contract, that include an increase in scope of work of a contract for construction, reconstruction, or remodeling, whether by amendment, change order, force account or otherwise which increases the dollar value of the contract, whether or not such change is within the scope of work designated for performance by an MBE/WBE at the time of contract award, such change orders or contract modification shall be immediately submitted to DSBO for notification purposes. Those amendments, change orders, force accounts or other contract modifications that involve a changed scope of work that cannot be performed by existing project subcontractors or by the contractor shall be subject to a goal for MBE/WBEs equal to the original goal on the contract which was included in the proposal. The contractor shall satisfy such goal with respect to such changed scope of work by soliciting new MBE/WBEs in accordance with Section 28-73 of the Ordinance as applicable, or the contractor must show each element of modified good faith set out in Section 28-75 (c) of the Ordinance. The contractor or consultant shall supply to the director the documentation described in Section 28-75 (c) of the Ordinance with respect to the increased dollar value of the contract.

All proposers are charged with knowledge of and are solely responsible for complying with each and every provision of the Ordinance in making a bid and, if awarded, in performing the work described in the Contract Documents. Failure to comply with these provisions could constitute cause for rejection of a bid or subject the selected contractor to sanctions set forth in the Ordinance. These instructions are intended only to generally assist the proposer in preparing and submitting a compliant bid. Should any questions arise regarding specific circumstances, proposers must consult the Ordinance or contact the Project's designated DSBO representative at (303) 342-2180.

IP-18 DIVERSITY AND INCLUSIVENESS IN CITY SOLICITATIONS

The City and County of Denver encourages, but does not require, participation of independent partnerships with SBEs, MBEs, WBEs, and other business enterprises in supply chain activities, prime/subcontractor partnerships, and joint ventures for all contracts and purchase orders. Failure to participate or disclose this information will not impact the award of the contract or purchase order. Voluntary disclosure of such independent partnerships to the City, if any, will be forwarded the DSBO for recording purposes only.

Using the form contained in the Bid Forms, entitled "Diversity and Inclusiveness in City Solicitations Information Request Form", please state whether you have a diversity and inclusiveness program for employment and retention, procurement and supply chain activities, or customer service and provide the additional information requested on the form. The information provided on the Diversity and Inclusiveness in City Solicitations Information Request Form will provide an opportunity for City contractors/consultants to describe their own diversity and inclusiveness practices. Contractors/consultants are not expected to conduct intrusive examinations of its employees, managers, or business partners in order to describe diversity and inclusiveness measures. Rather, the City simply seeks a description of the contractor/consultant's current practices, if any. Diversity and Inclusiveness information provided by City contractors/consultants in response to City solicitations for services or goods will be collated, analyzed, and made available in reports consistent with City Executive Order No. 101. However, no personally identifiable information provided by or obtained from contractors/consultants will be in such reports.

IP-19 WAGE RATE REQUIREMENTS

Pursuant to Section 20-76 of the Revised Municipal Code, the Proposer selected to perform this contract shall pay mechanics, laborers and workers employed directly upon the site of the work the full amounts accrued at the time of payment, computed wage rates not less than those shown on the current prevailing wage rate schedule included in the contract Proposal documents and any addenda thereto. If the City's Career Service Board issues a modification to those wage rates more than ten (10) days prior to the scheduled Proposal submission, those modifications will be published in an addendum issued by the City to all prospective Proposers. The City

may, in its sole discretion, determine on a case-by-case basis whether wage rate modifications issued by the Career Service Board ten (10) days or less before the Proposal opening will be included in an addendum. If they are included in an addendum, the City may, in its sole discretion, elect to postpone the date of Proposal opening.

If the term of the contract extends for more than one year, the minimum City prevailing wage rates which contractors and subcontractors shall pay during any subsequent yearly period or portion thereof shall be the wage rates in effect on the yearly anniversary date of the contract which begins such subsequent period. In no event shall any increases in prevailing wages after the first anniversary of the contract result in any increased liability on the part of the City and the possibility and risk of any such increase is assumed by all contractors entering into such contract with the City.

IP-20 CONSTRUCTION SCHEDULING

The Proposer should refer to the General Conditions, Special Conditions, and Division I of the Technical Specifications for scheduling requirements for this contract.

IP-21 EQUAL EMPLOYMENT OPPORTUNITY

1. Article III, Division 2 of Chapter 28 applies to this contract. It is the policy of the City to provide equal opportunity in employment without regard to race, color, creed, sex, national origin, religion, marital status, or political opinion or affiliation. It is hereby deemed and declared to be for the public welfare and in the best interest of the City to require Proposers, contractors and subcontractors soliciting and receiving, directly or indirectly, compensation from or through the City, for the performance of such contracts, to meet certain affirmative action and equal employment opportunity requirements. Additionally, contractors and subcontractors that hold any contracts which are federally-assisted shall be required to adhere to the Department of Labor's Contract Compliance program under Executive Order 11246 as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60-4.
2. After the Notice to Selected Proposer has been issued, the Selected Proposer shall submit the following to the Small Business Opportunity Division:
 - (a) A statement that the Proposer shall implement the affirmative action steps set forth in the Rules and Regulations and Proposal Conditions of the Manager of Public Works pertaining to Equal Employment Opportunity, attached hereto, or the Proposer's affirmative action plan which meets these requirements, and
 - (b) A projection of its anticipated workforce for this contract on the attached "EEO Questionnaire." Both of these submittals are required

before the Small Business Opportunity Division will approve the Notice to Proceed.

3. The Proposer which is awarded this contract shall comply with the provisions and requirements, including the goals of minority and female participation and specific affirmative action steps, set forth in the Rules and Regulations and Proposal Conditions of the Manager of Public Works pertaining to Equal Employment Opportunity, as said rules and regulations may be amended or readopted from time to time by the Manager of Public Works or the Director of the Small Business Opportunity Division.

IP-22 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

The Proposer certifies, by submission of its Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or involuntarily excluded from participation in any government contract by any Federal, State, or local government department or agency. It further agrees by submitting its Proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the Proposer or any lower tier participant is unable to certify to this statement, it shall attach an explanation to its Proposal.

IP-23 INSURANCE REQUIREMENTS

In preparing its Bid, the Bidders shall assure that insurance requirements contained in the Contract Documents are met. In accordance with the provisions of General Contract Condition 1601, INSURANCE, the minimum insurance requirements for this Contract are set forth in the form **CITY AND COUNTY OF DENVER INSURANCE CERTIFICATE** contained in the Special Conditions Section of the Contract Documents. Bidders are urged to consider in preparing a bid hereunder that the Contractor and all subcontractors performing Work on the Project must comply with each condition, requirement or specification set forth in the form certificate, unless such requirements are specifically excepted in writing by the City's Risk Management Administrator. The Contractor must either include all subcontractors performing work hereunder as insureds under each required policy or obtain a separate certificate for each subcontractor. The City reserves the right to request copies of these certificates at any time.

All certificates required by this Contract shall be sent directly to Denver International Airport, Business Management Services, via the following email address: ContractDocs@flydenver.com. The City project/Contract number and project description shall be noted on the certificate of insurance. The City reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.

IP-24 EVALUATION OF QUALIFICATIONS

The City’s Evaluation and Selection Committee will review and evaluate the written qualifications based upon the Proposer’s demonstrated experience and qualifications in the scope of services required. The Proposer’s ability to present its qualifications in writing, in a clear, concise and organized manner will be considered in the evaluation. The City shall then, taking into consideration the recommendations of the Evaluation and Selection Committee, select the most qualified Proposer for contract negotiations. The following is the Qualifications Evaluation sheet and scoring criteria used by the Selection Committee in evaluating the submissions.

PROPOSAL SCORESHEET

Agreement Title: _____

Agreement Number: _____

Proposer: _____

Review Date: _____

RATING FACTORS

5 - EXCELLENT 4 - ABOVE AVERAGE 3 - AVERAGE 2 - BELOW AVERAGE 1 – POOR 0 - NONRESPONSIVE

Signature: _____

Proposers were instructed to limit their proposal to 10 MB. Elements of the proposals which scorers should consider are as follows:	WEIGHT FACTOR	RATING FACTOR (0-5)	SCORE
1. EXPERIENCE/PAST PERFORMANCE			
2. KEY PERSONNEL REQUIREMENTS			
3. QUALITY CONTROL PLANS			
TOTAL SCORE			

Scoring Criteria:

Excellent (5 points): The Proposer demonstrates an approach that is considered to significantly exceed the listed requirements/objectives in a beneficial way (providing advantages, benefits, or added value to the Project), and provides a consistently outstanding level of quality. There is no risk that the Proposer would fail to meet the requirements of the RFP and there are no weaknesses.

Above average (4 points): The Proposer demonstrates an approach that is considered to mostly exceed the listed requirements/objectives in a beneficial way (providing advantages, benefits, or added value to the Project), and provides an above average level of quality. There is a slight or below average risk that the Proposer would fail to meet some of the requirements of the RFP. There are only minor weaknesses that can be readily corrected.

Average (3 points): The Proposer demonstrates an approach that is considered to consistently meet the RFP requirements/objectives and offers an acceptable level of quality. The Proposer demonstrates a good probability of meeting most of the requirements of the Solicitation. There is a reasonable amount of risk that the Proposer may fail to satisfy some of the requirements of the Project Contract. Weaknesses are minor and may be readily corrected.

Below Average (2 points): The Proposer demonstrates an approach that is considered to marginally meet the stated requirements/objectives and has a slightly below minimum level of quality. There is higher than normal risk that the Proposer may fail to satisfy the requirements of the Contract and weaknesses are higher than normal.

Poor (1 point): The Proposer has demonstrated an approach that has a very good probability of failing to meet most of the stated requirements/objectives, and/or provides poor quality, and/or is a very high risk, and/or will fail to meet most of the requirements of the Solicitation, and/or contains several weaknesses that may be considered major and/or extensive that a large revision to the Proposal would be necessary.

Unacceptable (0 points): The Proposer has demonstrated an approach which is considered a failure to meet the stated requirements/objectives, and/or provides unacceptable quality, and/or demonstrates no reasonable likelihood of meeting the requirements of the Solicitation, and/or contains weaknesses that are so major and/or extensive that a complete revision to the Proposal would be necessary.

IP-25 INVOICING

The contractor recognizes and agrees that it shall be required to use the Textura® Construction Payment Management System (CPM System) for this Project. Bidders are urged, when preparing a bid, to contact the Textura® Corporation at 866-TEXTURA (866-839-8872) for pricing schedule and fees, as all fees associated with

the CPM System are to be paid by the Contractor prior to billing for any work performed.

IP-26 PROJECT CONTROLS REQUIREMENTS

The Contractor will be required to use Primavera Unifier and Primavera P6 to comply with the requirements of DIA's Project Controls System. The Project Controls System is Airport Infrastructure Management's tool for project and information management, data analysis and document control. Denver International Airport will be responsible for providing the training for Primavera Unifier and Primavera P6. The Contractor will be responsible for providing Primavera P6. The Contractor will also be responsible for providing and maintaining the computer hardware, software and system environment capable of supporting Project Controls System requirements including as the minimum: internet connection; Microsoft Internet Explorer 9 or better; Microsoft Office 2010; Oracle Java JRE 1.7.0 Update 5 and Adobe Acrobat X Pro. This is the only project management system that will be accepted.

END OF THIS SECTION

PREVAILING WAGES

The Prevailing Wage Schedule(s) which apply to this contract are contained in the pages immediately following this page. These pages are not included in the page numbering of this contract document.



DENVER
THE MILE HIGH CITY

Career Service Authority

Denver's Human Resource Agency

201 W. Colfax, Department 412

Denver, CO 80202

p: 720.913.5751

f: 720.913.5720

www.denvergov.org/csa

TO: All Users of the City of Denver Prevailing Wage Schedules

FROM: Seth Duhon-Thornton Staff HR Professional

DATE: Friday April 11, 2014

SUBJECT: Latest Change to Prevailing Wage Schedules

Please be advised, prevailing wage rates for some building, heavy, and highway construction trades have not been updated by the United States Department of Labor (DOL) since March 1, 2002. The Career Service Authority Board, in their meeting held on April 21, 2011, approved the use of the attached supplemental wage rates until prevailing wage rates for these classifications of work are again published by the United States Department of Labor in accordance with the Davis-Bacon Act. The rates will be provided as a supplemental to the Davis-Bacon Highway rates issued by CSA.

The effective date for this publication is **Friday April 11, 2014** and applies to the City and County of Denver for **HIGHWAY CONSTRUCTION PROJECTS** in accordance with the Denver Revised Municipal Code, Section 20-76(c).

General Wage Decision No. CO140019
Superseded General Decision No. CO20130019
Modification No. 03
Publication Date: 4/4/2014
(8 pages)

Unless otherwise specified in this document, apprentices shall be permitted only if they are employed pursuant to, and individually registered in, a bona fide apprenticeship program registered with the U.S. Department of Labor (DOL). The employer and the individual apprentice must be registered in a program, which has received prior approval, by the DOL. Any employer, who employs an apprentice and is found to be in violation of this provision, shall be required to pay said apprentice the full journeyman scale.

For questions call (720) 913-5018

Attachments as listed above.

General Decision Number: CO140019 04/04/2014 CO19

Superseded General Decision Number: CO20130019

State: Colorado

Construction Type: Highway

Counties: Denver and Douglas Counties in Colorado.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/03/2014
1	01/24/2014
2	01/31/2014
3	04/04/2014

* CARP9901-008 05/01/2013

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 25.00	5.39

ELEC0068-016 03/01/2011

	Rates	Fringes
TRAFFIC SIGNALIZATION:		
Traffic Signal Installation		
Zone 1.....	\$ 26.42	4.75%+8.68
Zone 2.....	\$ 29.42	4.75%+8.68

TRAFFIC SIGNAL INSTALLER ZONE DEFINITIONS

Zone 1 shall be a 35 mile radius, measured from the following addresses in each of the following cities:
Colorado Springs - Nevada & Bijou
Denver - Ellsworth Avenue & Broadway
Ft. Collins - Prospect & College
Grand Junction - 12th & North Avenue
Pueblo - I-25 & Highway 50
All work outside of these areas shall be paid Zone 2 rates.

ENGI0009-008 10/23/2013

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
(3)-Hydraulic Backhoe (Wheel Mounted, under 3/4 yds), Hydraulic Backhoe (Backhoe/Loader combination), Drill Rig Caisson (smaller than Watson 2500 and similar), Loader (up to and including 6 cu. yd.).....	\$ 24.73	9.15
(3)-Loader (under 6 cu. yd.)		

Denver County.....	\$ 24.73	9.15
(3)-Motor Grader (blade-rough)		
Douglas County.....	\$ 24.73	9.15
(4)-Crane (50 tons and under), Scraper (single bowl, under 40 cu. yd).....	\$ 24.88	9.15
(4)-Loader (over 6 cu. yd)		
Denver County.....	\$ 24.88	9.15
(5)-Drill Rig Caisson (Watson 2500 similar or larger), Crane (51-90 tons), Scraper (40 cu.yd and over),.....	\$ 25.04	9.15
(5)-Motor Grader (blade-finish)		
Douglas County.....	\$ 25.04	9.15
(6)-Crane (91-140 tons).....	\$ 25.19	9.15

SUCO2011-004 09/15/2011

	Rates	Fringes
CARPENTER (Excludes Form Work)...	\$ 19.27	5.08
CEMENT MASON/CONCRETE FINISHER		
Denver.....	\$ 20.18	5.75
Douglas.....	\$ 18.75	3.00
ELECTRICIAN (Excludes Traffic Signal Installation).....	\$ 35.13	6.83
FENCE ERECTOR (Excludes Link/Cyclone Fence Erection).....	\$ 13.02	3.20
GUARDRAIL INSTALLER.....	\$ 12.89	3.20
HIGHWAY/PARKING LOT STRIPING:Painter		
Denver.....	\$ 12.62	3.21
Douglas.....	\$ 13.89	3.21
IRONWORKER, REINFORCING (Excludes Guardrail Installation).....	\$ 16.69	5.45
IRONWORKER, STRUCTURAL (Includes Link/Cyclone Fence Erection, Excludes Guardrail Installation).....	\$ 18.22	6.01
LABORER		
Asphalt Raker.....	\$ 16.29	4.25
Asphalt Shoveler.....	\$ 21.21	4.25
Asphalt Spreader.....	\$ 18.58	4.65
Common or General		
Denver.....	\$ 16.76	6.77
Douglas.....	\$ 16.29	4.25
Concrete Saw (Hand Held)....	\$ 16.29	6.14
Landscape and Irrigation....	\$ 12.26	3.16
Mason Tender-		

Cement/Concrete		
Denver.....	\$ 16.96	4.04
Douglas.....	\$ 16.29	4.25
Pipelayer		
Denver.....	\$ 13.55	2.41
Douglas.....	\$ 16.30	2.18
Traffic Control (Flagger)...	\$ 9.55	3.05
Traffic Control (Sets Up/Moves Barrels, Cones, Install Signs, Arrow Boards and Place Stationary Flags) (Excludes Flaggers).....	\$ 12.43	3.22
PAINTER (Spray Only).....	\$ 16.99	2.87
POWER EQUIPMENT OPERATOR:		
Asphalt Laydown		
Denver.....	\$ 22.67	8.72
Douglas.....	\$ 23.67	8.47
Asphalt Paver		
Denver.....	\$ 24.97	6.13
Douglas.....	\$ 25.44	3.50
Asphalt Roller		
Denver.....	\$ 23.13	7.55
Douglas.....	\$ 23.63	6.43
Asphalt Spreader.....	\$ 22.67	8.72
Backhoe/Trackhoe		
Douglas.....	\$ 23.82	6.00
Bobcat/Skid Loader.....	\$ 15.37	4.28
Boom.....	\$ 22.67	8.72
Broom/Sweeper		
Denver.....	\$ 22.47	8.72
Douglas.....	\$ 22.96	8.22
Bulldozer.....	\$ 26.90	5.59
Concrete Pump.....	\$ 21.60	5.21
Drill		
Denver.....	\$ 20.48	4.71
Douglas.....	\$ 20.71	2.66
Forklift.....	\$ 15.91	4.68
Grader/Blade		
Denver.....	\$ 22.67	8.72
Guardrail/Post Driver.....	\$ 16.07	4.41
Loader (Front End)		
Douglas.....	\$ 21.67	8.22
Mechanic		
Denver.....	\$ 22.89	8.72
Douglas.....	\$ 23.88	8.22
Oiler		
Denver.....	\$ 23.73	8.41
Douglas.....	\$ 24.90	7.67
Roller/Compactor (Dirt and Grade Compaction)		
Denver.....	\$ 20.30	5.51
Douglas.....	\$ 22.78	4.86
Rotomill.....	\$ 16.22	4.41
Screed		
Denver.....	\$ 22.67	8.38
Douglas.....	\$ 29.99	1.40
Tractor.....	\$ 13.13	2.95

TRAFFIC SIGNALIZATION:

Groundsman		
Denver.....	\$ 17.90	3.41
Douglas.....	\$ 18.67	7.17

TRUCK DRIVER

Distributor		
Denver.....	\$ 17.81	5.82
Douglas.....	\$ 16.98	5.27
Dump Truck		
Denver.....	\$ 15.27	5.27
Douglas.....	\$ 16.39	5.27
Lowboy Truck.....	\$ 17.25	5.27
Mechanic.....	\$ 26.48	3.50
Multi-Purpose Specialty & Hoisting Truck		
Denver.....	\$ 17.49	3.17
Douglas.....	\$ 20.05	2.88
Pickup and Pilot Car		
Denver.....	\$ 14.24	3.77
Douglas.....	\$ 16.43	3.68
Semi/Trailer Truck.....	\$ 18.39	4.13
Truck Mounted Attenuator....	\$ 12.43	3.22
Water Truck		
Denver.....	\$ 26.27	5.27
Douglas.....	\$ 19.46	2.58

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Career Service Authority

Supplemental to the Davis-Bacon *HIGHWAY* Construction Projects rates

(Specific to the Denver Projects)

(Supp 35, Date: 01-13-2012)

<u>Classification</u>		<u>Base</u>	<u>Fringe</u>
Millwrights		\$28.00	\$10.00
Line Construction:			
	Lineman, Gas Fitter/Welder	\$36.88	\$9.55
	Line Eq Operator/Line Truck Crew	\$25.74	\$8.09
Power Equipment Operators (Tunnels Above and Below Ground, shafts and raises):			
	GROUP 1	\$25.12	\$10.81
	GROUP 2	\$25.47	\$10.85
	GROUP 3	\$25.57	\$10.86
	GROUP 4	\$25.82	\$10.88
	GROUP 5	\$25.97	\$10.90
	GROUP 6	\$26.12	\$10.91
	GROUP 7	\$26.37	\$10.94
Power Equipment Operators:			
	GROUP 1	\$22.97	\$10.60
	GROUP 2	\$23.32	\$10.63
	GROUP 3	\$23.67	\$10.67
	GROUP 4	\$23.82	\$10.68
	GROUP 5	\$23.97	\$10.70
	GROUP 6	\$24.12	\$10.71
	GROUP 7	\$24.88	\$10.79
Ironworkers (Ornamental)		\$24.80	\$10.03
Laborers (Removal of Asbestos)		\$21.03	\$8.55
Plumbers		\$30.19	\$13.55
Pipefitters		\$30.45	\$12.85
Truck Drivers:			
	GROUP 1	\$18.42	\$10.00
	GROUP 2	\$19.14	\$10.07
	GROUP 3	\$19.48	\$10.11
	GROUP 4	\$20.01	\$10.16
	GROUP 5	\$20.66	\$10.23
	GROUP 6	\$21.46	\$10.31

POWER EQUIPMENT OPERATOR CLASSIFICATIONS
(TUNNELS ABOVE AND BELOW GROUND, SHAFTS, AND RAISES):

GROUP 1 - Brakeman

GROUP 2 - Motorman

GROUP 3 - Compressor

GROUP 4 - Air Tractors; Grout Machine; Gunnite Machine; Jumbo Form

GROUP 5 - Concrete Placement Pumps; Mucking Machines and Front End Loaders, Underground, Slusher; Mine Hoist Operator; Mechanic

GROUP 6 - Mechanic Welder

GROUP 7 - Mole

NOTE: Any equipment listed below being used in tunnel work, below or above ground shall be paid not less than \$2.00 per hour above the listed wage rates.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1 - Air compressor, brakeman, drill operator -smaller than Watson 2500 and similar, operators of 5 or more light plants, welding machines, generators, single unit conveyor, pumps, vacuum well point system, tractor, under 70 hp with or without attachments compressors, 360 C.F.M. or less

GROUP 2 - Conveyor, handling building materials, ditch witch and similar trenching machine, forklift, haulage motor man, pugmill, portable screening plant with or without a spray bar, screening plants, with classifier, self-propelled roller, rubber-tires under 5 tons.

GROUP 3 - asphalt plant, backfiller; cableway signalman; C.M.I. and similar, concrete batching plants, concrete finish machine, concrete gang saw on concrete paving, concrete mixer, less than 1 yd., under 8 inches, distributors, bituminous surfaces dozer, drill, diamond or core, elevating graders, elevator operator, lubricating and service engineer, grout machine, gunnite machine, hoist, 1 drum, horizontal directional drill operator, hydraulic backhoes; road stabilization machine, sandblasting Machine, single unit portable crusher, with or without washer, Tie tamper, wheel mounted, trenching machine operator, winch on truck.

GROUP 4 - Cable operated power shovels, draglines, clamshells, 5 cubic yards and under, concrete mixer over 1 Cubic yard, concrete pavers 34E or similar, grade Checker, hoist, 2 drums, mechanic, mixer mobile, Portable crusher, with or without washer; tractor with sideboom, roto-M ill and similar, welder.

GROUP 5 - Cable operated power shovels, draglines, clamshells and Backhoes over 5 cubic yards, caisson drill Watson 2500 similar or larger, motor grader blade-finish, hoist 3 drum or more.

GROUP 6 - Cableway, derrick, quad nine push unit, wheel excavator, belt or elevating loader.

GROUP 7 - tower cranes all types.

TRUCK DRIVER CLASSIFICATIONS:

GROUP 1 - Greasemen, Servicemen and Ambulance Drivers, Battery Men, Shuttle Truck or Bus, Flat Rack Tandem Axle.

GROUP 2 - Fork Lift Driver, Straddle Truck Driver, Lumber Carrier, Liquid and Bulk Tankers Single Axle, Combination, Euclid Electric or Similar, Specialty and Hoisting, Truck Drivers Fuel Truck, Grease Truck, Combination Fuel and Grease.

GROUP 3 - Truck Driver Snow Plow, Truck Driver Dump or Type Jumbo and similar type equipment.

GROUP 4 - Cement Mixer Agitator Truck over 10 cubic yards to and including 15 cubic yards, Tire Man, Cab Operated Distributor Truck Driver.

GROUP 5 - Heavy Duty Diesel Mechanic, Body Man, Welders or Combination Men.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.



DENVER INTERNATIONAL
AIRPORT
TOGETHER WE SOAR

Miscellaneous Roadway & Parking Lot Improvements On-Call
Contract No. 201417353

Proposed By:

Interstate Highway Construction, Inc.

7135 S. Tucson Way
P. O. Box 4356
Englewood, Colorado 80155

This proposal includes data that shall not be disclosed and shall not be duplicated – in whole or in part – for any purpose other than to evaluate this proposal. This restriction does not limit the right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in all sheets of this document.



Proudly Providing Excellence to the City and County of Denver Since 1976

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**DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT
IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

TAB 1

PROPOSAL LETTER AND PREQUALIFICATION INFORMATION



**DENVER INTERNATIONAL
AIRPORT**
TOGETHER WE SOAR



**CONTRACTOR'S PROPOSAL
FORMS**

**MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL
CONTRACT NO: 201417353**

October/2014

CONTRACTOR

Interstate Highway Construction, Inc.

NAME

P. O. Box 4356

ADDRESS

Englewood, CO 80155

Physical: 7135 S. Tucson Way, Englewood, CO 80112

PROPOSAL LETTER

PROPOSER Interstate Highway Construction, Inc.

Manager of Aviation
City and County of Denver
Business Management Services (Procurement) Office
Airport Office Building, Room 8810
Denver International Airport
8500 Peña Boulevard
Denver, Colorado 80249

This letter is in response to the Notice of Invitation for Proposals first published on October 27, 2014, for Contract No. 201417353, Denver International Airport.

The project consists of MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL contract. Projects will be incorporated into the Contract through Task Orders as defined in the Scope of Work.

The undersigned Proposer declares that it has carefully read and examined all of the contract documents which include, but are not limited to, the Technical Specifications, Construction Contract General Conditions, Special Conditions, Instructions to Proposers, and EEO provisions. Proposer hereby proposes to furnish all labor, materials, equipment, tools, transportation and services, and to discharge all duties and obligations necessary and required to perform and complete the Work as required in the Contract Documents and the Task Order Documents as provided.

The undersigned acknowledges receipt, understanding and full consideration of the following addenda to the Contract Documents:

Addenda Nos.: One

The undersigned agrees that this Proposal is a firm offer to the City to perform and complete the Contract described above, which cannot be withdrawn for one hundred twenty (120) calendar days after the Proposals are opened or until after a contract for the work described in these Proposal documents is fully executed by the City, whichever date is earlier.

The undersigned Proposer hereby agrees to appear at Denver International Airport, Business Management Services Office, Room 8810, Airport Office Building, at any time within five (5) working days from the date of a written notice from the Manager to do so, mailed and/or faxed to the business address of Proposer and at that time the Proposer shall: (1) deliver an executed Contract which conforms with this Proposal; (2) furnish the required performance and payment bonds in the sum of the Task 1 Proposal Amount, executed by a surety company acceptable to the Manager; and (3) furnish the required insurance documents.

Enclosed herewith is a Proposal guarantee, as defined in the Instructions to Proposers, in the amount of which Proposal guarantee the undersigned Proposer agrees is to be paid to and become the property of the City as liquidated damages should the Proposal be considered to be the best by the City and the undersigned Proposer notified that it is the apparent low Proposer and it fails to enter into contract in the form prescribed and to furnish the required performance and payment bonds and evidences of insurance within five (5) working days as stipulated above.

Attached and incorporated herein are the following proposal forms: Experience and Past Performance Information Form; Key Personnel Information Form; Quality Control Plans Form, Schedule of Prices and Quantities, and Proposal Data Forms. All of the forms must be completed. Proposer acknowledges that the City may incorporate, at its option, any or all of the data submitted by the Proposer into a contract arising out of this Proposal.

The undersigned Proposer acknowledges the right of the City to waive informalities in the Proposals, to reject any or all Proposals submitted, and to re-advertise for Proposals.

The undersigned certifies that it has examined and is fully familiar with all of the provisions of the Contract Documents and is satisfied that they are accurate; that it has carefully checked all words and figures and all statements made in these Proposal forms; and that it has satisfied itself with respect to the actual site conditions and the nature and location of the Work, the general and local conditions which may be encountered in the performance of the Work, and other matters which in any way affect the Work or the cost thereof.

[CERTIFICATION AND SIGNATURE ON FOLLOWING PAGES]

This Proposal is submitted upon the declaration that neither, I (we), nor, to the best of my (our) knowledge, none of the members of my (our) firm or company have either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive proposing in connection with this Proposal.

Dated this 19th day of December, 2014.

BUSINESS ADDRESS OF PROPOSER:

P. O. Box 4356

Englewood, CO 80155

City, State, Zip Code:

Physical: 7135 S. Tucson Way, Englewood, CO 80112

Telephone Number of Proposer:

(303) 790-9100

Fax Number of Proposer:

(303) 790-8524

Social Security or Employer Id. No. of Proposer:

38-1504686

SIGNATURE OF PROPOSER:

If a Corporation:

PRINT NAME OF CORPORATION:

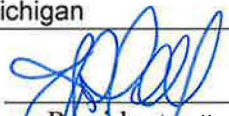
Interstate Highway Construction, Inc.

Attest:

(Corporate Seal)

a Michigan Corporation



By: 

Secretary Lori L. Taylor

President Jim Randall

If a Limited Liability Company:

PRINT NAME OF LIMITED LIABILITY COMPANY:

Organized in the State of _____

By: _____
Manager

[Signature blocks for partnerships, limited partnerships and joint ventures are on following page(s)]



DENVER
THE MILE HIGH CITY

Department of Public Works
Office of the Manager

201 W. Colfax Avenue, Dept. 608
Denver, CO 80202
P: 720-865-8630
F: 720-865-8795
www.denvergov.org/PublicWorks

July 17, 2014

Mr. John Medberry
Interstate Highway Construction, Inc.
PO Box 4356
Englewood, CO 80155

Dear Mr. Medberry:

The Contractor's Prequalification Board has reviewed the application submitted by your firm. The Board has recommended that your firm be allowed to bid City and County of Denver construction projects requiring approval in the following categories: 1B-Excavation and Grading at \$9,000,000.00, 1F(2)-Concrete at \$25,000,000.00, 1F(4)-Pavement Rehabilitation at \$9,000,000.00, 1G(1)-Bridges at \$1,000,000.00, 1A-General - Civil at \$12,000,000.00. The Manager of the Department of Aviation and I have reviewed the recommendation and approve your prequalification. Your firm will not need to prequalify for bids that open prior to Tuesday, June 30, 2015.

The Board did not recommend prequalification in 1E(1) – Piped Water; 1E(3) – Water Transmission; 1E(5) – Sewer Open Channel/Pond and 1G(3) – Bridge Demolition and Rehabilitation. The reason for this action is: Your firm failed to demonstrate experience as a prime contractor on projects of the size and scope to qualify for prequalification for City contracts exceeding \$1 million dollars in this category. See Rule 5.02(3). This does not reflect a determination that your firm's performance has been substandard, but is based on the size of the projects your firm has completed within the past five years. The Manager of the Department of Aviation and I have reviewed the recommendation and approve the decision of the Board.

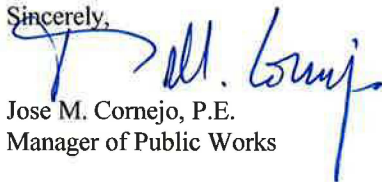
Under the Rules for Prequalification of Construction Contractors, if you wish to contest the decision of the Board regarding the category or categories not recommended for prequalification, you may request a hearing based on Section 56-106(b) of the City's Revised Municipal Code. Any such request must be made in writing, and received by me within thirty calendar days after your receipt of this letter.

Compliance with the "RULES FOR PREQUALIFICATION OF CONSTRUCTION CONTRACTORS" with the Departments of Aviation and Public Works of the City and County of Denver is necessary in order to ensure acceptable bids. Should you wish to bid on any other project in which the cost of construction is estimated to exceed your bid limit, or if you intend to participate in excess of \$1,000,000 in a joint venture, you must submit a written request for further consideration by the Prequalification Board.

We appreciate your interest in bidding on City and County of Denver contracts and look forward to working with you in the future.

Should you have any questions concerning the prequalification process, do not hesitate to contact us at 720.865.2539.

Sincerely,



Jose M. Cornejo, P.E.
Manager of Public Works

cc: Prequalification Board File



Protecting the Present & Building the Future
Accountability, Innovation, Empowerment, Performance, Integrity,
Diversity, Teamwork, Respect, Excellence, Safety

**DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT
IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

TAB 2

EXPERIENCE AND PAST PERFORMANCE



**DENVER INTERNATIONAL
AIRPORT**

TOGETHER WE SOAR



EXPERIENCE AND PAST PERFORMANCE

Interstate Highway Construction (IHC) has 35 years of customer service to the City and County of Denver (CCD). Denver is home to our corporate office, which means work in this market is more than just a project to IHC; we have a vested interest in the service to our community. Since the initial construction of the Denver International Airport (DIA), IHC has performed five Miscellaneous Roadway projects, plus an additional nineteen landside construction projects. While executing our past landside projects, IHC has gained a tremendous amount of experience in teaming with the CCD Engineering Staff and Airport Officials to successfully manage the following: scope of work, engineering, scheduling, coordinating, pricing, construction and warranty of a countless number of work orders.

Throughout the last eighteen years, IHC has encountered virtually every type of scheduling hurdle imaginable. Considering an International Airport, coupled with the Colorado climate, this location required the project team to be innovative and creative in completing the work while minimizing the amount of disturbance to airport operations. On past projects of similar nature, this has meant: performing work during the winter months, nights, weekends, 24hrs a day, significantly compressed schedules, schedules consisting of long no-work periods, detours, phased construction and coordinating with adjacent projects.

IHC has long been committed to DIA in finding low cost options of completing the work while achieving the desired intent of the project. Throughout the years, IHC is constantly exploring more cost effective options to pass along to the owners.

The quality of IHC's work is paramount to our core values. Our commitment and dedication to provide owners with a top of the industry product, is what has kept IHC as an award winning leader of the industry for many years.

Our experience working with the airport and knowledge of the processes and operations gives us a unique understanding of being able to navigate, plan and complete this type of project, while maintaining the best interests of all stakeholders.

Our long standing relationship demonstrates the unwavering commitment IHC has provided to the airport over the years. IHC is dedicated to continuing that long history of customer service and satisfaction and look forward to our continued involvement with DIA.

PROJECT NO. 1:

Name of governmental agency: City and County of Denver Department of Aviation

Name of Project: Miscellaneous Roadway and Parking Lot Improvements 2011 CE-12012

Location: Denver International Airport

Completion date: 06/01/2012 **Contract amount:** \$3,804,205.92

Description of project: Miscellaneous civil construction, maintenance and improvements throughout the airport property. Removal and replacement of concrete pavement, curb & gutter, sidewalk, excavation, common and aggregate base embankment, erosion control & landscaping, roadway barrier, stormwater pipe and structures, and retaining walls construction.

The 2011 Miscellaneous Roadway project included forty-eight individual work orders, ranging from two thousand dollars (\$2000) to just under one million dollars (\$1,000,000). The scope of work varied from dewatering the future hotel site, to erosion control and mitigation, and emergency bridge joint repairs. Each of the individual work orders required the contractor to investigate, plan, schedule, coordinate with appropriate airport officials, price and negotiate prior to beginning any work. Once all of this had been completed and the schedule agreed upon, the construction began. During the construction phase, IHC provided all of the necessary controls to ensure a successful project: Cost Management, Quality Control, Safety, Traffic Management, Erosion Control and Administrative functions. At the conclusion of each work order the finished product was inspected, punch list items were completed and the work order was considered complete. IHC was working on multiple work orders simultaneously and pricing several more.



Of the forty-eight work orders there are a few that illustrate some of the various hurdles IHC was faced with throughout this project, all of which were overcome due to excellent teamwork and the good working relationship IHC has with the various entities at DIA.

The first notable task was providing traction coating inside of the airport baggage tunnels. Although this project was inside the airport, it was part of the miscellaneous roadways project and an example of the wide range of work that IHC has performed under these projects. The airlines had a problem with the baggage carts losing control when trying to slow down during wet conditions. IHC was approached with this issue and with the help of the appropriate subcontractor and CCD Project Manager, a plan was formed. The biggest hurdle with this work is that it was late in the year and the work needed to be completed before the holidays, all while the baggage cart traffic remained in full use. Extensive coordination was performed with the airlines and airport operations to provide full cart traffic and minimize impacts to the airlines operations, which meant that the work needed to be performed at night, and due to this work

being temperature sensitive it also meant that the environment required heating. This work being inside an enclosed tunnel system required the use of compressed natural gas or electrical equipment, which posed another challenge as the current electric available in the tunnel was not adequate to support the equipment required to perform the work. IHC worked with our electrical subcontractor to provide the necessary equipment to convert the available electrical capacity into what was required. This work was performed on a tight time schedule, in a compact work area, with continuation of traffic and in winter conditions, however it was completed on schedule and within budget. The coating is still performing as designed and it is IHC's understanding the end users of the project, the airlines, are still extremely happy with the way this turned out.

On this project, IHC was tasked with performing multiple shoulder widening and replacements,



from Jackson Gap toward the airport. Each of the areas were examined, discussed and planned separately to determine the best approach for each. What makes these work orders notable is the way that IHC was able to sequence and schedule the combination of the widenings, so that construction was taking place in as many as 3 areas at one time. The work was staggered so the duration of each work order was not increased by the overlap of resources. The traffic control management required diligent planning as work areas were added and completed as separate stand alone projects. These tasks required a tremendous amount of coordination with airport

operations, the CCD Engineering and Operations, and was the direct result of the partnering efforts of all parties involved.

In support of the upcoming hotel construction, the CCD Project Manager was requested to provide bus turn-arounds on the T1 access road. IHC was asked to provide the construction necessary to complete this work. Upon review of the documents provided for construction, it was determined the design would not work in the current space available. The entire size, alignment, pavement, subgrade and features (curb and gutter, sidewalks, ramps, lighting), all required modification from the plan. IHC spent several days working with the CCD to re-design the turnaround to fit the current conditions and time frame requested. The work was originally brought to IHC the first of December, the work was redesigned by the CCD PM and IHC in time to begin on Dec 12th and despite winter weather conditions during subgrade and concrete placement, the work was completed on Dec 21st. The teamwork between parties and out-of-the-box approach to this work order, allowed this work to be completed on time and to the needs of the customer.

The final work order for this project was also related to the future construction of the new hotel. IHC was approached to widen Newcastle Rd in concrete to accommodate the upcoming traffic switch. When contacted on May 9th IHC agreed to perform the work the following day and the work needed to be completed by June 1st. This project required an on-the fly design that was a coordinated effort between IHC and the CCD. The initial stages of construction and removal began before the design had been completed. This work was directly adjacent to another contractor performing a separate project and had some overlapping work areas. The immediate

mobilization, extensive overtime and working relationships with subcontractors, vendors, and the CCD Engineering and Operations allowed IHC to complete this work by the deadline specified and under budget.

IHC's performance of all forty-eight of these work order illustrates our ability and desire to successfully perform these types of contracts. The wide range of scope performed on this contract provides a glimpse of our overall self performance and management capabilities, while the administrative controls that we have developed will continue to allow us to provide DIA with the documentation and procedural processes that are desired.



Name, address and telephone number of project manager for contracting agency:

Glenn Frieler - City and County of Denver Department of Aviation

8500 Pena Blvd. Denver, CO 80249 303-342-2933

PROJECT NO. 2:

Name of governmental agency: City and County of Denver Department of Aviation

Name of Project: Miscellaneous Roadway and Parking Lot Improvements 2010 CE-92083

Location: Denver International Airport

Completion date: 06/29/2011 **Contract amount:** \$3,741,683

Description of project: Miscellaneous civil construction, maintenance and improvements throughout the airport property. Removal and replacement of concrete pavement, curb & gutter, sidewalk, excavation, common and aggregate base embankment, erosion control & landscaping, roadway barrier, and RCP pipe.

The 2010 Miscellaneous Roadway project was similar in nature to the 2011 project described previously. This project included thirty-six individual work orders which ranged from two thousand dollars to six hundred thousand dollars. The scope of work on this project ranged from site work for Egyptian artwork, to sealing concrete joints inside the Frontier Baggage Carousels, to subgrade densification and slab jacking. Much like the 2011 project this project also required the contractor to plan, price, construct and close each of the work orders separately. Similarly, IHC was more often than not working on multiple work orders simultaneously, while pricing several others.

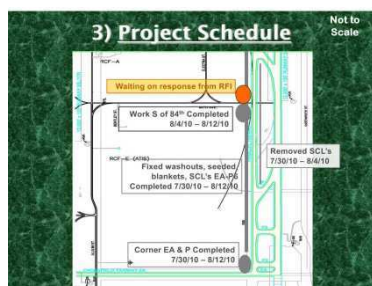
This project contained several similar types of work orders as identified in Project No. 1 write up. However, it also had several notable work orders that illustrate IHC's ability to perform this type of work at a high level.

During the time of this contract is when there was a statewide push on bringing construction erosion control measures back into compliance with federal regulations. Due to IHC's



demonstration of our ability to perform this type of work and maintain compliance of both on-site work and administrative capabilities, IHC was requested to perform multiple work orders involving erosion control remediation. The largest of these was on RW17L-35R complex, in order to correct deficiencies that remained from a prior project. This task was not a simple one with the amount of scrutiny that the airport was receiving over the area. IHC's relationship with the City and County of Denver's Public Works Department, CCD Engineering and Operations allowed this team to develop a plan that would bring the complex back into compliance. IHC took lead on

developing permanent stabilization plans for each area of concern, detailed, produced drawings and discussed these plans with all interested parties prior to beginning the work. The stern scrutiny that was placed on the airport to bring this complex back into compliance in order to



avoid consequences was diminished greatly by the administrative effort that was put forth by IHC. Weekly maps, pictures, diagrams and Power Point presentations were assembled by IHC and presented at weekly meetings to update the progress and further discuss upcoming plans. During the duration of this project, IHC also updated DIA on the status of their budget and cost effective options. The high level of effort by IHC and the teamwork between IHC and the CCD Engineering group

diffused this highly politicized issue that had a potential to have long lasting effects on the airport.

Traffic safety is of utmost concern to the traveling public that use the airport roadways. For this reason the area on outbound Pena Blvd just west of the gas station created a safety hazard to the public that was unacceptable to DIA. This area continually collected storm water and created an area of hydroplaning. The remedy was to remove and replace concrete panels, the hurdle was that no engineering had been completed so the extent of the replacement, new elevations, and subgrade work required had not been determined. IHC offered to provide the engineering and survey services required and provide design documents for approval prior to construction. This service not only allowed DIA to save the costs of an engineering firm, but also allowed the contractor and owner to discuss the most cost effective and construction efficient ways to obtain the desired end product. IHC and its subcontractors redesigned the area of the hydroplaning, worked through a few design alterations with the owner and performed the construction to eliminate the safety risk. This willingness and ability to perform this type of service saved the airport not only the cost of an engineering firm, but also optimized the construction to reduce the cost of the work put in place.



What turned out to be one of the more major work orders on this project were the spall repairs on Pena Blvd. Over the years, the original concrete roadway on Pena had developed a multitude of spalls in the concrete pavement. A work order was produced to begin performing spall repairs to lengthen the usable life of the pavement. IHC and its subcontractors began performing these repairs in mid June around the E-470 Bridge heading outbound. Once to the I-70 Bridge the crews turned around and headed back inbound, finally completing in mid November. This work required a full time night crew, traffic control, quality control and supervision for the duration of 5 months, all the while continuing daytime operations on several other work orders under the same contract. The contractor developed traffic control plans for every situation that was encountered, and worked with the CCD Engineering and Operations and the Denver Police Department to develop these plans to the satisfaction of all groups and to provide safe traffic management. This work order was not anticipated to turn into the scale that it ended up and was originally thought to be a 2-4 week operation; it was not until the lanes were closed and the work had begun that the dire condition of the roadway was revealed. IHC was able to regroup and provide the resources necessary for the undertaking and completed the entire scope of work requested prior to the temperatures halting completion.

As with the 2011 Miscellaneous Roadways project this project again illustrates IHC's ability to successfully perform a contract of this nature. We have a proven track record of being able to begin work virtually immediately, maintain the owners budgets and complete in the scheduled time frames. IHC's relationships with the multiple departments and facets of DIA provide us with a great understanding of how to proceed and complete projects at the airport, and many times exceeding expectations.

Name, address and telephone number of project manager for contracting agency:

Matthew Cirulli - City and County of Denver Department of Aviation

8500 Pena Blvd. Denver, CO 80249 303-342-2200

PROJECT NO. 3:**Name of governmental agency:** City and County of Denver Department of Aviation**Name of Project:** 2013 Annual Airfield Pavement Rehabilitation**Location:** Denver International Airport**Completion date:** 10/2/2013 **Contract amount:** \$3,803,052

Description of project: Concrete Pavement Restoration (CPR) project providing 14,030 square yards of selective airfield concrete pavement removal and replacement in several apron, taxiways, and aircraft gate areas at one of the countries busiest airports. These annual airfield pavement rehabilitation projects are aimed at extending the service life of the apron and taxiway areas, and maximizing the life of the overall pavement, at a much lower cost than full apron or taxiway removal and replacement. In addition to the concrete replacement, this project required demolition and installation of airfield lighting, selective spall repair and joint sealant repair, asphalt removal and replacement, and aggregate base embankment. The project was bid in March of 2013 and allowed 112 calendar days to complete. Notice To Proceed was issued June 28, 2013 however a delay in FAA permitting caused the project start to be delayed to July 8, 2013. Due to the close proximity of the 11 separate work phases to live aircraft traffic and support equipment, a high degree of planning, communication, evaluation and follow through was required through out the construction process. The project team made it their priority to complete this project with minimal operational impact to the airport and its end customers, the flying public.

The project was bid to have 11 phases, each with a specified duration, that combined into 6 separate milestones all with associated liquidated damages for late completion. The critical path was driven by 6 phases along Taxiway (TW) A-A that were scheduled to be constructed sequentially with no overlap.

Shortly following the notice of award, IHC began discussions with the CCD Engineering and Operations to discuss reconfiguring the 6 phases on TW A-A which would shorten the duration of impact to the airport and the overall construction schedule. IHC has a long standing history of successful construction projects at DIA and in that time has gained the trust of the airport, so when these proposals were made there was a high level of confidence from the airport that expectations could be met. Through



the efforts of all parties the duration of the work on TW A-A was cut from the original duration of 112 calendar days to 59 calendar days. This decrease in construction duration, to almost half, allowed the airlines to utilize this taxiway at full capacity for all of the remaining 53 days. The contractor also worked with each of the multiple airlines in performing work that impacted their operations at their scheduled discretion; by doing so this project was successfully completed with zero incidents of aircraft delays. In

addition the scope of the contract increased by 30% with an additional 3 work areas being added, all of which was completed 25 days ahead of the contract duration.

The NTP for the project was delayed from the expected construction date due to FAA permitting issues.



This delay caused this project to directly overlap with another project that IHC was performing at DIA. IHC was able to integrate the scheduled of the two projects seamlessly and was thus able to avoid the addition of resources and unnecessary added cost to the owner. In order to minimize impacts to the airlines and the traveling public, the scheduling of each project phase was adjusted to coincide with periods of lower aircraft traffic for each effected airline. This rescheduling created work hour constraints including; work between midnight and 6:00am, work beginning after 9:00am, pushing dates to avoid peak travel seasons, and weekend work.

Although this project was not a task order type of project there was an added area of work that required the contractor to price, design and construct on a tight schedule. The work that was added was emergency replacement of panels on a high speed taxiway that was scheduled to be closed due to an adjacent project. The owner had a specified budget to complete this work however the amount of concrete needing repair exceeded that budget. The project team collaborated and came up with the design to remove the centerline panels and a 6ft strip of the adjacent parallel panel. The 6ft strip required an on the fly design to maintain airfield pavement design requirements. The project team came up with the solution using alternate embed/reinforcing techniques in order to provide adequate airfield pavement design characteristics. Due to the project teams out of the box thinking this work was performed with minimal lead time and completed within the owner's budget and time frame requested.

The purpose of one of the phases on the project was to perform grading of the WA Deicing Facility to flatten the drive lanes in order to prevent the glycol trucks from spilling during loading. The contract documents only provided a general idea of the scope of this work, actual details for construction were not provided. The contractor worked with the users of the facility and DIA and proceeded with designing a removal, subgrade, grading, and pavement plan to reconstruct this facility to its suited purpose. This facility now has a stable paved surface at an acceptable cross slope for loading the glycol on the trucks.



This project continues to illustrate IHC's efforts to be an essential part of the project team, one which provides real benefits to a successful partnership.

Name, address and telephone number of project manager for contracting agency:

Brent Nichols - City and County of Denver Department of Aviation

8500 Pena Blvd. Denver, CO 80249 303-342-2656

**DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT
IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

KEY PERSONNEL AND STATEMENT OF QUALIFICATIONS

TAB 3



**DENVER INTERNATIONAL
AIRPORT**

TOGETHER WE SOAR





Stephen VanOster

Project Manager

SUMMARY

Steve is the **Division Manager** with IHC; he has over 25 years of construction experience with IHC including several award winning projects. He has worked with multiple DOT and Airport owner agencies from 1987 at Stapleton Airport to the present; spending two years at DIA during the original construction and returning in 1998. Steve has been involved in over 65 construction projects at DIA including many that have been recognized by the concrete paving industry as award winners at the local and national levels. Involvement in these projects has provided many opportunities to overcome problems and participate with various stakeholders at DIA to ensure smooth day to day operations are maintained.

RELEVANT PROJECTS

DIA 1998 - Present (City and County of Denver)

Steve has overseen numerous projects ranging from \$500 thousand and smaller to \$100 million. These projects include: 17/35 Rehabilitation, Concourse A East Apron Expansion, 2007-2008 Airfield Concrete Rehabilitation, Piccadilly Bridge Widening, Pena Widening Gun Club to Jackson Gap, East Side Entrance Lane addition, Concourse C Ron Pad DS East, 2006 Miscellaneous Roadway Improvements, De-Ice Pad “WA”, Concourse B East Apron Expansion, R/W 16R/34L Paving and Lighting, Construct Taxiway EA, Toll Facility Relocation, Cargo Apron Improvements, Concourse A and B Paving and Lighting, West Perimeter Taxiways, Aircraft Parking Apron, 2010-2014 Airfield Pavement Rehabilitation, Runway 16/34 Complex Paving and Lighting, Runway 7/25 Complex Rehabilitation, Concourse C East and West Apron Expansions, Glycol Ponds 2-4 and 9, Runway 7/25 Shoulder Widening, Runway 7/25 Smoothness Improvements, Runway 17L/35R Rehabilitation.

Miscellaneous Roadway and Parking Lot Improvements -2010 (City and County of Denver)

Steve was the **Division Manager** during this contract and over saw all day to day operations. The project consisted of diverse civil construction, maintenance, and improvement activities throughout the airport property. Work items included; the removal and replacement of concrete pavement, raising and under-sealing concrete panels, partial depth pavement repairs, asphalt overlays, curb & gutter, sidewalk, excavation and embankment with moisture control, aggregate base courses, erosion control, landscaping, roadway barriers, bridge joint repairs, storm water drainage pipe, utility potholing, pavement traction coatings, and pavement markings. The construction activities were managed and constructed under 36 separate Work Orders.

EDUCATION / REGISTRATION

*Parks College of Business,
Accounting*

CERTIFICATIONS

*NICET Certified Level III
OSHA 10 Certification
Erosion Control Supervisor*

TOTAL YEARS EXPERIENCE
PERFORMING SIMILAR WORK:

Steve has over 25 years experience in the construction industry-commercial and military airports and heavy highway throughout the west central United States.





Ray Owen

Site Superintendent

SUMMARY

Ray has been the lead **Superintendent** on all major ramp, taxiway and runway projects for IHC over the past 17 years at DIA. Ray also has 35+ years of heavy civil construction experience that has encompassed multistate heavy highway, mass transit, infrastructure and airfield construction. Ray has experience working on successful projects with DOTs in several states along with airport projects in Colorado, Wyoming and New Mexico. Ray has contributed his knowledge to over 65 Denver International Airport jobs and is intricately responsive to the requirements and expectations of DIA landside and airside work. Safety is his first priority for all personnel on the project; IHC, subcontractors and owner representatives included. With an outstanding record of CCD projects executed on-time and on-budget, Ray embodies “Right the first time, Safe every time.”

RELEVANT PROJECTS

DIA 1998-2014, Multiple Projects (City and County of Denver)

Lead Superintendent on all IHC projects at DIA (24 Landside, 45 Airside, \$500K - \$30 Million) for the past 17 years, including 26 award winning projects. He has been apart of major runway/taxiway rehabilitations and construction, miscellaneous panel replacements, apron expansions, Pena lane addition and bridge widening, parking lot expansion and improvements, environmental controls rehabilitation and toll facility improvements.

Miscellaneous Roadway and Parking Lot Improvements - 2011 (City and County of Denver)

Ray was the **Lead Superintendent** on the project that consisted of diverse civil construction, maintenance, and improvement activities throughout the airport property. Work items included; the removal and replacement of concrete pavement, partial depth pavement repairs, crack sealing, curb & gutter, sidewalk, excavation and embankment with moisture control, aggregate base courses, geotextiles, erosion control, landscaping, roadway barriers, storm water piping and structures, retaining wall construction, rip-rap placement, pavement traction coatings, pavement markings, utility potholing, and lighting fixtures and wiring. The construction activities were managed and constructed under 48 separate Work Orders

Annual Airfield Pavement Rehabilitation - 2013 (City and County of Denver)

Ray was the **Lead Superintendent** on the project consisted of removing and replacing concrete panels in small groups throughout the Airfield Apron Complex adjacent to concourses A, B & C. The project also included excavation and embankment with moisture conditioning, the removal and replacement of asphalt paving sections, repair of cement treated bases, installation of airfield lighting components and adjustments to drainage structures. Coordination with flight operations and oversight of subcontractor work were essential elements to ensuring that the project was completed within the allowed 112 Calendar Days, broken up into 11 separate phase and 6 schedule milestones. The project was constructed under exacting FAA specifications.

EDUCATION / REGISTRATION

Harris High School, Nebraska

CERTIFICATION

OSHA 10 Certified

CPR/First Aid Certified

Global Positions Certified

Qualified Rigger and Signal Person

Excavating and Trenching Safety

Nation Institute for Certified Engineering Technician Level II

TOTAL YEARS EXPERIENCE

PERFORMING SIMILAR WORK:

Ray has 30+ years of experience construction high quality highway and runway pavement as well as heavy civil construction.





Anthony Wiarda

Project Engineer

SUMMARY

Anthony began working for IHC as a **Project Administrator** in the spring of 2014. He has 6 years of experience in a wide variety of civil construction scopes of work ranging from heavy dirt, concrete paving, structures, utilities, asphalt, and landscaping. He has worked with several different owner agencies through out his years of experience; from private owners to multiple state DOTs, Airports and Army Corps of Engineers. Anthony has worked on multiple concurrent projects, ranging from \$100 thousand to \$13 million. During his first construction season with IHC he was assigned to two separate projects on Concourse C, working as the prime contractor on one project and as a subcontractor on the other. A large portion of both projects was the coordination with multiple adjacent contracts and airline tenants on Concourse C. while maintaining a positive relationship with the owner’s management team.

RELEVANT PROJECTS

Concourse C Apron Expansion (City and County of Denver)

IHC’s Project Administrator for a 12.5 million dollar concrete apron expansion to allow access to 5 new concourse gates constructed under a separate contract. Daily coordination had to occur between IHC and the building contractor to insure both projects remained on schedule. The project included multiple phases to insure a vehicle access route was open at all times to maintain gate access to the existing gates. The project included site excavation, processing of cement treated soils, placement of cement treated base, placement of airfield PCCP, placement of asphalt, installation of new a new jet fuel system, removal and replacement of deice trailers and installation of new high mast lighting. Coordination with gate operations and oversight of subcontractors were essential elements to ensure the project was completed on time.

Roundabout at East 19th/Converse/East Pershing (City of Cheyenne, Wyoming)

Project Manager for Simon Contractors on a 4.5 million dollar interchange reconstruction which included multiple phases and traffic changes to maintain east and west bound traffic through out construction. Coordination with the owner, area residents and business owners was essential to completing the project and maintaining a strong relationship throughout the project. The project consisted of reconfiguring the intersection of three roads into a roundabout. Project scope included removals, excavation and embankment, concrete pavement and structures, asphalt, water and sewer main replacements, utility relocation and site beautification.

EDUCATION / REGISTRATION

Bachelors of Science Degree in Construction Management with a Business Minor from South Dakota State University

CERTIFICATIONS

OSHA 30 Certificate

Excavating and Trenching Safety Course

TOTAL YEARS EXPERIENCE PERFORMING SIMILAR WORK:

Anthony has 6+ years of experience in a wide variety civil construction work. He has worked with multiple owner agencies: Municipalities, County’s, DOTs, Airports and Army Corps of Engineers and Private





Brian S. Fredriksen, PE

Quality Control Manager

SUMMARY

Brian has been with IHC since 1999. Since that time, Brian has served as IHC's **Quality Control Manager** for our projects at Denver International Airport on over 15 landside project and 45 airfield projects. He has also overseen the Quality Control efforts on several roadway projects for CDOT, Counties and local agencies.

Brian also worked for IHC between 1993 and 1998 as a **Quality Control Inspector, Quality Control Manager, and Project Engineer** on FAA Airfield Projects at Denver International Airport during its original construction, as well as building 2 runway complexes at Albuquerque International Airport, and a runway/taxiway complex at the Northwest Arkansas Regional Airport.

Brian also worked for the Colorado Department of Transportation as the **Assistant Project Engineer** on the *Design-Build* project on I-25 North of Owl Canyon Road. In this role, Brian assisted in the training of CDOT personnel in Quality Control inspections of concrete paving, as well as provided engineering oversight during the ongoing design process with the Contractor.

RELEVANT PROJECTS

I-76 HUDSON TO KEENESBURG (CDOT)

IHC's Engineering Manager and Quality Control Manager for the CDOT *design-build* project for the that constructed over 459,000 square yards of 9.5 and 12 inch PCC pavements, removed and replaced 4 bridges, and rehabilitated 2 other bridges. The effective implementation of the design build delivery method by the project team allowed the project to be finished 13 months ahead of original schedule

Runway 16L-34R Complex Pavement Rehabilitation and ADG V Improvements (City and County of Denver)

IHC's Quality Control Manager for the project that consisted of removing concrete panels in small groups throughout entire runway and taxiway complex. In addition, the project widened the existing runway and taxiway shoulders, along with the construction of a new high speed taxiway. The project also included excavation of shoulder areas, processing of cement treated soils, placement of cement treated base, installation of electrical and drainage systems and new airfield lighting components. Coordination with flight operations and oversight of subcontractor work were essential elements to ensuring that the 7 separate phases of the project were completed within the 105 calendar day contract, which included a 75 Day Runway Closure.

EDUCATION / REGISTRATION

Master of Science Degree in Civil Engineering from Colorado State University

Profession Engineer - Colorado

CERTIFICATIONS

- *QC and QC for Highway and Road Construction*
- *Technologies for QA/QC in Constructing Concrete Pavements*
- *Smoothness Measurements - 1 & 2*
- *Concrete Pavement Design Workshop*
- *Global Positioning System Machine Control Data Modeling – Trimble*
- *Global Positioning System Hardware and Software Systems – Topcon*
- *Life Cycle Cost Analysis for Concrete Pavements*
- *CPR/First Aid Certified*

TOTAL YEARS EXPERIENCE PERFORMING SIMILAR WORK:

Brian has 21+ years of experience in construction of high quality highway and runway pavement on complex Department of Transportation, USA Corps of Engineers, Department of Defense and Federal Aviation Administration projects.



**DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT
IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

QUALITY CONTROL PLANS FORM



**DENVER INTERNATIONAL
AIRPORT**
TOGETHER WE SOAR

TAB 4



Miscellaneous Roadway and Parking Lot Improvements On-Call – Contract No. 201417353

QUALITY CONTROL PLAN

“Describe how you will assure that only high quality work is provided under this contract.”

IHC’s Quality Control (QC) program is mandated by Corporate Policy to, at minimum, meet project specifications and in many cases produce products superior to the current standards. The QC program includes the following:

- 1) QC Organization
- 2) Four Phase Process Control Procedures
 - a. Indoctrination Phase
 - b. Prework Phase
 - c. Construction Phase
 - d. Acceptance Phase
- 3) Three Phase Testing Procedures
 - a. Prework Phase – Qualification Testing
 - b. Production Phase – Process Control Testing
 - c. Acceptance Phase – Acceptance Testing
- 4) Deficiency Management Procedures
- 5) Submittal Procedures
- 6) Document Control Procedures
- 7) Continuous Improvement Procedures
 - a. QC Audits
 - b. Opportunities for Improvement

This QC Program is executed on all IHC projects regardless of size or complexity.

One of IHC’s principal philosophies is that of “Core Level Training”. Core Level Training (CLT) is part of our Four Phase Process Control Procedures and is conducted during the Pre-Work Phase. Each craft-worker is provided the quality requirements for the work and is expected to be an expert at not only performing his or her task, but also to perform and document real-time quality measurements as the work is executed. For example, a concrete finisher is expected to make ongoing measurements of such items as; edge-slump, pavement thickness, profile grade, straight-edge smoothness, pavement offset and lateral deviation. By setting these core-level expectations for our crews, we foster a higher level of personal accountability, and pride of workmanship, that we have seen reflected in a substantial decrease in re-work and quality deficiencies.

Beyond the real-time quality measurements performed by our craft workers, each task order will be staffed by a fully qualified QC inspector and an Independent Testing Agency to provide the quality measurements and testing as outlined in each applicable Specification to ensure, and document, that the materials meet or exceed the Contract Requirements. All of the inspectors and testers will have the appropriate qualifications or certifications (EIT/FE, ACI, NICET, WAQTC, Lab-CAT, etc.) required for the specific work item they are inspecting. When necessary, IHC

will staff task-orders with specialty inspectors and testers from outside agencies that are ideally suited for unique and complex work items.

Minor deficiencies that are identified will be tracked on a deficiency list in order to monitor the progress of their remediation and subsequent acceptability. Deficiencies that are identified that require discussion or special attention by the owner's representatives will be documented with Corrective Action Reports to ensure that the issue is fully communicated.

“Describe what you will do to establish positive attitudes, a spirit of cooperation, and good working relationships between your firm, subcontractors, and the City and County of Denver.”

IHC is a strong believer that “partnering” with all stakeholders (IHC, CCD, subcontractors, material suppliers) is the best way to establish positive business relationships. IHC has a written procedure for partnering that has at its core “mutual respect between participants”. The goal is to create a team that enjoys going to work every day, works cooperatively to meet goals and objectives, is committed to resolving differences, removes obstacles, and completes the project with new business relationships.

The basis for building a good working relationship that fosters positive attitudes and a spirit of cooperation between all of the partners on this project will be the effective and open communication of the work plan, costs, schedule, progress reports, quality measurements and closeout for each task order. The foundation of this relationship is the effective exchange of information. The first step in each task order is to come to a consensus between team members as to the most efficient way to break the work tasks down in order to communicate the plan and schedule to the team members, as well as document ongoing progress and quality metrics.

A key fundamental in establishing positive attitudes, cooperation, and a high-performing working relationship relies on an upfront, completely open and honest understanding of each and every member of the team's goals and expectations of mutual customer service. Prior to starting any project, a highly effective team establishes each stakeholder involved and their counterpart for communication, as well as identifying an Issue Resolution Escalation Plan for when inevitable disagreements arise. Each team member must truly believe that disagreements are not personal, and an open, honest and timely Issue Resolution Plan allows the project team to stay focused on looking ahead, and not get ‘stuck’ trying to resolve individual problems.

“Demonstrate that you have the ability to respond quickly when a customer issue or a new task is presented.”

IHC maintains two fully staffed construction divisions based in Colorado which are supported by our corporate office located in Centennial, Colorado. These focused resources insure IHC's management team will promptly evaluate the customer's issue and offer the recommended action in an expeditious manner.

IHC can quickly mobilize the required highly trained local personnel and equipment resources to accommodate virtually any civil construction task that may arise. Working in conjunction with

the customer, IHC will develop an approach to respond to the issue with minimal disruption to the customer and/or the general public.

In situations where a specialty contractor is required for a specific task, IHC has built long-term relationships with numerous contractors, many of which are local, that specialize in; pavement repairs, utility work, traffic control and lighting, as well as many other specialty trades.

IHC firmly believes the above outlined qualities and highly experienced resources, coupled with the support of our local corporate office will result in rapid issue management for our customer, as shown on past DIA projects.

“Describe how you will assure that the price proposal for each task order is reasonable before it is submitted to the City and County of Denver for consideration.”

Prior to the submission of any cost proposal, IHC will work closely with the owner’s representatives to clarify the scope of work, as well as any constraints that may be inherent in the task order such as; work hours, lane closures, schedule limitations or material requirements.

The single greatest contributor to high proposal costs is risk. We will work diligently with the customer to identify and mitigate potential risks, thus resulting in lower costs.

We will also compare our proposal costs to our historical data for similar work, as well as reference CDOT cost-data when appropriate, as a cross-check to insure our price proposals are equitable. All price proposals are reviewed by multiple individuals at different corporate levels prior to submittal.

“Demonstrate that you have the experience and capability to obtain outside resources, to successfully manage subcontractors, and to know what constitutes high quality work.”

IHC has had a continuous presence at DIA for almost 20 years. In that time we have constructed projects ranging from glycol pond re-linings, to bridge rehabilitations and expansion joint repairs, to construction of the International Runway. Most notably, we have been the prime contractor on several runway rehabilitations with complex phasing, very short overall durations, and multiple subcontractors. The coordination of the subcontractors between the multiple phases was the key to the successful completion of these projects.

The many years of experience that our management team brings provides thorough understanding of our subcontractors work items. IHC conducts pre-work meetings with each subcontractor prior to starting each work activity as a means to both identify the level of quality expected and ensure achievement.

IHC has successfully performed a wide variety of task orders, many of which have required outside resources, including specialty subcontractors and Professional Services. Although too many to list individually, some examples include variable message signs; revenue controls for parking; compaction grouting; smoothness grinding; garage structure repairs, and many others.

IHC has long established relationships with local subcontractors and material suppliers. Due to our fair treatment and prompt payment practices, we have built solid relationships resulting in a large pool of resources, including M/WBE firms that are ready and willing to respond to a project's needs. These long established associations with known expectations and performance ensure the successful management of our team of subcontractors.

“Demonstrate that you have the capability to manage multiple sub-contractors working at various locations and on multiple shifts, schedules or tasks. Describe the actions that you will take to ensure that subcontracted work is completed in a timely fashion and with a high quality of work.”

IHC has been the prime contractor on two recent runway rehabilitations, RW 8/26 and RW 16L/34R. These projects had extremely complex phasing combined with very short overall durations. The coordination of numerous subcontractors between the multiple phases on each of these projects was key to their successful completion. One of the management philosophies we use with our subcontractors is to treat them as if they were IHC crews, and not separate entities. This means that they are expected to be more actively involved with the scheduling and coordination of the overall project, beyond their items of work. The durations in the project schedule for subcontractor activities are based upon production rates provided by, and committed to, by each subcontractor. Should a subcontractor activity start to lag, a schedule recovery plan will be implemented with that subcontractor.

IHC is committed to providing the management staff required to properly supervise and control the work performed by both IHC and its subcontractors when multiple shifts and work locations are required.

Our metric for high quality work is exceeding a 98% success level for all QC measurements and inspections as outlined each Specification Section. This is achieved by utilizing our internal quality standards, which are typically more stringent than the tolerances listed in the project Specifications. This same philosophy is carried into the subcontractor's items of work.

**DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT
IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

COST MARKUPS



**DENVER INTERNATIONAL
AIRPORT**

TOGETHER WE SOAR



SECTION (4A)

**SCHEDULE OF
PRICES AND
QUANTITIES**

**The Schedule of Prices and Quantities which apply to this contract are
contained in the pages immediately following this page.
These pages are not included in the page numbering of this contract document.**

**NOT
APPLICABLE**

(4A) SCHEDULE OF PRICES AND QUANTITIES – NOT APPLICABLE

(4B) SCHEDULE OF PRICES AND QUANTITIES FOR FUTURE TASKS

Contractor for future Tasks shall respond to pricing instructions from the DIA Project Manager. In most cases the format is likely to follow the unit price format.

(4C) PRICES FOR WORK NOT COVERED IN (4A) OR (4B)

Should DIA require work that is not covered by a unit price format, the contractor shall provide and use the following established rates to help determine a proposed cost. All pricing is subject to the requirements of the Contract General Conditions and subject to evaluation by the DIA Project Manager.

A. Supervisory & Office Personnel

The positions and numbers of staff personnel for each Task of this On Call project will be established through negotiations with the DIA Project Manager. The contractor shall provide agreed-to staff positions to manage the work on a level-of-effort basis. The core staff rates in this section shall include the base hourly cost (salary divided by 2,080 hours) plus the calculated hourly cost of any vehicle and/or cell phone allowances for those individual employees with those benefits. Allowances must be evidenced on the redacted payroll register and cannot exceed the CDOT Equipment rates. Contractor rates for the positions indicated below are applicable to the General Contractor only.

An Exhibit K and Exhibit L must be prepared for the Prime and each Subcontractor that will have salaried core staff assigned to DIA under this Agreement. Subcontractors may not be identified yet for On Call Agreements. Subcontractors selected subsequent to the execution of this Agreement with core staff must also prepare the Exhibits K & L and have both their Multiplier Factor and hourly billing rates approved prior to commencing work at DIA.

Use the Exhibit K to provide the detail of the employee fringe benefit expenses, the profit percentage on salaried wages, and calculate the Fringe Benefit Multiplier Factor. The Fringe Benefit Multiplier Factor also incorporates burden, overhead, home office overhead, profit, safety and other training, staff operated equipment (including cell phones, radios and field transportation), office furniture, office supplies, and office maintenance. See the Exhibit K *Instructions* tab for more information.

The Exhibit L *Core Staff Labor Rate* exhibit is specific to the individual employee assigned to the project, not their job title. **All salaried Core Staff personnel for both the Prime and Subcontractors assigned to this contract must have their individual hourly billing rate approved prior to commencing work at DIA. Any subsequent change(s) in personnel from those identified in the original**

Agreement must also have their hourly billing rate approved prior to commencing work at DIA.

For the positions listed below, use the Exhibit L to identify the employees who will be assigned to DIA and provide the individual wages and any other positions anticipated to be used in the contract. See the Exhibit L *Instructions* tab for more information.

Exhibit K link: <http://business.flydenver.com/bizops/documents/exhK-FringeBenefits.xlsx>

Exhibit L link: <http://business.flydenver.com/bizops/documents/exhL-CoreStaffRateProp-Const.xlsx>

Position

- Project Manager
- Project Superintendent
- Project Engineer
- Office Engineer
- Administrative Assistant / Timekeeper

B. Labor Markup

Labor Markup Percentage: _____ 18%

Markup to be multiplied by estimated labor cost as negotiated. Estimated labor cost will be the estimated actual labor costs submitted by contractor and verified by CCD. Estimated labor cost will include all craft wages, fringe benefits and burdens. Markup will include overhead, home office overhead safety and other training, profit, small tools, and consumables. Small tools are defined as any tool with a replacement value of \$500 or less. Consumables are defined as any materials that may be consumed by the work and are not part of the permanent installation (e.g. rags, drill bits, hard hats, safety glasses, gloves, saw blades, reciprocating saw blades, tape, welding rod, etc.).

C. Material Markup

Material Markup Percentage: _____ 15%

Markup to be multiplied by actual material quotes if available or estimated cost if not available. Markup will include overhead, home office overhead and profit. Markup will not be applied to sales taxes.

D. Equipment Markup

Equipment Markup Percentage: 12%

Markup to be multiplied by estimated equipment costs as negotiated. Estimated equipment utilization rates will be derived from the Primedia Rental Rate Bluebook as modified by CDOT Standard Specifications for Road and Bridge Construction, Section 109.04 (c). Markup to include overhead, home office overhead and profit.

E. Subcontractor Markup

Subcontractor Markup Percentage: 10%

Markup to be multiplied by agreed-to subcontractor proposals submitted to the prime contractor. Markups to include all prime contractor overhead, home office overhead, and profit.

F. Permits

Permits will be obtained by the contractor. Permit costs will be the agreed to or actual cost of the permit without markup. Costs to acquire the permit will be included in the other markups.

G. Sales Tax, Bond and Insurance

Sales tax, bonding and insurance costs will be the agreed to or actual cost without markup.

H. Additional or Extra Work Performed within a Task Order

Extra work will be performed utilizing the same markups as the original Task Order.

I. Retention

Final settlement and release of retention will be made upon completion of each Task Order rather than contract completion.

J. Subcontractors

Subcontractors will be required to use the same markups as the prime contractor. Reimbursement and mark-up percentage for subcontractor staff, when required, will be as described in Part B Labor Mark-up.

**DENVER INTERNATIONAL AIRPORT
MISCELLANEOUS ROADWAY & PARKING LOT
IMPROVEMENTS ON-CALL
CONTRACT NO. 201417353**

TAB 6

PROPOSAL DATA FORMS



**DENVER INTERNATIONAL
AIRPORT**
TOGETHER WE SOAR



Proposal Data Forms

INFORMATION ABOUT CONTRACTOR

1. Name of Proposer/Contractor: Interstate Highway Construction, Inc.
2. Type of business entity: Corporation
NOTE: If Proposer is a **partnership** or **joint venture**, give full names of all partners or joint ventures. Proposal must be signed by all joint ventures. If Proposer is a **limited liability company**, Proposal must be signed by authorized manager (may be signed by member-manager if LLC is organized to allow management by members).
3. Prequalified by City and County of Denver as Construction Contractor : Categories: 1B-Excavation and Grading; 1F(2)-Concrete; 1F(4)-Pavement Rehabilitation; 1G(1)-Bridges; 1A-General - Civil
\$9,000,000; \$25,000,000; \$9,000,000; Monetary Limit: \$1,000,000; \$12,000,000
4. Address of Contractor: P. O. Box 4356
Englewood, CO 80155
Physical: 7135 S. Tucson Way, Englewood, CO 80112
Telephone: (303) 790-9100 Fax: (303) 790-8524
5. Established where and when: East Lansing, Michigan 02/08/1957
6. Contractor's Banks: U. S. Bank, 950 17th St., Denver, CO 80202
Jeff McBride, VP 303-585-4109 Ph, 303-585-6935 fax
7. Principal Officers of Contractor (managers and members if LLC):
- | | |
|-------------------------------|----------------------------------|
| Name: <u>Jim Randall</u> | Name: <u>J. Kenyon Schaeffer</u> |
| Title: <u>President</u> | Title: <u>CEO</u> |
| Name: <u>John D. Medberry</u> | Name: <u>Lori L. Taylor</u> |
| Title: <u>Vice President</u> | Title: <u>Secretary</u> |

8. Proposer's/Contractor's City and County of Denver Contractor License if it has obtained one: License No.: _____
Class: _____

A contractor license is required prior to start of construction but not prior to Proposal submittal.

9. Proposer's/Contractor's state of incorporation (state of organization if an LLC or partnership): Michigan

10. Proposer's Surety: Federal Insurance Company

11. Surety's State of Incorporation: Indiana

12. Address of Contractor in other areas (if different from No. 4): _____

13. Name and address of person to receive payments: Interstate Highway Construction, Inc.
P. O. Box 4356
Englewood, CO 80155

14. If the Proposer/Contractor is a joint venture, it shall attach a certified copy of the joint venture agreement. The joint venture agreement will not be included as a Contract Document.

15. The Proposer/Contractor shall identify all applicable labor agreements (if any) to be used in the performance of the Work: None.

Proposer Interstate Highway Construction, Inc.

Proposal Data Forms

EQUAL OPPORTUNITY REPORT STATEMENT

Each Proposer shall complete and sign the Equal Opportunity Report Statement. A Proposal may be considered unresponsive and may be rejected, in the Owner's sole discretion, if the Proposer fails to provide the fully executed Statement or fails to furnish required data. The Proposer shall also, prior to award, furnish such other pertinent information regarding its own employment policies and practices as well as those of its proposed subcontractors as the FAA, the Owner, or the Executive Vice Chairman of the President's Committee may require.

The Proposer shall furnish similar Statements executed by each of its first-tier and second-tier subcontractors and shall obtain similar compliance by such subcontractors, before awarding subcontracts. No subcontract shall be awarded to any non-complying subcontractor.

Equal Opportunity Report Statement as Required in 41 CFR 60-1.7(b)

The Proposer shall complete the following statements by checking the appropriate blanks. Failure to complete these blanks may be grounds for rejection of Proposal:

1. The Proposer has X has not ___ developed and has on file at each establishment affirmative action programs pursuant to 41 CFR 60-1.40 and 41 CFR 60-2.
2. The Proposer has X has not ___ participated in any previous contract or subcontract subject to the equal opportunity clause prescribed by Executive Order 11246, as amended.
3. The Proposer has X has not ___ filed with the Joint Reporting Committee the annual compliance report on Standard Form 100 (EEO-1 Report).
4. The Proposer does X does not ___ employ fifty or more employees.

Dated: December 19, 2014

Interstate Highway Construction, Inc.

(Name of Proposer)

By: 

Title: Jim Randall, President

Proposer Interstate Highway Construction, Inc.

Proposal Data Forms

**CERTIFICATION OF NON-SEGREGATED FACILITIES
(Must be completed and submitted with the Proposal)**

The Proposer certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Proposer certifies further that it will not maintain or provide for its employees segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location under its control, where segregated facilities are maintained. The Proposer agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or any other reason. The Proposer agrees that (except where it has obtained identical certification from proposed subcontractors for specific time period) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause, and that it will retain such certification in its files.

DATED: December 19, 2014

Interstate Highway Construction, Inc.

(Name of Proposer)

By: 

Title: Jim Randall, President

LIST OF PROPOSED MINORITY AND WOMEN BUSINESS ENTERPRISE PROPOSERS, SUBCONTRACTORS, SUPPLIERS (MANUFACTURERS) OR BROKERS

The undersigned Proposer proposes to utilize the following Minority and Women Business Enterprises (MBE/WBEs) for the project. All listed firms are **CURRENTLY** certified by the City and County of Denver. MBE/WBE prime Proposers must detail their Proposal information below. List at least one MBE/WBE subcontractor, supplier, manufacturer or broker for each specification section division starting with Division 2. If the Prime Contractor does not propose to utilize or there are no certified MBE/WBE's for a particular division please indicate with NA in space.

CHECK BOX IF APPLICABLE:

	MBE/WBE Prime Proposer
--	------------------------

MASTER FORMAT SPECIFICATION DIVISION 2

Business Name: _____
 Type of Service: _____
 Contact Person: _____

Business Name: _____
 Type of Service: _____
 Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 3

Business Name: _____
 Type of Service: _____
 Contact Person: _____

Business Name: _____
 Type of Service: _____
 Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 4

Business Name: _____
 Type of Service: _____
 Contact Person: _____

Business Name: _____
 Type of Service: _____
 Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 5

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 6

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 7

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 8

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 9

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 10

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 11

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 12

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 13

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 14

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 15

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

MASTER FORMAT SPECIFICATION DIVISION 16

Business Name: _____
Type of Service: _____
Contact Person: _____

Business Name: _____
Type of Service: _____
Contact Person: _____

The undersigned certifies that it has carefully checked all words and statements made in these Proposal Forms.

This proposal is submitted upon the declaration that neither, I (we), nor, to the best of my (our) knowledge, none of the members of my (our) firm or company have either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive proposing in connection with this proposal.

Business Address of Proposer: P. O. Box 4356, Englewood, CO 80155

Telephone Number of Proposer: (303) 790-9100 Fax No. (303) 790-8524

Social Security or Federal Employer ID Number of Proposer: 38-1504686

Name and location of the last work of this kind herein contemplated upon which the proposer was engaged: Miscellaneous Roadway & Parking Lot Improvements 2011, Contract No. 12012, Denver International Airport

COMMITMENT TO MINORITY AND WOMEN BUSINESS ENTERPRISE PARTICIPATION

The undersigned has satisfied the MBE/WBE participant requirements in the following manner:
(please check the appropriate space)

The Proposer is committed to a minimum of 20% MBE/WBE utilization on the Project, and will submit Letters of Intent for each MBE/WBE listed in the Proposal Forms.

The Proposer is unable to meet the project goal of 20% MBE/WBE and is committed to a minimum of _____% MBE/WBE utilization on this project. The Proposer understands that it must submit a detailed statement of its good faith efforts, which occurred prior to the Proposal opening, to meet the project goal, and must submit Letters of Intent for each MBE/WBE listed in the Proposal Forms.

Proposer: Interstate Highway Construction, Inc.
Name of Firm

By:  Jim Randall, President
Signature Title

Address: P. O. Box 4356
Street
Englewood, CO 80155
City / State / Zip Code

Telephone: (303) 790-9100 (303) 790-8524
Phone Fax



Office of Economic Development
 Division of Small Business Opportunity
 Compliance Unit – DIA
 EMAIL: small.business@flydenver.com
 8500 Peña Blvd, AOB, Suite 7810
 Denver, CO 80249
 Phone: 303-342-2189
 Fax: 303-342-2190

LETTER OF INTENT (LOI)

All lines must be completed or marked N/A for Not Applicable.

Submit the attached completed checklist with this letter.

Project No.: 201417353	Project Name: Miscellaneous Roadway & Parking Lot Improvements On-Call
-------------------------------	--

A. THE FOLLOWING SECTION IS TO BE COMPLETED BY THE PROPOSER/CONTRACTOR

This Letter of Intent Must be Signed by the Proposer/Contractor and M/WBE, SBE or DBE

Name of Proposer/Contractor: Interstate Highway Construction, Inc.		Phone: (303) 790-9100	
Contact Person: Karen Stanton	Email: stantonk@ihcquality.com	Fax: (303) 790-8524	
Address: P. O. Box 4356	City: Englewood	State: CO	Zip: 80155

**B. The Following Section is To Be Completed by the M/WBE, SBE or DBE, at any Tier
 THIS LETTER OF INTENT MUST BE SIGNED BY THE M/WBE, SBE OR DBE AND PROPOSER/CONTRACTOR**

Name of Certified Firm:		Phone:	
Contact Person:	Email:	Fax:	
Address:	City:	State:	Zip:
Please check the designation which applies to the certified firm.	<input type="checkbox"/> MBE/WBE (√)	<input type="checkbox"/> SBE (√)	<input type="checkbox"/> DBE (√)

Indirect Utilization: If this M/WBE, SBE or DBE is not a direct first tier subcontractor/subconsultant, supplier or broker to the Bidder/ Consultant, please indicate the name of the subcontractor/subconsultant, supplier or broker which is utilizing the participation of this firm:

A Copy of the M/WBE, SBE or DBE Letter of Certification must be Attached

Identify the scope of the work to be performed or supply item that will be provided by the M/WBE/SBE/DBE. On unit price bids only, identify which bid line items the M/WBE/SBE/DBEs scope of work or supply corresponds to.

<input type="checkbox"/> Subcontractor/Subconsultant (√)	<input type="checkbox"/> Supplier (√)	<input type="checkbox"/> Broker (√)
--	---------------------------------------	-------------------------------------

Proposer intends to utilize the aforementioned M/WBE, SBE or DBE for the Work/Supply described above. The cost of the work and percentage of the total subcontractor M/WBE, SBE or DBE bid amount is:	
\$	%
Contractor intends to utilize the aforementioned M/WBE, SBE or DBE for the Work/Supply described above. The percentage of the work of the total subcontractor M/WBE, SBE or DBE will perform is:	%
If the fee amount of the work to be performed is requested, the fee amount, is:	\$
Proposer/Contractor's Signature:	Date:
Title:	
M/WBE, SBE or DBE Firm's Signature:	Date:
Title:	
If the above named Proposer/Contractor is not determined to be the successful Proposer/Contractor, this Letter of Intent shall be null and void.	

**CITY AND COUNTY OF DENVER
DIVISION OF SMALL BUSINESS OPPORTUNITY**

**CONSTRUCTION CONTRACT COMPLIANCE PLAN
FOR M/WBE PARTICIPATION**

**INTERSTATE HIGHWAY CONSTRUCTION, INC.
MISC. ROADWAY AND PARKING LOT IMPROVEMENTS ON CALL
CONTRACT NO: 201417353**

SECTION 1: INTRODUCTION 2
SECTION 2: KEY PERSONNEL 3
SECTION 3: STRUCTURING BID PACKAGES FOR M/WBE PARTICIPATION 3
SECTION 4: COMMUNITY OUTREACH EFFORTS AND ADVERTISING TO M/WBE
CERTIFIED FIRMS: 4
SECTION 5: M/WBE PARTICIPATION; MAINTAINING COMMITMENTS 5
SECTION 6: COMPLIANCE DOCUMENTS AND REPORTING 6
SECTION 7: PLAN ADMINISTRATION; MONITORING; CLOSEOUT 7
SECTION 8: NON-COMPLIANCE; SANCTIONS; REMEDIATION PLAN 8
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**CITY AND COUNTY OF DENVER
DIVISION OF SMALL BUSINESS OPPORTUNITY**

**CONSTRUCTION CONTRACT COMPLIANCE PLAN
FOR M/WBE PARTICIPATION**

**INTERSTATE HIGHWAY CONSTRUCTION, INC.
MISC. ROADWAY AND PARKING LOT IMPROVEMENTS ON CALL
CONTRACT NO: 201417353**

SECTION 1: INTRODUCTION

- A. Interstate Highway Construction, Inc. (the “Contractor”) submits this Compliance Plan to the Director of the Division of Small Business Opportunity (“Director”), as required by the Manager of Aviation, in accordance with §§ 28-51 to 28-83, D.R.M.C., and the implementing rules adopted by the Director (“Rules”).
- B. Under the City’s Ordinance No. 760, Series of 2006 (the “M/WBE Ordinance”), codified at §§ 28-51 to 28-83, D.R.M.C., the M/WBE participation goal for this contract is 20%. The good faith solicitation level is 100%
- C. The Contractor is committed to compliance with the M/WBE Ordinance in its performance of the Contract. The Contractor will continually pursue a level of M/WBE participation that equals or exceeds 20% of the total construction price under the Contract for each task order.
- D. Because of the delivery method used for this Project, the work was not ready for subcontracting at the time when the Contractor was awarded the Contract. Therefore this Compliance Plan provides for the M/WBE solicitation and subcontracting to be performed after contract formation. The process by which the Contractor will solicit, obtain, count and maintain participation by MBE and WBE firms for this Project under this Compliance Plan, will be same as the M/WBE Ordinance requires for “design-bid-build” construction contracts, but will apply to individual task orders.
- E. This Compliance Plan describes how the Contractor will address the project goal on a per task order basis at the point where task orders are assigned so that the process of obtaining subcontractors and suppliers can begin, by committing to utilize MBE/WBEs for the Project work, using the good faith efforts as defined by the M/WBE Ordinance.
- F. The delivery method for this project under the Contract is On Call Construction Services.
- G. Since the work will be delivered by task order, Section 3 below describes the Contractor’s plan to meet the project goal as it relates to each task order.

SECTION 2: KEY PERSONNEL

Stephen L. VanOster, (303) 356-0409, vanosters@ihcquality.com, has been assigned as the Project Manager for this Contract. The Project Manager is responsible for the overall management of the Contractor’s performance of the Project.

Dustin Gerou, (303) 434-6566, geroud@ihcquality.com, is the Project Engineer, who reports to the Project Manager and is responsible for compliance with this Compliance Plan, outreach and coordination activities, and maintaining appropriate records to ensure that goals are met.

Traci Wiehl, 303-819-8079, wiehlt@ihcquality.com, is the Project Administrator, who will administer subcontracts and ensure that all documentation required by DSBO is prepared and maintained. Traci Wiehl will coordinate the collection of DSBO documentation and monthly payroll reports from all subcontractors and suppliers, including but not limited to M/WBEs.

SECTION 3: STRUCTURING BID PACKAGES FOR M/WBE PARTICIPATION

A. The Contractor will meet the set goal of 20% per task order and Letters of Intent will be due with each task order.

GOALS SCHEDULE CHART

Work Scope	Tier	Total Contract Scope Value		Estimated Potential MWBE Participation	
		Total Contract \$	Total Contract %	\$ of Listed Scope	% of Construction Services
Concrete Paving		\$4,500,000	56.25%	\$0	0%
Concrete Flatwork	1	\$400,000	5%	\$320,000	4%
PCC Embeds – Install	1	\$300,000	3.75%	\$150,000	1.875%
PCC Embeds – Furnish	1	\$450,000	5.625%	\$360,000	4.5%
Embankment/Bases	1	\$550,000	6.875%	\$0	0%
Demolition	1	\$575,000	7.1875%	\$75,000	.9375%
Drainage	1	\$150,000	1.875%	\$75,000	.9375%
Landscaping	1	\$75,000	.9375%	\$75,000	.9375%
Erosion Control	1	\$50,000	.625%	\$25,000	.3125%
Traffic Control	1	\$250,000	3.125%	\$250,000	3.125%
Perm Signage	1	\$10,000	.125%	\$10,000	.125%
Trucking	1	\$400,000	5%	\$200,000	2.5%
Guardrail	1	\$65,000	.8125%	\$0	0%
Minor Structures	1	\$50,000	.625%	\$25,000	.3125%
Spall Repairs	1	\$100,000	1.25%	\$50,000	.625%
Saw/Seal	1	\$75,000	.9375%	\$0	0%
Total – Potential MWBE Construction Services		\$8,000,000	100%	1,640,000	20.2%

* Scope has not been identified. These work items and numbers represent a theoretical breakdown for demonstration purposes only.

- B. These packages will be reviewed and refined as the work for the Contract is further defined and ready for the process of subcontracting. Specifically, prior to advertising any package of work for bids or proposals, the Contractor will review the work in detail, to determine the types of work that can be performed by M/WBE firms, with reference to the DSBO's database and directory of certified M/WBE firms, and will adjust its subcontracting packages to maximize opportunities for M/WBE participation in such subcontracting, within economically feasible packages.
- C. The Contractor has the following preliminary schedule for issuance of each task order:
N/A
- D. There are no known issues with the scope of work, i.e. specialized work items.
- E. Subcontractor pre-qualification is not anticipated to be performed on this project.
- F. The contractor will meet the 20% goal on each task order or submit a Good Faith Effort with each task order assigned.
- G. The Contractor may consider, in order to maximize M/WBE participation, subcontracting the following types of work which it might ordinarily self-perform: minor concrete placements (non-paver), paving prep/embed placement, excavation, demolition, drainage, minor structures, and trucking.

SECTION 4: COMMUNITY OUTREACH EFFORTS AND ADVERTISING TO M/WBE CERTIFIED FIRMS:

The Contractor will conduct the following outreach efforts:

- A. Contractor will use the City's M/WBE directory and encourage all non-M/WBE subcontractors to use the directory when soliciting any of their own subcontractors or suppliers for the project.
- B. If during outreach efforts, Contractor locates a firm which appears to be eligible for City M/WBE certification but is not so certified, Contractor will direct the firm to DSBO and encourage the firm to pursue certification if eligible.
- C. When it has work packages ready for subcontracting, the Contractor will publish notices in The Daily Journal and other local publications and websites, identifying the subcontracting opportunities and specifically soliciting City-certified M/WBE participation. The Contractor will also provide notice of all such solicitations to relevant organizations such as, but not limited to, the Colorado Black Chamber of Commerce, Rocky Mountain Minority Supplier Development Council, Hispanic Contractors of Colorado, and the Colorado Women's Chamber of Commerce. Notices will be published or provided no less than 10 calendar days before bids are due on the work.

- D. Contractor will conduct at least one pre-bid meeting, as announced in published notices, which all interested subcontractors and suppliers may attend, at which the Contractor will present information and answer questions about the work.
- E. IHC will utilize its strong, long-standing relationships with M/WBE subcontractors and suppliers who can perform and meet the accelerated schedules and exacting requirements of DIA specifications. These relationships will allow us to integrate them into the project team, meet the project's Division of Small Business Opportunity goals and achieve the best value for DIA.
- F. Upon Receipt of a work package, scope identification, and initial advertisement, IHC will actively solicit quotes from qualified M/WBE subcontractors and suppliers. This is accomplished by using our existing database of M/WBE Subcontractors and Suppliers as well as certified D/M/WBE lists published on the City and County of Denver website and the Colorado Department of Transportation website. These databases are exported to Excel and sorted by work type. This allows us to send RFQs to all M/WBEs within the databases that perform the work type being subcontracted. Following initial distribution of RFQs, IHC follows up with each of the firms through either e-mail or phone correspondence to verify that they have received the RFQ and whether or not they are interested in quoting the proposed packages.
- G. IHC will send to each bidder/proposer, a Notice of Selection for each subcontract for which it solicited M/WBE participation, no later than 30 days after it has entered into the subcontract, so that unsuccessful bidders/proposers are aware of the result of the bid/proposal process.

SECTION 5: M/WBE PARTICIPATION; MAINTAINING COMMITMENTS

- A. When issuing each task order for bid under the Contract, the Contractor will make a good faith effort to meet or exceed the goal percentage of M/WBE participation which it has identified for that task order. The minimum level of these efforts is specified in § 28-62(b), D.R.M.C. and Rule VII(B). They may include, but will not be limited to, the outreach activities identified in Section 4 above.
- B. When requested by DSBO, the Contractor will submit bid packages to DSBO for review and comment. When requested by DSBO, the Contractor will submit bid tabulation sheets to DSBO for review.
- C. The Contractor will report to DSBO the total M/WBE participation obtained for each task order. No later than 5 days after issuing Notice to Proceed for such work, the Contractor will submit to DSBO, for each M/WBE subcontractor or supplier with whom it contracts, a Letter of Intent and other documentation, in accordance with Section 6 below.
- D. The Contractor will document its efforts to obtain M/WBE participation for each task order, and submit such documentation to DSBO upon request by DSBO at any time. The Contractor acknowledges that it may meet or exceed a percentage goal for M/WBE

participation on each task order, or it may fall short of meeting the participation goal for a specific task order. Therefore the Contractor must be able to demonstrate its good faith effort, consistent with § 28-62(b), D.R.M.C., to obtain M/WBE participation for each task order under the contract, except for task orders that are subject to a “modified good faith effort” under § 28-75(c), D.R.M.C., in which case the Contractor must be able to demonstrate its compliance with the requirements of § 28-75(c), D.R.M.C. Sections 28-62(b) and 28-75(c), D.R.M.C., are attached to this Compliance Plan as Attachment 1, for convenient reference.

- E. The M/WBE participation percentage will be calculated by dividing the total value of the M/WBE participation by the total contract amount for the task order, including all change orders. The Contractor will count M/WBE participation according to the M/WBE Ordinance, including § 28-63, D.R.M.C., and Rule VII(C).
- F. As required by D.R.M.C. § 28-73, the Contractor shall immediately inform the DSBO in writing of any agreed-upon increase or decrease in the scope of work of the Contract, regardless of whether it has been reduced to writing at the time of notification. Any increase in the scope of work which increases the dollar value of the contract, whether or not such change is within the scope of work designated for performance by an MBE or WBE under any subcontract, shall be contemporaneously submitted to the DSBO. Those changes to the scope of work that cannot be performed by existing project participants (the Contractor, subcontractors, suppliers, etc.) shall be subject to a goal for MBEs and WBEs equal to the original committed goal. The Contractor shall satisfy the goal for the changed scope of work by soliciting new MBEs or WBEs in accordance with § 28-60, D.R.M.C, and it must show each element of modified good faith that is stated in § 28-75(c), D.R.M.C. The Contractor shall provide to the Director the documentation described in § 28-75(c) with respect to the increased dollar value of the contract.
- G. The Contractor will comply with the provisions of § 28-75 as to the replacement of a WBE or MBE on the Project.
- H. The Contractor acknowledges that it has a continuing duty, under D.R.M.C. §§ 28-72, 28-73, and 28-75, to maintain, throughout the duration of the contract, compliance with the level of MBE and WBE participation committed to under any approved compliance plan, and that such commitment is a material condition of the Contract.

SECTION 6: COMPLIANCE DOCUMENTS AND REPORTING

- A. The Contractor will submit the following documentation, properly completed and submitted monthly or when otherwise required by DSBO.
 - 1. Prime contractor background information form*
 - 2. DSBO Schedule of Work form*
 - 3. Subcontractor background information form for all subcontractors*
 - 4. M/WBE Letters of Intent

5. Monthly contractor's certification of payment forms (participation report)
6. DSBO change order forms
7. M/WBE final lien release forms
8. B2G online payment verification

(*due at NTP + 5 days; revisions as required)

- B. The Contractor will document its progress in seeking and obtaining M/WBE participation as required by DSBO. Records of the Contractor's efforts to solicit M/WBE subcontractor and supplier participation, will be maintained and reported monthly to DSBO, or as otherwise required, including:
1. Dates of solicitation.
 2. Names, addresses and telephone numbers of all M/WBE firms contacted.
 3. Description of efforts made to contact M/WBE firms.
 4. Description of information provided to M/WBE firms.
 5. Description of the process and outcome.
 6. Advertisements soliciting bids from M/WBE firms in local community publications or construction industry related publications.
 7. Schedules of pre-bid meetings to inform M/WBE and non-M/WBE subcontractors and suppliers of opportunities to participate.
 8. Evidence that the Contractor provided M/WBE subcontractors and suppliers necessary access to and adequate time to review all project documents.
 9. All other documentation required to establish the Contractor's compliance with the good faith efforts required by City ordinance, specifically the items enumerated in subsections 28-62(b)(2) through 28-62(b)(10). D.R.M.C.

SECTION 7: PLAN ADMINISTRATION; MONITORING; CLOSEOUT

- A. DSBO shall have prompt, full and complete access to all Contractor and subcontractor personnel, books and records required to monitor and assure performance of this Compliance Plan.
- B. The Contractor's personnel identified in Section 2 above will be responsible for administering and monitoring the Contractor's performance of this Compliance Plan.
- C. Actual M/WBE participation will be calculated in accordance with the M/WBE Ordinance, including § 28-63, D.R.M.C., and applicable Rules. The Contractor will submit to DSBO a monthly tracking report demonstrating the M/WBE participation that has been achieved.
- D. The following milestones for review and reconciliation of M/WBE participation will be observed during the contract: upon issuance of a new work package, at submission of

each pay application, at the issuance of a major revision to previously agreed upon work, and at task order reconciliation.

- E. The Contractor acknowledges that the City may impose monetary penalties and/or withhold payment in the event of Contractor's non-compliance with the M/WBE Ordinance and this Compliance Plan.

- F. The Contractor will use the following methodology for final reconciliation of M/WBE participation performance achieved during the Contract term, measured against the established project goal. The Contractor will present copies of all signed DSBO Final Lien Release forms for MWBE firms utilized for participation on the Contract. DSBO will compare the Final Monthly Participation Report submitted by the Contractor to determine if the Final Lien Release dollar figures match what is contained within the Final Monthly Participation Report. Final Compliance shall be achieved when the Contractor establishes to the Director's satisfaction, that it has remitted payments to M/WBE firms utilized on the Project; that it utilized M/WBE firms in accordance with each such firm's Letter of Intent; and that the amount of payments to M/WBE firms equals or exceeds the assigned M/WBE goal for the total amount of the Contract. Failure to achieve final compliance may subject the Contractor to sanctions, in accordance with D.R.M.C, Section 28-77. As provided in such ordinance, sanctions may include, but are not limited to, assessment by the Director of a monetary penalty against the Contractor in an amount not more than 150% of the contract amount for each MBE or WBE involved. Any such monetary penalty leveled by the Director shall be withheld from the final payment due to the Contractor, and any amount that remains due and owing to the City may be collected pursuant to D.R.M.C., Section 28-77. The Contractor may seek review of any such determination by the Director to levy sanctions through the dispute resolution process set forth in the Construction Contract.

SECTION 8: NON-COMPLIANCE; SANCTIONS; REMEDIATION PLAN

- A. At all times, DSBO shall monitor the Contractor's compliance with this Plan and the M/WBE Ordinance and Rules. The Contractor shall fully cooperate with DSBO's compliance monitoring and auditing efforts, including DSBO's investigation of any alleged or suspected non-compliance by the Contractor.

- B. If the Director has reason to believe that the Contractor is not in compliance with this Plan or with the M/WBE Ordinance, the Director shall give the Contractor written notice of non-compliance, citing the reasons why the Contractor is not in compliance, and giving the Contractor thirty (30) days in which to submit a remediation plan for the Director's review and acceptance. The remediation plan shall demonstrate how the Contractor will cure such non-compliance, and if such non-compliance consists of failure to obtain or maintain M/WBE participation at the committed level, that the Contractor's M/WBE participation level will again achieve the committed level, and that the Contractor will ultimately achieve the committed participation goal for the contract.

- C. The Contractor shall, within such thirty (30) day period, deliver to the Director a written remediation plan the Director's review and approval.
- D. The Director may issue a written determination of non-compliance and the sanction which the Director has elected to impose as a consequence:
 - (1) If the Contractor does not respond within the time allowed; or
 - (2) If the Contractor fails to submit a satisfactory remediation plan; or
 - (3) If a Contractor submits an acceptable remediation plan but thereafter fails to comply with the plan.
- E. The Contractor may contest a determination issued under Section 8(D), by requesting a hearing within 30 days after the date of such determination, as provided in § 28-33, D.R.M.C.

SECTION 9: MEDIATION

The Contractor will provide a process to resolve disputes that occur between a MBE or WBE and any non-M/WBE subcontractors or suppliers under the Contract. The Contractor will document such disputes and inform DSBO of the steps the Contractor plans to take to resolve the dispute. The Contractor may ask DSBO to assist in the resolution process it has developed. The Contractor will document and notify DSBO if those disputes have been resolved and inform DSBO of any disputes it was unable to resolve. DSBO will notify the Contractor of any complaints received by DSBO from M/WBE firms regarding a dispute they are experiencing with either a subcontractor or the Contractor.

IN WITNESS WHEREOF, Contractor has executed and agrees to abide by the terms of this Compliance Plan as of the 2nd day of MARCH, 2015.

Contractor

By: Stephen S. Ullrich



201 W. Colfax Ave. Dept. 208
Denver, CO 80202
p: 720.913.1999
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www.denvergov.org/oed

Diversity and Inclusiveness* in City Solicitations Information Request Form

Type in your response, print out, sign and date; or print out and complete manually. Please print legibly.

Denver Executive Order No. 101 establishes strategies between the City and private industry to use diversity and inclusiveness promote economic development in the City and County of Denver and to encourage more businesses to compete for City contracts and procurements. The Executive Order requires, among other things, the collection of certain information regarding the practices of the City’s contractors and consultants toward diversity and inclusiveness and encourages/requires City agencies to include diversity and inclusiveness policies in selection criteria where legally permitted in solicitations for City services or goods.

Answer each item below. Missing or incomplete responses will be recorded as “no” or “none”. **A proposal or response to a solicitation by a contractor/consultant that does not include this completed form shall be deemed non-responsive and rejected.**

Project Name: Miscellaneous Roadway & Parking Lot Improvements - On-Call

BID / RFP No.: 201417353

Interstate Highway Construction, Inc.

Name of Contractor/Consultant

Address:

P. O. Box 4356

Englewood, CO 80155

Email: estimating@ihcquality.com

Business Phone No.: 303-790-9100

Business Facsimile No.: 303-790-8524

1. Do you have a diversity and inclusiveness program? Yes No

If yes, does it address:

Employment and retention? Yes No

Procurement and supply chain activities? Yes No

Customer service? Yes No

1a. If yes, provide a detailed narrative of your company's diversity and inclusiveness principles and programs. (This may include, for example, (i) diversity and inclusiveness employee training programs, equal opportunity policies, and the budget amount spent on an annual basis for workplace diversity; or (ii) diversity and inclusiveness training and information to improve customer service.)

Please see attached. IHC spends approximately \$25,000/year.

1b. If yes, please attach a copy of any written materials on your diversity and inclusiveness program. Attached Not attached

1c. If yes, how does your company regularly communicate its diversity and inclusiveness policies to employees?

Employee Training

Pamphlets

Public EEO postings

Other _____

Not Applicable

1d. If you responded that you do not have a diversity and inclusiveness program, describe any plans your company may have to adopt such a program.

2. How often do you provide training in diversity and inclusiveness principles?

- Monthly Annually
 Quarterly Not Applicable Other Per Project

2a. What percentage of the total number of employees generally participate?

- 0 – 25% 50 – 75%
 26 – 50% 76 – 100 % Not Applicable

3. State how you achieve diversity and inclusiveness in supply and procurement activities. (This may include, for example, narratives of training programs, equal opportunity policies, diversity or inclusiveness partnership programs, mentoring and outreach programs, and the amount and description of budget spent on an annual basis for procurement and supplier diversity and inclusiveness.)

Please see attached.

4. Do you have a diversity and inclusiveness committee? Yes No

4a. If so, how often does it meet?

- Monthly Annually No Committee
 Quarterly Other _____

4b. If you responded that you do not have a diversity and inclusiveness committee, describe any plans your company may have to establish such a committee.

The Corporate EEO Officer, Corporate Sexual Harassment Officer and individual Project EEO Officers serve this duty.

5. Do you have a budget for diversity and inclusiveness efforts? Yes No

6. Does your company integrate diversity and inclusion competencies into executive/manager performance evaluation plans? Yes No

I attest that the information represented herein is true, correct and complete, to the best of my knowledge.

 _____ 12/19/14
Signature of Person Completing Form Date

John D. Medberry, Vice President, Corporate EEO Officer

Printed Name of Person Completing Form

NOTE: Attach additional sheets or documentation as necessary for a complete response.

“Diversity and inclusiveness program” means a program that invites values, perspectives and contributions of people from diverse backgrounds, and integrates diversity into its hiring and retention policies, training opportunities, and business development methods to provide an equal opportunity for each person to participate, contribute, and succeed within the organization's workplace. "Diversity" encompasses a wide variety of human differences, including differences such as race, age, gender, gender identity, sexual orientation, ethnicity, physical disabilities, appearance, historically underutilized and disadvantaged persons, as well as social identities such as religion, marital status, socio-economic status, lifestyle, education, parental status, geographic background, language ability, and veteran status."



**Interstate
Highway
Construction**

Interstate Highway Construction, Inc.
7135 South Tucson Way
P.O. Box 4356
Englewood, Colorado 80155
Telephone (303) 790-9100
Fax (303) 790-8524

Affirmative Action Plan

SECTION I

DISSEMINATION OF POLICY

- A. All members of Interstate Highway Construction, Inc., staff who are authorized to hire, supervise, promote and discharge employees or who recommend or are substantially involved in personnel-related actions will be made fully cognizant of and will implement the Corporate EEO Policy and the contractual EEO responsibilities.

The Corporate EEO Officer will have the responsibility and authority to establish and implement the Corporate EEO Policy on a company-wide basis, as outlined in this Affirmative Action Plan.

The Project EEO Officers will be responsible for disseminating and implementing the EEO Policy on the project level, as outlined in this Affirmative Action Plan.

The following actions will be taken as a minimum:

1. A meeting of supervisory personnel will be conducted before the start of the work year, at the beginning of any new project and every six months thereafter. IHC's Equal Employment Opportunity Policy, the contractual EEO responsibilities and the affirmative actions required to carry out the policy and these responsibilities will be reviewed and explained. The meetings will be conducted by the Corporate EEO Officer, the Project EEO Officer or another knowledgeable company official.
 2. All new supervisory personnel will be given a thorough indoctrination by the Corporate EEO Officer, the Project EEO Officer or another knowledgeable company official, covering all major aspects of the company's EEO obligations within thirty (30) days following their reporting for duty with the company.
 3. The Corporate EEO Officer or appropriate company official will instruct all employees engaged in the direct recruitment of employees for the project relative to the methods followed by the company in locating and hiring minority, female, handicapped and veteran employees.
- B. In order to make Interstate Highway Construction's Equal Employment Opportunity Policy known to all employees, prospective employees and potential sources of employees, the company will take the following actions:
1. All corporate letterhead will have the statement "An Equal Opportunity Employer" imprinted on the bottom of all front sheets. The same statement will be placed on other communications when possible.
 2. Notices and posters setting forth the company's EEO Policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

The following posters will be displayed in the previously mentioned areas:

- a. Corporate EEO Policy which includes the names of both the Corporate EEO Officer and the Project EEO Officer and the request for the referral of minority and female group members. (Bilingual, if necessary.)
- b. EEO Complaint Procedure.
- c. Nondiscrimination notices to workers organizations. (Unions and Referrals)
- d. OFCCP – EEO IS THE LAW (Bilingual, if necessary.)
- e. FHWA – 1495 IMPORTANT WAGE RATE INFORMATION (Get from State)
- f. Department of Labor WH-1321 NOTICE TO EMPLOYEES
- g. Department of Labor 1088 MINIMUM WAGE
- h. OSHA – JOB HEALTH AND SAFETY PROTECTION
- i. Davis-Bacon Wage Rates from Proposal
- j. Emergency Phone Numbers
- k. Any other State or local posting requirements. (Ask Corporate Office)

The Corporate or Project EEO Officer will formally inspect the project site for the required notices and posters at least once every three months while the project is active. The Project EEO Officer or other authorized company official will informally review the bulletin board for the applicable posters and notices whenever they are in the vicinity of the bulletin board.

3. The Company EEO Policy and the affirmative actions to implement such policy will be brought to the attention of employees by means of the following:
 - a. Jobsite meetings will be held at the beginning of each project and at least every six months thereafter by the Project EEO Officer.
 - b. Employees will be given a Corporate EEO Policy statement at the time of their employment.
 - c. At peak employment periods, the Project EEO Officer will make jobsite inspections.

SECTION II

RECRUITMENT

- C. When advertising for employees, Interstate Highway Construction, Inc., will include in all advertisements for employees the notation: “An Equal Opportunity Employer”. The company will insert all such advertisements in newspapers or other publications having a large circulation among minority, female, handicapped and veteran groups in the area from which the project workforce would normally be derived.
- D. The company will conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority, female, handicapped and veteran applicants.

Interstate Highway Construction, Inc., will, through its Project EEO Officers, contact these sources of potential employees in writing and establish with such sources a two-way channel of on-going communications and a definite referral procedure whereby applicants may be referred either to the contractor or to the appropriate union for employment consideration.

The Project EEO Officer will discuss with each of these sources the conditions of employment with the Company, including requirements for entering union apprenticeship programs or other training programs. The Project EEO Officer will express the earnest desire of the company to employ qualified minority, female, handicapped and veteran persons in all work classifications. He will explain all the avenues through which people can obtain employment and training with the Company. Contact with the area's employment sources will be continued through letters, phone contacts or other appropriate means necessary to maintain a two-way channel of communication with these sources.

- E. The Company will encourage present employees to refer minority, female, handicapped and veteran applicants for employment by posting appropriate notices or bulletins in areas accessible to all employees. In addition, information and procedures with regard to referring applicants will be discussed with employees at least once every six months. These discussions will be carried out by the Project EEO Officer during jobsite EEO meetings.
- F. The Project EEO Officer will maintain a current list of minority and female recruitment sources and a copy of any written notices sent to them and any responses received from these sources.

SECTION III

PERSONNEL ACTIONS

- A. Wages, working conditions and employee benefits will be established and administered without regard to race, color, religion, sex, age, national origin, handicap or Vietnam or disabled veteran status. Further, personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff and termination, will be taken without regard to race, color, religion, sex, age, national origin, handicaps or Vietnam or disabled veteran status. The following procedures will be followed:
 - 1. The Project EEO Officer will conduct inspections of project sites at peak employment periods to ensure that working conditions and employee facilities do not indicate discriminatory treatment (including harassment, intimidation and coercion) of project site personnel. The Project EEO Officer will make project inspections at least once every three months.
 - 2. The Corporate EEO Officer will evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices. Specific attention will be paid to premium wages paid to employees and assignment of overtime. If discrimination is found, the company will take immediate corrective action, including payment of back wages, if warranted, or assignment of overtime on a compensatory basis in the future, if past assignment of overtime indicates discrimination.
 - 3. The Corporate EEO Officer will review selected personnel actions to determine whether there is evidence of discrimination. Where evidence is found, the company will promptly take corrective action. If the review indicates the discrimination may extend beyond the actions reviewed, such corrective action will include all affected persons.
- 4. The Corporate EEO Officer will investigate all complaints of alleged discrimination or harassment. The company will attempt to resolve such complaints and will take appropriate corrective action. The company will devise and promulgate to all employees a formal procedure for lodging discrimination or harassment complaints within the company. This procedure will be promulgated to all employees by means of notices on company bulletin boards and meetings held every six months on the project site. This procedure will include a full and complete investigation of each complaint by the Corporate EEO Officer.

If the investigation indicates that discrimination may affect persons other than the complainant, corrective action will be taken and will include all persons affected, including the complainant. Upon completion of each investigation, every complainant will be informed of all avenues of appeal, such as, state and federal government agencies, etc.

SECTION IV

TRAINING AND PROMOTION

- A. Interstate Highway Construction, Inc., will utilize its best efforts to locate, qualify and increase the skills of minority, female, handicapped and veteran employees and applicants for employment. The following actions will be taken as a minimum:
1. **LOCATING SUBJECT EMPLOYEES** – The Project EEO Officer will identify potential sources of minority, female, handicapped, and veteran employees and establish a two-way communication and referral procedure with such sources. In addition, the Company will seek qualified minority, female, handicapped and veteran workers by requesting them directly from union hiring halls and apprentice programs and by encouraging present employees to refer minority, female, handicapped and veteran applicants.
 2. **QUALIFYING SUBJECT EMPLOYEES** – The Company will assist applicants in becoming qualified for entrance into unions with which the company has signed labor agreements. Such assistance will consist of information provided to the applicant regarding training programs. In addition, the company will contact union representatives, informing them of each applicant's desires and background and requesting that the union aid the applicant in whatever way possible to become qualified for entrance into apprenticeship or other training programs.
 3. **INCREASING SKILLS** – The Company will employ minority, female, handicapped and veteran trainees and apprentices in a manner consistent with manpower requirements but subject to collective bargaining agreements. In addition, the company will contact present minority, female, handicapped and veteran employees and encourage them to enter training programs to increase their skills.
- B. Interstate Highway Construction, Inc., recognizes that training and upgrading of minority, female, handicapped and veteran groups is a primary concern under affirmative action. IHC will utilize training programs when consistent with manpower requirements and contractual obligations. The training provided will be on-the-job training aimed at developing full journeyman status in the type of trade involved. The number of trainees will be distributed among the work classifications on the basis of the Company's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

SECTION V

UNIONS/TRADE ORGANIZATIONS

Interstate Highway Construction, Inc., through its memberships in various contractors associations, will establish personal contact with representatives of all unions and trade organizations. The purpose of these contacts will be as follows:

- A. To develop joint training programs aimed toward qualifying minority, female, handicapped and veteran individuals for membership/enrollment in the unions/trade organizations and increasing the skills of these people so that they may qualify for higher paying employment.
- B. To incorporate an Equal Employment Opportunity clause into all union/trade organization agreements to the end that such unions/trade organizations will be contractually bound to refer applicants without regard to their race, color, religion, sex, age, national origin, handicap or veteran status.
- C. To emphasize the fact that, if a union/trade organization cannot refer applicants as requested by the Company within the time limit set forth in the union/trade organization agreement, the Company will recruit the subject employees on its own, in accordance with recruitment procedures outlined in Section II-B of this plan in order to fulfill its contractual obligations so long as this recruitment does not violate previously approved union agreements. Under these procedures, the vacancy or vacancies will be filled without regard to race, color, religion, sex, age, national origin, handicap, or veteran status and full efforts will be made to obtain qualified minorities, females, handicapped and veterans.

- D. To emphasize that the Company will be requesting dispatches of minorities, females, handicapped and veterans from unions/trade organizations to meet the goals and timetables.
- E. To ask that the unions/trade organizations furnish information to the company on minority, female, handicapped and veteran representation in each classification and ask that the union/trade organizations increase their efforts to improve such representation where improvement is warranted.

SECTION VI

SUBCONTRACTING

- A. Interstate Highway Construction, Inc., will make every effort to utilize disadvantaged minority and female-owned subcontractors and suppliers. The disadvantaged minority and female-owned subcontractors who are qualified to perform the work required, will be contacted verbally and in writing requesting the submit bids on the work and will maintain a record of such contracts and requests for bids.
- B. The Company will act in the following ways to ensure subcontractor compliance with equal employment opportunity obligations.
 - 1. Each subcontractor will be required to prepare and/or adhere to any and all EEO requirements of the Contract Special Provisions. Each subcontract will include a PR-1273, but not be limited to it.
 - 2. Each subcontractor will be required to implement an EEO Affirmative Action Plan equal to or better than that plan adopted by IHC and required by the governing contract. (IHC will supply each subcontractor its plan when necessary.)
 - 3. The Corporate EEO Officer and Project EEO Officer will monitor the activities of each subcontractor to assure compliance with the EEO obligations. This monitoring activity will include meetings between the Project EEO Officer and representatives of the subcontractors, as deemed necessary, to discuss any difficulties or problems in subcontractor compliance.
 - 4. The Corporate EEO Officer will monitor all reports and records from subcontractors to ensure that complete and accurate information is received on a timely basis.

SECTION VII

RECORDS AND REPORTS

- A. Interstate Highway Construction, Inc., will keep such records as are necessary to determine compliance with contractual EEO obligations. These records will be designed to indicate:
 - 1. The number of minority and female individuals employed in each work classification on the project.
 - 2. The progress and efforts being made in cooperation with unions/trade organizations to increase employment opportunities.
 - 3. The progress and efforts being made in locating, hiring, training, qualifying and upgrading minority, female, handicapped and veteran employees.
 - 4. The progress and efforts being made in securing the services of disadvantaged minority and female-owned subcontractors and suppliers.
- B. All records will be retained for a period of three years following completion of the contract work and will be available at reasonable times and places for inspection by authorized representatives of the compliance agency.



**Interstate
Highway
Construction**

Interstate Highway Construction, Inc.
7135 South Tucson Way
P.O. Box 4356
Englewood, Colorado 80155
Telephone (303) 790-9100
Fax (303) 790-8524

Equal Employment Opportunity Policy Statement

It is the policy of Interstate Highway Construction, Inc. not to discriminate against any applicant for employment, or any employee because of age, color, sex, disability, national origin, race, religion, veteran status or any status protected under applicable state or local law.

Interstate Highway Construction, Inc. will take affirmative action to ensure that the EEO policy is implemented, with particular regard to: advertising, application procedures, compensation, demotion, employment, fringe benefits, job assignment, job classification, layoff, leave, promotion, recruitment, rehire, training, termination, transfer, upgrade and working conditions.

Interstate Highway Construction, Inc. will continue to make it understood by the employment entities with which it deals, and in employment opportunity announcements that the foregoing is company policy and all employment decisions are based on individual merit only.

All current employees of Interstate Highway Construction, Inc. are requested to encourage qualified disabled persons, minorities, special disabled veterans, and Vietnam Era veterans to apply for employment, on the job training or for union apprenticeship. It is the policy of Interstate Highway Construction, Inc. to satisfy reasonable special accommodations for qualified disabled individuals.

It is the policy of Interstate Highway Construction, Inc. that all company activities, facilities, and job sites are non-segregated. Separate or single-user toilet and changing facilities are provided to assure privacy.

It is the policy of Interstate Highway Construction, Inc. to ensure and maintain a working environment free of coercion, harassment, and intimidation at all job sites, and in all facilities at which employees are assigned to work. Any violation of the policy should be immediately reported to your supervisor or the company EEO Officer.

Corporate EEO Officer: John D. Medberry
Address: P.O. Box 4356
Englewood, CO 80155-4356

NOTICE TO PROCEED

TO:

Date:

Ladies and Gentlemen:

You are hereby authorized and directed to proceed on this date with the work of constructing the work in Task Order No. _____, Contract 201417353 Miscellaneous Roadway & Parking Lot Improvements On-Call, Denver International Airport, Denver, CO, as set forth in detail in the Contract Documents for the City and County of Denver.

CITY AND COUNTY OF DENVER

By _____
Deputy Manager of Aviation,
Airport Infrastructure Management

By _____
Manager of Aviation

cc: List

CITY AND COUNTY OF DENVER

DEPARTMENT OF AVIATION

FINAL RECEIPT

Denver, Colorado

_____, 201_

Received this date from the City and County of Denver, as full and final payment of the cost of construction pursuant to Task Order _____ under Contract No. 20417670, Miscellaneous Roadway & Parking Lot Improvements On-Call, Denver International Airport, Denver, Colorado, provided for in the foregoing Contract, _____

_____ Dollars and _____ Cents (\$ _____), in cash, being the remainder of the full amount accruing to the undersigned by virtue of said Contract; said cash also covering and including full payment for the cost of all extra work and material furnished by the undersigned in the construction of said improvements, and all incidentals thereto, and the undersigned hereby releases said City and County from all claims whatsoever growing out of said Work Order under said Contract.

And these presents are to certify that all persons doing work upon or furnishing materials for said improvements under the forgoing Work Order under said Contract have been paid in full.



**N O T I C E T O A P P A R E N T
B E S T P R O P O S E R**

January 26, 2015

Interstate Highway Construction, Inc.
Attn: Jim Randall; President
7135 S Tucson Way
Englewood, CO 80155
Via email: randallj@ihcquality.com

RE: **MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS
ON-CALL REQUEST FOR PROPOSAL (RFP) NO. 201417353**

Dear Mr. Randall:

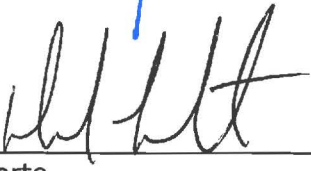
As a result of the City's review of the proposals submitted for the MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS, your company has been selected for contract negotiation.

A representative of the City will contact you in the near future to schedule a meeting to begin the process of negotiating and finalizing an agreement.

CITY AND COUNTY OF DENVER



Kim Day, Manager of Aviation



Dave LaPorte
Deputy Manager of Aviation
Airport Infrastructure Management (AIM)

cc: Steve Campbell, Mike Cloud, Michelle Martin, Annette Kimble, Max Taylor,
File

CONTRACT

THIS CONTRACT, made and entered into as of the date indicated on the City signature page below, by and between the CITY AND COUNTY OF DENVER, a municipal corporation of the State of Colorado, hereinafter referred to as the "**CITY**", and INTERSTATE HIGHWAY CONSTRUCTION, INC., a Michigan corporation authorized to do business under the laws of the State of Colorado, hereinafter referred to as the "**CONTRACTOR**";;

WITNESSETH

WHEREAS, the City, for at least three (3) consecutive days, advertised that sealed proposals would be received for furnishing all labor, tools, supplies, equipment, materials and everything necessary and required for the construction and installation of task orders issued under Contract No. 201417353, Miscellaneous Roadway & Parking Lot Improvements On-Call, Denver International Airport; and

WHEREAS, proposals to said advertisement have been received by the Manager of Aviation, who has recommended that a contract for said work be made and entered into with the above named Contractor who was the best, responsive, qualified proposer therefore; and

WHEREAS, said Contractor is now willing and able to perform all of said work in accordance with the Contract Documents and its proposal;

NOW, THEREFORE, for and in consideration of the compensation to be paid the Contractor, the mutual agreements hereinafter contained, and subject to the terms hereinafter stated, it is mutually agreed as follows:

ARTICLE I - CONTRACT DOCUMENTS: It is agreed by the parties hereto that the following list of instruments, drawings and documents which are attached hereto and bound herewith or incorporated herein by reference constitute and shall be referred to either as the Contract Documents or the Contract, and all of said instruments, drawings and documents taken together as a whole constitute the Contract between the parties hereto, and they are as fully a part of this agreement as if they were set out verbatim and in full herein:

- Advertisement of Notice of Invitation for Proposals (incorporated by reference)
- Instructions to Proposers (incorporated by reference)
- Addenda (if any) (incorporated by reference)
- Proposal Forms (incorporated by reference)
- Proposal letter
- Schedule of Prices and Quantities
- Proposal Data Forms
- Notice to Apparent Selected Proposer (incorporated by reference)
- Contract
- Appendix 1
- Compliance Plan
- Payment & Performance Bond

Notice to Proceed
Form of Final Receipt
Construction Contract General Conditions (table of contents attached)
Special Conditions
Prevailing Wage Schedules
Insurance requirements
Equal Employment Opportunity Provisions
Technical Specifications (to be provided and incorporated per task order)
Contract Drawings (to be provided and incorporated per task order)
Approved Shop Drawings (to be provided and incorporated per task order)
Approved Task Orders (to be provided and incorporated per task order)
Approved Task Order Directives (to be provided and incorporated per task order)
Approved Change Orders (to be provided and incorporated per task order)
Approved Change Order Directives (to be provided and incorporated per task order)

ARTICLE II - SCOPE OF WORK: The Contractor agrees to and shall furnish all labor and tools, supplies, equipment, superintendence, materials and everything necessary for and required to do, perform and complete all of the work described, drawn, set forth, shown and included in said Contract Documents.

ARTICLE III - TERMS OF PERFORMANCE: The Contractor agrees to begin the performance of the work required under this Contract within ten (10) days after being notified to commence work by the Deputy Manager of Aviation – Airport Infrastructure Management and agrees to fully complete the Work in its entirety within the time frame established for each Task Order. The entire contract shall be complete no later than 3 (three) years from the date of execution of this Contract. This period of performance is also referred to as Contract Time. The Contractor is not authorized to commence work prior to its receipt of the Notice to Proceed.

ARTICLE IV - LIQUIDATED DAMAGES: It is understood and agreed by and between the City and the Contractor that, if the Contractor fails to achieve Substantial Completion of the Work within the time set forth in the Task Order or fails to substantially complete the Work described in a Milestone Area within the time set forth in the Task Order or causes Disruptions as set forth in the Special Conditions, the City will suffer substantial damages, which damages would be difficult to accurately determine. The parties hereto have considered the possible elements of damages and have agreed that the amount of liquidated damages for the Contractor's failure to substantially complete the work within the Task Order, or to substantially complete the work described in Milestone Areas within the time set forth in the Special Conditions, shall be those amounts listed in the Special Conditions. If the Contractor shall fail to pay such liquidated damages promptly upon demand therefor, the Surety on its Performance Bond and Payment Bond shall pay such damages. Also, the City may withhold all, or any part of, such liquidated damages from any payment due the Contractor. Additional provisions relating to liquidated damages are set forth in the Construction Contract General Conditions and Special Conditions.

ARTICLE V - TERMS OF PAYMENT: The City agrees to pay the Contractor for the performance and completion of all of the Work required under each authorized Task Order, in accordance with the Contract Documents. In no event, however, shall the total amount of

compensation paid to the Contractor by the City exceed the maximum contract amount specified herein.

The maximum amount to be paid by the City to the Contractor for satisfactory completion of all Task Orders authorized by the City and performed by the Contractor under this Contract shall in no event exceed EIGHT MILLION Dollars and NO Cents (\$8,000,000.00), unless the Contract is modified to increase said amount by a duly authorized, written contract amendment mutually agreeable to and executed by the parties hereto.

Payments will be made to the Contractor in accordance with the City's Prompt Payment Ordinance, D.R.M.C., Section 20-107, et. seq., subject to the maximum contract amount stated above. Contractor agrees that interest and late fees shall be payable by the City hereunder only to the extent authorized and provided for in the City's Prompt Payment Ordinance.

Payment hereunder will be in accordance with the provisions of the Contract Documents, including Title 9 of the General Conditions, and will be made solely and exclusively from funds appropriated and otherwise lawfully made available for the purposes of this Contract from the City and County of Denver Airport System, Operations and Maintenance and Capital Improvement funds. The City has no obligation to make payments from any other fund or source or to make additional appropriations or allocations to such fund to satisfy such costs or other obligations.

ARTICLE VI - DISPUTES: It is agreed and understood by the parties hereto that disputes regarding this contract shall be resolved by administrative hearing under procedures described in Revised Municipal Code Section 5-17.

ARTICLE VII - CONTRACT BINDING: It is agreed that this Contract shall be binding on and inure to the benefit of the parties hereto, their heirs, executors, administrators, assigns and successors.

ARTICLE VIII - SEVERABILITY: If any part, portion or provision of this Contract shall be found or declared null, void, or unenforceable for any reason whatsoever by any court of competent jurisdiction or any governmental agency having authority thereover, only such part, portion, or provision shall be affected thereby and all other parts, portions and provisions of this Contract shall remain in full force and effect.

ARTICLE IX - ASSIGNMENT: The Contractor shall not assign the whole or any part of its duties, rights, and interests in this Contract without first obtaining the written consent of the Manager.

ARTICLE X - APPROVALS: In the event this Contract calls for the payment by the City of Five Million Dollars (\$5,000,000.00) or more, approval by the Board of Councilmen of the City and County of Denver, acting by Ordinance in accordance with Section 3.2.6 of the Charter of the City and County of Denver, is and shall be an express condition precedent to the lawful and binding execution and performance of this Contract.

ARTICLE XI - JOINT VENTURE: If the Contractor is a Joint Venture, the partners to the Joint Venture shall be jointly and severally liable to the City for the performance of all duties and obligations of the Contractor which are set forth in the Contract.

ARTICLE XII - NO DISCRIMINATION IN EMPLOYMENT: In connection with the performance of work under this Contract, the Contractor agrees not to refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender variance, marital status, or physical or mental disability; and the Contractor further agrees to insert the foregoing provision in all subcontracts hereunder.

ARTICLE XIII - WAIVER OF CRS 13-20-801, et seq.: Notwithstanding any other provision of this Contract, the Contractor specifically waives all of the provisions of Colorado Revised Statutes §§ 13-20-801 – 80 as they may relate to the Contractor's performance under this Contract.

ARTICLE XIV - COORDINATION OF SERVICES: The Contractor agrees to perform its work under this Contract in accordance with the operational requirements of DIA, and all work and movement of personnel or equipment on areas included within the DIA site shall be subject to the regulations and restrictions established by the City or its authorized agents.

ARTICLE XV - COMPLIANCE WITH ALL LAWS AND REGULATIONS: All of the work performed under this Contract by the Consultant shall comply with all applicable laws, rules, regulations and codes of the United States and the State of Colorado, and with the charter, ordinances and rules and regulations of the City and County of Denver.

ARTICLE XVI – PROMPT PAY: The Contractor is subject to D.R.M.C. Section 20-112 wherein the Contractor is to pay its subcontractors in a timely fashion. A payment is timely if it is mailed to the subcontractor no later than seven days after receipt of any payment from City. Any late payments are subject to a late payment penalty as provided for in the prompt pay ordinance (Section 20-107 through 20-118).

ARTICLE XVII – COLORADO OPEN RECORDS ACT: The Contractor acknowledges that the City is subject to the provisions of the Colorado Open Records Act, Colorado Revised Statutes §24-72-201 et seq., and the Contractor agrees that it will fully cooperate with the City in the event of a request or lawsuit arising under such act for the disclosure of any materials or information which the Contractor asserts is confidential and exempt from disclosure. Any other provision of this Contract notwithstanding, including exhibits, attachments and other documents incorporated into this Contract by reference, all materials, records and information provided by the Contractor to the City shall be considered confidential by the City only to the extent provided in the Open Records Act, and the Contractor agrees that any disclosure of information by the City consistent with the provisions of the Open Records Act shall result in no liability of the City.

ARTICLE XVIII – COMPLIANCE WITH MINORITY/WOMEN BUSINESS ENTERPRISE REQUIREMENTS: This Contract is subject to all applicable provisions of

Divisions 1 and 3 of Article III, of Chapter 28, Denver Revised Municipal Code (D.R.M.C.), designated as Sections 28-31 – 29-36 and 28-52 – 28-90 D.R.M.C. and referred to in this Contract as the “M/WBE Ordinance”. In accordance with the requirements of the M/WBE Ordinance, the Contractor is committed to, at a minimum, meet the participation goal of twenty percent (20%) established for this Project utilizing properly certified M/WBE subcontractors and suppliers. In addition to the applicable provisions of the M/WBE Ordinance, the Contractor agrees, as an express condition of its performance hereunder, to comply with the requirements of the approved Small Business Enterprise Compliance Plan (attached and incorporated herein as Exhibit A). Such plan shall, at a minimum, include a narrative regarding compliance with the goal; a list of committed M/WBE participants along with dollar and percent participation for each evidencing compliance with the overall goal, and fully executed letters of intent for each listed participant, all in a form satisfactory to the City. Without limiting the general applicability of the foregoing, the Contractor acknowledges its continuing duty, pursuant to Sections 28-72, 28-73 and 28-75 D.R.M.C. and the M/WBE Program, to meet and maintain throughout the duration of this Construction Contract its participation and compliance commitments and to ensure that all Subcontractors subject to the M/WBE Ordinance or the M/WBE Program also maintain such commitments and compliance. Failure to comply with these requirements may result, at the discretion of the Director of the Division of Small Business Opportunity (“DSBO”), in the imposition of sanctions against the Contractor in accordance with Section 28-77, D.R.M.C. Nothing contained in this Paragraph or in the referenced City ordinance shall negate the City’s right to prior approval of Subcontractors, or substitutes therefore, under this Construction Contract.

ARTICLE XVIII – ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS:


Contractor consents to the use of electronic signatures by the City. The Contract, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Contract solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Contract in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

[END OF PAGE]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed at Denver, Colorado as of the date indicated on the City signature page.

Contract Control Number: 201417353

Vendor Name: Interstate Highway Construction, Inc.

By:  _____
(signature)

Name: Jim Randall
(please print)

Title: President
(please print)

ATTEST: (if required)

By: _____
(signature)


Name: _____
(please print)

Title: _____
(please print)

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed at Denver, Colorado as of the date indicated on the City signature page.

Contract Control Number: 201417353

Vendor Name: Interstate Highway Construction, Inc.

By:  (signature)

Name: Jim Randall (please print)

Title: President (please print)

ATTEST: (if required)

By: _____ (signature)

Name: _____ (please print)

Title: _____ (please print)



Contract Control Number:

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

CITY AND COUNTY OF DENVER

ATTEST:

By _____

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By _____

By _____

By _____



PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____
Interstate Highway Construction, Inc. _____, a corporation
organized under the laws of the State of Michigan, hereinafter referred to as the "Contractor"
and _____ Federal Insurance Company _____, a corporation
organized under the laws of the State of Indiana, and authorized to transact business in
the State of Colorado, as Surety, are held and firmly bound unto the CITY AND COUNTY OF
DENVER, a municipal corporation of the State of Colorado, hereinafter referred to as the "CITY",
in the penal sum of ONE HUNDRED THOUSAND AND NO/100 Dollars (\$100,000.00), lawful
money of the United States of America, for the payment of which sum the Contractor and Surety
bind themselves and their heirs, executors, administrators, successors and assigns, jointly and
severally by these presents.

WHEREAS, the above Contractor has as of the date of execution listed on the contract signature
page, entered into a written contract with the City for furnishing all labor, materials, equipment,
tools, superintendence, and everything necessary for and required to do, perform and complete the
construction of Contract No. 201417670, On-Call 2015-16 Parking Garage Repairs, Denver
International Airport, in accordance with the Technical Specifications, Contract Drawings, Task
Orders, and all other Contract Documents therefore, which are incorporated herein by reference
and made a part hereof, and are herein referred to as the Contract;

NOW, THEREFORE, the condition of this Performance and Payment Bond is such that if the
Contractor:

1. Promptly and faithfully observes, abides by and performs each and every
covenant, condition and part of said Contract, including, but not limited to, its
warranty provisions, in the time and manner prescribed in the Contract, and
2. At all times promptly makes payments of all amounts lawfully due to all persons
supplying or furnishing it or its subcontractors with labor and materials, rental
machinery, tools, or equipment, used or performed in the prosecution of work
provided for in said Contract and shall indemnify and save harmless the City to
the extent of any and all payments in connection with the carrying out of such
Contract which the City may be required to make under law; and
3. Pays the City all losses, damages (liquidated or actual, including, but not limited
to, damages caused by delays in the performance of the Contract), expenses,
costs and attorneys' fees, that the City sustains resulting from any breach or
default by the Contractor under the Contract, then this bond is void; otherwise,
it shall remain in full force and effect.

IN ADDITION, if said Contractor fails to duly pay for any labor, materials, team hire, sustenance,
provisions, provender, or any other supplies used or consumed by said Contractor or its
subcontractors in its performance of the work contracted to be done or fails to pay any person who

supplies rental machinery, tools, or equipment, all amounts due as the result of the use of such machinery, tools, or equipment in the prosecution of the work, the Surety shall pay the same in an amount not exceeding the amount of this obligation, together with interest at the rate of eight percent per annum.

PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that any and all changes in the Contract or compliance or noncompliance with the formalities in the Contract for making such changes shall not affect the Surety's obligations under this bond and the Surety hereby waives notice of any such changes.

(End of Page)

IN WITNESS WHEREOF, said Contractor and said Surety have executed these presents as of this 17 day of March, 2015.

Interstate Highway Construction, Inc.

CONTRACTOR

By: 

President Jim Randall

Federal Insurance Company

SURETY

By: 

Attorney-in-Fact
Mona D. Weaver

(Accompany this bond with Attorney-in-Fact's authority from the Surety to execute bond, certified to include the date of the bond.)

CITY AND COUNTY OF DENVER

By: 

MAYOR

By: 

Manager of Aviation

APPROVED AS TO FORM:

D. SCOTT MARTINEZ, Attorney for the
City and County of Denver

By: 

Assistant City Attorney



**Chubb
Surety**

**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint Gayle Marie Kunkel and Jack Lonnie Lansdale III of Phoenix, Arizona; Mary Ashley Allen, John J. Browning, Anuj Jain, Charles M. McDaniel, Sheila J. Montoya, Angela M. Tindol and Mona D. Weaver of Denver, Colorado-----

each as their true and lawful Attorney- in- Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this **5th** day of **February, 2015**.

Dawn M. Chloros, Assistant Secretary

David B. Norris, Jr., Vice President



STATE OF NEW JERSEY

ss.

County of Somerset

On this **5th** day of **February, 2015** before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros, being by me duly sworn, did depose and say that she is Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By- Laws of said Companies; and that she signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that she is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By- Laws and in deponent's presence.

Notarial Seal



**KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2019**

Notary Public

CERTIFICATION

Extract from the By- Laws of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys- in- Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Dawn M. Chloros, Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By- Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in the U.S. Virgin Islands, and Federal is licensed in Guam, Puerto Rico, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this



Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS

LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@chubb.com

City and County of Denver



DENVER
THE MILE HIGH CITY

DEPARTMENT OF AVIATION
DEPARTMENT OF PUBLIC WORKS

STANDARD SPECIFICATIONS FOR CONSTRUCTION GENERAL CONTRACT CONDITIONS

2011 Edition

Statement

The City and County of Denver does not warrant or represent the accuracy or timeliness of the information contained in this page or any of its constituent pages and the information presented is for instructional purposes and illustration only and is not intended to be specific advice, legal or otherwise. The City has made every effort to provide accurate up-to-date information, however this database is dynamic and errors can occur. The City and County of Denver shall not be held responsible for errors or omissions nor be liable for any special consequential or exemplary damages resulting, in whole or in part, from any viewer(s)' uses of, or in reliance upon, this material.

**CONSTRUCTION CONTRACT GENERAL CONDITIONS
2011 Edition**

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SPECIAL CONDITIONS

SC-1 CONSTRUCTION CONTRACT GENERAL CONDITIONS

The Construction Contract General Conditions which constitute a part of the Contract Documents are set forth in a separately published document, entitled “City and County of Denver, Department of Aviation and Department of Public Works, Standard Specifications for Construction, General Contract Conditions,” 2011 Edition, the Table of Contents to which is bound herein (which may be informally referred to as the Yellow Book). The General Conditions book is available for purchase for \$12.00 per copy at the following location during the business hours stated, Monday through Friday, excluding holidays:

Office of the Cashier
Wellington E. Webb Municipal Office Bldg.
201 West Colfax Avenue
Denver, CO 80202
7:30 A.M. to 4:30 P.M.

The City will not supply any copies of the General Contract Conditions to the Contractor at City expense; however, the Contractor may access the General Conditions on the Internet at:

<https://www.denvergov.org/dpw/DepartmentofPublicWorks/Newsroom/tabid/438508/newsid500663/6124/City-and-County-of-Denver-update-to-General-Contract-Conditions/Default.aspx>

SC-2 CONSTRUCTION DOCUMENTS

The City will provide the following Contract Documents to the Contractor in electronic format at no expense to the Contractor:

Document
Volumes 1 – 2 (See the “Master Table of Contents,” page TOC-ii, for the content of these volumes)
Contract Drawings
Change Orders and Change Order Directives
Task Orders

Additional copies of the foregoing documents will be furnished to the Contractor at the Contractor’s expense. The Contractor will be responsible for supplying all subcontractors with copies of the Contract Documents at its expense.

In addition, any proposal requests (Task Order) submitted hereunder, including any plans, specifications, drawings or other documents attached thereto and any Contractor Pricing Proposals submitted in response to a Task Order and any Final

Task Order issued hereunder shall be included as Contract documents and incorporated herein by reference as they may be hereinafter generated.

If Sensitive Security Information (“SSI”) is provided to the Contractor, the Contractor shall be required to comply with Department of Aviation, Standard Policies and Procedures No. 6003, “Contractor Protection of Sensitive Security Information,” or its successor, and 49 C.F.R. § 1520, or its successor.

SC-3 REVISIONS TO G.C. 201

The second sentence of GC 201 is amended to read: “The unit responsible for this management and control is the Airport Infrastructure Management Offices under the supervision of the Deputy Manager of Aviation for Airport Infrastructure Management.”

SC-4 CITY LINE OF AUTHORITY AND CONTACTS

In accordance with General Condition 212, the City’s line of authority for administration of this Contract is:

1. Manager of Aviation (the “Manager” under G.C. 112). The Manager of Aviation is Kim Day, Executive Office, 9th Floor, Airport Office Building, 8500 Peña Boulevard, Denver, CO 80249.
2. Deputy Manager of Aviation for Airport Infrastructure Management (the “Deputy Manager” under G.C. 109), who reports to the Manager. The Deputy Manager is Dave LaPorte, Airport Infrastructure Management Office, 7th Floor, Airport Office Building, 8500 Peña Boulevard, Denver, CO 80249.
3. Senior Director of Development for Airport Infrastructure Management (the “Senior Director”), reports to the Deputy Manager. The Project Manager reports to the Senior Director. Senior Director, Somer Shindler, Airport Infrastructure Management Division, 7th Floor, Airport Office Building, 8500 Peña Boulevard, Denver, CO 80249, phone 303-342-2200, extension 2811.
4. Project Manager, the City representative who has day to day administrative responsibility of this Contract, and who reports to the Deputy Manager. All notices, requests, pay applications (pursuant to G.C. 902), and other correspondence from the Contractor shall be sent to the assigned Project Manager unless otherwise provided in this Contract. The Project Manager for this Contract is: Michael Cloud, Airport Infrastructure Management (AIM) Offices, 7th Floor, Airport Office Building, 8500 Peña Boulevard, Denver, CO 80249, phone 303-342-4457.

The Manager may from time to time substitute a different City official as the designated “Deputy Manager” hereunder, and any such change will be effective upon the issuance of written notice to the Contractor which identifies the successor Deputy

Manager. The Deputy Manager may from time to time change the assigned Project Manager, and any such change will be effective upon the issuance of written notice to the Contractor which identifies the successor Project Manager.

SC-5 CONTRACTOR PERFORMANCE; SUBCONTRACTING

With respect to General Condition 501, no more than 75% of the Work may be subcontracted.

SC-6 COOPERATION WITH OTHERS

The Technical Specifications describe the constraints on the physical work site areas. These descriptions are not exhaustive and the Contractor is required to coordinate its activities and work as may be required to meet FAA or City requirements while performing work on DIA.

SC-7 PROSECUTION AND COMPLETION OF THE WORK:

Work will be issued to the Contractor as Task Orders upon reaching a negotiated agreement between the Contractor and the City as to the cost of the work. Markups on labor, materials, equipment, and subcontractors will be applied to the negotiated costs, in accordance with the contract terms. All contractor proposals for Task Order work or Task Order Change Orders will be in a format as outlined in the Task Order Notice. Proposal line items will include quantities and units of work as well as man-hours and material cost per unit. Work for which a negotiated cost agreement cannot be reached between the City and the Contractor may be, at the direction of the Assistant Manager, performed and compensated on a time and materials basis, with the associated markups applied.

Since this is a contract for on-call services, the Contractor is not guaranteed nor entitled to the issuance of any Task Orders. Task Orders may be negotiated with this or another existing On Call Contractor, or bid between existing On Call Contractors and/or other active airport contractors. Bids for such Task Orders should be submitted per the requirements provided by the City, and may not necessarily require utilization of the rates and markups submitted in the initial On Call Construction contract. Changed work in competitively bid Task Orders will utilize the rates and markups submitted in the initial On Call Construction contract.

The Contractor shall (a) commence work under any issued Task Order within ten (10) calendar days after the date of the Notice to Proceed, (b) prosecute said work diligently, and (c) complete the entire work ready for use no later than the number of calendar days required in the Task Order. The time stated for completion shall include final cleanup of the premises or work site plus such extension or extensions of time as may be granted by the Manager in accordance with the provisions of these General Contract Conditions and Special Contract Conditions.

With respect to any work that is authorized by a Task Order issued prior to the contract completion date, but not completed by that date, the City shall have the option to terminate the work in progress and pay only for that portion of the work satisfactorily completed within the period of performance specified herein or to provide for, in writing, a limited extension of the contract completion date to complete the remaining work. In the event the completion date for a particular Task Order is extended as provided for herein, it shall only allow for consideration of costs that were already agreed upon in a previously issued Task Order(s), and shall not include any modifications to the proposal unit prices or Task Order estimates except those required by Prevailing Wage law, or any additional compensation for extended overhead or impact costs.

For each Task Order submitted to the Contractor for pricing, the Contractor agrees to review and price the Task Order within fourteen (14) consecutive calendar days of the date of such Task Order.

SC-8 TASK ORDER NOTICE TO PROCEED

Following the issuance of any fully executed Task Order hereunder, the Contractor shall commence work in accordance with the Notice to Proceed date established in the Task Order. In the event the Task Order does not include a Notice to Proceed date, the City will issue a separate Notice to Proceed, and Contractor shall commence work within ten (10) consecutive calendar days of the date of the Task Order Notice to Proceed; however, no work will commence on any project until such time as the Contractor has complied with all administrative requirements for that particular project and the Contractor has satisfied all bonding requirements for the particular Task Order (**SC-25 PERFORMANCE AND PAYMENT BOND**). Thereafter the Contractor shall prosecute the work to be accomplished under the Task Order at such time and place as the Task Order directs and shall fully complete in every detail all specified work in accordance with the terms and conditions of the Task Order and the provisions of these General Contract Conditions and Special Contract Conditions.

SC-9 LIQUIDATED DAMAGES

If the Contractor fails to complete the work within the time specified or if the Contractor causes disruptions to DIA activities or operations as defined herein the Contractor shall pay the City liquidated damages in the amounts as stated in future Task Orders. Milestones and related Liquidated Damages will be identified for each Task Order.

SC-10 PRECONSTRUCTION MEETING

Prior to the issuance of the first Task Order and the start of such work, the Contractor, and the City shall meet and resolve any and all issues that may pertain to the understanding of the terms and conditions of the contract. Individual pre-construction meetings will be held at the City's discretion on each issued Task Order prior to issuance of a Notice to Proceed for that Task Order.

SC-11 SECURITY AND PERSONNEL ACCESS

The Contractor shall conduct all its activities at the Airport in compliance with the Airport security system rules and regulations, which are administered by the Airport Operations Division. The Contractor shall obtain the proper access authorizations for its employees, subcontractors and suppliers (i.e., Badges and Permits), and shall be responsible for such persons' compliance with all the Airport rules and regulations. A copy of the Contractors' section of the Airport Security rules and regulations are available for Contractor review at the Airport Access Services Office, Concourse A East Subcore, 4th Level. Persons regularly entering the construction areas must obtain personnel access badges from the Airport Access Services Office and must display badges , at all times, upon entering the construction, restricted and sterile areas of the airport.. Any employee, subcontractor or supplier who violates such rules may be subject to revocation of his access authorization, including authorization for access to the construction site and all other restricted and sterile areas.

The security status of the Airport is subject to change without notice. These contract Special Conditions are applicable to the current security status of the Airport. Should the security status of the Airport change at any time during the term of this Contract, a written notice shall be issued to the Contractor detailing all applicable security modifications from the airport's current security status. The Contractor shall take **immediate steps** to comply with those security modifications as directed in the written notice.

If these security modifications involve any additional project cost, the Contractor shall submit a Contractor Change Request in accordance with the General Conditions for the additional cost. The Contractor Change Request shall outline in specific detail the effects of the security modifications on the Contractor's performance of the Contract, and shall provide a detailed cost breakdown for each item for which the Contractor is requesting reimbursement.

The Contractor shall return to the City, at contract completion or termination, or upon demand by the City, all access keys issued to it by the City to all areas of the Airport. If the Contractor fails to return any such key or keys at contract completion or termination or upon demand by the City, the Contractor shall be liable to the City for all the City's costs, including the City's labor costs for employees, incurred in re-coring doors and any other work which is required to prevent compromise of the Airport security system. In order to collect such costs hereunder, the City may withhold funds in such amount from any amounts due and payable to the Contractor under this Contract.

The construction of all the Project / Task Items that involve the breaching of any airport perimeter security boundary or continued access to restricted access rooms or areas will require the posting of authorized contract security personnel to maintain required security controls. The Contractor's **Guarantee Maximum Price / Total Contract BID Amount / Task Order Proposal** shall include the cost of providing

security services to maintain control and supervision of any and all airport perimeter security boundary breaches and for the duration of work activities where access to restricted areas is required and until the airport perimeter security boundaries are reestablished.

When security boundaries are opened for any reason, the Contractor must maintain one hundred percent (100%) control and supervision for the entire time that the openings are present to prevent unauthorized access to the secure / restricted access areas.

The importance of this special condition cannot be over-emphasized. Severe financial penalties as well as contract termination could result if airport perimeter security requirements are not strictly followed. The requirement to provide one hundred percent (100%) control and SUPERVISION of breaches in the airport's perimeter security boundary is absolute. At no time, during work and non-work hours shall any breaches in the airport's security PERIMETER be UNSUPERVISED and / or UNSECURED.

For off-hours of construction, the Contractor may choose to erect a temporary wall to close all perimeter openings. The wall construction shall be of sufficient materials and strength to prevent access to the airport's Sterile/Restricted Areas. The Contractor shall submit for review and approval, the details and materials for the temporary closure of security perimeter breaches for review and approval.

The Contractor will provide contract security guard services to maintain supervision of these openings. The security services must provide coverage to allow for lunch breaks, comfort breaks and etc. The security services **must** be obtained from the following contract security guard company:

HSS
900 S. Broadway, Suite 100
Denver, Colorado 80209

DIA Contact: Glenn Spies
(303) 342-4323

All security guards provided for this project must have a Denver Airport SIDA Badge.

The DIA Security Guard Contractor may change between the bidding or proposal phase of this contract from Notice to Proceed to closure of all security perimeter breaches. The Contractor shall maintain a contractual relationship with the Security Guard Contractor holding the most current contract with Denver International Airport.

The Contractor shall continue to provide security of these areas until such time that the breaches in the airport's security perimeter have been permanently secured.

The Contractor shall submit a written security plan for approval to the Director of Airport Security prior to the start of construction on any work where a breach of the perimeter security boundaries is required.

SC-12 CONSTRUCTION ACCESS

The work sites may be located at the Denver International Airport roadways and parking lots. Contractor shall have access to the work site via Peña Boulevard and DIA service roads.

The City will not provide parking spaces for the Contractor's employees or subcontractor employees at the Airport. Arrangements for transportation and parking for all of its and its subcontractors employees will be the responsibility of the Contractor. The Task Order amount shall include any and all costs associated with the Contractor's and subcontractors' employee parking.

Unless specifically required by the Contract Documents, the Contractor shall install no fences or other physical obstructions on or around any project work area without the approval of the City.

SC-13 VEHICLE PERMITTING

Vehicle access on the Airport Operation Area (“AOA”) is controlled by and requires permission from the Airport Access Services Office. It is not anticipated that the Contractor will need to operate vehicles on the AOA to perform the Work. It is anticipated that access will be required to the secure baggage handling area of the Terminal. Only direct construction support vehicles and/or equipment will be allowed in the contractor's work areas or sites.

SC-14 VENDORS AND SUPPLIERS

The Contractor shall provide the Project Manager's office with a list of its equipment/material vendors and suppliers for each Task Order. Vendors or suppliers shall access the construction work areas via the Contractor's access route, described in SC-12 above. All delivery vehicles are subject to search.

SC-15 COMMUNICATION DEVICES

Any site communications devices, mobile communication devices or internet data devices used at DIA must be approved by DIA Technologies.

SC-16 USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS

The Contractor and its officers, agents, and employees shall cooperate and comply with the provisions of Executive Order No. 94 and Attachment A thereto concerning the use, possession, or sale of alcohol or drugs. Violation of these provisions or

refusal to cooperate with implementation of the policy can result in the City's barring the Contractor from City facilities or participating in City operations.

SC-17 ATTORNEY'S FEES

Colorado Revised Statute 38-26-107 requires that in the event any person or company files a verified statement of amounts due and unpaid in connection with a claim for labor and materials supplied on this project, the City shall withhold from payments to the Contractor sufficient funds to insure the payment of any such claims. Should the City and County of Denver be made a party to any lawsuit to enforce such unpaid claims or any lawsuit arising out of or relating to such withheld funds, Contractor agrees to pay to the City its costs and a reasonable attorney's fee. Because the City Attorney Staff does not bill the City for legal services on an hourly basis, Contractor agrees a reasonable fee shall be computed at the rate of one hundred dollars per hour of City Attorney time.

SC-18 INSURANCE TO BE PROVIDED BY THE CONTRACTOR

In accordance with the provisions of Title 16 of the General Conditions, the minimum insurance requirements for this contract are set forth in the Sample Insurance Certificate attached to these Special Conditions. The Contractor specifically agrees to comply with each condition, requirement or specification set forth in the attachment for each required coverage during all periods when the required coverage's are in effect.

Contractor and sub-contractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or sub-contractors.

The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.

The City and County of Denver in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, his agents, representatives, employees or sub-contractors. The Contractor shall assess its own risks as it deems appropriate and/or prudent, maintain higher limits and/or broader coverages. The Contractor is not relieved of any liability or other obligations assumed or pursuant to the Contract by reason of its failure to obtain or maintain insurance in sufficient amounts, duration or types.

Contractor shall furnish the City and County of Denver with certificates of insurance (ACORD form or equivalent approved by CCD) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf.

All certificates and any required endorsements are to be received and approved by the City before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of the Contract. All insurance coverages for sub-contractors shall be subject to the minimum requirements identified in the Exhibit. All sub-contractors certificates and endorsements shall be received and approved by the Contractor before work commences. The City reserves the right to request copies of these certificates at any time.

All certificates required by this Contract shall be sent directly to Denver International Airport, Business & Technologies, Airport Office Building, Room 8810, 8500 Pena Boulevard, Denver, Colorado 80249. The City project/Contract number and project description shall be noted on the certificate of insurance. The City reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.

The parties hereto understand and agree that the City and County of Denver, its officers, officials and employees, are relying on, and do not waive or intend to waive by any provisions of this Contract, the monetary limitations or any other rights, immunities and protections provided by the Colorado Governmental Immunity Act, §§ 24-10-101 - 120, C.R.S., or otherwise available to the City and County of Denver, its officers, officials and employees.

SC-19 SUBCONTRACTOR RELEASES

The release form referred to in General Condition 907 is attached to these Special Conditions. It is entitled "Denver International Airport Partial Lien Release."

SC-20 ADDITIONAL AFFIRMATIVE ACTION REQUIREMENTS, FEDERAL PROVISIONS

This contract is subject and subordinate to the terms, reservations, restrictions, and conditions of any existing or future agreements between the City and the United States, the execution of which has been or may be required as a condition precedent to the transfer of federal rights or property to the City for airport purposes, and the expenditure of federal funds for airport purposes. Any "Federal Requirements" section attached hereto or to any individual Task Order is made a part of this Contract.

SC-21 APPLICATIONS FOR AND PROGRESS PAYMENTS TO CONTRACTORS

General Condition 902.3 is amended by the addition of the following:

Where applicable, with respect to any Task Order issued hereunder, progress payments for performance of any work shall be based on completed work estimates and shall be subject to the following requirements:

1. The Contractor shall submit a complete and separate application for payment for the work estimates of each Task Order performed during the specified billing period.
2. Each estimate of work completed for a Task Order shall contain a list of subcontractor and material invoices for all subcontractors and suppliers and shall be based on the approved schedule of values.
3. Each submitted estimate shall specify the percent of the work complete. This percentage shall be certified by the Project Engineer/Manager or the Consulting Architect or Engineer, as appropriate.
4. Each estimate of work completed shall also specifically identify those MBE/WBE Subcontractors or Suppliers that the Contractor is utilizing on the Project pursuant to the requirements of Article VII, Division 1 and 3 of Chapter 28, of the D.R.M.C.
5. Each estimate of work for each Task Order performed shall be submitted using a separate Application for Progress Payment Task Order Contracts (Form CM-18A), accompanied by either duplicate sets of verified Contractor's Certifications of Payment (Form CM-19), or by verified Partial Release of Contractor forms from each subcontractor and supplier (Form CM-26). Each estimate of work completed shall also be accompanied by:
 - a. A written schedule of values, which set out the quantities and costs for the Project and
 - b. The Project Engineer/Manager's, or as applicable, Consulting Architect's or Engineer's estimated statement of the percentage of work completed for each line item of cost for which he City has promised to pay the Contractor. The Contractor shall also submit to the Auditor and other appropriate officials of the City, in a timely fashion, all information required by General Conditions Title 10.
6. The estimate of the percentage of estimate of work completed shall constitute a representation by the Contractor to the City that the work has progressed to the point indicated; that the quality of the work covered by the estimate is in accordance with the Contract Documents; that each obligation covered by the estimate (except as otherwise noted), and the payments required will be used to discharge such obligation unless previously discharged; and that the Contractor is entitled to payment in the amount requested. The Project Engineer/Manager or the Consulting Architect or Engineer, as appropriate, with the assistance of input from the Project Construction Manager, in the event that such has been retained, will also verify the estimate of work completed prior to any acceptance by the City.

7. The Contractor warrants that:
 - a. Title to work covered by an estimate of work completed will pass to the City by incorporation into the completed work;
 - b. Work covered by previous estimates of work completed is free and clear of liens, claims, security interests or encumbrances, hereinafter referred to as “liens”, except for any interest created by retainage; and
 - c. No work covered by an estimate of work completed will have been acquired by the Contractor, or any other person or entity performing work at the work site or furnishing materials or equipment for the Project and that no work covered by any estimate is subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person or entity.
8. Approval of an estimate of work completed or actual payment shall not foreclose the right of the City to examine the books and records of the Contractor to determine the correctness and accuracy of any estimate item.
9. Pursuant to General Condition 908, applications for a reduction in retainage must be accompanied by Partial Release of Contractor forms from each subcontractor or supplier (Form LR-1).
10. The final estimate for payment shall also be accompanied by Final Lien Release forms from each subcontractor and supplier (Form CM-70).
11. Receipt of Contractor’s Certifications of Payment or Partial Lien Release forms by the City hereunder shall not act to impair the City’s Obligations imposed by C.R.S. 38-26-107 or successor statute.
12. If the Contractor disputes a subcontractor’s and/or supplier’s entitlement to a portion of the previous month’s payment, the Contractor need not submit a Contractor’s Certificate of Payment or Partial Release for Contractors from such subcontractor and/or supplier. However, in lieu of such submittal, the Contractor shall submit to the City copies of a written communication from the Contractor to such subcontractor and/or supplier explaining the Contractor’s determination not to render payment to such subcontractor or supplier, together with proof of service of such written communication upon such subcontractor and/or supplier.

SC-22 REVISIONS TO G.C. 1102

G.C. 1102.2 is amended by replacing the phrase “Change Request” in all its occurrences in such G.C. with the phrase “Change Notice.”

G.C. 1102.3 is amended by replacing the phrase “Field Order/Change Directive” in all its occurrences in such G.C. with the phrase “Change Order Directive.”

SC-23 DESCRIPTION OF TASK ORDER

The Project Manager will provide the Contractor with a Task Notice for Proposal (TNP) describing the services/work to be provided for any Task Order. The Contractor shall respond to the City’s request for TNP within 2 working days by (1) visiting the proposed work site in the company of the Project Manager or the Project Manager’s authorized representative, or (2) establishing verbal contact with the Project Manager or the Project Manager’s authorized representative to further define the scope of the work. The Contractor shall then furnish a work plan and price proposal to the Project Manager for all work described in the TNP. Time for the submittal of the work plan and proposal shall be identified on the TNP. The Contractor shall submit to the Project Manager requests for site inspections and other investigations as necessary for its preparation of a work plan and proposal.

The work plan and proposal shall indicate, but not be limited to:

- a statement of the work to be accomplished
- discussion of the implementation process to include the method of operation, type of equipment, key personnel and subcontractors
- how quality of materials and workmanship will be established and maintained
- any additional design requirements
- special considerations
- schedule and keep milestones

The work shall be broken down according to CSI Divisions. Proposal line items will include quantities and units of work as well as man-hours and material cost per unit. It shall be subject to negotiation with the Project Manager. Mark-ups on labor, material, equipment, and subcontractors will be applied to agreed to amounts. Costs for performance and payment bonds will be included as a separate item. The City will review the work plan proposal for completeness and negotiate conditions of performance with the Contractor. If suitable conditions of performance including price and time cannot be negotiated, a Task Order and Notice to Proceed will not be executed or if critical, may be performed on a time and material basis with the mark-ups included with this proposal applied. The City may utilize other means to procure the required work at any time.

Prior to submitting a work plan and price proposal, the Contractor shall inspect the work site and its surroundings. Requests for site visits shall be submitted to the Project Manager. For purposes of the contract, it shall be conclusively presumed that the Contractor has made a thorough inspection of the site and has waived the right to

claim extra payment or time extensions for conditions which would have been evident during that inspection. Because the Proposal information cannot be guaranteed, the Contractor shall have assumed the risks attendant to successful performance of the work except for the risk of encountering differing site conditions which are defined in the General Conditions, and shall never make claim for additional payments or time extensions on the grounds that the nature or amount of work to be done was not understood by the Contractor at the time of submittal of the work plan and price proposal.

SC-24 FUND AVAILABILITY

Task Order approval and acceptance is contingent upon the availability of funding. Approved Task Orders issued under this contract will obligate funds.

SC-25 PERFORMANCE AND PAYMENT BOND

Delete the requirements of General Contract Conditions 1501, 1502 and 1503 for separate bonds. Combined Performance and Payment Bonds in the total amount of all issued Task Orders, provided in the precise form contained in these documents, shall be furnished before any work is undertaken in connection with any Task Order. All other terms and conditions of General Contract Conditions 1501, 1502 and 1503 shall remain in effect.

Additionally, General Contract Condition 1501 shall be amended as follows:

“Before this Contract is executed, the Contractor shall have paid for and furnished to the City a properly completed and executed Combined Performance and Payment Surety Bond, in an amount not less than One Hundred Thousand Dollars and No Cents (\$100,000.00). The Combined Surety Bond shall guarantee the faithful performance of the Contract and shall also guarantee the payment of bills for labor and materials under the Contract.

In the event that the cumulative dollar value of all Task Order(s) issued under the Contract exceeds the amount of the Combined Surety Bond furnished prior to the execution of the Contract, the Contractor shall procure, pay for and furnish to the City a Combined Surety Bond Change Rider, in the proper form, for an amount which is One Hundred percent (100%) of the dollar value of the specified Task Order, that exceeds \$100,000.00. All subsequent Task Orders contemplated under the Contract shall require separate Combined Surety Bond Change Riders for One Hundred percent (100%) of the dollar value of each Task Order before a Task Order is issued and any work under the Task Order commences.

Any combined Surety Bond Change Riders furnished by the Contractor after the execution of the Contract must be reviewed and approved by the City Attorney prior to issuance of a Task Order and before any work commences.

SC-26 TASK ORDER PROCESS

TASK ORDERS

Upon review of any Contractor pricing submittal made pursuant to a Task Notice for Proposal, the City may, at its sole discretion, direct that the work described in the Task Notice for Proposal and priced by the Contractor be completed by issuance of a Task Order to the Contractor or reject the pricing submittal.

The City reserves the right to issue such a Task Order, at the price (either lump sum or time and material) and under the terms of the Contractor's pricing submittal, at any time before the expiration 120 consecutive calendar days from the date the pricing submittal was received by the City. If no Task Order is issued and the pricing submittal is not rejected within this period, the Contractor's pricing Proposal shall be deemed rejected by the City.

A Task Order shall not be issued and no work shall commence until such time as the Task Order is signed by the Contractor and all designated City officials and the Contractor has submitted a Payment and Performance Bond or Bond Change Rider for the work satisfactory to the City Attorney and the Manager of Aviation.

Upon issuance of a Task Order, the Contractor agrees to satisfactorily perform and complete all work or effort described in each issued Task Order or any subsequently issued Task Order Changes within the period of performance specified in the Task Order and Notice to Proceed plus such extensions of time as may be granted by the Manager in accordance with the provisions of this contract.

TASK ORDER CHANGES

In accordance with all terms and conditions provided for standard change orders under General Contract Conditions 1101 et seq. CHANGE ORDERS and ADJUSTMENT TO CONTRACT AMOUNT, the City may issue Change Orders providing for deletions, additions and modifications to the work under a duly issued Task Order. Change Orders must be issued on the Change Order or Change Order Directive Form, samples of which are included herein in the Contract Forms Section. In the event of a conflict between GC 1104.2 and the markups submitted by the Contractor identified in the Schedule of Prices and Quantities, regarding any pay item identified in GC 1104.2, the markups and rates submitted by the Contractor in the Schedule of Prices and Quantities shall prevail.

TASK ORDER CLOSEOUT

After all work performed under each Task Order has been accepted hereunder, final payment and Task Order closeout shall be made in accordance with the terms and conditions of General Contract Condition 910 FINAL ESTIMATE AND PAYMENT. Except that, with the consent of the contractor, legal advertisement, pursuant to Article 26, Colorado Revised Statutes as amended may be held for Task Orders which do not exceed Fifteen Thousand Dollars (\$15,000.00) until such time as several such projects are completed and eligible for legal advertisement.

CONTRACT CLOSE-OUT

Following final closeout of all Task Orders performed hereunder, the Contract shall proceed to final contract closeout. Final contract closeout shall be completed in accordance with all procedures, terms and conditions set forth in the General Conditions except that final settlement and release or retention will be made upon completion of each Task Order rather than contract completion. In addition, Contractor shall execute a Final Receipt and provide a final contract closeout.

SC-27 TASK ORDER DIRECTIVE

A Task Order Directive is a written order, signed by the Manager or the Manager's designated representative, which directs the Contractor to commence a Task Order prior to complete agreement on or execution of a Task Order.

Upon receipt of a Task Order Directive, the Contractor shall immediately sign the Task Order Directive and return it to the Project Manager, and shall immediately proceed with performing the work. The Contractor, within fifteen (15) days after receiving the Task Order Directive, shall provide the Project Manager with a complete and itemized proposal which includes the estimated increase or decrease in the Contract Amount and/or Contract Time attributable to the planned work.

Time and Materials

- a. The City will identify a cost estimate or a Not to Exceed lump sum for the work described in the Task Order Directive. If the maximum cost of the work to be performed under the Task Order Directive has not been agreed upon and reduced to writing in the actual Task Order Directive, the Contractor shall proceed with such Work on a Time and Material basis through completion of the Task Order Directive or until the cost of the work has been agreed upon for the Task Order Directive.
- b. Whenever Work is performed on a Time and Material basis, the Contractor shall fully document all costs associated with such work. Beginning with the first Day such Work is performed, and on a daily basis thereafter, the Contractor shall submit to the Project Manager a daily itemization of all such costs in such form as the Project Manger may require.
- c. The final Task Order Directive amount performed on a Time and Material basis shall be calculated in accordance with the Schedule of Prices and Quantities indicated in this contract.

SC-28 TASK ORDER DIRECTIVES AND CHANGE ORDER DIRECTIVES

"Work", as defined in the General Conditions, shall include all work under any Task Order or Task Order Directive. Any reference in the General Conditions to "Change Directive" shall mean "Change Order Directive".

SC-29 SUBCONTRACTOR

The term "subcontractor" includes a labor pool.

SC-30 NOTICE TO PROCEED AND COMPLETION OF THE WORK

GC 302 is hereby deleted and replaced with the following:

- .1 A written Initial Notice to Proceed will be issued by the Deputy Manager to initiate the Contract only, and such Initial Notice to Proceed is not authorization for the Contractor to proceed with the Work or to proceed with mobilization. Thereafter, the Deputy Manager may issue a Task Order and subsequent NTP authorizing Work and/or mobilization.
- .2 Upon issuance of the Initial Notice to Proceed, the Contractor is allowed and authorized to incur reimbursable costs related to insurance, payment and performance bonds, and such other essential activities such as security access (vehicular access and personnel badging). Home office overhead, core staff and other allowable general conditions costs are not authorized under the initial Notice to Proceed.
- .3 Core staff and agreed upon general conditions' costs are authorized and allowed only for the time Work is authorized pursuant to a Second or subsequent Notice to Proceed and Task Order issued by the Project Manager. These costs, in part, are identified on Schedule of Prices and Quantities attached hereto, related to the rates and charges mutually agreed upon by City and Contractor. Requests for Task Order pricing proposals will not authorize the contractor to accumulate reimbursable costs. Costs for Task Order proposal preparation and Task Order negotiation will not be reimbursable. Upon the substantial completion of Work under any subsequent Notice to Proceed, including a Second Notice to Proceed and/or Work Order, whichever is applicable, reimbursement for these costs expires unless otherwise agreed to in writing and authorized by the Project Manager, limited to the sole and only purpose of facilitating Final Completion of the authorized Work. Any costs the Contractor incurs, except for those costs allowed under the Initial Notice to Proceed, after substantial completion without written authorization by the Project Manager shall be absorbed by the Contractor and shall be at the Contractor's own risk.
- .4 If any milestones are described in the Contract Documents, the Work described by each milestone shall be accomplished in accordance with the Contract Documents within the specified Contract Time, or in the alternative, if a Task Order is issued for Work, than the Work shall be accomplished in accordance with the Task Order and completed within the time set forth by said Task Order.

SC-31 MOBILIZATION

The Contractor, upon issuance of a Task Order, shall submit a detailed mobilization plan to the Deputy Manager, or the Deputy Manager's designee, setting forth the proposed location for mobilization, mobilization costs and equipment to be rented or

purchased for the specific Work authorized. All such costs are subject to the approval of the Deputy Manager, or the Deputy Manager's designee, and any equipment purchase or rental costs wherein the value of such equipment is paid for in excess of 90% of such value, then such equipment may, at the end of the Contract Time or Final Completion, whichever occurs earlier, become subject to ownership by the City (Airport) at City's option. Further, such equipment shall be used solely by the Contractor for Work under this Contract unless otherwise authorized by the Deputy Manager. Such equipment shall not be used for personal uses or activities.

SC-32 BONDS, SALES TAX AND INSURANCE

Bonds, sales and use tax and insurance shall be paid at cost without mark up.

SC-33 SUBCONTRACTOR PAYMENTS AND SUBCONTRACTOR RELEASES – REQUIRED USE OF THE B2G CONTRACT MANAGEMENT SYSTEM

The Contractor is required to use the City B2G Contract Management System to report all subcontractor payments and shall adhere to the City's Procedure for Reporting Subcontractor Payments. It is the Contractor's obligation to ensure that complete subcontractor information is entered into the B2G System prior to submission of the first application for payment in order to avoid any delays in payment. The Contractor shall, prior to the submission of each subsequent invoice, ensure payments to subcontractors have been entered into the B2G System, including subcontractor confirmation of amount of payment received, for services performed during the prior billing period.

SC-34 CHANGE ORDER DIRECTIVE

Any reference in the General Conditions to "Change Order" shall mean "Change Order Directive".

SC-35 PROJECT CONTROLS REQUIREMENTS

The Contractor will be required to use Primavera Unifier and Primavera P6 to comply with the requirements of DIA's Project Controls System. The Project Controls System is Airport Infrastructure Management's tool for project and information management, data analysis and document control. Denver International Airport will be responsible for providing the training for Primavera Unifier and P6. The Contractor will be responsible for providing Primavera P6. The Contractor will also be responsible for providing and maintaining the computer hardware, software and system environment capable of supporting Project Controls System requirements including as the minimum: internet connection; Microsoft Internet Explorer 9 or better; Microsoft Office 2010; Oracle Java JRE 1.7.0 Update 5 and Adobe Acrobat X Pro. This is the only project management system that will be accepted.

SC-36 PAYMENTS TO CONTRACTORS

The application for payment shall be submitted through Textura® Corporations Construction Management Website. Contractor recognizes and agrees that it shall be required to use the Textura® Construction Payment Management System for this Project. Contractor further agrees that, to the fullest possible within the CPM System, the City shall be entitled to all non-Confidential records, reports, data and other information related to the project that are available to Contractor through the CPM System, including, but not limited to, information related to Contractor and subcontractor billings. To that end, Contractor agrees that it will activate any available settings within the CPM System that are necessary to grant the City access to such non-Confidential information related to the contract and the project. Applications for payment shall be based on the Contract Unit Prices or the approved Schedule of Values described in GC 903.1

In accordance with General Contract Condition 902, PAYMENT PROCEDURE, The party(ies) responsible for review of all Pay Applications shall be:

<u>Agency/Firm</u>	<u>Telephone</u>
Textura®	(866) 839-8872

In accordance with General Contract Condition 906, APPLICATIONS FOR PAYMENT, each Application submitted shall include the following:

The estimate of Work completed shall be based on the approved schedule of values or unit prices, as applicable, and the percent of the Work complete. Each Application for Payment shall include each and every independent subcontractor’s payroll information including pay dates and pay amounts. The Contractor shall also submit to the Auditor and other appropriate officials of the City in a timely fashion, information required by General Contract Condition 1004, REPORTING WAGES PAID.

In accordance with General Contract condition 907, RELEASES AND CONTRACTORS CERTIFICATION OF PAYMENT, applications for Payment must be accompanied by completed Partial or Final Claim Release Form, as appropriate, from EACH subcontractor and supplier, AND the Contractor’s Certification of Payment Form.

INSURANCE CERTIFICATE

**The Insurance Certificate which applies to this contract is
contained in the pages immediately following this page.
These pages are not included in the page numbering of this contract document.**

Do not submit the insurance form with the Proposal. This form outlines the insurance coverages and minimum limits of liability for the contract which must be in place and maintained for the duration of this contract.

**CITY AND COUNTY OF DENVER
INSURANCE REQUIREMENTS FOR THE DEPARTMENT OF AVIATION**

Certificate Holder Information:

CITY AND COUNTY OF DENVER
Attn: Risk Management, Suite 8810
Manager of Aviation
Denver International Airport
8500 Peña Boulevard, Room 8810
Denver CO 80249

CONTRACT NAME & NUMBER TO WHICH THIS INSURANCE APPLIES: 201417353 Misc Roadway On-Call Construction

I. MANDATORY COVERAGE

Colorado Workers' Compensation and Employer Liability Coverage

Coverage: COLORADO Workers' Compensation

Minimum Limits of Liability (In Thousands)

WC Limits: \$100, \$500, \$100

And Employer's Liability Limits:

Any Policy issued under this section must contain, include or provide for the following:

1. All States Coverage or Colorado listed as a covered state for the Workers' Compensation
2. Waiver of Subrogation and Rights of Recovery against the City and County of Denver (the "City"), its officers, officials and employees.
3. State Of Colorado law states that if a contractor is a sole proprietor, they are not required to have Workers Compensation coverage.

Commercial General Liability Coverage

Coverage: Commercial General Liability (coverage at least as broad as that provided by ISO form CG0001 or equivalent)

Minimum Limits of Liability (In Thousands):

Each Occurrence:	\$1,000
General Aggregate Limit:	\$2,000
Products-Completed Operations Aggregate Limit:	\$2,000
Personal & Advertising Injury:	\$1,000
Fire Damage Legal - Any one fire:	\$1,000

Any Policy issued under this section must contain, include or provide for the following:

1. City, its officers, officials and employees as additional insureds, per ISO form CG2010 and CG 2037 or equivalents.
2. Coverage for defense costs of additional insureds outside the limits of insurance, per CG0001.
3. Liability assumed under an Insured Contract (Contractual Liability).
4. The full limits of coverage must be dedicated to apply to this project/location, per ISO form CG2503 or equivalent.
5. Waiver of Subrogation and Rights of Recovery, per ISO form CG2404 or equivalent.
6. Separation of Insureds Provision required
7. General Aggregate Limit Applies Per: Policy ___ Project ___ Location ___, if applicable

Business Automobile Liability Coverage

Coverage: Business Automobile Liability (coverage at least as broad as ISO form CA0001)

Minimum Limits of Liability (In Thousands): Combined Single Limit \$1,000

Any Policy issued under this section must contain, include or provide for the following:

1. Symbol 1, coverage for any auto. If no autos are owned, Symbols 8 & 9, (Hired and Non-owned) auto liability.
2. If this contract involves the transport of hazardous cargo such as fuel, solvents or other hazardous materials may occur, then Broadened Pollution Endorsement, per ISO form CA 9948 or equivalent and MCS 90 are required.

III. ADDITIONAL CONDITIONS

It is understood and agreed, for the benefit of the City, that the following additional conditions shall apply to all coverage specified herein

- All coverage provided herein shall be primary and any insurance maintained by the City shall be considered excess.
- With the exception of professional liability and auto liability, a Waiver of Subrogation and Rights of Recovery against the City, its officers, officials and employees is required for each coverage period.
- The City shall have the right to verify or confirm, at any time, all coverage, information or representations contained herein, and the insured and its undersigned agent shall promptly and fully cooperate in any such audit the City may elect to undertake.
- Advice of renewal is required.
- All insurance companies issuing policies hereunder must carry at least an A -VI rating from A.M. Best Company or obtain a written waiver of this requirement from the City's Risk Administrator.
- Compliance with coverage requirement by equivalent herein must be approved in writing by the City's Risk Administrator prior to contract execution.
- No changes, modifications or interlineations on this document shall be allowed without the review and approval of the Risk Administrator prior to contract execution.

NOTICE OF CANCELLATION

It is understood and agreed that should any Policy issued hereunder be cancelled or non-renewed before the expiration date thereof, or sustain a material change in coverage adverse to the City, the issuing company or its authorized Agent shall give notice to the Department of Aviation in accordance with policy provisions.



DENVER INTERNATIONAL AIRPORT
PARTIAL LIEN RELEASE – CONSTRUCTION
(Subcontractor)

Project: _____

Date: _____

City Contract No. _____

Current Subcontract
Amount: \$ _____

FROM:
billing

(1) Last Progress Payment for

Subcontractor _____

period ending _____ 20_____

Address: _____

\$ _____

City/State: _____
billing

(2) Progress invoiced for previous

Telephone: _____

period (if unpaid) _____ 20_____

\$ _____

TO:
Contractor _____

(3) Progress invoiced for current billing
period ending _____ 20_____

Address: _____

\$ _____

City/State: _____

(4) Total Paid to Date:
\$ _____

[] MBE/WBE [] SBE [] DBE [] Non

The undersigned Subcontractor hereby (1) acknowledges receipt of the progress payment referred to above as the Last Progress Payment which, when added to the total of all previous progress payments, constitutes full payment, less retainage, for all labor, services, material and supplies which the undersigned has provided for use in and upon the project described above through _____, 20____ and, (2) hereby releases the Contractor, surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier from any and all claims prior to the above mentioned date, except for the withheld retainage.

The Subcontractor also hereby agrees that the Contractor, Surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier shall be released from any and all claims arising out of its performance or non-performance of any contract associated with the above project through _____, 20____, except for withheld retainage after it has received full payment, less retainage, of the amount invoiced for the current billing period.

Subcontractor: _____

Certified by: _____

Title: _____

Date: _____

(Form: CM-26 Revised: Feb 2007)



DENVER INTERNATIONAL AIRPORT
FINAL LIEN RELEASE - CONSTRUCTION
(Subcontractor)

Project: _____

Date: _____

City Contract No. _____

Subcontractor Contract No. _____

Dated: _____, 20__

FROM:
Subcontractor: _____
billing

(1) Last Progress Payment for
period ending _____, 20__

Address: _____

\$ _____

City/State: _____

(2) Does not apply

Telephone: _____

TO:
Contractor: _____

(3) Does not apply

Address: _____

City/State: _____

(4) Total Paid to Date:

\$

[] SBE [] DBE [] MBE [] WBE [] Non

The undersigned Subcontractor hereby (1) acknowledges receipt of the progress payment referred to above as the Last Progress Payment which, when added to the total of all previous progress payments, constitutes full payment for all labor, services, materials and supplies which the undersigned has provided for use in and upon the project described above through _____, 20__ and, (2) hereby releases the Contractor, Surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier from any and all claims prior to the above mentioned date.

The Subcontractor also hereby agrees that the Contractor, Surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier shall be released from any and all claims arising out of its performance or non-performance of any contract associated with the above project.

Subcontractor: _____

Certified by: _____

Title: _____

Date: _____

(Form: CM-70 Revised: Aug 2008)

**CITY AND COUNTY OF DENVER
RULES AND REGULATIONS AND PROPOSAL CONDITIONS
OF THE
MANAGER OF PUBLIC WORKS**

**PERTAINING TO EQUAL EMPLOYMENT OPPORTUNITY
IN THE CITY AND COUNTY OF DENVER**

APPROVED FOR LEGALITY

APPROVED AND ADOPTED:

/s/

/s/

Attorney for the City and County of Denver

Manager of Public Works

Adopted and Published Pursuant to Article III, Division 2 of Chapter 28
of the
Revised Municipal Code
of the
City and County of Denver

These Rules and Regulations cancel
and supersede any and all previously
issued Rules and Regulations on the Subject.

Revised November 1, 1990

**RULES AND REGULATIONS
REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**

Promulgated and adopted by the Manager of Public Works pursuant to and by authority of Article III, Division 2, Chapter 28 of the Revised Municipal Code of the City and County of Denver, and for the purpose of insuring that contractors, subcontractors and suppliers soliciting and receiving compensation for contract work from or through the City and County of Denver provide equal opportunity in employment without regard to race, color, creed, sex, national origin, age religion, material status, political opinion or affiliation or mental or physical handicap and meet certain requirements for the hiring, training, promotion, and treatment during employment of members of ethnic groups subject to differential treatment, including persons of African descent (Black), Spanish-surnamed (Hispanic), Asian-American and American Indian Groups. The Manager of Aviation is not mentioned in this specific section of the code. I don't know if we can or want to change the title to Manger of Aviation.

RULE I – DEFINITIONS

- A. “City” means the City and County of Denver.
- B. “Manager means the Manager of Public Works for the City and County of Denver.
- C. “Contract” means a contract entered into with the City and County of Denver, financed in whole or in part by local resources or funds of the City and County of Denver, for the construction of any of any public building or prosecution or completion of any public work.
- D. “Contractor” means the original party to a contract with the City and County of Denver, also referred to as the "general" or "prime" contractor.
- E. “Director” means the Director of Contract Compliance.
- F. “Subcontractor” means any person, company, association, partnership, corporation, or other entity which assumes by subordinate agreement some or all of the obligations of the general or prime contractor.
- G. “Bidding Specifications” as used in Article III, Division 2 of Chapter 28 of the Revised Municipal Code shall include BID CONDITIONS, INVITATION TO BID, and NOTICE OF PROPOSAL.
- H. “Affirmative Action Program” means a set of specific and result-oriented procedures or steps to which a contractor commits himself to apply every good faith effort to employ members of ethnic minority groups, to include persons of African descent (Black), Spanish surnamed (Hispanic), Asian-American, American Indians, and persons with mental or physical handicap.

- I. "Office of Contract Compliance" means the City agency established pursuant to Article III, Division 1 of Chapter 28 of the Denver Revised Municipal Code.

RULE II – NOTICE OF HEARING

When results of conciliation efforts are unsatisfactory to the Manager and he is informed in accordance with Article III, Division 2 of Chapter 28 of the Denver Revised Municipal code that a contractor or subcontractor has apparently failed to meet affirmative action and equal employment opportunity requirements after a reasonable period of notice to correct deficiencies, the Manager will, prior to imposition of any sanctions, afford the general contractor a hearing in order to determine whether the contractor or his subcontractors have failed to comply with the affirmative action and equal employment opportunity requirements of Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code or of the contract. Written notice of such hearing shall be delivered personally or sent by certified mail, return receipt requested, to the contractor and to any subcontractor involved, at least ten (10) days prior to the date scheduled for the hearing.

RULE III – HEARING

- A. Contractors will appear at hearings and may be represented by counsel, and may present testimony orally and other evidence.
- B. Hearings shall be conducted by one or more hearing examiners designated as such by the Manager.
- C. The Director of Contract Compliance may participate in hearings as a witness.
- D. Hearings shall be held at the place specified in the notice of hearing.
- E. All oral testimony shall be given under oath or affirmation and a record of such proceedings shall be made.
- F. All hearings shall be open to the public.
- G. The hearing officer shall make recommendations to the Manager, who shall make a final decision.

REGULATIONS

REGULATION NO. 1 - ORDINANCE

The Rules and Regulations of the Manager shall be inserted in the bidding specifications for every contract for which bidding is required.

REGULATION NO. 2 - EXEMPTIONS

Each contract and subcontract, regardless of the dollar amount, shall be subject to affirmative action requirements unless specifically exempted in writing individually by the Manager. Exemptions apply only to "affirmative action" in equal employment opportunity, and are not to be construed as condemnation in any manner of "discrimination" or "discriminatory practices" in employment because of race, color, creed, sex, age, national origin, religion, marital status, political opinion or mental or physical handicap.

REGULATION NO. 3 - DIRECTOR OF CONTRACT COMPLIANCE

The Director of Contract Compliance shall perform the duties assigned to such official by Article III, Division 2 Chapter 28 of the Denver Revised Municipal Code and by the Manager. The Director of Contract Compliance or designated representatives shall inform bidders and contractors of affirmative action procedures, programs, and goals in accordance with the Ordinance at pre-bid and pre-construction conference; (2) make regular on-site inspections; (3) supply contractors and subcontractors with report forms to be completed by them when requested, and furnished to the Director of Contract Compliance; and (4) review payroll records, employment records and practices of general contractors and their subcontractors and suppliers during the performance of any contract. The Director of Contract Compliance shall promptly report apparent affirmative action deficiencies to the Manager.

REGULATION NO. 4 - GOALS AND TIMETABLES

In general, goals and timetables should take into account anticipated vacancies and the availability of skills in the market place from which employees should be drawn. In addition, where discrimination in employment by a general contractor or any of his subcontractors is indicated, a corrective action program will take into account the need by the general contractor and his subcontractors to correct past discriminatory practices and reach goals of minority manpower utilization on a timely basis through such recruiting and advertising efforts as are necessary and appropriate.

REGULATION NO. 5 - AWARD OF CONTRACTS.

It shall be the responsibility of the Director of Contract Compliance to determine the affirmative action capability of proposers, contractors and subcontractors and to recommend to the Manager the award of contracts to those proposers, contractors and subcontractors and suppliers who demonstrate the ability and willingness to comply with the terms of their contract.

REGULATION NO. 6 - PUBLICATION AND DUPLICATION.

Copies of these Rules and Regulations as amended by the Manager from time to time, shall as soon as practicable and after Notice being published will be made a part of all City Contracts.

REGULATION NO. 7 - NOTICE TO PROCEED.

Prior to issuance of the Notice to Proceed, a sign-off will be required of the Director of Contract Compliance or his designee.

REGULATION NO. 8 - CONTRACTS WITH SUBCONTRACTORS.

To the greatest extent possible, the contractor shall make a good faith effort to contract with minority contractors, subcontractors and suppliers for services and supplies by taking affirmative actions which include but are not limited to the following:

1. Advertise invitations for subcontractor proposals in minority community news media.
2. Contact minority contractor organizations for referral of prospective subcontractors.
3. Purchase materials and supplies from minority material suppliers.

REGULATION NO. 9 - AGENCY REFERRALS.

It shall be no excuse that the union with which the contractor or subcontractor has an agreement providing for referral, exclusive or otherwise, failed to refer minority employees.

REGULATION NO. 10 - CLAUSES.

The Manager shall include the appropriate clauses in every contract, and the contractor shall cause to be inserted in every subcontract the appropriate clauses:

1. APPENDIX A: City and County of Denver Equal Opportunity Clause - ALL CONTRACTS funded only with City and County of Denver monies.
2. APPENDIX B: Equal Opportunity Clause (11246) - ALL FEDERAL ASSISTED.
3. APPENDIX C: Section 3 - Assurance of Compliance - HUD ASSISTED PROJECTS.
4. APPENDIX D: Section 3 - Clause - HUD ASSISTED PROJECTS.

REGULATION NO. 11 - SHOW CAUSE NOTICES.

When the Manager has reasonable cause to believe that a contractor has violated Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code, he may issue a notice requiring the contractor to show cause within 15 days why enforcement procedures, or other appropriate action to insure compliance, should not be instituted.

REGULATION NO. 12 - PROPOSAL CONDITIONS - AFFIRMATIVE ACTION REQUIREMENTS - EQUAL EMPLOYMENT OPPORTUNITY.

1. APPENDIX E: The Proposal Conditions - Affirmative Action Requirements - Equal Employment Opportunity as amended and published by the U.S.

Department of Labor Employment Standards Administration, Office of Federal Contract Compliance, shall be inserted verbatim for bidding specification in every non-exempt contract involving the use of federal funds.

2. APPENDIX F: The Proposal Conditions - Affirmative Action Requirements - Equal Employment Opportunity as published by the Department of Public Works, City and County of Denver, shall be inserted verbatim as bidding specifications for every non-exempt contract using City funds.

**CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
DESIGN AND CONSTRUCTION MANAGEMENT DIVISION**

**APPENDIX A
CITY AND COUNTY OF DENVER EQUAL OPPORTUNITY CLAUSE
ALL CONTRACTS**

1. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, age, national origin, religion, marital status, political opinion or affiliation, or mental or physical handicap. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, sex, age, national origin, religion, marital status, political opinion or affiliation, or mental or physical handicap. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, age, national origin, religion, marital status, political opinion or affiliation, or mental or physical handicap.
3. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided, advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. Each Contractor will comply with all provisions of Article ,Division 2 of Chapter 28 of the Denver Revised Municipal Code, and the rules, regulations, and relevant orders of the Manager of Public Works and the Director of the Mayor's Office of Contract Compliance.
5. The Contractor will furnish all information and reports required by Article m, Division 2 of Chapter 28 of the Denver Revised Municipal Code, and by rules, regulations and orders of the Manager and Director or pursuant thereto, and will permit access to the Contractors books, records, and accounts by the Manager, Director, or their designee for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for

further City contracts in accordance with procedures authorized in Article m, Division 2 of Chapter 28 of the Denver Revised Municipal Code, or by rules, regulations, or order of the Manager of Public Works.

7. The Contractor will include Regulation 12, Paragraph 2 and the provisions of paragraphs (1) through (6) in every subcontract of purchase order unless exempted by rules, regulations, or orders of the Manager issued pursuant to Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code, so that such provisions will take such action with respect to any subcontractor or supplies. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

The applicant further agrees to be bound by the above equal opportunity clauses with respect to its own employment practices when it participates in City contracts. The Contractor agrees to assist and cooperate actively with the Manager of Public Works and the Director of Contract Compliance in obtaining compliance of subcontractors and suppliers with the equal opportunity clause and the rules, regulations and relevant orders of the Manager of Public Works, and will furnish the Manager of Public Works and the Director of Contract Compliance such information as they may require for the supervision of compliance, and will otherwise assist the Manager and Director in the discharge of the City's primary responsibility for securing compliance. The Contractor further agrees to refrain from entering into any contract or contract modification subject to Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code with a contractor debarred from, or who has not demonstrated eligibility for, City contracts.

The Contractor will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the Manager of Public Works and Director of Contract Compliance. In addition, the Contractor agrees that failure or refusal to comply with these undertakings the Manager of Public Works may take any or all of the following actions:

- A. Cancellation, termination, or suspension in whole or in part of this contract.
- B. Refrain from extending any further assistance to the applicant under the program with respect to which the failure occurred until satisfactory assurance of future compliance has been received from such applicant.
- C. Refer the case to the City Attorney for appropriate legal proceedings.

SUBCONTRACTS - Each prime Contractor or Subcontractor shall include the equal opportunity clause in each of its subcontracts.

APPENDIX F
AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

For all Non-Exempt Construction Contracts to be awarded
by the City and County of Denver, Department of Public Works

NOTICE

EACH PROPOSER, CONTRACTOR OR SUBCONTRACTOR (HEREINAFTER THE CONTRACTOR) MUST FULLY COMPLY WITH THE REQUIREMENTS OF THESE PROPOSAL CONDITIONS AS TO EACH CONSTRUCTION TRADE IT INTENDS TO USE ON THIS CONSTRUCTION CONTRACT, AND ALL OTHER CONSTRUCTION WORK (BOTH CITY AND NON-CITY) IN THE DENVER AREA DURING THE PERFORMANCE OF THIS CONTRACT OR SUBCONTRACT. THE CONTRACTOR COMMITS ITSELF TO THE GOALS FOR MINORITY MANPOWER UTILIZATION, AS APPLICABLE, AND ALL OTHER REQUIREMENTS, TERMS AND CONDITION OF THESE PROPOSAL CONDITIONS BY SUBMITTING A PROPERLY SIGNED BID. THE CONTRACTOR SHALL APPOINT A COMPANY EXECUTIVE TO ASSUME THE RESPONSIBILITY FOR THE IMPLEMENTATION OF THE REQUIREMENTS, TERMS AND CONDITIONS OF THESE PROPOSAL CONDITIONS.

Manager of Public Works
City and County of Denver

A. REQUIREMENTS - AN AFFIRMATIVE ACTION PLAN:

Contractors shall be subject to the provisions and requirements of these bid conditions including the goals and timetables for minority* and female utilization, and specific affirmative action steps set forth by the Mayor's Office of Contract Compliance. The contractor's commitment to the goals for minority, and female utilization as required constitutes a commitment that it will make every good faith effort to meet such goals.

1. GOALS AND TIMETABLES:

The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade are as follows:

GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE	GOALS FOR FEMALE PARTICIPATION FOR EACH TRADE
From January 1, 1982 to Until Further Notice	From January 1, 1982 to Until Further Notice
21.7% - 23.5%	6.9%

The goals for minority and female utilization above are expressed in terms of hours of training and employment as a proportion of the total number of hours to be worked by the contractor's aggregate workforce, which includes all supervisory personnel, in each trade, on all projects for the City and County of Denver during the performance of its contract (i.e., The period beginning with the first day of work on the City and County of Denver funded construction contract and ending with the last day of work).

The hours of minority and female employment and training must be substantially uniform throughout the length of the contract in each trade and minorities and females must be employed evenly on each of a contractor's projects. Therefore, the transfer of minority or female employees from contractor to contractor or from project to project for the purpose of meeting the contractor's goals shall be a violation of these Bid Conditions.

If the Contractor counts the nonworking hours of apprentices they must be employed by the Contractor during the training period; the Contractor must have made a commitment to employ apprentices at the completion of their training subject to the availability of employment opportunities; and the apprentices must be trained pursuant to training programs approved by the Bureau of Apprenticeship and Training.

* "Minority" is defined as including, Blacks, Spanish Surname Americans, Asian Americans, and American Indians, and includes both minority men and women.

2. SPECIFIC AFFIRMATIVE ACTION STEPS:

If contractor shall be found to be in noncompliance solely on account of its failure to meet its goals, but will be given an opportunity to demonstrate that the contractor has instituted all the specific affirmative action steps specified and has made every good faith effort to make these steps work toward the attainment of its goals within the timetables, all to the purpose of expanding minority and female utilization in its aggregate workforce. A contractor, who fails to comply with its obligation under the Equal Opportunity Clause of its contract and fails to achieve its commitments to the goals for minority and female utilization has the burden of proving that it has engaged in an Affirmative Action Program directed at increasing minority and female utilization and that such efforts were at least as extensive and as specific as the following:

- a. The Contractor should have notified minority and female organizations when employment opportunities were available and should have maintained records of the organization's response.
- b. The Contractor should have maintained a file of the names and addresses of each minority and female referred to it by any individual or organization and what action was taken with respect to each such referred individual, and if the individual was not employed by the Contractor, the reasons. If such individual was sent to the union hiring hall for referral and not referred back by the union or if referred, not employed by the Contractor, the file should have documented this and their reasons.
- c. The Contractor should have promptly notified the Department of Public Works, and the Mayor's Office of Contract Compliance when the union or unions with which the Contractor has collective bargaining agreements did not refer to the contractor a minority or female sent by the contractor, or when the Contractor has other information that the union referral process has impeded efforts to meet its goals.
- d. The Contractor should have disseminated its EEO policy within its organization by including it in any employee handbook or policy manual; by publicizing it in company newspapers and annual reports and by advertising such policy as reasonable intervals in union publications. The EEO policy should be further disseminated by conducting staff meetings to explain and discuss the policy; by posting of the policy; and by review of the policy with minority and female employees.
- e. The Contractor should have disseminated its EEO policy externally by informing and discussing it with all recruitment sources; by advertising in news media, specifically including minority and female news media; and by notifying and discussing it with all subcontractors.

- f. The Contractor should have made both specific and reasonably recurrent written and oral recruitment efforts. Such efforts should have been directed at minority and female organizations, schools with substantial minority and female enrollment, and minority and female recruitment and training organizations within the Contractor's recruitment area.
- g. The Contractor should have evidence available for inspection that all tests and other selection techniques used to select from among candidates for hire, transfer, promotion, training, or retention are being used in a manner that does not violate the OFCCP Testing Guidelines in 41 CFR Part 60-3.
- h. The Contractor should have made sure that seniority practices and job classifications do not have a discriminatory effect.
- i. The Contractor should have made certain that all facilities are not segregated by race.
- j. The Contractor should have continually monitored all personnel activities to ensure that its EEO policy was being carried out including the evaluation of minority and female employees for promotional opportunities on a quarterly basis and the encouragement of such employees to seek those opportunities.
- k. The Contractor should have solicited bids for subcontracts from available minority and female subcontractors engaged in the trades covered by these Bid Conditions, including circulation of minority and female contractor associations. NOTE: The Director and the Mayor's Office of Contract Compliance will provide technical assistance on questions pertaining to minority and female recruitment sources, minority and female community organizations, and minority and female news media upon receipt of a request for assistance from a contractor.

3. NONDISCRIMINATION:

In no event may a contractor utilize the goals and affirmative action steps required in such a manner as to cause or result in discrimination against any person on account of race, color, religion, sex, marital status, national origin, age, mental or physical handicap, political opinion or affiliation.

4. COMPLIANCE AND ENFORCEMENT:

In all cases, the compliance of a contractor will be determined in accordance with its obligations under the terms of these Bid Conditions. All contractors performing or to perform work on projects subject to these Bid Conditions hereby agree to inform their subcontractors in writing of their respective obligations under the terms and requirements of these Bid Conditions, including the provisions relating to goals of minority and female employment and training.

B. CONTRACTORS SUBJECT TO THESE BID CONDITIONS:

In regard to these Bid Conditions, if the Contractor meets the goals set forth therein or can demonstrate that it has made every good faith effort to meet these goals, the Contractor shall be presumed to be in compliance with Article m, Division 2 of Chapter 28 of the Denver Revised Municipal Code, the implementing regulations and its obligations under these Bid Conditions. In the event, no formal sanctions or proceedings leading toward sanctions shall be instituted unless the contracting or administering agency otherwise determines that the contractor is violating the Equal Opportunity Clause.

1. Where the Mayor's Office of Contract Compliance finds that a contractor failed to comply with the requirements of Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code or the implementing regulations and the obligations under these Bid Conditions, and so informs the Manager, the Manager shall take such action and impose such sanctions, which include suspension, termination, cancellation, and debarment, as may be appropriate under the Ordinance and its regulations. When the Manager proceeds with such formal action it has the burden of proving that the Contractor has not met the goals contained in these Bid Conditions. The Contractor's failure to meet its goals shall shift to it the requirement to come forward with evidence to show that it has met the good faith requirements of these Bid Conditions.

2. The pendency of such proceedings shall be taken into consideration by the Department of Public Works in determining whether such contractor can comply with the requirements of Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code, and is therefore a "responsible prospective contractor".

3. The Mayor's Office of Contract Compliance shall review the Contractor's employment practices during the performance of the contract, If the Mayor's Office of Contract Compliance determines that the Contractor's Affirmative Action Plan is no longer an acceptable program, the Director shall notify the Manager.

C. OBLIGATIONS APPLICABLE TO CONTRACTORS:

It shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority or female employees, Discrimination in referral for employment, even if pursuant to provisions of a collective bargaining agreement, is prohibited by the National Labor Relations Act, as amended, Title VI of the Civil Rights Act of 1964, as amended, and Article Division 2 of Chapter 28 of the Denver Revised Municipal Code. It is the policy of the Department of Public Works that contractors have a responsibility to provide equal employment opportunity, if they wish to participate in City and County of Denver contracts. To the extent they have delegated the responsibility for some of their employment practices to a labor organization and, as a result, are prevented from meeting their obligations pursuant to Article m, Division 2 of Chapter 28 of the Denver Revised Municipal Code, such Contractors cannot be considered to be in compliance with Article m, Division 2 of Chapter 28 of the Denver Revised Municipal Code, or its implementing rules and regulations.

D. GENERAL REQUIREMENTS:

Contractors are responsible for informing their subcontractors in writing regardless of tier, as to their respective obligations. Whenever a Contractor subcontracts a portion of work in any trade covered by these Bid Conditions, it shall include these Bid Conditions in such subcontractors and each subcontractor shall be bound by these Bid Conditions to the full extent as if it were the prime contractor. The Contractor shall not, however, be held accountable for the failure of its subcontractors to fulfill their obligations under these Proposal Conditions. However, the prime contractor shall give notice to the Director of any refusal or failure of any subcontractor to fulfill the obligations under these Bid Conditions. A subcontractor's failure to comply will be treated in the same manner as such failure by a prime contractor.

1. Contractors hereby agree to refrain from entering into any contractor contract modification subject to Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code with a contractor debarred from, or who is determined not to be a "responsive" bidder for the City and County of Denver contracts pursuant to the Ordinance.
2. The Contractor shall carry out such sanctions and penalties for violation of these Bid Conditions and the Equal Opportunity Clause including suspension, termination and cancellation of existing subcontracts and debarment from future contracts as may be ordered by the Manager pursuant to Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code and its implementing regulations.
3. Nothing herein is intended to relieve any contractor during the term of its contract from compliance with Article m, Division 2 of Chapter 28 of the Denver Revised Municipal Code, and the Equal Opportunity Clause of its contract with respect to matters not covered in these Bid Conditions.
4. Contractors must keep such records and file such reports relating to provisions of these Bid Conditions as shall be required by the Mayor's Office of Contract Compliance.
5. Requests for exemptions from these Proposal Conditions must be made in writing, with justification, to the Manager of Public Works, City and County Building, Room 379, Denver, Colorado 80202, and shall be forwarded through and with the endorsement of the Director of the Mayor's Office of Contract Compliance.

**STANDARD FEDERAL ASSURANCES
ATTACHMENT 1**

NOTE: As used below the term "contractor" shall mean and include the Contractor, and the term "sponsor" shall mean the "City".

During the term of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations.** The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, creed, color, sex, national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. **Solicitations for Subcontractors, Including Procurements of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
4. **Information and Reports.** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the sponsor of the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance.** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:
 - a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
 - b. Cancellation, termination, or suspension of the contract, in whole or in part.

6. Incorporation of Provisions. The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

7. The Contractor for itself, representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that in the event facilities are constructed, maintained, or otherwise operated on the said property described in this agreement for a purpose for which a DOT program or activity is extended or for another purpose involving the provision of similar services or benefits, the Contractor shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, and as said Regulations may be amended.

8. The Contractor for itself, representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land: (1) that no person on the grounds of race, color, sex, creed or national origin shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land and the furnishing of services thereon, no person on the grounds of race, color, sex, creed or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the Contractor shall use the premises in compliance with all other requirements imposed by or pursuant to 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, and as said Regulations may be amended.

9. **NONDISCRIMINATION IN AIRPORT EMPLOYMENT OPPORTUNITIES** The Contractor assures that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

It is unlawful for airport operators and their lessees, tenants, concessionaires and contractors to discriminate against any person because of race, color, national origin, sex, creed, or handicap in public services and employment opportunities.



DENVER
INTERNATIONAL
AIRPORT

REQUEST FOR PROPOSALS

MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL

CONTRACT NO. 201417353

PART II

TECHNICAL PROVISIONS

VOLUME 2:

DIVISION 1: GENERAL REQUIREMENTS

Issued for Construction March 2015

CITY & COUNTY OF DENVER
DEPARTMENT OF AVIATION

MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL

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SECTION 011100

SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this contract consists of furnishing all management, supervision, labor, materials, tools, equipment, services, testing and incidentals for the construction of the Work indicated in the contract documents including lump sum items and unit price items.
- B. The Work in this Contract may impact operations of Denver International Airport. The Contractor shall bid, plan and execute the Work so as to minimize disruption of operations and inconvenience to the public.
- C. Task Notice Proposals, Change Notice:
 - 1. The Contractor will be required to submit a proposal for each TNP for on call Contract or Change Notice for regular hard bid Contracts; The Contractor shall facilitate competitive bid process on all or parts of the work as required by the on-call Contract based on a selection criteria approved by DIA Project Manager.
 - 2. The Contractor must submit a proposal for the complete scope of the work within the specified duration identified by the Notice. Where there is no time requirement identified by the notice documents the Contractor must submit a proposal within 20 days of receiving the notice or as allowed in Title 11 of the General Conditions.
 - 3. The proposal could contain both competitive bid and estimated costs and shall adhere to the requirements of title 11 of the General Conditions.
 - 4. The Contractor shall not proceed on any task or change notice work until a task or change order is issued.
- D. Task Order Directives, Change Order Directives:
 - 1. The City may issue Change or Task Order Directive (s) for a scope of work and a 90% of DIA estimated cost of the task. The contractor must keep all Time and Material records for any Change or Task - Order Directive (s) issued until a final settlement for the task is settled and finalized in a Change or Task - Change Order.
 - 2. All negotiated Task Notices, Directives or Orders must adhere to the General Conditions requirements of Title 11.of the General Conditions (Yellow Book) The Contractor must keep record and approvals for all Time and Material impacts of a Change or Task Order Directive until a final settlement is reached and fully executed by the City.
 - 3. The Contractor may invoice the City for Change or Task – Order Directive based on the City estimated value until a final Change Order or Task Order is issued for the specific task.
- E. This project will be administered using the Unifier Software. The software will be supplied by the Owner at no cost to the Contractor. DIA project control staff will train contractor's personnel on the PCM software use.
- F. The Contractor must participate in a preconstruction coordination meeting and prepare a BIM implementation plan based DIA BIM implementation plan template included in DIA Design

Standards Manual 12 and the coordination meeting instructions.

- G. DIA utilizes several programs as part of the asset management system. Keeping accurate as-built record and operation and maintenance data are essential in the integrity and the validity of the airport operation. The Contractor is required to make every effort to keep the airport data updated and provide accurate record of its work and all the impacts to DIA in the format required by DIA Project Manager:
1. BIM module is not required for this project however all the data for this project shall be submitted electronically in addition to any **OTHER FORMAT REQUIRED BY THE CONTRACT** Documents.
- H. **Inspection Requirements:**
1. Special Inspection and Testing required by the building official or the Engineer of Record in the Contract Documents or in the Statement of Special Inspection will be performed by DIA contracted Agencies.
 2. Contractor must subcontract Qualified Material Testing Agency(s) to perform all necessary Quality Control, processing control and any additional Testing required by the Contract Documents.
 3. DIA contracted Testing Agency may audit all tests performed by the Contractor Material Testing and perform partial testing of the QC test frequencies at the discretion of DIA Project Manager. Testing and Inspections for structural elements (Reinforced Concrete, Steel, Masonry Caissons, Fire protection, Precast and Post Tension Concrete) not identified as special inspection will be performed by the Contractor Quality Control Program and Contractor Material Testing Agency and audited and confirmed by DIA Quality Assurance and Testing Agency(s). DIA will perform 100% visual inspection on all weldments. DIA will perform at least 10% of the QC test and inspection frequencies. The testing frequencies by the owner may escalate to higher percentages and the Contractor will be responsible for all costs associated with failing tests of the same pay item elements. The Contractor may not hire the owner contracted or testing agency in any capacity on this project.
 4. DIA will perform all pull and adhesion tests on all airfield joint sealants. Contractor must perform its own process and quality control
- I. For all FAA projects: The Contractor must contract qualified Material Testing Agency for all Quality Control and process control in addition to all acceptance testing on all soil related material tests including but not limited to soil fill and backfill, Trench backfill, Cement Treated Soil and Lime Treated Soil. The Owner will utilize owner employed testing and inspection agencies to perform all other acceptance testing not identified above.
- J. DIA Quality Assurance is required to submit a letter indicating that all work performed on the project is in compliance with all applicable codes. The Contractor shall make sure that all required test frequencies and all deficiencies have been corrected and are in compliance with all applicable codes, standards and the requirements of the Contract Documents.

1.02 WORK BY OTHERS

- A. The Contractor is hereby notified that there may be other construction activities now and in the future within the project areas and adjacent to the worksites throughout the duration of this contract. The Contractor is responsible for keeping apprised of other projects and worksites and how they may affect the work.

- B. The Contractor shall maintain contact with the City and with other contractors to schedule work to minimize the effect of such construction activities on other site activities. The Contractor shall also maintain, at the direction of the Project Manager, contact with tenants to ensure minimal disruption to tenant operations.

1.03 FUTURE WORK

- A. The Contractor is hereby notified that there may be other future construction activities within the project and adjacent to the worksites that are scheduled after completion of this contract. It is the Contractor's responsibility to keep apprised of such projects and how they may affect the Work.

1.04 SITE CONDITIONS

- A. The Contractor acknowledges satisfaction as to the nature and location of the Work, all of the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, power, roads, and uncertainties of weather, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during work, and all other matters that can in any way affect the work or the cost thereof under this contract.
- B. The Contractor further acknowledges, by submission of a bid and on each Work Request bid, satisfaction as to the character, quality and quantity of all surface and subsurface materials and all features on top of the surface or at worksites that would be encountered from his inspection of the site and from reviewing available records of exploratory work furnished by the City. Failure by the Contractor to become acquainted with the physical conditions of the sites and all the available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of performing the Work.
- C. The Contractor warrants that as a result of examination and investigation of all the aforesaid data and the site, that the Contractor can perform the Work in a good and workmanlike manner and to the satisfaction of the City. The City assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this contract unless such representation is expressly stated in the contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 CONTRACTOR'S DUTIES

- A. Except as otherwise specified, furnish the following to the full extent required by the contract:
 - 1. Labor, superintendence, supervision and products.
 - 2. Construction equipment, tools, machinery and materials.
 - 3. Utilities required for construction and related activities.
 - 4. Other facilities and services necessary to properly execute and complete the Work, including security for worksite, testing and storage and protection of all materials awaiting incorporation into the Work, providing a safe working environment for workers, City and County of Denver representatives, and the public in accordance with all local, state and federal requirements.

- B. Prosecute the Work as specified and in a timely manner. Submit a schedule of Work that will be performed at times other than during the eight-hour working day of Monday through Friday, daylight hours. Submit this schedule five working days prior to the beginning of Work to the Project Manager for review and acceptance. Approval to work at night may be obtained after Contractor presents a written program outlining special precautions to be taken to control the extraordinary hazards presented by night work. That program shall include, but not limited to, supplementary lighting of work areas, availability of medical facilities, security precautions and noise limitations.

3.02 COORDINATION

- A. Coordinate prosecution of the Work with those public utilities, governmental bodies, private utilities and other contractors performing work on and adjacent to the worksites. Eliminate or minimize delays in the Work and conflicts with those utilities, bodies and contractors. Schedule governmental, private utility and public utility work that relies upon survey points, lines and grades established by the Contractor to occur immediately after those points, lines and grades have been established. Confirm coordination measures for each individual case with the City in writing.
- B. In the coordination effort of work by others, the Contractor shall obtain and refer to equipment locations and other layouts, as available, to avoid interface problems.
- C. The City reserves the right to permit access to the site of the Work for the performance of work by other contractors and persons at such times that the City deems proper. The exercise of such reserved right shall in no way or to any extent relieve the Contractor from liability for loss and damage to the work due to or resulting from its operations or from responsibility for complete execution of the Contract. The Contractor shall cooperate with other contractors and persons in all matters requiring common effort.

3.03 CONTRACTOR USE OF WORKSITE

- A. Confine worksite operations to areas permitted by law, ordinances, permits and the contract.
- B. Consider the safety of the Work and that of the people and property on and adjacent to the worksite when determining amount, location, movement and use of materials and equipment on worksite.
- C. Do not load worksite with equipment and products that would interfere with the Work. Only equipment, tools or materials required for this Work may be stored at the worksite.
- D. Protect products, equipment and materials stored on worksite.
- E. Relocate stored products, equipment and materials which interfere with operations of City, government bodies, public and private utilities, and other contractors.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this section including any and all necessary relocations requested by the City. The cost of the work described in this section shall be included in the applicable multiplier or bid items contract price.

END OF SECTION 011100

SECTION 011400

WORK SEQUENCE AND CONSTRAINTS

PART 1 - GENERAL

1.01 OTHER WORK

- A. Other concurrent construction contracts with which the Contractor must interface are described elsewhere in the Contract Documents. Refer to Technical Specifications Section 013210 and the Special Conditions for specific work constraints and milestones.

1.02 WORK SEQUENCE

- A. The work sequence shall be in compliance with Phasing, Sequencing and Milestones as indicated in the Contract Documents and in accordance with the approved Construction Schedule developed by the Contractor. The schedule shall be in compliance with requirements indicated in the Special Conditions and Technical Specifications Section 011400 Work Sequence and Constraints. The Construction Schedule is described in Technical Specifications Section 013210 Schedule.

1.03 WORK CONSTRAINTS

A. Site Constraints

1. Access to the project shall be generally as indicated in the Contract Documents. Access shall be organized and planned by the Contractor to ensure no disruption of airline or DIA operations.
2. Access to work sites will be strictly monitored and must comply with DIA Airport Operations and FAA Regulations. The Contractor shall provide monitoring and escorts as required by DIA Operations in the area of the work.
3. The Contractor's staging area will be as indicated in the Construction Documents.
4. Contractor employee parking will not be allowed within the existing revenue control system. To access the Terminal building, Contractor employees may use the DIA Landside Employee Parking Lot located on 78th Avenue at a cost of \$30.00 per month per employee. A free DIA shuttle to the Terminal is available from this Lot. Material for work in the Terminal may be brought in through the Terminal Loading Dock accessed via Gate 1. Employee and material access to the Concourses will be via Gate 5.
5. The Contractor shall use the haul routes specified in the plans.
6. If required, the Contractor shall provide a bus and driver to transport the Contractor's employees between the designated employee parking area and the work sites. No separate payment will be made for this bus and driver. The cost shall be included in the bid item "Mobilization". The bus driver shall be provided at all times when Contractor employees are working on the project.

B. System Interruptions

1. The Contractor shall submit on approved forms through the DIA Project Manager and copy to DIA Maintenance Control any written requests for system interruptions such as fire alarm, HVAC, electrical, water systems or other systems. System interruptions shall

not be considered if the interruptions interfere with airport operations or tenant operations. Interruptions or system shut down shall be limited to between the hours of 11:00 p.m. and 5:30 a.m. Baggage system shutdown shall be limited to between the hours of 10:00 p.m. and 4:00 a.m. and in accordance with Technical Specifications Section 011400, paragraph 1.03.F. Roadway shutdown times are to be coordinated with Airport Operations, DIA Project Manager prior to submitting a request for approval to shutdown a roadway.

2. The request forms shall be submitted only during the normal work week (Monday through Friday) between 8:00 a.m. and 4:00 p.m.
3. Upon approval of a system shutdown, the Contractor representatives and the individuals performing the work shall remain at the worksite and shall remain in contact with Maintenance Control until such time as the system is restored to working condition. The requesting party shall assume liability for the system until the system is restored to proper working order.
4. Fire Systems, HVAC, and Plumbing: Submit requests five working days prior to the time of requested interruption.
5. Electrical System Interruptions: Submit requests five working days prior to the time of requested interruption.

C. Airfield Operations at Denver International Airport

1. Full airport and aircraft operations are underway adjacent to this project. Contractors are required to obtain a Contractor Participant Manual from the Security Manager and must follow the guidelines in the manual. Copies of the Contractor section of the manual are available for review at the Denver International Airport Access Services Office.
 - a. If any Work contains requirements for Work activities or access through or in the restricted area, reference Technical Specifications Section 011420 for requirements.
 - b. If not in a restricted area, the Contractor personnel still must be badged; reference Technical Specifications Section 011420.

D. CONDUCT OF PERSONS USING THE DENVER MUNICIPAL AIRPORT SYSTEM

1. Contractor activities shall comply with Airport Operations and Regulation 130 TRAFFIC and 20 CONDUCT OF PERSONS USING THE DENVER MUNICIPAL AIRPORT SYSTEM shall be followed. These regulations are available from Airport Operations at Denver International Airport.

E. OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION

1. All work shall be accomplished in accordance with FAA Advisory Circular AC150/5370-2C, "Operational Safety on Airports during Construction", FAR Part 139 and FAR Part 107 except as herein modified.

F. BAGGAGE SYSTEM SHUTDOWN AND LOCKOUT: Prior to and during work in any area that requires access adjacent to, under, or above baggage systems, the Contractor shall coordinate with baggage system representatives of United Airlines and DIA:

1. Work in these areas shall be limited to between the hours of 10:00 p.m. and 4:00 a.m. The Contractor shall schedule and plan activities within these areas during the shutdown to ensure removal of personnel and equipment within the time frame as indicated in this Technical Specifications Section. The Contractor shall not have access

to the work areas requiring shutdown and lockout during a limited number of selected days. The Contractor shall coordinate with the Project Manager and United Airlines representatives to develop detail scheduling on a day-to-day basis.

2. Scheduling for Shutdown and Lockout: The Contractor shall maintain an on-going one week look-ahead schedule of shutdown/lockout requests including areas identified on plan diagrams. This look-ahead schedule shall be provided daily to the Project Manager and United Airlines representative.
 3. Sequence of Shutdown and Lockout
 - a. 10:00 p.m. Shutdown and Lockout. Prior to 10:00 p.m., the Contractor's Superintendent and the Contractor's Safety Representative shall meet with United Airlines baggage system representatives and DIA representatives to review the areas or zones to be inactivated to allow the Contractor to proceed with work.
 - 1) Baggage Mechanical Systems Lockout. United Airlines representatives in conjunction with the Contractor representatives shall install barriers provided by United Airlines on baggage system tracks to isolate the zone of the Contractor's work. The barriers are to ensure no baggage system cart intrusion into the area. Protection of equipment and other barriers are to be provided by the Contractor.
 - 2) Baggage Electrical Systems Lockout. A representative from United Airlines, in conjunction with Contractor representatives, shall place locks on power cabinets supporting baggage equipment for the identified contractor work zone. Each party shall provide a lock.
 - 3) The Contractor may begin work in baggage system zones after the Contractor's Safety Representative has confirmed lockdown and lockout have been completed. The Contractor shall begin work by first providing covers and protection of baggage system and building systems to preclude damage during the Contractor activities. DIA and/or United Airlines representatives prior to the Contractor beginning work shall review all protection systems for acceptance.
 - b. System Activation: The system shall be activated at 4:00 a.m. Before 4:00 a.m. the Contractor shall begin clearance and removal of equipment, materials, barriers, and personnel in areas and envelopes of the baggage system. The Contractor shall take all steps to ensure that all baggage systems envelopes are clear of personnel, protective coverings, and equipment prior to 4:00 a.m. The Contractor's safety representative shall contact the United Airlines representative and shall inspect areas of work to ensure removal by the Contractor of all personnel, materials and equipment between 3:30 a.m. and 4:00 a.m. At 4:00 a.m. The baggage system will be activated. After this time until the next shift (10:00 p.m.), Contractor personnel or equipment shall not be mobilized in the area of the baggage system (generally in the envelope above 8'0" in the basements).
- G. Welding Equipment, Procedures and Constraints
1. Natural gas-powered portable welders or "Powcon Inverter" welders are the only acceptable welding equipment to be used inside of building basement or tunnel areas. Acceptability of equipment other than the equipment noted above shall be at the sole discretion of the Project Manager. If the Contractor proposes other types of inverter welding equipment, testing of equipment for harmonics by the Contractor must be completed prior to the request by the Contractor for use of the equipment.
 2. Welding activities inside buildings require submittal of a System Interruption Request (See paragraph 1.03.B of this Specifications Section). Prior to welding in any area, the Contractor shall locate smoke detectors and shall request interruption of the fire alarm

system. Subsequent to the interruption of the fire alarm system and prior to welding activities, the Contractor shall cover and protect smoke detectors until work is complete. Prior to expiration of each interruption of the system, the Contractor shall uncover the smoke detectors.

3. Electrical Service: The Contractor shall be responsible for verifying with the DIA Project Manager or representatives locations acceptable for accessing electrical power for welders and other electrical equipment feeders. The Contractor shall be responsible for all work and equipment required to install temporary or permanent electrical modifications for construction power and lighting.
 - a. Temporary Hook-up: Pigtails wired into electrical panels - temporary only: Permanent installation shall require conduit, labeling, and all requirements of Division 16 Technical Specifications. Comply with the following:
 - 1) Provide 20 amp, 3 pole plugs.
 - 2) Wire shall be (4) #10 copper
 - 3) 480V, 3 phase, 3 pole, 4 wire twist lock ground line
 - 4) NEMA L16-20 or ANSI C73.87
 - b. The Contractor may not begin operation of the equipment prior to request for inspection by DIA representatives and acceptance of the installation.
 4. Welding Practices: All standard safe welding practices must be followed, including but not limited to the following:
 - 1) Flash protection for surrounding areas
 - 2) Contractor fire extinguisher in area
 - 3) One person in each welding area solely designated as fire watch for each welder
 - 4) Protect all equipment, cable trays and contents, etc. in area
 - 5) Use fire blankets and other appropriate materials to confine sparks and molten metal from the welding, cutting, and/or grinding activities.
 - 6) All welders shall have been qualified through welding tests in accordance with applicable welding code, such as but not limited to AWS, ASME, API, within one year prior to welding taking place. Evidence of qualification shall be through Welding Performance Qualification Records (WPQR).
 - 7) All welder qualifications test shall be or shall have been administered and witnessed by an Independent Testing Agency (ITA), AWS Certified Welding Inspector (CWI).
 - 8) If re-certification of welders is required, delay costs and retesting costs shall be borne by the Contractor.
 5. Grounding: Review with DIA representative's area of work prior to beginning work to ensure ground procedures do not induce undesirable charges in steel building system or other systems. This review should take place subsequent to the pre-work meeting. Do not ground to adjacent building systems, baggage system, hangers, or devices that support mechanical or electrical equipment.
- H. Cleaning Equipment and Spoils
1. Discharge of water, liquids, or chemicals into the building waste, drain systems or storm drainage systems is prohibited. The Contractor shall comply with all Federal, State, and Local requirements for disposal of chemicals. The Contractor shall maintain and service in work areas containers for discharge of water from cleaning of any construction equipment or removal of water from excavations.

I. Vehicle Permitting for Tunnel and Basement Use

1. Electric carts require permitting. The Contractor shall provide at least one electric cart for Contractor use during the work in the tunnel and basements of the buildings. Only CNG powered trucks are allowed in the tunnel and basements of the buildings. CNG/gasoline trucks may be used and shall not be parked overnight or for long terms within the tunnel or basements. All vehicles require permitting. Permits may be acquired at the DIA Airport Security Office

J. Radio and Cell Phone Use

1. The Contractor shall have in place prior to initiation of work in the tunnel or basements communications equipment either by use of cell phone and or radio. Cell phone use is limited to “line of sight” communication. Radio equipment shall be submitted to DIA for approval of use at least 14 days prior to intended use. Radio equipment frequencies shall be submitted. Frequencies shall be subject to DIA approval.

K. Keys

1. The Contractor shall be required to contact DIA Maintenance Control to procure keys for access to all rooms having locks in order to gain access. Keys may be checked out at the beginning of each work shift by the Contractor and shall be returned to DIA Maintenance Control at the end of each work shift.

1.04 COORDINATION

- A. The Contractor will designate a contact person for coordination with the Project Manager and airline tenants. The contact person shall have the authority to make decisions for the Contractor firm and shall have binding signatory power for changes in work. The contact person shall be on site at all times during work activity.
- B. No additional costs shall be considered for coordination activities throughout this project. The Contractor shall include in his bid costs for coordination of all activities.

1.05 LATE COMPLETION

- A. The Contractor will notify the City as soon as possible, but in no case not less than four weeks in advance, of the inability to meet any of the constraints or milestones. Notification shall be consistent with the requirements of Article 5, General Conditions.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 DUST/PROTECTION BARRIERS

- A. Prior to any demolition the Contractor shall construct area containment doors and dust barriers at five feet outside the limits of demolition of the wall and as directed by the DIA Project Manager. Dust barrier at wall demolition shall be constructed of metal studs with ½” painted gyp board from floor to ceiling. At a minimum, any space containing electrical or telecommunications equipment will require dust barriers for the entire space during demolition and construction. Contractor shall install all required modifications to exit/egress signage until temporary barriers are removed. Contractor shall coordinate location of partition with Fire Sprinkler Contractor to ensure adequate sprinkler coverage during construction. Temporary

barriers shall be removed only after completion of the work scope within the areas including final punch list activities. Areas between ceilings and structure above shall be contained to prevent migration of any dust into adjacent areas.

- B. HVAC system containment. The Contractor shall submit to DIA Maintenance HVAC and Fire Alarm shut down requests prior to modifications to the area of work for dust containment. The HVAC system shall be interrupted, re-routed, or blocked off to prevent dust from entering return or supply ducts.
- C. Debris and Protection Barriers: The Contractor shall construct code-approved and DIA-approved dust and debris barriers on both sides of walls and doors that are to be modified. Barriers shall be constructed to allow emergency ingress and egress to and from equipment and spaces. Barriers shall be constructed to allow continual uninterrupted function of building equipment and spaces.
 - 1. Return all removed door hardware to DIA. Label each hardware set correlating the door number of the original hardware set. Coordinate with the DIA Project Manager representative for storage and return of hardware.

3.02 EQUIPMENT

- A. Equipment: CNG-powered equipment is allowed within the buildings. No other fossil fuel equipment may be used within the buildings unless the equipment is directly vented to the building exterior.
- B. Electric: Electric powered equipment is acceptable in the Work area.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 011400

SECTION 011420

SECURITY REQUIREMENTS & SENSITIVE SECURITY INFORMATION (SSI)

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Each Contractor is required to become a “Participant” in the DEN Airport Security Program (ASP), and must remain in good standing in order to retain Airport Security privileges.
- B. All Contractor employees and all vehicles requiring access to the Secured Area, Sterile Area, and/or any other Controlled Areas shall be required to obtain the proper access authorizations for badges and permits.

1.02 PARTICIPANT OF AIRPORT SECURITY PROGRAM

- A. Contractors are required to become a “Participant” of the ASP. In order to become a “Participant”, your company must attend a Participant meeting within the Airport Security Office.
- B. The Contractor shall comply with all Denver Municipal Airport System Rules and Regulations and all Transportation Security Administration (TSA) regulations. Special emphasis should be paid to Denver Municipal Airport System Rules and Regulations Part 20 AIRPORT SECURITY and Part 130 OPERATING VEHICLES IN THE SECURED AREA. The Denver Municipal Airport System Rules and Regulations can be found on the flydenver.com website
- C. The TSA has the authority to issue civil penalties for failure to adhere to their regulations.
- D. It is the responsibility of the Airport Security Office to ensure all fences and gates are secure. If a Contractor's operations necessitate the frequent use of a particular gate, the Contractor shall place two contract security guards at the gate that shall have been trained and certified by the Airport Operations Division to facilitate access to its work. The Contractor assumes full responsibility for maintaining security once this is done. If the perimeter gate will be used as a haul route, the contractor must also place Haul Route Monitors as dictated by the TSA approved Temporary Amendment or Changed Condition. Any fines levied against the Airport as a result of the failure by the Contractor to provide adequate security shall be passed on to the Contractor.
- E. Contractors will be required at all times to have a supervisor or foreman at each work location in both Secured and Non-Secured Areas.
- F. All work shall be accomplished in accordance with FAA Advisory Circular AC150/5370-2E, "Operational Safety on Airports During Construction", 49 CFR Part 1542 and 14 CFR Part 139 except as modified herein.
- G. The following paragraphs supplement, modify, change, delete from or add to FAA AC150/5370-2E. Where any paragraph, subparagraph or clause of the Advisory Circular is modified or deleted by these supplements, the unaltered provisions of that paragraph, subparagraph or clause shall remain in effect.

1.03 SENSITIVE SECURITY INFORMATION (SSI)

- A. If the contract involves SSI information or procedures, the contractor must contact the Assistant Director of Airport Security or designee, for disclosure information, as well as protocols that must be followed with SSI distribution.
- B. This section governs the maintenance, safeguarding and disclosure of records and information that the Transportation Security Administration (TSA) has determined to be Sensitive Security Information (SSI) as defined by 49 CFR Part 1520, Protection of Sensitive Security Information. SSI is information that the TSA has determined to be detrimental to the security of Denver International Airport if disclosed to unauthorized persons. This is a process for the documentation, use and recovery of Sensitive Security Information (SSI) of a specific origin.
1. Applicability.
For all management staff, all authorized departments, all contractors and subcontractors handling documents or materials containing SSI information.
 2. Each person employed by, contracted to, or acting on behalf of the Department of Aviation at Denver International Airport is subject to the requirements of this section.
 3. SSI disclosure is limited to persons or entities under criteria identified in federal regulations, subject to strict “need-to-know” standard, and as otherwise determined by TSA or the Department of Homeland Security (DHS).
- C. Except as otherwise provided in this section, records containing SSI are not available for public inspection or copying. Denver International Airport will not release such records to persons without a need to know. Prime contractors will not release SSI records to any subcontractor without a need to know. An employee or contractor has a “need to know” SSI if access to the information is necessary for performance of his or her official duties.
- D. Unauthorized disclosure of SSI is a Federal violation of 49 CFR Part 1520 and violation is grounds for a civil penalty and other enforcement action by the Department of Homeland Security. In addition to the civil penalties, corrective action may include issuance of an order requiring retrieval of SSI to remedy unauthorized disclosure, an order to cease future unauthorized disclosure, and dismissal from the worksite.
- E. Except as otherwise provided in writing by the TSA in the interest of public safety or airport security, the following information and records containing such information constitute SSI:
1. Information that would be detrimental to the security of Denver International Airport and aviation transportation.
 2. Any performance specification, including a description of devices and procedures used by Denver International Airport, for the detection of any weapon, explosive, incendiary, or destructive substance.
 3. Any performance specification, including a description of devices and procedures, for any communications equipment used by Denver International Airport in carrying out any aviation transportation security requirements.
 4. Details of any security inspection or investigation of an alleged violation of aviation transportation security requirements of Federal law that could reveal security vulnerability.
 5. Specific details of aviation transportation security measures including those recommended by the Federal government.

6. The following information regarding security screening under aviation transportation security requirements of Federal law:
 - a. Procedures for screening of persons, property, checked baggage, U.S. mail and cargo.
 - b. Information used by a passenger or property screening program or system, including an automated screening system.
 - c. Detailed information, if determined by the TSA to be SSI, about the locations at which particular screening methods or equipment are used.
 - d. Performance or test data from security equipment or screening systems.
 7. Identifying information of certain aviation transportation security personnel including lists of the names or other identifying information that identify persons as having unescorted access to a secure area of the airport
 8. Critical aviation asset information identifying systems so vital to the airport that the incapacity or destruction of such assets would have a debilitating impact on aviation security.
 9. Any information involving the security of operational or administrative data systems identified by the Department of Transportation or Department of Homeland Security as critical to the safety or security of Denver International Airport.
 10. Solicited or unsolicited proposals, pursuant to a grant or contract, to perform work that relates to security measures.
- F. Restrictions on the Disclosure of SSI.
1. Employees and contractors working onsite have a duty to protect sensitive security information and must take reasonable steps to safeguard SSI in that person's possession from unauthorized disclosure. When a person is not in physical possession of SSI, the person must store it in a secure container such as a locked desk, a locked file cabinet, or in a locked room. SSI is to be disclosed only to persons having a need to know as authorized in writing by the TSA or the Secretary of the Department of Transportation. Requests for SSI are to be referred to TSA or to the applicable agency within the Department of Transportation or Department of Homeland Security.
 2. Prior to receiving SSI records, contractors must sign the Confidentiality and Non-Disclosure Agreement, Form PS-17, stating that SSI will be guarded from unauthorized persons, that records will be controlled while in use and secured when not in use, and that all SSI plans and records will be returned to the airport or destroyed following the completion of the project.
 3. Return or destruction of SSI documents must be done in a timely manner and documented on the SSI Return or Destruction Compliance Form, Form PS-20. Companies under contract to the City must return or destroy all SSI material following the completion of the work. Companies not selected during the bidding process must return or destroy all SSI material immediately following the announcement of bid results.
- G. If a record containing SSI is received that is not marked as specified in paragraph 3.01.G below, the following steps must be taken:
1. Mark the record as specified in paragraph 3.03.G
 2. Inform the sender of the record that the record must be marked as specified in paragraph 3.01.G.

- H. If a person becomes aware that SSI has been released to unauthorized persons, promptly inform the TSA or the applicable agency within the Department of Transportation or Department of Homeland Security.
- I. Marking SSI
1. Paper records containing SSI must have the protective marking conspicuously placed on the top of the document, and the distribution limitation statement on the bottom of the document.
 - a. Protective Marking. The protective marking is:
SENSITIVE SECURITY INFORMATION
 - b. Distribution Limitation Statement. The distribution limitation statement is:

WARNING: This record contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a “need to know”, as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. government agencies, public disclosure is governed by 5 U.S.C. 552 and 49 CFR parts 15 and 1520.
 2. Non-paper records that contain SSI must have the protective marking and the distribution limitation statement clearly and conspicuously marked such that the viewer or listener is reasonably likely to see them when obtaining access to the contents of the record. Non-paper records may include motion picture files, videotape recordings, audio recordings, and electronic and magnetic records.
- J. Destruction of SSI
1. When the employee or contractor no longer needs the SSI to carry out their work requirements, the SSI must be completely destroyed by burning or cross-shredding to preclude recognition or reconstruction of the information.
 2. The Contractor shall comply with all the requirements of the Department of Aviation Standards and Procedures No. 6003 Issued 03/30/05 and revised 04/04/2011 regarding Contractor Protection of Sensitive Security Information (SSI), Submitted By: Operations Public Safety and Security Division.

1.04 MISCELLANEOUS

- A. DUMPSTERS SECURITY REQUIREMENTS:
1. The following procedures must be followed to provide maximum security with all construction projects in public areas unless an exception has been made by the Airport Security Coordinator (ASC) or designee.
 - a. Roll-off dumpsters must have the ability to be covered (hard side) and locked when not in use.
 - b. When unlocked and in use, the Contractor shall provide an employee, or a subcontractor’s employee, to stand by the dumpster to prevent unauthorized placement of prohibited items
 2. If the Contractor is not able to have a roll-off dumpster with the ability to be locked, the dumpster shall be removed from the public area when the construction site is inactive.

B. Contractor Fences (Not Perimeter Fence):

1. If required, the Contractor shall establish and maintain a secure (fenced) perimeter at its primary operations area to include its field offices, staging and storage areas, and maintenance facilities. The responsibility for security within its operations area shall rest solely with the Contractor. Entrance gates to operations areas shall be equipped with a combination of locks to include a lock provided by the City for its use in accessing emergency equipment, should that need arise. The location, size and other physical characteristics of the Contractor's operations area must be approved by the City prior to its installation.
2. Unless specifically required by the Contract Documents and with the exception of the fenced operations area described above, the Contractor shall install no fences or other physical obstructions on or around the project work area without the written approval of the City.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SUBMITTAL FOR BADGES

- A. By submitting information for the individual requesting or requiring an Airport ID badge that would permit unescorted access to the Sterile and/or Secured Areas must be fingerprinted and pass a Criminal History Records Check (CHRC) and Security Threat Assessment (STA). Passing a CHRC means the employee shall not have been convicted, given a deferred sentence, found not guilty by reason of insanity or have been arrested and are awaiting judicial proceedings of any felony charge during the ten (10) years before the date of the individual's application for unescorted access authority. For an individual to obtain driver authorization to drive within the Secured Area, the individual must have a valid driver license that allows them to drive their contractor vehicle.
- B. An employee requesting an Airport ID Badge must resolve all pending or valid violations before being allowed to proceed in the badging process. If the employee no longer works for the company and is attempting to be employed by a different company, a management representative from the "new" company must attend the Violation Notice Hearing along with the employee.
- C. Airport ID Badges are obtained as follows:
 1. The Contractor shall meet with the DIA Project Manager to review the procedures and required access points at DIA. The Contractor and the Project Manager shall visit the site to verify the access points. Access points shall be listed and submitted by the Contractor to the Project Manager for review and comment prior to Contractor's application for badging.
 2. The Contractor shall designate an Authorized Signatory who must attend an annual class with Airport Security. The Authorized Signatory must be an employee of the Contractor, have a valid Denver International Airport ID badge. The Authorized Signatory will be authorized to sign for the Contractor on the Fingerprinting and Badge Application Form and will be the primary designation contact for Airport Security related business.
 3. The Contractor's Authorized Signatory shall schedule a Participant Meeting with the DIA

Airport Security Office to review DIA security procedures. A second meeting will be scheduled for the Authorized Signatory to learn how to successfully complete the required forms for employee badges and vehicle permits.

4. A CHRC and STA are required for each employee requesting unescorted access to the Secured Area. The employee will complete the Fingerprinting and Badge Application (two-sided form) and schedule an appointment with the Airport Security Office to have the form reviewed and to be fingerprinted. The Federal Bureau of Investigation will conduct the CHRC and will return the results to the Airport Security Office. For the fee for the Fingerprinting please see the flydenver.com website. The Transportation Security Administration will process the STA and will return the results to the Airport Security Office.
5. When the Authorized Signatory is notified by Airport Security that the CHRC and STA has cleared, the applicants shall call the Airport Security Office, to schedule an appointment to come to the Airport Security Office to receive regulated security and driver training. The appointment will take approximately one hour for security training and approximately two hours for security and driver training.
6. All applicants must watch and pass all concepts of a computer based security training module for a SIDA Airport ID badge. All individuals requesting driver authorization in the non-movement area must also view an interactive computer based driver training module and complete a test by passing all concepts. In addition, the individual must receive non movement driver orientation training by the Contractor's driver representative before being allowed to drive on the airfield. Non Movement Orientation training should be conducted annually.
7. The Airport ID badges must be returned to the Airport Security Office prior to final payment. All Airport ID badges are issued with an annual expiration date. The expiration date is determined by either the end of the estimated project date or the expiration of the vehicle insurance, whichever date is closer. Contractors shall notify the Project Manager as soon as possible but in no case less than four weeks in advance of any requirement to extend the duration of badge validations.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 011420

SECTION 011430

VEHICLE AND EQUIPMENT PERMITTING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall comply with the Airport Security Plan. Vehicle permits are required for all vehicles operating in the Secured Area. The DIA vehicle permit is required for vehicles operating in the Secured Area but limited to above grade, outdoor activity. Vehicles or machinery operating within buildings shall be required to acquire a DIA emissions permit as well as a DIA vehicle permit.
- B. Contractors performing work in or through Secured Areas are required to obtain a Contractor Participant Manual from the Security Manager and must follow the guidelines in the manual. Copies of the Contractor section of the manual are available for review at the Denver International Airport Operations Office. Contractors shall comply with the DIA Rules and Regulations.
1. Airport Operations Regulations **Part 20 Security** and **130 Operating Vehicles in the Secured Area** shall be followed. These regulations are available on the flydenver.com website.
 2. All work shall be accomplished in accordance with FAA Advisory Circular AC150/5370-2C, "Operational Safety on Airports During Construction", 49 CFR Part 1542 and 14 CFR Part 139, except as herein modified.
 3. The following paragraphs supplement, modify, change, delete from or add to FAA AC150/5370-2C. Where any paragraph, subparagraph or clause of the AC is modified or deleted by these supplements, the unaltered provisions of that paragraph, subparagraph or clause shall remain in effect.
 4. Special care shall be exercised by the Contractor when operating within clear zones, under approach and departure zones of runways and in the apron area. The clearance zones shall be considered as extending to a distance of 750 feet laterally from the centerline of runways and to a distance of 193 feet laterally from the centerline of taxiways. Where these zones overlap, the greater distance shall apply. Vertical clearance in the approach and departure zones shall be considered as starting at grade 200 feet beyond the ends of runways and rising at the rate of 50 feet horizontal to one foot vertical.
 5. When work under this contract will take place in the areas listed above, the Contractor must have a radio for communications with Airport Operations. The radio will be assigned after receipt of a \$2,000 deposit. The radio must be with personnel performing work in the airfield operations areas.
 6. Access to the runways, taxiways and aprons shall be gained by the Contractor after establishing radio communications with Airport Operations. No personnel or equipment will be allowed on the runways until radio contact has been made with Airport Operations and permission given.
 7. Access to the Air Operations Area (AOA) will be limited in order to allow the maximum efficient movement of aircraft. As part of this limitation, the Contractor may be required to only use these areas late at night when there is less aircraft traffic.

8. Once admitted into the Secured Area, the Contractor shall proceed directly to the work location by way of a route assigned by Airport Security. At no time shall a Contractor or any of its personnel enter onto a taxiway, runway or ramp without proper clearance from the Airport Operations Manager or Assistant Airport Operations Manager. Contractors or individuals violating these requirements for driving in the Secured Area may be subject to fines, suspension or permanent revocation of their driver authorization and/or Airport ID badge privileges.
 9. The Transportation Security Administration (TSA) requires that all operating airports be secured from the general public and has the authority to issue citations for violations of these requirements. It is the responsibility of the Airport to ensure all fences and gates are secure. If a Contractor's operations necessitate the frequent use of a particular gate, the Contractor shall place a guard at the gate, which shall be trained and certified by the Airport Operations, to facilitate access to its work. The Contractor assumes full responsibility for maintaining security once this is done. Any fines levied against the Airport as a result of the failure by the Contractor to provide adequate security shall be passed on to the Contractor. A more detailed explanation of security requirements is in the Contractor Participant Manual which is available from Airport Operations.
 10. **Cranes and Construction Equipment:** The Contractor shall provide the necessary drawings and specifications to indicate all information needed by the FAA and the City including but not limited to location of construction activities and height of objects including cranes, construction equipment and vehicles. Drawings shall be scaleable site plans indicating northing and easting of proposed equipment locations, air space northing and easting of activity and elevations of equipment based on DIA datum. Specifications shall include standard sheets on equipment specifications and any non-standard modifications to the equipment.
 11. The above information shall be submitted to the Project Manager for approval five days prior to mobilization. Changes to information submitted shall be re-submitted for approval at least five days prior to mobilization of any change.
 12. If required by DIA, standard DIA-approved warning lights and flagging will be required on any temporary equipment or structures.
 13. Lighting of the work area is subject to approval by DIA Operations and DIA Development. The Contractor shall include in item (10) above information on any site lighting proposed by the Contractor. The locations, heights and types of luminaries shall be submitted. The Contractor shall conduct his activities, especially lighting, so as not to interfere with Airport and FAA operations.
- C. General safety regulations when in aircraft operations areas may include the following:
1. At all times, the Contractor shall coordinate its work with the requirements of the Airport site and operations. All work, movement of men, materials, supplies and equipment in areas used by aircraft shall be subject to regulations and restrictions established by the City. The Contractor shall take special precautions and be fully responsible for the prevention of damage to materials and equipment in the areas affected by the jet blast of taxiing aircraft. No work shall proceed until necessary protective devices are placed as required to protect the public, airport operations, property and personnel from the hazards of the work. The Contractor shall proceed with his work, including temporary work and storage of tools, machinery and materials, to cause no interference with or hazards to the operation of the Airport.

2. Landings, takeoffs and taxiing shall take precedence over all Contractors' operations. In the event that the Contractor is notified that an emergency landing or a takeoff is imminent, the Contractor shall stop all operations immediately, regardless of the sequence of events in progress and shall immediately evacuate his personnel and equipment from the runway and taxiway areas as directed.
3. The Contractor shall remove its personnel and equipment to the distance specified below for the prevailing conditions:
 - a. For emergencies the Contractor shall move all personnel and equipment as directed by Airport Operations or the Project Manager.
 - b. At the end of a work day in areas where aircraft are operating, all equipment shall be moved to a location that is not less than 750 lineal feet measured from the near edge of the runway, taxiway or ramp area or to the location designated by the City.
4. If the Contractor is asked to leave part of its worksite to allow aircraft operation, the Contractor shall clean the area to allow safe aircraft movement. Cleaning may include sweeping the area to prevent damage to aircraft.

D. Vehicle Permitting

1. The Contractor shall obtain access to the secured area only when the vehicle displays a Contractor permit and the driver has an Airport ID badge with a driver authorization. Vehicle permits may be obtained as follows:
 - a. A Vehicle Permit Application must be filled out by an Authorized Signatory. All vehicle permit applications must be submitted to Airport Security to obtain the vehicle permit.
 - b. All vehicles that are not permitted to drive in the Secured Area are required to be escorted. All vehicles driving unescorted within the Secured Area, on the airfield, must have \$10,000,000 combined single limited coverage insurance. All vehicles that drive in the Secured Area service tunnels must operate on either electric or Compressed Natural Gas (CNG), and must have \$1,000,000 combined single limited coverage insurance.
 - c. Contractor permits are issued with the expiration date that corresponds with the Company badge expiration date.
 - d. The Contractor must have a four-inch letter company logo on each side of the vehicle, or the Contractor shall obtain an orange and white checkered flag. The cost of the flag is \$25.00, and may be obtained at the Airport Security Badging Office. All vehicles operating in the Secured Area must display the logo or the flag at all times.

E. Equipment Permitting

1. Fossil fuel powered equipment to be used in the interior of buildings and/or in basement/tunnel areas shall require inspection by DIA Maintenance and the Denver Fire Department. **Only CNG fossil fuel powered equipment may be used; gasoline powered, propane powered, or diesel powered equipment will not be acceptable unless identified and operated per Specification Section 011400.**

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PERMITS

- A. Vehicle permits shall not be issued prior to Notice to Proceed. The Contractor may, at his own risk, submit required information prior to Notice to Proceed to the following:
1. Vehicle permit: DIA Engineering Group or DIA Airport Security
 2. Equipment and vehicle emissions permit: DIA Engineering or DIA Maintenance Group.

3.02 SCHEDULE

- A. The Contractor shall allow in his schedule five days for DIA review of submittals for permits. Testing of equipment and review by the Denver Fire Department shall be scheduled by the Contractor. By submitting information for permits, the Contractor certifies that equipment and vehicles comply with all City, State and Federal regulations including but not limited to emissions, licensing and safety requirements.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item. All permits shall be returned to the City prior to the Contractor submittal for Final Settlement, Termination, and/or upon written request from the Project Manager.

END OF SECTION 011430

SECTION 011810

UTILITIES INTERFACE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Various utilities are located within the limits of work in the project area. The owners of these utilities hereinafter noted may require that the Contractor is to work around their existing facilities until such alterations, relocation or abandonment have been completed. All known existing utilities are shown; however, the Contractor shall verify and satisfy himself that there are no other existing utilities that may not be shown.
- B. The owners of known utilities within the project area and corresponding representatives are:
- | | | |
|--------------------------------------|-------------------|--------------|
| Century Link Telephone | Susan Jensen | 303-391-8373 |
| DIA Telephone | Pat McFadden | 303-342-2200 |
| Xcel Energy Natural Gas | Joanna Gomez | 303-375-3516 |
| Xcel Energy Electrical Services | Joanna Gomez | 303-375-3509 |
| DIA Storm Water | Glen Frieler | 303-342-2933 |
| DIA Sanitary Sewer | Glen Frieler | 303-342-2933 |
| Denver Water Department | John Bambei | 303-628-6669 |
| Inland Technologies | Robert Kluckhohn | 303-342-6811 |
| Fuel System (ASII) | Gil Patron | 303-342-3552 |
| Premise Wiring System-DIA IT section | Kelan Pape | 303-342-2200 |
| FAA Duct Bank | Rick Silva | 303-342-1405 |
| Oil/Gas Wells | Julie Brant | 303-513-6169 |
| DIA Electrical Department | Pat Kelly/Tai Lai | 303-342-2800 |
| Fire Alarm System | Pat Kelly/Tai Lai | 303-342-2800 |
| Paging System | Pat Kelly/Tai Lai | 303-342-2800 |
- C. The location and establishment of each construction vehicle crossing shall be at sites mutually agreed upon in writing by the Contractor and the owner of the utility.
- D. At the locations where the Contractor needs to establish a construction vehicle crossing over any of the operating pipelines, the furnishing and placing of a crossing shall be by the Contractor. The crossing shall allow the normal operation of the pipeline at all times. Each crossing shall be adequately marked and signed for safe passage of vehicles over the crossing. Construction vehicles shall not be allowed to cross over operating pipelines at any place other than an established crossing. The maximum size of any vehicle crossing operating pipelines at any location in the project area shall be limited to no larger than a Caterpillar D6 bulldozer unless noted otherwise.
- E. Coordinates for known utilities located within the project area may be available at the Denver International Airport Office. These utilities locations are based upon information provided by the utility companies or previous construction contractors that were the basis for determining utility coordinates. The City does not warrant their accuracy.
- F. The Contractor shall control his operations in order to avoid creating any obstacles for the utility owner's access for maintaining or operating their equipment.

1.02 REGULATORY REQUIREMENTS

- A. The Contractor shall obtain and pay for all utility company permits, fees, and licenses necessary for the execution of this work. The Contractor shall give all notices and shall comply with all laws, ordinances, rules and regulations of all authorities having jurisdiction.

1.03 QUALITY CONTROL

- A. When the Contractor performs any operations that will impact a utility owner, the Contractor will give timely notice to the utility owner and the DIA Project Manager so that the Contractor's operations may be observed by the utility owner's representative at the discretion of the utility owner's representative and the Project Manager's representative.

1.04 WORK INCLUDED

- A. The work of this section includes furnishing all materials, equipment and labor necessary to provide utility crossings as required and as specified herein and subject to approval by the associated utility owner.
- B. North American Resources requires a minimum of 12 feet of total cover over their pipelines at each crossing. This required cover is to extend a minimum distance of five feet perpendicular on both sides of the pipeline, then slope away from the pipeline at a slope determined by the Contractor as sufficient for his vehicles. The top 12 inches of the cover overall shall be Colorado Department of Highways Class 6 road base.
- C. FAA Underground Duct lines: The FAA has duct lines passing under the site. The Contractor shall contact the FAA prior to beginning earthwork operations to ascertain any special requirements or conditions required to maintain this service during construction activities.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Suitable cover material shall be in accordance with Colorado Department of Highways Standard Specifications. Wet, soft or frozen material, asphalt chunks, or other deleterious substances shall not be used for cover.
- B. Aggregate for road base material shall consist of clean, sound and durable particles of crushed stone, crushed gravel or crushed slag, shall be free from coatings of clay, silt and organic matter, and shall contain no clay balls. Material shall conform to the State of Colorado Standard Specifications for Road and Bridge Construction Class 6 aggregate base.
- C. The materials for the load distribution system on top of the cover shall conform to the specification of the American Institute of Steel Construction, the American Institute of Timber Construction, or the American Concrete Institute, as applicable, depending upon the system agreed upon between the Contractor and utility owner.
- D. Materials for the sleeving of the pipelines shall be purchased by the utility owner at the Contractor's expense.

PART 3 - EXECUTION

3.01 NOTIFICATION OF UTILITIES FOR LOCATING AND POTHOLING

- A. The Contractor shall verify the location of all utilities prior to any operations including physically uncovering the utility to verify location as required by the utility owner or the DIA Project Manager and shall be solely responsible for protection of the utilities during construction. Only manual labor shall be used within five feet of the suspected location of a utility to uncover it. The Contractor shall obtain written permission from each utility owner before constructing crossings or crossing pipelines in service, and provide the Project Manager with a copy of the permission 48 hours prior to commencement of crossing work.
- B. A minimum of three days notice by the Contractor shall be given to the utilities for locating and potholing their lines as needed.
- C. The Contractor shall notify the Utility Notification Center of Colorado (303) 534-6700 as a minimum for location of utilities.
- D. In the event that the Contractor needs to conduct Contractor's operations which will affect an operating utility, the Contractor shall be required to sign a "hold-harmless" agreement with the owner of the utility prior to the Contractor conducting any operations affecting the utility.

3.02 TRENCHING AND SLEEVING

- A. All trenching, excavation, sleeving and shoring needed to cross over or under a utility shall be performed in the manner required by the party owning the utility and in such a manner as to ensure no dislocation of the existing utility. The method used to cross under the utility shall ensure it is fully supported at all times. The Contractor shall accurately locate and record the position of a utility being crossed as soon as it is uncovered and again prior to covering it and report to the DIA Project Manager any change in location greater than 0.5 inch. The crossing shall be protected so that water or construction equipment will not dislocate or undermine unsupported sections of the utilities.

3.03 COVER AND COMPACTION

- A. Backfilling of trenches or adding additional cover shall be conducted at all times in a manner that will prevent damage to the pipe. If the excavated material is not suitable for backfill and cover, as determined by the DIA Project Manager, unsuitable material shall be hauled away and disposed of properly. The owner of the utility will observe at all times the installation of the backfill and cover. Backfill and cover shall be the placement of suitable materials in horizontal, uniform layers and brought up uniformly on the sides and over the pipelines.
- B. The thickness of each layer of backfill shall not exceed eight inches before being compacted to 95 percent relative compaction per ASTM D-698 or to the density required by the utility owner and tested for density by the Contractor.

3.04 ROADBASE COMPACTION

- A. If the required compacted depth of the road base exceeds eight inches, it shall be constructed in two or more layers of approximately equal thickness. The maximum compacted thickness of any layer shall not exceed eight inches before being compacted to 95 percent relative compaction per ASTM D-698 or to the density required by the utility owner.

3.05 REMOVAL

- A. All temporary crossings shall be removed after completion of the work.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 01 18 10

SECTION 012025

MEASUREMENT FOR PAYMENT

PART 1 - GENERAL

1.01 SCOPE

- A. This Section covers the requirements for measurement of quantities for payment as they apply to this contract.
- B. Measurement methods specified in the individual sections of these specifications shall govern if they differ from methods specified in this Section.
- C. The Contractor will compute all final quantities subject to review and acceptance by the DIA Project Manager. Where necessary, such computations will be based upon surveys performed by the Contractor as specified in Technical Specifications Section 013223.

1.02 MEASUREMENT OF QUANTITIES

- A. Measurement Standards
 - 1. All work to be paid for at a contract price per unit of measurement will be measured by the Contractor in accordance with United States Standard Measures.
 - 2. Measurements are subject to check and review by the DIA Project Manager: if errors are found the Contractor shall correct them. If, in the opinion of the DIA Project Manager, the errors are significant or frequent enough, the DIA Project Manager may make the measurements with his own forces at the Contractor's expense. No payment will be made on that portion of an item containing measurement or calculation errors until the errors are corrected to the satisfaction of the DIA Project Manager.
- B. Measurement by Weight
 - 1. Items to be paid for by weight shall be measured by scale or by handbook weights for the type and quantity of material actually furnished and used. One ton shall consist of 2,000 pounds. Handbook weights will only be allowed if there is one-half of one percent or less difference between the handbook weight and the allowable deviation per manufacturer's specification of a material's finish weight.
 - 2. Material to be measured and paid for by weight shall be weighed on accurate, approved scales, furnished by and at the expense of the Contractor. Platform scales of sufficient size and capacity shall be used to permit the entire vehicle or combination of vehicles to rest on the scale platform while being weighed. Combination vehicles may be weighed as separate units provided they are disconnected while being weighed. All scales shall be inspected and certified as often as the DIA Project Manager may deem necessary to ascertain accuracy. Costs incurred as a result of regulating, adjusting, testing, inspecting and certifying scales shall be borne by the Contractor.
 - a. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected and maintained by the Contractor or be certified, permanently installed commercial scales.
 - b. Scales shall be accurate to within one-half of one percent of the correct weight throughout the range of use. The Contractor shall have the scales checked under

- the observation of the DIA Project Manager before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed one-tenth of one percent of the nominal rated capacity of the scale, but not less than one pound. The use of spring balances will not be permitted.
- c. Beams, dials, platforms and other scale equipment shall be so arranged that the operator and the City's inspector can safely and conveniently view them.
 - d. Scale installations shall have suitable weights or devices available for testing the weighing equipment.
 - e. Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level.
 - f. Scales "overweighing" (indicating more than correct weight) will not be permitted to operate and all materials received subsequent to the last previous correct weighing-accuracy test will be reduced by the percentage of error in excess of one-half of one percent.
 - g. In the event inspection reveals the scales have been "underweighing" (indicating less than correct weight), they shall be adjusted and no additional payment to the Contractor will be allowed for materials previously weighed and recorded.
3. The DIA Project Manager may be present to witness the weighing and to check and compile the daily record of such scale weights; however, in any case, the DIA Project Manager will require that the Contractor furnish weigh slips and daily summary weigh sheets. In such cases, a duplicate weigh slip or load slip for each vehicle weighed shall be furnished to the DIA Project Manager at the point of delivery of the material.
 - a. As a minimum, the weigh slips shall contain the following information:
 - 1) Contractor's name and contract number
 - 2) Supplier's name and location of material source
 - 3) Type of material
 - 4) Haul unit's unique identification number
 - 5) Empty weight (this should be checked three times per day)
 - 6) Full weight
 - 7) Weight of material hauled
 - 8) Scale operator's signature stating the weights are correct to within one percent of standard weights.
 - b. The loads shall be weighed prior to water being added.
 4. If the material is shipped by rail, the certified car weights will be accepted provided that only actual weight of material will be paid for and not minimum car weight used for assessing freight tariff. Car weights will not be acceptable for material to be passed through mixing plants or material off loaded from rail cars and hauled to the jobsite by trucks from rail cars located off the worksite.
 5. Trucks used to haul material being paid for by weight shall be weighed empty daily and at such additional times as the DIA Project Manager may require. Each truck shall bear a plainly legible identification mark. The DIA Project Manager may require the weight of the material be verified by weighing empty and loaded trucks on such other scales as he may designate.
 6. When requested by the Contractor and approved by the DIA Project Manager in writing, material specified to be measured by the cubic yard may be weighed and such weights will be converted to cubic yards for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the DIA Project Manager and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

7. The Contractor shall comply with all legal load restrictions in the hauling of equipment or materials on public roads beyond the limits of the project. A special permit will not relieve the Contractor of liability for damage resulting from the moving of equipment or material.
- a. The operation of equipment or hauling loads that cause damage to structures, the roadway or any other construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited by the Contractor to methods and equipment that will prevent damage to the pavement structure before the expiration of the curing periods. The Contractor shall be responsible for the repair of all damage and related expenses resulting from hauling equipment and construction operations.
 - b. If a vehicle's gross weight exceeds the legal limit, and the material transported by the vehicle is delivered to the project, the material and the scale ticket (certificate of correct weight) will not be accepted, except a 500 pound tolerance will be allowed for overweight loads.
 - c. If a scale ticket from an overweight vehicle is inadvertently accepted and the material incorporated into the project, the DIA Project Manager will adjust the price for the overweight load as follows:
 - 1) The pay item quantity represented by the amount of material in excess of the legal weight plus 500 pounds tolerance will not be paid for.
 - 2) A price reduction will be assessed for the overweight portion of the load based on the following schedule:

<u>Overweight (pounds)</u>	<u>Price Reduction (dollars)</u>
0 - 500	0
501 - 3,000	20
3,001 - 4,000	40
4,001 - 5,000	82
5,001 - 6,000	130
6,001 - 7,000	226
7,001 - 8,000	376
8,001 - 9,000	582
9,001 - 10,000	842
Over 10,000	870 plus \$164 for each 1,000 lbs., or fraction thereof, or 10,000 lbs.

8. Bituminous materials will be measured by the gallon or ton. Unless noted otherwise volume will be measured at 60 degrees Fahrenheit or will be corrected to the volume at 60 degrees Fahrenheit using ASTM D 1250 for asphalt or ASTM D 633 for tars. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When bituminous materials are shipped by truck or transport, net certified weights or volume subject to correction for loss or foaming will be used for computing quantities.

C. Measurement by Volumes

1. Measurement by in-place volume will be by the cubic dimension listed or indicated in the Schedule of Prices and Quantities. Volume measurements will be neat line as shown on contract documents, or if actual field measurements show that the volume is less than neat line, the actual volume will be used. Method of volume measurement shall be

by average end area method, with end areas taken at no greater than 100 feet apart or every major change in the cross section area, which ever occurs first, unless noted otherwise. The Contractor may request alternate methods subject to the approval of the DIA Project Manager.

2. Material indicated to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the DIA Project Manager provided that the body is of such shape that the actual contents may be readily and accurately determined and is water tight so that the volume can be measured by filling with water. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.

D. Measurement of Areas

1. Measurement of areas will be by the square dimension listed or indicated in the Schedule of Prices and Quantities and or Unit Price Items. Area measurements will be neat line as shown on contract documents or, if actual field measurements show that the area is less than neat line, the actual area will be used. All longitudinal measurements shall be horizontal unless noted otherwise. Method of square measurement will be as determined by the DIA Project Manager.

E. Measurement of Linear Items

1. Linear measurement will be by the linear dimension listed or indicated in the Schedule of Prices and Quantities and/or Unit Price Items. Linear measurements will be neat line as shown on contract documents, or if actual field measurements show that the linear measurement is less than neat line, the actual linear measurement will be used. Method of linear measurement will be as determined by the DIA Project Manager. Generally, items, components or work to be measured will be measured at the centerline of the item in place.

1.03 FIELD MEASUREMENT FOR PAYMENT

- A. The Contractor will compute all quantities of Work performed by the Contractor, including quantities of materials and equipment delivered to the site, for final payment purposes. Computed quantities are subject to check and review by the DIA Project Manager. If errors are found, the Contractor shall correct them. If, in the opinion of the DIA Project Manager, the errors are significant or frequent enough, the Project Manager may make the calculations with his own forces at the Contractor's expense. No payment will be made on that portion of an item containing calculation errors until the errors are corrected to the satisfaction of the DIA Project Manager.
 1. The Contractor will show the actual measurements that are used to compute the quantities along with the formulas used. As requested by the DIA Project Manager, the Contractor shall supply the DIA Project Manager with computations and sketches indicating where measurements were taken and their relationship to the finished product.
- B. The Contractor will supply the DIA Project Manager with an electronic copy and instruction manual of any computer programs used to calculate quantities. Any computer program used shall be executable on an IBM compatible computer with a 286, 386, 486 or Pentium processor. The Contractor shall also provide an electronic copy of the data files used to determine quantities.

- C. The Contractor shall take all measurements for payment purpose in the presence of the DIA Project Manager in accordance with the provisions for measurement specified herein and in Technical Specifications Section 013223.

1.04 REJECTED MATERIALS

- A. Quantities of material wasted or disposed of in a manner not called for under the contract, rejected loads of material including material rejected after it has been placed by reasons of the failure of the Contractor to conform to the provisions of the contract, material not unloaded from the transporting vehicles, material placed outside the lines indicated on the contract drawings or established by the DIA Project Manager, or material remaining on hand after completion of the Work will not be paid for and such quantities shall not be included in the final total quantities. No compensation will be permitted for loading, hauling and disposing of rejected material.

1.05 PAYMENT CONSIDERATIONS

- A. Payment will be full compensation for furnishing all labor, materials, tools, equipment, transportation, services and incidentals as specified in the General Conditions, technical specifications, and contract drawings, and for performing all work necessary for completing the item or work classification including all incidental work.
- B. Full compensation for all expenses involved in conforming to the requirements for measuring materials shall be considered as included in the unit or lump sum prices paid for the materials being measured and no additional compensation will be permitted.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 012025

SECTION 012510

SUBSTITUTIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of submitting for the approval of a different material, equipment or process than is described in the Contract Documents. The Contractor is to use the Request for "Or Equal" Approval form found in the Instructions to Bidders before submitting his bid. The Request for Substitution form, found in Section 01 99 90, is used after the Contractor receives his Notice to Proceed.
- B. If the substitution changes the scope of work, contract cost or contract time, a change order is required. As-built drawings and specifications must include all substitutions even if a change order is not issued.

1.02 QUALITY CONTROL

- A. The substitution must provide the same quality as what it is replacing. The level of quality is defined by:
 - 1. Maintenance and operating cost
 - 2. Reliability
 - 3. Durability
 - 4. Life expectancy
 - 5. Ease of cleaning
 - 6. Ability to be upgraded as needed
 - 7. Ease of interacting with other systems or components
 - 8. Ability to be repaired
 - 9. Availability of replacement parts
 - 10. Established history of use in similar environments
 - 11. Performance equal or superior to that which it is replacing.

1.03 SUBMITTAL

- A. Refer to Technical Specifications Sections 01 33 00 and 01 33 25 for submittal procedures.
- B. A complete Request for Substitution using the form in Section 01 99 90 must be made at least 60 days prior to when an order needs to be placed or a method needs to be changed.
- C. The submittal shall contain, as appropriate, detailed product data sheets for the specified items and the substitution. Samples and shop drawings shall also be submitted of the substitution as applicable. The submittal shall contain all the data required to be submitted for acceptance of the originally specified item or process.
- D. The submittal shall contain all the applicable information required in Technical Specifications Section 01630, paragraph 2.01 below.

- E. A signed statement as outlined in Technical Specifications Section 012510, paragraph 2.03.B below must accompany the Request for Substitution.

PART 2 - EXECUTION

2.01 INFORMATION

- A. Provide the following information as applicable with the Request for Substitution on the item or process that is being requested to be substituted:
1. A complete description of the item or process
 2. Utility connections including electrical, plumbing, HVAC, fire protection and controls
 3. The physical dimensions and clearances
 4. A parts list with prices
 5. Samples of color and texture
 6. Detailed cost comparisons of the substitution and the contract specified item or process
 7. Manufacturer warranties
 8. Energy consumption over a one-year period
 9. What local organization is certified to maintain the item
 10. Performance characteristics and production rates
 11. A list of any license fees or royalties that must be paid
 12. A list of all variations for the item or method specified
 13. A list of at least three other projects of similar nature to this contract where the products or methods have been in use for at least one year including telephone number and name of the person to contact at these other projects
 14. An analysis of the effect of the substitution on the schedule and contract cost and on the overall project as it relates to adjoining work.

2.02 SUBSTITUTION REQUEST

- A. The formal Request for Substitution will be evaluated by the DIA Project Manager and the Designer of Record based on the following criteria:
1. Compatibility with the rest of the project
 2. Reliability, ease of use and maintenance
 3. Both initial and long term cost
 4. Schedule impact
 5. The willingness of the Contractor to share equally in any cost savings
 6. The ability of the item or process to meet all applicable governing regulations, rules and laws along with funding agency requirements
 7. The cost of evaluating the substitution.
- B. Based upon the above evaluation the Deputy Manager of Aviation will make a final determination of what is in the best interest of the City and either approve, disapprove or approve as noted the requested substitution.

2.03 CONDITIONS

- A. As a condition for submitting a Request for Substitution the Contractor waives all rights to claim for extra cost or change in contract time other than those outlined in the request and approved by the Deputy Manager of Aviation. The Contractor, by submitting a Request for Substitution, also accepts all liability for cost and scheduling impact on other contractors or the City due to the substitution.
- B. Included with the Request for Substitution shall be the following statement:
 - 1. "The substitution being submitted is equal to or superior in all respects to the contract-required item or process. All differences between the substitution and the contract-required item or process are described in this request along with all cost and scheduling data."
- C. The statement shall be signed and dated by the Contractor's Superintendent.

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or the lump bid item.

END OF SECTION 012510

SECTION 012910

SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of preparing and submitting the Schedule of Values (“Schedule”) as referenced in the General Conditions. The Schedule will be built upon a breakdown of the Work using specification sections and milestones. The Work also includes the preparing and submitting of updated copies of the Schedule if the Schedule is affected by change orders.
- B. A Schedule of Stored Material is a detailed cost breakdown for permanent materials that will be temporarily stored prior to their being installed and for which the Contractor seeks partial payments. The Schedule of Stored Material will be incorporated as a part of the Schedule of Values.
- C. Within 14 calendar days of issuance of the Notice to Proceed, the Contractor shall submit the Schedule of Values including the Schedule of Stored Material if applicable. The Schedule of Values and Schedule of Stored Material used to prepare the work/cost breakdown for the Schedule will be used for the Contractor's billings.
- D. Any contract allowances shall be included in the Schedule. Expenditure of allowances shall be done through the use of the Allowance Authorization form. Use of this form does not increase or decrease the contract value.

1.02 RELATED DOCUMENTS

- A. General Contract Conditions, Title 9 Compensation
- B. Technical Specifications Section 01 33 00 Submittals
- C. Technical Specifications Section 01 33 25 Shop and Working Drawings, Product Data and Samples
- D. Technical Specifications Section 01 99 90 Standard Forms, CM 89, CM 90 and CM 91 as applicable for the project.

1.03 SUBMITTAL

- A. The Schedule shall be submitted in a format approved by the DIA Project Manager.
- B. The Schedule shall identify each item of work. Work items in the Schedule shall represent all work and shall be referenced with the Technical Specifications section numbers, specification subparagraph, specification section title and the bid item number used for the Schedule of Prices and Quantities when applicable. The Schedule shall address the subcontractor, fabricator or supplier furnishing the materials and or labor for each work item.
- C. Upon request by the City, the Contractor shall support values given with the data which will substantiate the correctness of the values.

- D. The Schedule will be utilized only as a basis for review of the Contractor's application for progress payment.

1.04 REVIEW AND RESUBMITTAL

- A. If review by the City indicates that changes to the Schedule are required, the Contractor shall revise and resubmit the Schedule.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PREPARING SCHEDULE OF VALUES

- A. Breakdown of the items used in the Schedule shall include costs as follows:
 1. Delivered cost of product with applicable taxes paid
 2. Total installation cost with overhead and profit
 3. Breakdown costs of each lump sum item with a list of products and major operations for which the Contractor seeks to receive progress payments to recover his costs for that bid item
 4. Each unit price item as listed in the bid Schedule of Prices and Quantities shall list products and major operations for which the Contractor seeks to receive progress payments for that bid item.

3.02 PREPARING SCHEDULE OF STORED MATERIAL

- A. The Contractor shall submit with the Schedule an indication of whether products will be stored on or off the worksite. The Schedule of Stored Material shall show quantities and types of products that will be stored.
- B. Material allowances consist of only the net cost of the product, the cost of delivery and unloading at the storage site, the cost of applicable sales taxes and all discounts.
- C. In no case will the cost paid for a permanent material be greater than 90 percent of the contract price for the work in which they are included.

3.03 PAYMENT FOR STORED MATERIALS

- A. Only materials that are described in the specifications and on the drawings will be considered permanent materials. Permanent materials are materials that will be left in the work after the contract is completed.
- B. Nothing in these specifications shall be interpreted as requiring the City to pay for stored materials. The DIA Project Manager shall decide on a case-by-case basis whether stored materials shall be paid for. No payment will be made for stored materials which have not been submitted and accepted.
- C. The Contractor must, at all times, store permanent materials in accordance with manufacturer's recommendations. Any material not properly stored will not be paid for. Amounts will be deducted from payments for any stored permanent material previously paid for and subsequently found to be improperly stored or not present, based upon a physical inventory of stored permanent material.

- D. Only the neat line quantity of material needed for the finished product may be paid for.
- E. All requests for stored permanent material payment must be accompanied by paid invoices clearly showing the quantity of permanent material, the type of permanent material and discounts or rebates and the net amount paid to the supplier along with a certificate stating that the permanent material is free of any liens or judgments preventing its use by the City.
- F. If the permanent material is stored outside the Denver area the Contractor must pay for the City representative's transportation and lodging to see the stored material as needed. Acceptable lodgings must, as a minimum, have a Mobil Travel Guide Rating Criteria® rating of Two-Star or the American Automobile Association Lodging Listing Requirements & Diamond Rating Guidelines® rating of Two Diamonds. The minimum transportation shall be by regularly scheduled commercial air carrier at coach rates. The DIA Project Manager will determine if an overnight stay is required.
- G. All permanent material stored off site, for which payment is being requested must be insured and stored in bonded, insured warehouses.
- H. Any permanent material on which payment is requested must be in such a form that it cannot be used on work other than this contract, or stored in a manner acceptable to the DIA Project Manager to ensure that the permanent material cannot be used on work other than this contract.

3.04 ALLOWANCE AUTHORIZATION AND PAYMENT

- A. Contractor shall request written approval for expenditure of any contract allowances PRIOR TO performing the Work involved. List work to be performed and estimated cost in the requesting correspondence.
- B. Original copies of all invoices and receipts must be submitted with the Allowance Authorization as part of the request for payment.
- C. Using the format provided by the City, the Contractor's request for payment of all contract allowances shall be included in the Schedule of Values.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item.

END OF SECTION 012910

SECTION 013100

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations and coordination with other stake holders and adjacent Contractors on the Project including,
 - 1. Subcontractor's Acceptance Certification and Subcontractors List.
 - 2. General coordination procedures.
 - 3. Contract Administration Procedures.
 - 4. Project Management and Control Software (Primavera Construction Manager, Unifier Enterprise Project Portfolio Manager, PCM).
 - 5. Coordination drawings.
 - 6. DIA Asset Management System.
 - 7. Requests for Information (RFIs).
- B. Related Requirements:
 - 1. Section 011100, " Summary of Work" for a description of the division of work among separate contracts and responsibility for coordination activities not in this Section.
 - 2. Section 011400 "Work Sequence and Constraints" for shutdown requests and coordinating with airport operational activities.
 - 3. Section 013210 "Schedule" for preparing and submitting Contractor's Construction Schedule.
 - 4. Section 013223 " Layout of work and Surveys for coordinating, survey activities and survey related record documents.
 - 5. Section 011420 Security Requirements and Sensitive Security
 - 6. Section 017720 "Contract Closeout" for coordinating closeout of the Contract.
 - 7. Section 013300 "Submittal Procedures".
 - 8. Section 013325 "Shop and Working Drawings and Product Data and Samples".
 - 9. Section 017419 "Construction Waste Management and Recycling".
 - 10. Section 011810 "Sustainable LEED Requirements".

1.3 DEFINITIONS

- A. RFI: Request to DIA Project Manager from the Contractor seeking information required by or clarifications of the Contract Documents.

1.4 SUBMITTALS:- SUBCONTRACTORS ACCEPTANCE CERTIFICATION AND SUBCONTRACTORS LIST

- A. Subcontractor Acceptance Certification and Subcontractors' List: Submit form CM-02 "Subcontractor Acceptance Certification" for each subcontractor performing work in compliance with the requirement of the General Conditions section 502.2, and prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CM form 02. Include the following information in tabular form:
1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Number and title of related Specification Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Provide emergency contacts list to the DIA Project Manager prior to any site activities. List must contain project name, number, location, company name and address, name and title of emergency contacts in order and time and assigned responsibilities. Keep list current and accurate at all times. Include any specific security arrangements or special projects requirements.
- C. Key Personnel Names: Within [2] days of Notice to Proceed, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
1. Post copies of list in project meeting room, in temporary field office, on Project Web site, and by each temporary telephone. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination with other Contractors:
1. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its

- operations with operations, included in different Sections that depend on each other for proper installation, connection, and operation.
2. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 3. Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.
 4. Make adequate provisions to accommodate items scheduled for later installation.
- B. Minimum cooperation requirements with other contractors include the following
1. Regular meeting (minimum weekly, or more often).
 2. Construction schedule coordination
 3. Staging area and access planning (to include employee shuttle routes).
 4. Deliveries.
 5. Traffic control.
 6. When and where required, the Contractor shall develop appropriate coordination drawings for use by interfacing adjacent parties using the Denver International Airport site.
- C. The following is a list that includes, but is not limited to, all of the contractors that will be working in the area of the project limits:
1. Coordinate with Owner Contracted Communication Contractor.
 2. Coordinate with Utility Companies for utilities that are single sole source.
 3. Coordinate with Airport Security and DIA Maintenance for all security related services.
 4. Coordinate with DIA Life Safety Team for all issues related to fire alarm, fire protection systems in addition to compliance with all regulatory agencies.
 5. Coordinate all shutdowns and system interruptions in accordance with section 01014.
- 1.6 Contract Administration Procedures:
- A. This project will be administered in part utilizing Primavera Construction Manager (PCM) software or Unifier Enterprise Project Portfolio Manager (EPPM) software. Any processes necessary to properly administer the Contract and not included in the list below shall be addressed as acceptable to the DIA Project Manager. DIA Project Manager may modify the list below in serialized correspondence without constituting a change to the Contract. Administrative tools and processes shall not in any form waive any contractual or legal requirements of the law or the Contract. The Contractor shall attend all coordination meetings with DIA Project Manager and DIA Project Control Administrators to arrange for staff training, and technical support to facilitate the execution of electronic processes and administration of the project.

- B. Project Management and Control Software: Unifier Enterprise Project Portfolio Manager (EPPM) or the Primavera Construction Manager (PCM).
- C. All submittals, RFI's, Pay Applications, Correspondence, change requests, and pricing proposals and settlement agreements shall be recorded and submitted using EPPM program.
1. For EPPM software:
 - a. The Contractor must follow unifier EPPM Access Request Procedure and adhere to all software license conditions.
 - b. The Contractor will sign ITA agreements necessary to comply with the DIA computer system security requirements and any contractual obligation to the software and service providers for the UNIFIER software.
 - c. DIA will train the Contractor's staff on the use of the program.
 - d. The Contractor will provide the sufficient computer hardware and software system required by the software provider to perform the listed programs below as applicable to the Project, including the following at a minimum:
 - 1) Internet connection and all necessary high speed connection to perform all activities indicated in this contract.
 - 2) Adobe Acrobat Professional v. X or higher.
 - 3) Internet Explorer v.8 or higher.
 - 4) Microsoft Office 2010 or newer. All files shall be fully compatible with Microsoft Office 2010.
 - 5) Specific Java JRE application may be required, (to be downloaded from the internet). The revision and update number will be provided at NTP.
 - 6) Other files pre-approved by the DIA Project Manager or as required by the DIA- BIM Execution Plan in Manual 12 Chapter 4.3.2.
 - 7) Revit 2012.
 2. For PCM software:
 - a. The contractor must fill an application form to receive PCM program access at the time of Contract award.
 - b. DIA will connect the software to DIA intranet project site and train the Contractor's staff on the use of the program.
 - c. The Contractor will provide the sufficient computer hardware and software system required by the software provider to perform the listed programs below as applicable to the Project, including the following at a minimum:
 - 1) Internet connection and all necessary high speed connection to perform all activities indicated in this contract.
 - 2) Professional Adobe Acrobat X,
 - 3) Internet Explorer 8 or better.

- 4) Microsoft Office 2010 or newer. All files shall be fully compatible with Microsoft Office 2010.
- 5) Specific Java JRE application will be required, (to be downloaded from the internet). The revision and update number will be provided at NTP.
- 6) Other files pre-approved by the DIA Project Manager or as required by the DIA- BIM Execution Plan in Manual 12 Chapter 4.3.2.
- 7) Revit 2012.

1.7 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity. Coordination drawings will be the result of a Contractor driven Spatial Coordination effort as spelled out in the Project BIM Execution Plan.
1. Field verify all existing dimensions and any as-built dimensions, whether built by the Contractor or others, necessary to produce accurate coordination and working drawings.
 2. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Models/Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
 - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - f. Indicate required installation sequences.
 - g. Indicate dimensions shown on the Models/Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate

sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
 3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
 4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
 5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
 6. Mechanical and Plumbing Work: Show the following:
 - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
 - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
 - c. Fire-rated enclosures around ductwork.
 7. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
 - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
 - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
 8. Fire-Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.

9. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. File Preparation Format: Same digital data software program, version, and operating system as original Drawings (unless approved otherwise by DIA Project Manager).
 2. File Preparation Format: Provided in the Project BIM Execution Plan operating in Microsoft Windows operating system.
 3. File Submittal Format: Submit or post coordination drawing files As required in the Project BIM Execution Plan.
 4. The submittal must be logged in accordance with the Unifier EPPM submittal Procedure when Unifier EPPM is the contract manager software.
 5. For Fire Protection system; provide shop drawing and design calculations as approved by the building department. Submit as-built drawings in PDF file format.
 6. For all projects, receiving official variance from the BIM requirements not utilizing BIM; Coordination drawings must be submitted in acceptable digital format shall be in an industry recognized 3D AutoCAD model.
 7. BIM File Incorporation: DIA Project Manager will incorporate Contractor's coordination drawing files into Building Information Model for Revit as established for Project.
 - a. Perform three-dimensional component conflict analysis as part of preparation of coordination drawings. Resolve component conflicts prior to submittal. Indicate where conflict resolution requires modification of design requirements by Architect.
 8. Architect will furnish Contractor one set of digital data files of Models and/or Drawings for use in preparing coordination digital data files.
 - a. The Design consultants and Contractors and Sub Contractors acknowledge and represent the following Right Of Reliance regarding Electronic Models and/or Drawing deliverables:
 - 1) Models may be transferred for the purpose of allowing the recipient's to develop derivative models to develop the means and methods by which to construct the project.
 - 2) It must be clear that each party be able to rely on the fact that the model furnished by others "match the 2D contract documents or shop drawings in their equivalent state of development"

- 1.8 Coordination with DIA Asset Management System:
- A. The full intent is to produce comprehensive record documents integrating existing data in the form of digital files and models, reconciled to actual field conditions, modifications or additions facilities or components of existing facilities according to new Contract Documents, and to produce record documents which could be incorporated into DIA asset management system.
 - B. Utilize the BIM to link all necessary data content to the model and follow the BIM execution plan as collaboratively modified by the Contractor, Designer, DIA BIM Administrators and approved by DIA Project Manager.
 - C. Provide the following information through the execution of the contract for all elements that requires periodical maintenance. The information shall include but is not limited to:
 - 1. Project title, number, project manager contact information, contractor and subcontractor contact information
 - 2. Actual geometry and pertaining shop drawings, relation to project records.
 - 3. Operational Manuals and safety, MSDS and cut sheets and technical information.
 - 4. Details of all components' maintenance procedures and requirements.
 - 5. Details of all applicable warranties including but not limited to; warranty providers, manufacturers information, warranty start and finish dates, contacts , bonding company name, consent of surety,
 - 6. Equipment location (by room number and location description or grid location format acceptable to DIA project Manager, for civil projects), equipment make and model.
 - 7. List of all spare parts including but not limited to; equipment make and model, location, manufacturers cut sheet (submittal number or link)receiver's name and contact information, receiving department and suppliers reordering information.
 - 8. Commissioning results, acceptance criteria, test reports, ,

1.9 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI through the PCM program or in the form specified in Section 019990 as directed by the DIA Project Manager.
 - 1. DIA Project Manager will distribute the RFIs to the proper entities.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. DIA Project Manager has the right to reject RFI's that are frivolous or does not contain proper information and required data to properly evaluate the request and respond in a timely manner.

- C. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of DIA Project Manager.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- D. RFI Forms: Use Unifier Program to generate RFI's. RFI's must list all applicable Contract Documents. Fill all applicable fields on the RFI form clearly and indicate any impacts it might have on the project.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- E. DIA Project Manager will review each RFI, determine action required, and respond. RFI's received by DIA Project Manager after 1:00 p.m. will be considered as received the following working day. Direct responses by any entity other than DIA Project Manager shall not be binding to the City and County of Denver. E-mails, and verbal conversations must be followed by an official RFI or proper contractual vehicle before it is considered for any additional compensation or time impact to the project terms and conditions.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Engineer's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.

2. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.
 3. Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Title 11 - Changes In The Work, Contract Price or Contract Time of the General Conditions as amended by Special Conditions.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify DIA Project Manager in writing within five (5) days of receipt of the RFI response or the time required by Title 11 of the Contract General Conditions.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. The log shall include but not be limited to the following data:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of DIA Project Manager.
 4. RFI number including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date DIA Project Manager's response was received.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT (Not Used)

PART 5 - METHOD OF PAYMENT:

- F. No additional Payment will be made for compliance with the requirements of this section. All the cost and time impacts shall be included in the Contract Unit prices or Lump Sum Contract Amount.

END OF SECTION 013100

SECTION 013119

PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section requires the Contractor's superintendent and Quality Control representative to attend meetings scheduled by the City for the collection and dissemination of information related to the subject contract.
- B. The DIA Project Manager will prepare the minutes of each meeting and distribute them to each of the participants.

1.02 OTHER MEETINGS

- A. The Contractor will be advised of times, dates and places of contract meetings.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. A Preconstruction Meeting will be scheduled by the City after the Contract has been signed by all parties. The purpose of this meeting is to introduce the City's Representatives to their counterparts in the Contractor's organization and to establish lines of communication between these representatives and outline some contract requirements. The Contractor's Superintendent and Quality Control Representative(s) shall attend this meeting.
- B. The DIA Project Manager will distribute a notice of this meeting, along with an agenda of the subjects to be addressed.
- C. The DIA Project Manager will explain and discuss the responsibilities and authorities of the City, the Designer, and the Project Manager's organization.
- D. The DIA Project Manager will provide highlights of the following information at this meeting:
 - 1. Equal Employment Opportunity (EEO), Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) requirements.
 - 2. Insurance, laws, codes, traffic regulations and permit requirements of public agencies and their regulations.
 - 3. Procedures for processing change orders.
 - 4. Procedures for submitting shop and working drawings, product data and samples.
 - 5. Monthly pay estimate cutoff dates.
 - 6. Payment procedures.
 - 7. Request for information procedures.
 - 8. Communication procedures.

9. Contractor-required Daily Report showing the quantitative progress of work, the use of men, material and equipment, problems, potential delays, weather, shift, down equipment, material and equipment received and information received from the City. Daily reports will be submitted to the DIA Project Manager within 48 hours of start of work. Daily Reports are required every day, including weekends and holidays.
 10. Scheduling and coordination requirements.
 11. Quality control/assurance procedures.
 12. Environmental requirements and permits.
 13. As-built documents.
 14. Project closeout requirements.
- E. The Contractor will introduce the Contractor's representatives and briefly describe each person's responsibilities. The Contractor will provide the following:
1. A list of all subcontractors.
 2. Office, storage areas and construction area layouts, along with temporary easements.
 3. Safety, first aid, emergency actions and security procedures including the name of the Contractor's insurance company.
 4. 60 day preliminary schedule.
 5. Sequence of Work.
 6. Construction methods and general worksite layout and haul plan.
 7. Housekeeping procedures. Include a written plan for dealing with and preventing FOD (Foreign Object Damage).
 8. The Contractor's general erosion and sedimentation control plans, noise, hazardous material, air and water pollution control plans and Quality Control Plan.
 9. Coordination and notification for utility work.
 10. The Contractor's procedures to coordinate its work with the work of other contractors and its procedures for sharing access to the worksite.
 11. Deliveries and priorities of major equipment.
 12. Submittal Schedule
- F. Explanations provided by the City will not amend, supersede or alter the terms or meaning of any contract document and the Contractor shall not claim reliance on such explanations as a defense to any breach or failure by the Contractor to perform as specified in the contract.

3.02 CONSTRUCTION PROGRESS MEETINGS

- A. Progress meetings will be scheduled weekly and more often as necessary by the DIA Project Manager to promote the competent and timely execution of the contract.
- B. The meetings will be held at the worksite or at a location selected by the Project Manager. Meetings will be chaired by the DIA Project Manager or the DIA Project Manager's representative.

- C. The Contractor's personnel, as listed in Technical Specification Section 013119, 3.01.A, shall attend unless otherwise agreed by the DIA Project Manager.
- D. The DIA Project Manager will be responsible for publishing minutes of the meetings.
- E. At a minimum, the following items will be addressed at each meeting. The items addressed in the meeting do not waive notification or submittal requirements as required elsewhere in the contract.
 - 1. Safety: Contractor shall report any safety issues
 - 2. Quality Control
 - a. The Contractor's Quality Control representative shall present and review all RAR's, CCR's, and NCR's issued and the status of each item.
 - b. The Contractor's Quality Control Representative shall present and discuss the Independent Testing Agency weekly test report and/or testing schedule.
 - c. The Contractor's Quality Control representative shall report on inspections by other agencies and any follow-up activity required.
 - d. The DIA Project Manager will present and discuss issues regarding quality control.
 - 3. Quality Assurance
 - a. The DIA Project Manager will present and discuss issues regarding quality assurance.
 - 4. Design activities: open discussion
 - 5. Shop drawings/submittals
 - a. The Contractor shall provide four copies of and review the Contractor's submittal schedule and provide any updated information and/or changes to the schedule.
 - b. The Contractor shall provide information on the status of submittals requiring re-submittal.
 - c. The Contractor shall review any accepted submittals that the Contractor plans to re-submit with changes.
 - 6. Construction activities: Open discussion to include coordination items with other Contractors and or agencies.
 - 7. Schedule
 - a. The Contractor shall provide to the DIA Project Manager seven copies of the Contractor's two week look-ahead schedule and review at the meeting the items on the schedule. The schedule shall be in bar chart format based on the approved CPM, and shall include dates of testing activities, anticipated dates of inspection by DIA and other agencies, items in progress, percentage of completion of items, responsible subcontractor for the items.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract Unit prices or work request bid item.

END OF SECTION 013119

SECTION 013210

SCHEDULE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for planning and documenting the progress of construction during performance of the Work, including the following:

1. Preliminary construction schedule.
2. Contractor's construction schedule.
3. Contractor's monthly construction schedule update.
4. As-built schedule
5. Three week look-ahead schedule
6. Daily construction reports.
7. Submittal schedule
8. Fabrication schedules
9. Material delivery schedules, cranes, special equipments and staging status
10. Special reports.
 - a. Weather impacts and mitigations
 - b. Recovery Schedule and alternatives.

- B. Related Requirements:

1. Section 011100 "SUMMARY OF WORK" for preparing a combined Contractor's construction schedule.
2. Section 013300 "Submittal Procedures" for submitting schedules and reports.
3. Section 014310, 014320, 014510, 014520, 014525 and 014545. "Quality Requirements and inspection" for submitting a schedule of tests and inspections.
4. Section 012910 Schedule of Values.
5. Section 011400 Work Sequence and Constraints

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 2. Predecessor Activity: An activity that precedes another activity in the network.
 3. Successor Activity: An activity that follows another activity in the network.

- B. Cost Loading: The allocation of the schedule of values for the completion of an activity or group of activities bundled in hammock or codes under a WBS unit as scheduled. The sum of costs for all activities or WBS must equal the total Contract Sum unless otherwise approved by DIA Project Manager. All costs shall be accounted for in the schedule and shall be balanced to where no activity can be unfunded in the project budget. The cost loading at any level acceptable to DIA/PMT Project control group shall not relieve the Contractor of its obligation to fund all necessary work to complete the project.
- C. CPM: Critical Path Method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Float: The measure of leeway in starting and completing an activity.
1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Resource Loading: The allocation of direct man hours and equipment necessary for the completion of an activity as scheduled. The contractor shall account for the indirect man hours in the cost. The indirect labor hours could be tracked and reported separately if agreed upon between The Contractor and the DIA/PMT project control group.
- G. Direct man hours: Man hours related only to the physical construction of the work (i.e. masonry, mechanical, electrical, drywall, carpeting, etc.)
- H. Indirect man hours: Man hours related to support of the physical construction of the work (i.e. cleanup, mobilization, traffic control, temporary activities, badging, supervision and overhead etc.)
- I. WBS: Work Breakdown Structure. A hierarchical arrangement of the schedule activities which allows for roll-up and summarization to a predetermined level. The sum of all the WBS must equal all the contract scope of work including any temporary items necessary to deliver complete operational system in the time established for each milestone or project work. WBS must equal or exceed the Schedule of Value line items broken by discipline and measureable units. The WBS system shall be only broken down to a manageable count. The level of breakdown shall be established jointly between DIA/PMT Project control team and the CM/GC project control staff. In the absence of a timely agreement the DIA/PMT Project Manager shall have control of the time and progress payment until an acceptable schedule is accepted.
- J. Stored Material schedule all material intended to be paid as stored material shall be separated as progress activities and cost loaded as agreed upon by the DIA/PMT Project Manager and as permissible by The Contract (no markups or profits, insured, inspected and paid).

1.4 SUBMITTALS

- A. Coordinate a meeting with DIA scheduling group to address the level of details and the structures necessary to produce a schedule that is accurate, practical and valid provide the following information:
1. Meet the intent of the Contract term, milestones and coordinate the work to be performed in the most efficient manner.
 2. Provide a proper planning tool to evaluate the progress of the work and assure the proper resources have been committed to meet the intent of the contract document on time, cost and quality and minimize the disruption of airport operations.
 3. Ability to evaluate the impact of future changes on the completion of the contract.
 4. Ability to mitigate and reduce the impacts of changes regardless of the cause of those changes and delay impacts.
 5. Ability to allocate causes and provide clear responsibility of delays and recoveries for the benefit of a successful completion of the project.
- B. Format for Submittals: Submit required submittals in the following format:
1. The contractor shall generate a computerized Critical Path Method (CPM) schedule for the work utilizing the Precedence Diagram Method (PDM) in Gantt chart view.
 2. The schedule shall be submitted to the project manager electronically in PDF format and on a CD in dynamic format which will allow manipulation and generation of report to evaluate and review any part of the schedule.
 3. Preliminary and Construction Schedule formats shall contain a title block showing:
 - a. Contractor's name.
 - b. Contract number and title
 - c. Data date
 - d. Symbol definitions
 4. Schedules shall contain a time line at the top
 5. The Activity table (Layout) shall include at a minimum the following columns:
 - a. Activity ID
 - b. Activity name
 - c. Original duration
 - d. Schedule % complete
 - e. Start
 - f. Finish
 - g. Total Float
 6. A report shall accompany all schedules containing a list of all approved changes to the original approved (baseline) schedule.
 7. A mitigation report shall be required when at the discretion of either party it becomes apparent that the project is not progressing on time regardless of the cause of delays and impacts, or issued construction changes has negative impact and require a mitigation effort through several viable alternatives.
- C. Preliminary construction schedule.
1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule and date on label.
 2. Approval of preliminary construction schedule will not constitute approval of schedule of values for cost-loaded activities.
 3. Submit schedule at preconstruction meeting.
 4. City will respond within 14 days with acceptance or direction to revise and resubmit.

D. Contractor's Construction Schedule:

1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
2. Submit schedule within 30 days after Notice to Proceed.
3. City will respond within 14 days with acceptance or direction to revise and resubmit.
4. Failure of the contractor to have a construction schedule approved by the City will be considered cause for withholding progress payment.
5. The acceptance of the schedule is for general conformity to the contract requirements and shall not constitute any relief of any contract requirements

E. Construction Schedule Monthly Updates:

1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
2. Submit schedule with Pay Application.
3. City will respond within 14 days with acceptance or direction to revise and resubmit.
4. Submit request for construction schedule changes with narrative.
5. Failure of the contractor to have a construction schedule approved by the City will be considered cause for withholding progress payment.

F. As-built Construction Schedule:

1. After all contract work items are complete, the contractor shall submit an as-built construction schedule showing actual start and finish dates for all work items and milestones.

1.5 QUALITY ASSURANCE

A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Project Manager's request.

B. Pre-scheduling Conference: Conduct conference at pre-bid meeting to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the set-up in P6 of preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:

1. Review content and format for reports.
2. Verify availability of qualified personnel needed to develop and update schedule.
3. Discuss constraints, including phasing, area separations, interim milestones and partial Owner occupancy.
4. Review delivery dates for Owner-furnished products.
5. Review submittal requirements and procedures.
6. Review time required for review of submittals and resubmittals.
7. Review requirements for tests and inspections by independent testing and inspecting agencies.
8. Review time required for Project closeout and Owner startup procedures, including commissioning activities.
9. Review procedures for updating schedule.
10. Review requirements for content and input of direct man hour resources in activities.
11. Review requirements for cost loading of activities.

1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values (deleted).
 - 1. Work items in the construction schedule shall be identified in a Work Breakdown Structure (WBS) format that corresponds with the technical specifications.
 - 2. At a minimum WBS shall correspond to the first tier level of the Master Format.
 - 3. Secure time commitments for performing critical elements of the Work from entities involved.
 - 4. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion and final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no field activity is longer than 20 days, unless specifically allowed by project manager.
 - 2. Critical Path Activities: No more than 25 percent of the activities may be on the critical path.
 - 3. Procurement Activities: Include procurement process activities for the following long lead items and major items as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 4. Submittal Review Time: Include review and re-submittal times indicated in Section 013300 "Submittal Procedures" in schedule unless time frame reduced by approval of project manager. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 - 5. Startup and Testing Time: Include adequate days for startup and testing.
 - 6. Substantial Completion: Indicate date established for Substantial Completion.
 - 7. Punch List and Final Completion: Include days for completion of punch list items and final completion.
 - 8. Failure to include any work item required for performance of this contract shall not excuse the contractor from completing all work within applicable completion dates, regardless of the City's approval of the schedule.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - 1. Phasing: Arrange list of activities on schedule by phase.
 - 2. Coordinate phasing and constraint with those established in section 011400
 - 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.

4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 011100 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011100 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
- D. Milestones: Include milestone indicated in the contract documents in schedule, including, but not limited to, the Notice to Proceed, phasing requirements, Substantial Completion and final completion.
- E. Two Week Look-ahead Schedule: The Contractor shall provide to the Project Manager seven copies of the Contractor's two week look-ahead schedule and review at the Project Manager's weekly progress meeting. The schedule shall be in bar chart format based on the approved CPM, and shall include dates of testing activities, anticipated dates of inspection by DIA and other agencies, items in progress, percentage of completion of items and responsible subcontractor for the items.
- F. Recovery Schedule:
1. If the latest completion time for any work item does not fall within the time allowed by the construction schedule, the sequence of work and/or duration shall be revised by the contractor through concurrent operations, additional manpower, additional shifts or overtime, additional equipment, or alternative construction methods until the schedule produced indicates that all significant contract completion dates, occupancy dates and milestones will be met. No additional costs will be allowed if such expediting measures are necessary to meet the agreed completion date or dates except as provided elsewhere in the contract documents.
 2. When periodic update indicates the Work is behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule.
 3. Provide narrative indicating changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished. Narrative shall be submitted in accordance with the General Conditions Title 1105 on changes in time.
- G. Contract Extensions:
1. If the Contractor is granted an extension of time for completion of any milestone or contract completion date under the provisions of the contract, the determination of the total number of extended days will be based upon the current analysis of the schedule and upon all data relevant to the extension. Such data shall be incorporated into the next monthly update of the schedule.
 2. The Contractor acknowledges and agrees that delays in work items which, according to schedule analysis, do not affect any milestone dates or the contract completion date shown on the CPM network at the time of the delay will not be the basis for a contract extension.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
1. Use Primavera Contractor or P6 operating system.
- I. Schedule Narratives: In addition to the schedule the contractor shall submit a narrative that explains the basis for the Contractor's determination of construction logic. It shall include

estimated quantities and production rates, hours per shift, work days per week, and types, number and capacities of major construction equipment to be used and whether the Contractor plans to work weekends or holidays

- J. Subcontractor Coordination: The Contractor shall schedule and coordinate the work of all of its subcontractors and suppliers including their use of the worksite. The Contractor shall keep the subcontractors and suppliers informed of the project construction schedule to enable the subcontractors and suppliers to plan and perform their work properly.
- K. Failure to Submit Required Schedules: Failure of the Contractor to have a construction schedule approved by the City will be considered cause for withholding progress payment(s).

2.2 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit startup, horizontal, bar-chart-type CPM construction schedule at the preconstruction meeting.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first **60** days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities. The preliminary schedule shall show all significant work tasks that occur in the first 60 days, including planning, mobilization, shop submittals and approval time, procurement, fabrication and construction. It shall identify work items or milestones that affect or are affected by the City, other Contractor's work, utilities and other third parties and it shall list major data submittals required by the contract.
- C. Narrative: The preliminary schedule shall be accompanied by a narrative describing the Contractor's approach to mobilization, procurement and construction during the first 60 days. The narrative shall elaborate on the basis of durations, production rates, and major equipment to be used, and shall identify all major assumptions used to develop the schedule.
- D. In lieu of the preliminary schedule the Contractor may at his own discretion submit the Construction Schedule at the Preconstruction Meeting. If the Construction Schedule is submitted in lieu of the Preliminary Schedule, the City will respond within 30 days with acceptance or direction to revise and resubmit within 10 days.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work.
 - 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by the City, other contractors, utilities and other third parties that may affect or be affected by Contractor's activities.
 - i. Testing and commissioning.

- j. Punch list and final completion.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Cost and Resource-Loading of CPM Schedule:
 - a. Coordinate with DIA project control and DIA Project Manager for the requirements below.
 - b. Assign cost to construction activities on the CPM schedule.
 - c. Each activity cost shall reflect an appropriate value subject to approval by Project Manager.
 - d. Total cost assigned to activities shall equal the total Contract Sum.
 - e. Activities shall be resource loaded with direct man hours required to perform physical construction of the work. Indirect man hours shall not be included as resources in activities.
- B. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis to demonstrate the effect of the proposed change on the overall project schedule.
- C. Schedule Updating:
 1. The contractor shall submit a monthly progress report at the end of each month following the Notice to Proceed. At the end of each month, the Contractor and Project Manager shall agree on the progress of the work and the Contractor shall update the construction schedule accordingly. The updated construction schedule is a prerequisite to the submittal of the Contractor's application for progress payment. The schedule shall be made in accordance with Technical Specifications Section 01310-3.02. This review does not constitute an approval of the construction schedule and shall not be used for the purposes of modifying the initially approved construction schedule.
 2. The contractor's monthly progress report shall include a written narrative describing the overall progress of the work, provide a critical path analysis, discuss significant problems with proposed corrective action, and how the status of major changes and any other changes in sequence of the work.
 3. Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
 - a. Identification of activities that have changed.
 - b. Changes in early and late start dates.
 - c. Changes in early and late finish dates.
 - d. Changes in activity durations in workdays.
 - e. Changes in the critical path.
 - f. Changes in total float or slack time.
 - g. Changes in the Contract Time.
 4. Changes to the Schedule: The construction schedule may be changed when one or more of the following occur.
 - a. When a change order significantly affects the contract completion date or sequence of work items.
 - b. When the contractor elects to change the sequence or duration of work items affecting the critical path.
 - c. When the City directs a change that affects a milestone date(s) specified in the Special Conditions or alters the length of a critical path.

5. Minor revisions submitted at monthly progress review meetings are not considered as changes in this context.
6. If, after submitting a request for change to the construction schedule, the Project Manager does not agree with the request, the Project Manager will schedule a meeting with the Contractor to discuss the differences. If a settlement cannot be reached on the change in the construction schedule or if the Contractor has failed to submit revisions to the network, the Project Manager has the option of providing suggested logic and/or duration times in all subsequent updating reports. The suggested logic and/or duration times will remain in effect until the change in the construction schedule is settled or until the logic and duration are superseded.
 - a. If the Contractor has any objections to the data furnished by the Project Manager, he shall advise the Project Manager within ten days in writing, fully supporting the objections with a counter plan. The revisions suggested by the Project Manager shall be used for updating reports until the Project Manager approves the counter plan.
 - b. If the Contractor does not submit a counter plan and data within ten days after the date of the Project Manager's suggested logic, the Contractor is deemed to have concurred with the Project Manager's suggested logic/duration time changes. The Project Manager's plan will be the basis of negotiations for any adjustment of the time and cost for performance of the Work.
 - c. Insert articles for other schedules and lists to suit Project, depending on complexity.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
 1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
 2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule with each monthly payment application.
 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate final completion percentage for each activity.

END OF SECTION 013210

SECTION 013223

CONSTRUCTION LAYOUT, AS-BUILT AND QUANTITY SURVEYS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section covers Denver International Airport (DIA) procedures and accuracy requirements for survey services for construction layout, as-built and quantity surveys.
- B. Before commencing any field surveys on DIA property, the Contractor shall coordinate a pre-survey preparation activities meeting. This meeting is to be arranged through the Denver International Airport (DIA) Project Manager's Office with the attendance of the Contractor, the Contractor's surveyor and the DIA Survey Section. The Contractor is responsible for obtaining DIA related survey guidance, NGS control stations, projection parameters and training materials from the DIA Survey Section prior to beginning any survey work.
- C. Reference Contract General Conditions.
- D. Survey Project Checklist, provided after the end of this Section, will be reviewed at the pre-survey preparation activities meeting.

1.3 REFERENCE DOCUMENTS:

- A. Section 013300 "Submittal Procedures" and Section 013325 "Shop and Working Drawings, Product Data and Samples".
- B. Colorado Department of Transportation (CDOT) Survey Manual.

1.4 SUBMITTALS

- A. Refer to Section 013300 "Submittal Procedures" and Section 013325 "Shop and Working Drawings, Product Data and Samples" for the submittal process.
- B. Survey Statement of Work (SSOW):
 - 1. The Contractor must develop a complete SSOW and submit it to the DIA Project

- Manager. The SSOW is the Contractor's written description of the Contractor's methodology for surveying services that will be provided as part of the Project, including specific features that will be surveyed, action items, timelines necessary airport resources and general information.
2. SSOW must be submitted within ten (10) working days of the Notice to Proceed (NTP) and prior to commencement of any survey or layout work on the site.
 3. The SSOW will be reviewed and approved by the DIA Survey Section. Under no circumstances will work begin until the SSOW has been approved. Review comments and/or approval will be sent to the DIA Project Manager within three (3) working days of the delivery of such document to the DIA Survey Section.
- C. Survey and layout data must be submitted in the format indicated below. The data must be submitted immediately after completion and shall be certified and/or stamped by a current Colorado Registered Professional Land Surveyor where it is required by the Contract Documents.
1. All Raw Data files, either GPS or conventional must use a Trimble format.
 2. All copies of original pages of field notes or electronic field notes must be in Adobe Portable Document Format (PDF).
 3. All original field notebooks used for this Project must be submitted at the end of Contract.
 4. All as-built points files must be in either CSV or TXT format.
 5. All CAD drawings must be in Autodesk Civil 3D format.
 6. CAD layers are specified in DIA Design Standards Manual Volume 12.
 7. DIA will provide the Autodesk Civil 3D drawing template.
- D. Survey and Quality Control Plan (SQCP):
1. The Contractor must develop a complete SQCP and submit it to the DIA Project Manager. The SQCP is the Contractor's written description detailing the Contractor's methodologies for data collection, data safeguarding and quality assurance. Provide insight on how the Contractor will completely check all data to ensure it is complete, reliable, and accurate. Identify data safeguards used to protect this sensitive and safety critical data. Utilize a checklist based quality control process with definable and repeatable standards for each element ensuring consistency of work between different personnel within an organization. Submit the plan in a non-editable format such as Adobe Portable Document Format (PDF).
 2. The SQCP must be submitted within ten (10) working days of the NTP and prior to commencement of any survey or layout work on the site.
 3. The SQCP will be reviewed and approved by the DIA Survey Section.
 4. Under no circumstances will work begin until the SSOW has been approved. Review comments and/or approval will be sent to the DIA Project Manager within three (3) working days of the delivery of such document to the DIA Survey Section.
- E. Weekly Project Status Report:
1. Submit a project status report via email DIA Project Manager every Monday by 2:00 P.M. Mountain Time, from the date of the task order until the date of Substantial Completion. Include in the reports the percentage complete for each of the major portions of the Work with the estimated completion date or

completion date. Provide the status of ongoing work, with expected completion dates, and any unusual circumstances and/or deviations from this guidance. Status reports should be brief and contain the current information in the text of the email. See the example of a Project Status Report as provided after the end of this Section.

F. Final Project Survey Report:

1. The Final Project Survey Report, if required, use format from AC 150/5300-18B 2.6.4.
2. Final Project Survey Report must be stamped and signed by a current Colorado Registered Professional Land Surveyor.

1.5 EQUIPMENT

A. Equipment Calibration:

1. Equipment must be regularly checked, and calibrated for accuracy at the beginning of any survey project to ensure that the equipment is operating appropriately. Errors due to poorly maintained or malfunctioning equipment will not be accepted. If any equipment errors are found to exist they must be reported to the DIA Survey Section prior to the start of any surveying. These errors will need to be verified and eliminated prior to performing any survey work. For projects lasting longer than six (6) months, the checking, and calibration of equipment shall be repeated. Furthermore, documentation must verify such equipment has met acceptable tolerances.
2. The Contractor MUST submit to the DIA Project Manager written proof that survey equipment has been checked and calibrated before commencing any survey work. This could be in the form of field notes. If repairs are made, documentation of such repairs from an authorized equipment vendor is required.

B. See CDOT Survey Manual for acceptable procedures for calibrating equipment electronic survey instruments adjustments, calibration or repairs:

1. All electronic survey instruments shall be repaired, adjusted, or calibrated only by an authorized equipment vendor or manufacturers service department.
2. A calibration check on all types of electronic survey instrumentation is essential to obtain and maintain the tolerances required for any DIA project. At the beginning of any DIA project, all survey equipment utilized to perform the survey shall be calibrated by the surveyor in charge of the Project.
3. See CDOT Survey Manual for acceptable procedures for calibrating equipment.

C. Baseline Calibration Requirements:

1. See CDOT Survey Manual for the procedures to check the survey equipment and the method of reporting the findings to the DIA Project Manager and the DIA Survey Section.
2. The Contractor MUST submit to the DIA Project Manager written proof that survey equipment has been checked and calibrated before commencing any survey work. This could be in the form of field notes. If repairs are made,

documentation of such repairs from an authorized equipment vendor is required.

1.6 SURVEY CONTROL

- A. All airport construction project surveys **MUST USE** the DIA Low Distortion Projection (LDP) coordinate system implemented on August 1, 2011. The prior coordinate system, the DIA Grid is no longer supported. Surveys **MUST NOT** utilize DIA Grid coordinate system for collecting construction as-built information.
- B. Since the DIA LDP utilized the NAD83 (2007) data, all NGS horizontal points **MUST** use the NAD83 (2007) data. The DIA Survey Section will provide this data during the mandatory pre-survey preparation activities meeting. The DIA Survey Section will also provide coordinates for all NGS Control Points in DIA LDP based upon the location of the Project.
- C. Since DIA has established National Geodetic Survey (NGS) horizontal control points, the Contractor **MUST** use the published latitudes, longitudes and heights with the projection parameters for these control points that are received and **NOT** the DIA LDP rectangular coordinates for base station setups for the Geodetic Verification Survey. The Contractor must verify each NGS Horizontal and Vertical primary control point stations by:
 - 1. Physically visiting each control station to determine its usability and checking its identity.
 - 2. Ascertaining its unmoved position.
 - 3. Determining its condition, stability, visibility.
 - 4. The submission of a recovery report to NGS if one has not been recently recorded.
- D. Geodetic Verification Survey Instructions and Procedures:
 - 1. The geodetic verification survey is created to insure the stable position of the DIA control points that are used to reference the temporary design/construction control points to the National Spatial Reference System (NSRS). Acceptable monuments will be identified by the DIA Survey Section and will be limited to monuments of the NSRS with permanent identifiers (PIDS) and published positions and elevations. Temporary design/construction control points established for such project will be referenced by direct measurement to at least two (2) separate NGS control stations.
 - a. The Contractor will attempt to recover each identified monument and determine its condition, stability and suitability for the intended use. A location sketch and visibility diagram will be prepared for each station. A minimum of three (3) digital photographs, one of each type described in AC 150/5300-18B, Section 1.5.2.1, will be captured, captioned and properly named. A recovery note will be filed with NGS if no current recovery is shown in the NSRS database.
 - b. After recovering the identified NSRS NGS control stations that are located on DIA property, the procedure to verify the control points are as follows:

- 1) When using a remote GPS base station on the airfield, the Contractor must occupy the Primary Airport Control Station (PACS) and observe the Secondary Airport Control Station (SACS) for a duration of at least ten (10) minutes (600 epochs), along with a five (5) second collection interval. Then reverse the setup, occupy the SACS and observe the PACS for a duration of at least ten (10) minutes (600 epochs), along with a five (5)-second collection interval. The end results are two (2) independent GPS observations. Compare the newly measured distances or inverse distances (from new observations) against the distances determined from the published positions. Submit results to the DIA Survey Manager and DIA Survey Section in Microsoft Excel format.
- 2) When using a Virtual Reference Station (VRS) on the airfield, the Contractor must observe the PACS and the SACS for a duration of at least ten (10) minutes (600 epochs), along with a five (5)-second collection interval. Then reverse the setup, occupy the SACS and observe the PACS for a duration of at least ten (10) minutes (600 epochs), along with a five (5)-second collection interval. The end results are two (2) independent GPS observations. Compare the newly measured distances or inverse distances (from new observations) against the distances determined from the published positions. Submit results to the DIA Survey Manager and DIA Survey Section in Microsoft Excel format.
- 3) When using conventional methods on the airfield, measure the distance between the PACS and SACS using a calibrated electronic distance meter instrument (EDMI). Compute the inverse using either the NGS program INVERS3D (available on the NGS website at <http://www.ngs.noaa.gov/TOOLS/>) or a comparable commercial product. Compare the newly measured distances or inverse distances, from new observations, against the distances determined from the published positions. Submit results to the DIA Survey Manager and DIA Survey Section in Microsoft Excel format.
- 4) Obtain elevation checks either from GPS observations or from digital levels. The distances must agree within, plus or minus, three (± 3) cm; the difference in ellipsoidal height must agree within, plus or minus, four (± 4) cm, and the difference in orthometric height must agree within, plus or minus, five (± 5) cm. If the tolerances are not met the data must be recollected.
- 5) Provide the results or the comparisons as part of the observational data in a report to the DIA Project Manager to be reviewed and approved by the DIA Survey Section prior to the start of construction and include this approved report in the final report.
- 6) Submit a recovery report for the NGS horizontal control stations to the NGS.

E. NGS website: <http://www.ngs.noaa.gov/PROJECTS/NGSforms/recovery.pdf>. The Following are Limitations and Additional Information on NGS Control Stations and NGS Benchmarks:

1. The use of control monuments and projection parameters for construction layout

- other than those shown on the Contract Drawings or furnished by or approved by the DIA Survey Section is STRICTLY PROHIBITED. Use of other monuments is solely at the risk of the Contractor.
2. The DIA Survey Section will provide the contractor with the projection parameters and any assistance in implementing the DIA LDP coordinate system. It is up to the Contractor to use the correct methodology in performing any survey task which shall be submitted to the DIA Project Manager and reviewed during the pre-survey preparation activities meeting.
 3. The DIA Survey Section will need all pertinent data from the contractor to check and verify that the Contractor implemented the DIA LDP correctly.
- F. Modifications to AC 150/5300-18B, Section 2.6.10.1.1, Verification of Survey Marks:
1. DIA is modifying the requirement for verification of PACS and SACS and replace it with a requirement to verify the unmoved position and elevation of both the PACS and SACS for any airside projects and any two (2) DIA approved NGS horizontal control stations for any landside project.
 2. The surveyor must follow the same verification procedure as stated in paragraph 1.6.C of this Section.
- G. Reporting Damage or Errors of NGS Control Stations:
1. Report damaged or destroyed airport control points, bench marks, and section corner monuments promptly to the DIA Project Manager.
 - a. If section corner monuments are damaged or destroyed during construction activities, such points shall be re-established pursuant to Laws of the State of Colorado Regulating the Practice of Land Surveying by a Registered Professional Land Surveyor in the State of Colorado.
 - b. If NGS control stations or NGS bench marks are damaged, moved, altered or destroyed by the Contractor, the City's cost of reestablishing such points shall be borne by the Contractor.
 - c. The City will not be responsible for any increased costs or delays to the Contractor relating to reference points, airport control points, or bench marks which are damaged, moved, altered or destroyed by the Contractor or its subcontractors, suppliers, agents or employees or other Contractors working on the site.
 2. Report alleged errors in NGS control stations or NGS bench marks promptly to the DIA Project Manager.
 - a. Discontinue use of NGS control stations or NGS bench marks alleged to be in error until the accuracy of points can be verified or as directed.
 - b. Claims for extra compensation for alteration or reconstruction allegedly due to errors in NGS control stations or NGS benchmarks will not be allowed unless original NGS control stations and NGS bench marks still exist or substantiating evidence proving error is furnished by the Contractor, and unless the Contractor has reported such errors to the DIA Project Manager as specified herein.

1.7 TEMPORARY SURVEY CONTROL

- A. The Contractor **MUST** set a minimum of either ‘chiseled X’ in concrete; a drill hole with lead and tack in concrete; a PK nail in asphalt or a 5/8” rebar in natural ground. An ‘Inked X’ set as a control point is **UNACCEPTABLE**.
- B. When a contractor establishes temporary control points for DIA survey work the Contractor **MUST** follow FAA guidelines. All temporary control points must be referenced to the National Spatial Reference System (NSRS) through the use of the NGS control stations provided by the DIA Survey Section. Temporary control may be necessary based on project site location. Below are the acceptable means to establish temporary geodetic control for DIA design or construction projects:
1. Temporary control must be established under close cooperation with the DIA Survey Section following the procedures outlined in AC150/5300-16 "General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to National Geodetic Survey" only in the following cases:
 - a. Large airport airfield construction project that significantly changes the airport geometry and would trigger the need to acquire new Digital Stereo Imagery following AC 150/5300-17 "General Guidance and Specification for Aeronautical Survey Airport Imagery Acquisition and Submission to the National Geodetic Survey". Examples include a new runway and taxiway complex, significant modification of existing runway or taxiway system, development of new outboard deice pad complex or establishment of new mid airfield concourse and terminal complex. The size and complexity of the Project will dictate the need to acquire new digital stereo imagery for significant construction.
 - b. Construction that establishes a new ILS CAT II/III Operations.
 - c. New Instrument Development Procedure.
 - d. New Airport Layout Plan Survey Update.
 - e. New Airport Obstruction Chart Update.
 - f. New Airport Mapping Database.
 2. On DIA construction projects, the Contractor, excluding large airport airfield construction projects referenced under Section 1.06.A.1, may use temporary control points on their project site. These temporary control points must be referenced to the nearest DIA primary control points and **MUST BE** referenced vertically to two (2) different benchmarks. Also, all surveyors **MUST** obtain permission to establish temporary control points on DIA property by means of communicating with the DIA Survey Section.
 3. In addition, all vertical control **MUST BE** established only through the use of a digital level unless otherwise authorized by the DIA Survey Section.
 4. Minimum Construction Horizontal and Vertical Accuracy Tolerance:
 - a. Adjustments:
 - 1) No adjustment of the survey field data will be permitted without the written consent of the DIA Project Manager and the DIA Survey

Section. If it is determined that an adjustment is necessary, a weighted least squares adjustment method is recommended.

- b. Primary Control Benchmark Minimum Vertical Accuracy Tolerance:
 - 1) Setting of primary control benchmarks shall meet the Minimum Vertical Accuracy Tolerance of a NGS First Order Class II as the square root of the total horizontal distance of the level loop in miles multiplied by 0.035 feet.
 - 2) The results of this evaluation shall be recorded in the field book for each differential level loop. At least two (2) established benchmarks on the same or mathematically related datum shall be used to verify that the starting mark has not been disturbed. No adjustments of the data used for this evaluation will be allowed.
 - c. Secondary Control Benchmark Minimum Vertical Accuracy Tolerance:
 - 1) Setting of secondary control benchmarks for construction shall meet the same Minimum Construction Vertical Accuracy Tolerance required for the item being staked in accordance with Part 1 of this Section.
5. Whether establishing temporary control points or not, the Contractor must set up a pre-survey preparation activities meeting with the DIA Project Manager and DIA Survey Section to discuss Geodetic Control Verification, obtain pertinent survey data, and projection parameters before the commencement of any survey work.
6. If temporary control points are needed, the Contractor can set and collect temporary control while performing as outlined in Part 1 of this Section. This procedure requires a ten (10) minute (600 epochs) for each temporary control point set. Once the data is collected the Contractor is required to submit to the DIA Project Manager all GPS raw data in a Trimble format with a spreadsheet that displays the comparison from each observation of the NGS control stations and the Contractor's temporary control points. Only the redundant values of the temporary control points should be averaged. The results must be reviewed and approved by the DIA Survey Section, allowing at least seventy-two (72) hours to review and either approve or reject the temporary control. All temporary control points MUST BE approved before any survey work can commence.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 CONSTRUCTION LINES AND GRADES

- A. The Contractor shall make surveys and layouts as necessary to delineate the Work. The Contractor shall make the surveys for the proper performance of the Work. As a

part of such surveys, the Contractor shall furnish, establish and maintain in good order survey control points that may be required for the completion of the Work subject to the approval of the DIA Project Manager as to their location, sufficiency and adequacy. However, such approval by the DIA Project Manager shall not relieve the Contractor of responsibility for the accuracy of the Contractor's survey work.

- B. The DIA Project Manager shall have the right to check surveys and layouts made by the Contractor prior to approving any of the Work. The Contractor shall give advance notice of not less than forty-eight (48) hours to the DIA Project Manager to enable such checking prior to placing any work. The Contractor shall furnish assistance as may be required for checking purposes when so requested by the DIA Project Manager.
- C. The Contractor shall furnish skilled labor, instrument platforms, ladders and such other temporary structures as may be necessary for making and maintaining points and lines in connection with the surveys required.
- D. The City may draw the Contractor's attention to errors or omissions in lines or grades, but the failure to point out such errors or omissions shall not give the Contractor any right or claim nor shall in any way relieve the Contractor of obligations according to the terms of this Contract.
- E. The Contractor's instruments and other survey equipment shall be accurate, suitable for the surveys required in accordance with recognized professional standards and in proper operating condition and adjustment at all times. Surveys shall be performed under the direct supervision of a current Colorado Registered Licensed Surveyor.
- F. Field Notes:
 - 1. The Contractor shall record surveys in field notebooks or as electronic field notes, whichever is more appropriate to the type of survey work. Copies of the original pages of field notebooks shall be furnished to the DIA Project Manager and the DIA Survey Section at intervals required by the DIA Project Manager. Each field notebook shall be furnished to the DIA Project Manager when filled or at completion of project. Field notes shall be kept in the form and style shown in the book "Surveying with Construction Applications" by Barry F. Kavanagh, Fourth Edition. No erasures are allowed on the data entered in the field book. Cross out errors, and write correct entries above. The person that makes correction in the field book should initial above corrections made. An explanatory note shall be made for all corrections to original figures. All editing of computer records shall be done on a copy of the original with all changes initialed. Electronic data from data collectors shall be provided in formats in accordance with DIA Design Standards Manual Volume 12 and Construction Plan Manual Technical Specifications Division 1. These will be used to supplement field books and shall be supplied to the DIA Project Manager and DIA Survey Section on Compact Disk (CD).
 - 2. If the DIA Project Manager or DIA Survey Section finds errors in the field notes DIA will have the Contractor correct and resubmit the notes. This review does not relieve the Contractor from the responsibility of maintaining accurate survey data. Whichever method of note-taking the Contractor starts with, the Contractor must use the same method throughout the Contract duration.

- G. The DIA Project Manager may at any time use line and grade points and markers established by the Contractor. The Contractor's surveys are a part of the Work and may be checked by the DIA Project Manager or the DIA Project Manager's representatives at any time. The Contractor shall be responsible for any lines, grades or measurements that do not comply with specified or proper tolerances or which are otherwise defective and for any resultant defects in the Work. The Contractor will be required to conduct resurveys or check surveys to correct errors indicated by review of the field notebooks.

3.2 SUBSURFACE UTILITIES ENGINEERING (SUE)

- A. Refer to Section 011810 "Utilities Interface" for information related to underground utilities.

3.3 QUANTITY SURVEYS FOR PAYMENT

- A. When the specifications or the DIA Project Manager require items in the Schedule of Prices and Quantities to be measured by surveying methods, the Contractor shall perform the surveys. All such surveys, including control surveys run for establishing the measurement reference lines, shall be performed in the presence of the DIA Project Manager or the DIA Project Manager's representative who will witness the surveying operation and who will sign the field notes or keep duplicate field notes, at the DIA Project Manager's option. The Contractor will reduce the field notes and calculate final quantities for payment purposes. The note reductions and calculations will be given to the DIA Project Manager upon request.

3.4 SURVEYING ACCURACIES AND TOLERANCES IN CONTROL SURVEYS, CONSTRUCTION LAYOUTS AND QUANTITY CALCULATIONS

1. See CDOT Survey Manual or FAA Specifications for acceptable tolerances.

3.5 AS-BUILT CONSTRUCTION SURVEYS

- A. Coordinate the as-built record submittal to comply with the approved BIM Execution Plan, GIS system requirements and DIA Asset Management System. All survey data must be developed in accordance with the requirements of Section 013223 "Construction Layout, Asbuilt and Quantity Surveys".

3.6 AS-BUILT CONSTRUCTION SURVEY CONTROL

- A. See Article 1.5 - EQUIPMENT of this Section for calibration and accuracy requirements.
- B. See Article 1.6 - GEODETIC SURVEY CONTROL of this Section for system requirements.

- C. See Article 1.7 - TEMPORARY SURVEY CONTROL of this Section for requirements on Contractor's temporary control points and surveys.

3.7 AS-BUILT CONSTRUCTION SURVEY ACCURACIES

- A. See Article 3.4 - SURVEYING ACCURACIES AND TOLERANCES IN CONTROL SURVEYS, CONSTRUCTION LAYOUTS AND QUANTITY CALCULATIONS of this Section.

3.8 CAD DRAWINGS PER DIA GIS LAYER STANDARDS

- A. Where CAD drawings are required follow DIA DSM 12.

PART 4 - MEASUREMENT

4.1 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.1 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item.

END OF SECTION 013223

Step	Yes	No	N/A	Project Kickoff Phase
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor meet with DIA PM obtain the data standards and general requirements for data gathering?
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor meet with Airport Survey Office to obtain airport survey control points, projection parameters, and airport survey training materials?
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor provide Survey Statement of Work to DIA PM?
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor provide Geodetic Verification Survey to DIA PM?
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor provide Survey Control Plan to DIA PM?
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor provide Imagery Plan to DIA PM? (Only required if collecting aerial imagery)?
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did the FAA accept survey plans?
Step	Yes	No	N/A	Construction Phase (As-Built)
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor perform field survey of project site to collect accurate as-built data?
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did the Consultant/Contractor provide DIA PM with subsurface utility data?
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Each week, did the Consultant/Contractor provide DIA PM with Project Status Reports?
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did the Consultant/Contractor provide DIA PM with 30% as-built data in both CADD and GIS formats including all attribute information and metadata?
12a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did DIA PM report 30% QA findings via email to Consultant/Contractor?
12b	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If required, did the Consultant/Contractor provide DIA PM with 60% as-built data in both CADD and GIS formats including all attribute information and metadata?
12c	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If applicable, did DIA PM report 60% QA findings via email to Consultant/Contractor?
12d	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If required, did the Consultant/Contractor provide the DIA PM with 90% as-built data in both CADD and GIS formats including all attribute information and metadata?
12e	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If applicable, did DIA PM report 90% QA findings via email to Consultant/Contractor?
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did the Consultant/Contractor provide DIA PM with 100% as-built data in both CADD and GIS formats including all attribute information and metadata?
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did Consultant/Contractor provide DIA PM with a completed Final Survey Report?
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did DIA PM report QA findings via email to Consultant/Contractor?

SAMPLE OF A WEEKLY PROJECT STATUS REPORT:

Anyplace Field/Anywhere International Airport

AIP X-XX-XXXX-XXX-20XX

Survey progress update #1

July XX to July XX

Eagle Eye Surveying completed a second week of ground surveying. The first week verified PACS and SACS control, collected runway centerline, and primary surface topographic information.

To date we have surveyed for Runway 12-30:

Airport Control (PACS, SACS, ANY B540) 100%

Runway and Stop way Ends 100%

NAVAIDS (VOR, NDB, Airport Beacon, VASI, PAPI, and REILs) 100%

Runway and Stop way Obstructions (Primary surface, approaches, transitional surfaces) 100%

Aircraft Movement and apron areas 75%

Prominent airport buildings / potential close-in obstructions 42%

This week we will be analyzing the collected obstruction survey data relative to the object identification surfaces. We will check both the required points for each obstruction zone and the navigational aids, and generate the appropriate field documentation. We completed subcontract negotiations with aerial photography sub consultant SkyCamera, Inc. and are submitting the proposed flight map with ground reference points for review and approval before completing our final week of field surveying. This week we will be setting aerial targets and surveying in the targets and Photo ID points, and collecting final outlying obstruction data. Aerial photography is promised to us 2 to 4 days after our targets are in place.

Sincerely,

Any Surveyor, P.S.

Eagle Eye Surveying

SECTION 013300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section summarizes the requirements for the submittal of documents to the City that are defined in these Specifications. It also describes the procedures for "supplemental" submittals.
- B. For design/build contracts; D/B team must follow all the requirements of the procedures and the product details and keep all the submittals current and approved prior to any placement of work.
- C. The design Build team will be the administrator of the Submittal process and shall keep all Inspectors, Subcontractors, Special Inspectors, and CCD Building Inspection Department up to date on all approved submittals.
- D. All Informational, Action, Work and Shop Drawings, shall be submitted under one log and sequentially numbered and will follow the same procedure below. Additional information for specific submittals will be addressed in other specification sections.

PART 2 - PRODUCTS

2.01 SUBMITTAL SCHEDULE

- A. The Contractor shall provide a submittal schedule within 14 days after Notice to Proceed. The Submittal Schedule shall be directly related to the CPM schedule, shall identify all the submittals, and shall include the following information for each submittal item:
 - 1. Specification section, contract article, or special condition
 - 2. Specification Subparagraph
 - 3. Item description
 - 4. Date the submittal shall be submitted
 - 5. Name of subcontractor or supplier
- B. The submittal schedule shall be updated every two weeks by the Contractor and submitted with the progress payment request.
- C. One electronic submittal submitted on a single CD, DVD or USB flash drive media.

2.02 ELECTRONIC SUBMITTALS

- A. Before the initiation of the submittal process coordinate and insure that all submittals comply and follow the requirements of the BIM Execution Plan of the DIA Manual 12 Chapter 4.3.2
- B. Submit request for progress payment applications utilizing TEXTURA software as instructed by DIA Project Manager.

- C. Submit subcontractor's Contract's information required by the CCD Small Business Office utilizing B2G software as instructed by DIA Project Manager.
- D. Submit scanned copies of all City and County of Denver Development Department/ Building Inspection Department Approved drawings including all approvals of Deferred Submittals; including but not limited to shoring plans, Fire Protection distribution plans, structural shop drawings to DIA project Manager as Informational Submittals. The lack of approval of the BID department on any document shall be basis for rejection of work and non-compliance.
- E. Submit electronically scanned copies of all documents required by Chapter 17 "Special Inspection and Testing" of the International Building Code 2009 as amended by City and County of Denver 2011. Keep scale and clarify dimension where electronic copies are not as originally scaled and dimensioned.
- F. All submittals shall be delivered to the DIA Project Manager utilizing the Primavera Construction Manager program (PCM) as attachments and as separate file when files are too large to attach or of an electronic media that is not supported by PCM. or Utilizing the EPPM Unifier software uploaded to the share drive Unifier as project when directed by DIA Project manager.
 - 1. Acceptable electronic formats
 - a. Adobe Acrobat X. and all files shall be fully compatible with Adobe Acrobat File shall have no security and bookmark every applicable submittal. All pages shall be completely legible and oriented to correct reading view.
 - 2. Formats are acceptable only with written permission of the project manager or required by BIM execution plan. For files in any of the following formats the corresponding stringency will apply:
 - a. Microsoft Office 2007 or newer. All files shall be fully compatible with Microsoft Office 2007.
 - b. AutoDesk AutoCAD 2007 or newer. All files shall be fully compatible with AutoDesk AutoCAD 2007.
 - 1) AutoCAD files shall be self contained with no external x-references.
 - c. Other files pre-approved by the DIA Project Manager.
 - 3. Electronic file names: Each electronic document shall have a unique file name. File name convention shall be as follows:.XXXXX-AAA-BBBBB-CCCRZ
 - a. XXXXX = DIA contract number
 - b. AAA = sequential submittal number starting at 001.
 - c. BBBB = specification section containing submittal requirements
 - d. CCC = sequential specification submittal number starting at 001.
 - e. RZ = sequential revision number. RZ not required on initial submittals.
 - f. Example A: "201417353-005-012910-002", five submittals have been logged overall with two submittals made to specification section 012910.
 - g. Example B: "201417353-009-012910-002R3, nine submittals made overall and three revisions to submittal 012910-002.

2.03 INITIAL SUBMITTAL

- A. Each submittal document shall include a title block showing the following information:
 - 1. Date of submittal and revision dates.
 - 2. Contract title and number.

3. The names of Contractor, subcontractor, supplier, manufacturer and when applicable, the seal and signature of an engineer registered in the State of Colorado, for the involved discipline.
 4. Identification of product by either description, model number, style number or lot number.
 5. Subject identification by contract drawing or specification reference.
- B. On each submitted drawing, include a blank space on each sheet, three inches by four inches, in the lower right corner, just above the title block, in which the City or the Designer of Record may indicate the action taken.
- C. Make submissions sufficiently in advance so that the City review may be completed not less than 30 days before Work represented by those submittals is scheduled to be performed.
- D. Allow a minimum cycle of 30 days for review of each submittal by the City.
- E. Accompany submittal documents with DIA transmittal form CM-30 (refer to Technical Specification Section 01999) that shall contain the following information:
1. Contractor's name, address and telephone number.
 2. Submittal number and date.
 3. Contract title and number.
 4. Supplier's, manufacturer's or subcontractor's name, address and telephone number.
 5. Identification of variations from contract documents.
 6. Contractor's stamp and signature certifying his review.
 7. Identification of submittal:
 - a. If the submittal is being made on a General Condition or Special Condition, reference the General or Special Condition number the first two digits of the specification section shall be 00XXXX.
 - b. If the submittal is being made under a specification section, reference the specification number, paragraph number and subparagraph number.
 - c. If the submittal is being made under a drawing, reference the drawing(s) number and subnumber.
- F. The Contractor shall at the time of submission describe variations from the contract documents in writing, separate from the submittal document. If the Project Manager approves any such variations, an appropriate contract change order shall be issued except that, if the variation is minor and does not involve a change in price or in time of performance, a modification need not be issued. If a submission contains variations and the variation column is not marked on the transmittal form, it will not be considered for review and acceptance. Along with marking the transmittal as a variation, a description must be included which outlines all the differences including maintenance and utility services along with any cost savings from an item not containing the variation.
- G. Changes in accepted submittal documents will not be permitted unless those changes have been accepted, in writing, by the City.
- H. The form and quality of submittal documents shall comply with Technical Specifications Section 01340.

2.04 SUPPLEMENTAL SUBMITTALS

- A. Supplemental submittal documents initiated by the Contractor for consideration of corrective procedures shall contain sufficient data for review. Make supplemental submittals in the same manner as initial submittals with the appropriate primary transmittal referenced.

PART 3 - EXECUTION

3.01 CONTRACTOR'S REVIEW

- A. The Contractor shall review submittal documents, stamp and sign as reviewed and approved as complying with contract documents prior to submission to the City.
- B. For Design/Build Contracts the Contractor review shall include the DOR review with complete input and notes from all Consultants and Sub-Consultants working on the Project.
- C. The owner review period for D/B Contracts shall be limited to five (5) business days from the time complete submittal documents have been submitted.
- D. For D/B Contracts; The D/B team is responsible to obtain all approvals for all deferred submittals, shop drawings and significant changes from the CCD Development Service Department.
- E. All submittals must delineate any deviation from the intended design and must submit request for substitution to address any significant variation.

3.02 CITY REVIEW

- A. Submittal documents will be reviewed by the City, the designer and the Project Manager for conformance to requirements of the contract drawings and specifications. Review of a separate item will not constitute review of an assembly in which the item functions. The City will withhold approval of submittals that depend on other submittals not yet submitted. Review and acceptance will not relieve the Contractor from his responsibility for accuracy of submittals, for conformity of submittal document to requirements of contract drawings and specifications, for compatibility of described product with contiguous products and the rest of the system, or for protection and completion of the contract in accordance with the contract drawings and specifications.
- B. The City, the designer, and/or the Project Manager will review the submittal documents for general conformance with the contract documents and mark the Action Code, sign and date the transmittal.
- C. The Action Codes have the following meanings:
 - 1. **A - ACCEPTED** is an approval, and means that the illustration and description appears to conform to the respective requirements of the contract documents.
 - 2. **B - ACCEPTED AS NOTED** is an approval, and means that the illustration and description will conform to the respective requirements of the contract documents after changes in recognition of the reviewer's comments. Submittals so marked need not be resubmitted.
 - 3. **C - REVISE AND RESUBMIT** means that the submittal is unacceptable and must be revised and resubmitted.
 - 4. **E - NOT ACCEPTED** means that the submittal is not approved and that a new submittal

in accordance with the contract documents shall be made.

5. **F - RECEIPT ACKNOWLEDGED**, means an item is received by the Project Manager but no review was made. This mark is for use in resubmitting items that were previously Accepted as Noted and the Contractor has incorporated the notes and wants the Project Managers' staff to have the same material that the Contractor's field staff is using.

3.03 CONTRACTOR'S RESPONSIBILITIES

- A. Coordinate each submittal document with the requirements of the Work; place particular emphasis upon ensuring that each submittal of one trade is compatible with other submittals of that trade and submittals of other trades including producing as needed drawings showing the relationship of the work of different trades.
- B. Contractor's responsibility for errors and omissions in submittal documents and associated calculations is not relieved by the City's review, correction and acceptance of submittals.
- C. Contractor's liability to the City, in case of variations in the submittal document from the requirements of the contract documents, is not relieved by the City's review and acceptance of submittals containing variations unless the City expressly approves the deviation in writing, in which the City describes the variation.
- D. The Contractor shall maintain a file of all approved submittal documents at the worksite. The complete file of approved submittal documents shall be turned over to the City with the as-built documents at the end of the job.
- E. Schedule impact due to resubmittal requirements is the responsibility of the Contractor.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item.

END OF SECTION 013300

SECTION 013325

SHOP AND WORKING DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of preparing and submitting shop and working drawings, product data, samples and record documents required by other technical specifications sections.
 - 1. The Contractor shall submit all shop drawings, working drawings, product data and samples, as defined in Title 1 of the General Conditions, to the DIA Project Manager in accordance with the requirements in the technical specifications. The DIA Project Manager will return one copy of the shop drawings, working drawings and product data to the Contractor with a written transmittal within the time periods noted in the technical specifications.
- B. The Contractor shall not submit as shop drawings copies or reproductions of drawings issued to the Contractor by DIA.

1.02 SUBMITTALS

- A. Refer to Technical Specifications Section 01 33 00 for submittal procedures.
- B. All submittals shall be delivered to the DIA Project Manager in electronic format. All submittals must be of a consistent format (all Acrobat or all Word, etc). No combination of electronic file types will be allowed unless required by a specific specification section..
 - 1. Acceptable electronic formats: comply with the electronic file formats approved by DIA DSM manual 12. If the any of the files is in any of the formats listed below then the version of the software shall be no less than identified below:
 - a. Adobe Acrobat 8.0 or newer. All files shall be fully compatible with Adobe Acrobat 8.0
 - b. Microsoft Office 2007 or newer. All files shall be fully compatible with Microsoft Office 2007.
 - c. AutoDesk AutoCAD 2007 or newer. All files shall be fully compatible with AutoDesk AutoCAD 2007.
 - 1) AutoCAD files shall be self contained with no external x-references.
 - 2) Rivet 2012
 - d. Other files pre-approved by the DIA Project Manager
 - 2. Adobe Acrobat Requirements:
 - a. Drawings shall have security set to "No Security". Commenting, printing, adding photos, form fields and document signing must be allowed.
 - b. PDF submittals shall be one continuous file. No external links are allowed.
 - c. All individual components of submittals shall be bookmarked inside the PDF file.
 - d. All original documents shall be directly converted from the original electronic format to PDF. Scanning of files shall only be allowed by the DIA Project Manager when the original electronic information is not obtainable.
 - e. Failure to comply with these requirements will result in a return of file to the Contractor for immediate revision.

3. Electronic files submitted shall correspond with DIA File Control Numbering System available from the DIA Project Manager. All files shall contain the prefix **201417353.14.02.submittal number-specsection-item-revision**.
 - a. SUBMITTAL NUMBER attribute shall be obtained from the DIA Project Manager.
 - b. SPECSECTION attribute shall be a five digit number corresponding to the specification section requiring submitted data.
 - c. ITEM attribute will be a two digit number designating the corresponding submittal item number.
 - d. REVISION attribute will be for revised and resubmitted submittals, an "R" followed by a number (IE: R3).
- C. Quantities
 1. One DVD-ROM or CD-ROM containing electronic files of each shop or working drawing.
 2. One DVD-ROM or CD-ROM containing electronic files of manufacturer's standard schematic drawings.
 3. One DVD-ROM or CD-ROM containing electronic files of manufacturer's calculations and manufacturer's standard data.
 4. One DVD-ROM or CD-ROM containing electronic files of manufacturer's printed installation, erection, application and placing instructions.
 5. Nine samples of each item specified in the various specification sections, unless otherwise specified.
 6. One DVD-ROM or CD-ROM containing electronic files of inspection, test reports and certificates of compliance.
 7. Note: If manufacturer's printed information is in color, all copies of submittals must be in color.
- D. Review
 1. Submittal review comments by the City will be in electronic form and incorporated into the electronic submittal file.
 2. Resubmittals of electronic documents shall modify the original electronic file with new information and include the City's comments with appropriate responses and additional information.

1.03 CHANGES

- A. Changes in products for which shop or working drawings, product data or samples have been submitted will not be permitted unless those changes have been accepted and approved in writing by the Deputy Manager of Aviation as provided in Technical Specifications Section 012510.

1.04 QUALITY CONTROL

- A. Shop drawings and record documents shall be prepared to a high standard of quality such as that set forth in MIL STD 100, ANSI Standard Drafting Manual Y14 or other equivalent specification defining equal drafting quality for microfilming.
- B. Refer to DIA Manual 12- BIM Execution Plan for other requirements that may be applicable to this article.

PART 2 - PRODUCTS

2.01 SHOP AND WORKING DRAWINGS

- A. Prepare shop and working drawings on a reproducible sepia sheet size of 24 x 36 inches to a scale large enough to easily depict and annotate each of the various items.
- B. Comply per other BIM requirements for Shop and Working Drawings as established in DIA Manual 12- BIM Execution Plan.
- C. Include the following as they apply to the subject:
 - 1. Contract title, work order and number.
 - 2. Respective contract drawing numbers.
 - 3. Applicable specification section numbers.
 - 4. Relation to adjacent structure or materials.
 - 5. Field dimensions clearly identified as such.
 - 6. Applicable standards such as ASTM or Federal Specification number, FAA, AASHTO and pertinent authority specifications or standards.
 - 7. Identification of deviations from the contract drawings and specifications.
 - 8. Drawing name, number and revision.
 - 9. Contractor's stamp, initialed or signed, certifying:
 - a. Verification of field measurements.
 - b. Review of submittals for compliance with contract requirements.
 - c. Compatibility of the Work shown thereon with that of affected trades.
 - 10. Blank space on each sheet per Technical Specifications Section 01 33 00, paragraph 2.02.B.
- D. Drawings of equipment and other items that contain multiple parts shall include exploded views showing the relationship of parts and the description of the parts into the smallest units that may be purchased or serviced.

2.02 PRODUCT DATA

- A. Modify manufacturer's standard and/or schematic drawings to delete information which is not applicable to the contract. Supplement standard information with additional information applicable to this contract.
- B. Modify manufacturer's standard(s), diagrams, schedules, performance charts, illustrations, calculations and other descriptive data to delete information which is not applicable to the contract. Indicate dimensions, clearances, performance characteristics and capacities. Include with the submittal electrical, plumbing, HVAC and any other diagrams, as applicable.
- C. Modify erection, application and placing instructions to delete information that is not applicable to the contract or work order.
- D. Include the following:
 - 1. Contract title, work order and number

2. Respective contract drawing numbers
3. Applicable contract technical specification section numbers
4. Applicable standards such as ASTM or Federal Specification number, FAA, AASHTO and pertinent authority specification or standards
5. Identification of deviations from the contract drawings and specifications
6. Contractor's stamp, initialed or signed, certifying:
 - a. Dimensional compatibility of the product with the space in which it is intended to be used
 - b. Review of submittals for compliance with contract requirements
 - c. Compatibility of the product with other products with which it is to perform or which will be next to it.
 - d. The products electrical, plumbing, control and HVAC requirements conform to contract documents and the necessary utilities are provided for in the contract documents.

2.03 SAMPLES

- A. Submit samples of sizes and quantities to clearly illustrate full color range and functional characteristics of products and materials including attachment devices.
- B. Erect field samples and mock ups at the worksite as specified in the several technical specifications sections and at locations acceptable to the Project Manager. All field samples shall be erected in a location that will be readily visible throughout the life of the contract to allow comparison of the work as it progresses to the field sample.
- C. The Contractor shall verify, through appropriate inspections and tests, that the samples submitted meet the specifications and shall provide inspection and test data with the samples. The review and comments on the sample shall not relieve the Contractor of his responsibility for completion of the contract.
- D. Show the following information:
 1. Contract title and number
 2. Respective contract drawing numbers
 3. Applicable technical specification section numbers
 4. Applicable standards such as ASTM or Federal Specification number
 5. Identification of deviations from the contract drawings and specifications
 6. Contractor's stamp, initialed or signed, certifying:
 - a. Dimensional compatibility of the product with the space in which it is intended to be used
 - b. Review of submittals for compliance with contract requirements
 - c. Compatibility of the product with other products with which it is to perform or which will be next to it
 7. If multiple samples are submitted and the Project Manager is requested to make a choice, each sample shall have a unique identification number attached to it so the returned transmittal can state the identification number of the accepted sample and the Contractor will know which one it is.

PART 3 - EXECUTION

3.01 CONTRACTOR RESPONSIBILITIES

- A. Reference requirements of General Conditions Article 405.
- B. Verify field measurements, catalog numbers and similar data.
- C. The Contractor shall not start work for which submittals are required until a transmittal has been received by the Contractor showing acceptance or acceptance as noted by the Project Manager.
- D. Before making submittals ensure that products will be available in the quantities and at the times required by the contract.
- E. Submit final, corrected, reproducible sepias of contract and shop and working drawings showing the Work as actually installed, placed, erected and applied. Refer to Technical Specification Section 01700, Contract Closeout.

3.02 REVIEW BY THE CITY

- A. One electronic copy of the marked-up shop and working drawing and one electronic copy of the product data will be returned to the Contractor by the Project Manager. Only the transmittal form, appropriately marked, will be returned on sample submittals.
- B. Contractor's responsibility for errors and omissions in submittals for compatibility will not be reduced, waived or otherwise limited by the review and acceptance of submittals by the City.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable multiplier for the division under which the work falls.

END OF SECTION 013325

SECTION 013510

CONSTRUCTION SAFETY

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work specified in this Section includes construction safety precautions and programs by the Contractor and the basis for reviews by the DIA Project Manager.
- B. This Contract shall be enrolled under the DIA ROCIP program. Refer to Contract Special Condition SC-16 in Part 1 and Technical Specification 013510.

1.02 RESPONSIBILITY

- A. The General Conditions make it clear that all safety precautions during the construction process are the responsibility of the Contractor. The Contractor is responsible for the health and safety of his employees, agents, subcontractors and their employees, and other persons on the worksite; for the protection and preservation of the work and all materials and equipment to be incorporated therein; and for the worksite and the area surrounding the worksite. The Contractor shall take all necessary and reasonable precautions and actions to protect all such persons and property.
- B. This Section shall be interpreted in its broadest sense for the protection of persons and property by the Contractor and no action or omission by the DIA Project Manager or his authorized representatives shall relieve the Contractor of any of its obligations and duties hereunder.

1.03 SUBMITTAL

- A. Refer to Technical Specifications Section 013300 and 013325 for the process. A safety plan shall be submitted and approved under the general contract prior to commencing any work. If a Task Order is issued where the work is not covered by the approved safety plan then a revision to the plan specific for the work in the task order shall be resubmitted for approval. NOTE: NO PROGRESS PAYMENT SHALL BE APPROVED UNTIL THE SAFETY PLAN HAS BEEN ACCEPTED BY THE DIA PROJECT MANAGER.

1.04 PROJECT MANAGER'S REVIEW

- A. Provide a Contractor's Operational Safety Plan as described below and in Part 1 of this Technical Specifications Section 013300.
- B. The Contractor shall provide six copies of its Operational Safety Program to the DIA Project Manager for review at least ten calendar days before on-site construction begins. The Contractor's program must meet, as a minimum, all applicable federal, state and local government requirements.
 - 1. The Contractor must, as part of the Contractor's safety program, submit six copies of the following information for acceptance by the DIA Project Manager prior to the commencement of construction activities. The Safety Plan must address all aspects listed below. If an item is not applicable, this must be noted in the Safety Plan.
 - a. Name of the Contractor's site safety representative.

- b. If the Contractor is running multiple shifts or working more than 40 hours per week, the name of an assistant site safety representative who can act in the absence of the site safety representative.
- c. Twenty-four hours per day emergency phone numbers of Contractor site management to be used in case of injury or accident. Provide at least four contacts.
- d. The Contractor's method of ditching and trenching excavation to be used including how slopes will be stabilized with calculations showing the slope stability. The Contractor shall also show how material will be stored beside the excavation. Stored material will include the excavated and backfilled material.
- e. How injuries or accidents will be handled including samples of the forms used to report injuries or accidents.
- f. How employees will be handled who are unable to safely perform their duties, including how the Contractor will determine whether an employee is unable to safely perform his duties.
- g. How and when equipment will be checked to see that it is safe, that all safety guards are in place, and that the equipment is being used for its designed purpose and within its rated capacity.
- h. How and when all electric devices will be checked for proper grounding and insulation. Describe the methods that will be used to lock out electric systems that should not be energized.
- i. How trash and human organic waste will be disposed of.
- j. How snow and ice will be removed by the Contractor in his project area.
- k. How concrete forms will be anchored to ensure their stability, including calculations showing that the forms will safely hold the maximum construction loads.
- l. How flammable materials will be stored and handled, and how any spills will be cleaned up and removed for disposal.
- m. What system will be used to prevent fires and, if fires do occur, who will be trained to fight them. Also, what firefighting equipment will the Contractor have available and how will this equipment's condition be monitored.
- n. How materials will be received, unloaded, stored, moved and disposed of.
- o. How personnel working above ground level will be protected from falling.
- p. How people working beneath the construction work will be protected.
- q. What will be done to protect personnel in case of severe weather.
- r. How adequate lighting will be provided and monitored.
- s. How air quality will be monitored to ensure that chemical exposures are below established OSHA Permissible Exposure Limits. How employees will be protected if these limits are exceeded.
- t. How the safety of work platforms, man lifts, material lifts, ladders, shoring, scaffolding, etc. will be ensured relating to load capacity and the protection of personnel using or working around them.
- u. The type of personal protective equipment that will be used to protect employees from hazards.
- v. The type of safety training that will be provided to employees to inform them of safe work procedures.
- w. How audits and inspections will be performed to ensure compliance with the Safety Plan and applicable OSHA regulations.
- x. Procedures to ensure that welding and other hot work is performed safely.
- y. How compressed gases will be safely stored, handled and used.

- z. Methods to ensure that employees safely enter, work in, and exit confined spaces.
 - aa. How the hazards of chemicals will be communicated to workers, including the use of material safety data sheets and chemical labels.
 - bb. Methods to ensure that forklifts and other powered industrial trucks are operated in a safe manner.
 - cc. How an effective hearing conservation program will be used to protect employees from high noise levels and prevent hearing loss.
 - dd. How employees will be protected from the effects of jet blast.
- C. Prior to the start of any work by a contractor or subcontractor employee, the Contractor shall provide the DIA Project Manager with a list of its employees, subcontractor's employees and other personnel the Contractor has requested to work at Denver International Airport, who have signified in writing that they have been briefed on, or have read and understand, the Contractor's Safety Plan.

PART 2 - PRODUCTS

2.01 OWNER ROCIP SAFETY PROGRAM: Comply with all the requirements of the ROCIP program manual issued as part of the Contract Document.

2.02 CONTRACTOR'S SAFETY PLAN

- A. Provide a Contractor's Safety Program as described in Part 1 of Technical Specifications Section 013510.

PART 3 - EXECUTION

3.01 IMPLEMENT CONTRACTOR'S SAFETY PLAN

- A. Implement the approved Contractor's Operational Safety Plan as described in Part 1 of this Technical Specifications Section 013510.
- B. If the Contractor experiences lost time or an injury rate greater than 75 percent of the national average for all construction, the Contractor shall audit its safety procedures and submit a plan to reduce its rates.
- C. If at any time the lost time or injury rates experienced by the Contractor are 150 percent or more of the national average for construction, the Contractor shall immediately hire an independent safety professional who shall audit the Contractor's procedures and operations and make a report of changes that the Contractor should implement to reduce the rate including changing personnel.
 - 1. Six copies of this report shall be submitted to the DIA Project Manager.
 - 2. The Contractor shall immediately begin implementing the recommendations.
 - 3. A weekly report shall be submitted by the Contractor on the status of the implementation of the recommendations.
 - 4. Failure to comply with these requirements is a basis to withhold a portion of progress payments.

- 3.02 IMPLEMENT ROLING OWNER CONTRIBUTED INSURANCE PROGRAM (ROCIP)** as provided in the project manual issued for bid or proposal

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 013525

SECTION 014100

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section identifies primary compliance with the State, City and County of Denver's regulatory requirements including:
 - 1. City and County of Denver / Department of Aviation
 - 2. Colorado Department of Public Health and Environment
 - 3. City and County of Denver Development Services (including the Department of Public Works and Division of Wastewater Management)
 - 4. The standards which govern design and construction projects at Denver International Airport.
- B. Construction shall be based on the latest edition of the referenced codes including additions and revisions thereto that are in effect at the time of project bidding or Task Order pricing or GMP established whichever is latest and as specifically related.

1.02 RELATED SECTIONS

- A. 015700 – Environmental Controls: for environmental and related permitting requirements.

1.03 BUILDING CODE

- A. All design and construction work shall be governed by the Building Code for the City and County of Denver, latest edition. This is based upon the International Building Code of the International Code Council with Denver Amendments to this code. Appendix N of the Denver Amendments addresses Construction of Airport Buildings and Structures. This Contract shall be based on IBC 2009 as Amended by Denver dated 2011.

1.04 DENVER BUILDING DEPARTMENT

- A. For review and approval of all construction documents for compliance to the Denver building code:
 - City and County of Denver
 - Ed Kocman, Project Coordinator
 - Development Services
 - 201 West Colfax Avenue, Dept 203
 - Denver, Colorado 80202
 - Telephone 720-865-2912
 - Fax 720-865-2880
- B. The Contractor is to coordinate with HTC Permit Coordinator (720-480-5234) when obtaining building permits or information from Development Services' Project Coordinator.

1.05 DENVER FIRE DEPARTMENT

- A. For review and approval of plans for compliance with the Denver Fire Department's requirements as they apply to the Denver International Airport:
Denver Fire Department
745 W. Colfax Ave.
Denver, Colorado 80204
Telephone 720-865-2833
- B. The Contractor is advised that the Denver Fire Department – Fire Prevention Bureau requires permitting for the following activities as they apply to the scope of work. The Contractor is responsible for obtaining the appropriate permits necessary to complete the work. All costs associated with this permitting and policy compliance shall be the responsibility of the Contractor. The policies all reference the International Fire Code (IFC).
1. "Hot work", which is defined as the operation of any equipment or tool that creates sparks, hot slag, or radiant or convective heat as a result of the work. This includes, but is not limited to, welding, cutting, brazing, or soldering.
 2. Use and storage of compressed gas for both temporary storage and permanent facility installation. This includes, but is not limited to, flammable gas (excluding propane-LPG), oxidizer (including oxygen), and inert and/or simple asphyxiates.
 3. Tank installation, which includes above-ground storage tanks (AST) and underground storage tanks (UST) for both temporary tanks and permanent facility installations.
- C. In addition to the above permits, the Denver Fire Department may require other permits that are associated with the specific work in the Contract Documents. Policies provided by the Denver Fire Department are meant to provide basic information for the most common conditions and situations. In any given occupancy, many other Uniform Fire Code requirements may be enforced. These should be addressed with the Denver Fire Department before construction begins and during construction with premise inspection(s). Any questions can be addressed to the Fire Prevention Bureau between 6:30 AM and 9:00 AM Monday-Friday at 720-913-8242 or -8237.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PERMITS AND CERTIFICATIONS

- A. The Contractor shall maintain records on site of all permits acquired by federal, state, and local agencies. Posting of permits shall conform to requirements of the respective agencies.
- B. At the completion of any inspection by other agencies, the Contractor shall forward copies of the status of the inspection and copies of any approved or "signed-off" inspections by the respective agencies to the Project Manager.
- C. At the time of request for Substantial Completion, the Contractor shall forward to the Project Manager all permits approved by the respective agencies.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 014100

SECTION 014210

REFERENCED MATERIAL

PART 1 - GENERAL

1.01 REFERENCED MATERIAL

- A. The following documents may be available for examination at the Owner's offices unless otherwise noted. The referenced material and documents are not part of the contract documents unless otherwise specified. For further information, contact DIA Project Manager, telephone (303) 342-4457, at least ten (10) calendar days prior to the scheduled bid opening or after Notice to Apparent Low Bidder. Unless otherwise noted, copies of referenced material may be purchased.
1. Environmental Impact Statement (EIS)
 2. Geotechnical Reports
 - a. Borings, other field and laboratory explorations and investigations have been made to indicate subsurface materials at particular locations. Explorations and investigations conducted by designers and their sub-consultants are solely for the purpose of study and design.
 - b. The subsurface exploration and investigation information is presented or made available to indicate some of the conditions that may be encountered during construction and is offered as supplementary information only. Geotechnical information presented in the referenced material represents the opinion of soils consultants as to the character of the materials encountered. Subsurface information was directly obtained only at the specified location and necessarily indicates subsurface conditions only at the respective plan location, depths penetrated and only at the time of the exploration.
 - c. Neither the City nor the Designers assume any responsibility whatsoever in respect to the sufficiency or accuracy of borings made, or of the logs of test borings, or of other investigations, or of the interpretations made thereof, and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations are representative of those existing throughout such area, or any part thereof, or that unforeseen developments may not occur. It is expressly understood that the making of deductions, interpretations and conclusions from all of the accessible factual information, including the nature of the materials to be excavated, the difficulties of doing other work affected by the geology, groundwater elevations and other subsurface conditions at the site of the Work are the Contractor's sole responsibility.
 - d. Information derived from inspection of logs of borings, topographic maps, technical memorandum, reports or plans showing information of the subsurface of site conditions will not relieve the Contractor from any risk or from properly examining the site and making such additional investigations as he may elect or from properly fulfilling all the terms of the contract documents.

3. Available Geotechnical Reports:

The DIA Project Manager will inform Contractor of any available Geotechnical Reports.

4. Available Conceptual Utility and Drainage Reports:

5. Denver International Airport Design Standards Manual 12 Engineering Data System dated 2012.

6. Woolpert, Inc Report dated 12/10/2010: A Low Distortion Projection for Denver International Airport (DEN).

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 014210

SECTION 014220

ABBREVIATIONS AND SYMBOLS

PART 1 - GENERAL

1.01 REFERENCE LIST

- A. Documents published by the following agencies may be referenced within these Contract Documents to define the quality of materials, equipment, workmanship and other features of work. Unless otherwise stated, the reference documents shall be of the latest edition as of the date of the Advertisement for Bids.
- B. Wherever used in the Contract Documents, the following abbreviations will have the meanings listed:

AALA	American Association of Laboratory Accreditation
AAN	American Association of Nurserymen
AAO	Affirmative Action Officer
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AFI	Air Filter Institute
AGTS	Automated Ground Transportation System
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
APEN	Air Pollution Emission Notes
APWA	American Public Works Association
ARI	Air Conditioning and Refrigeration Institute
ASCE	American Society of Civil Engineers

ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASNT	American Society for Non-Destructive Testing
ASPE	American Society of Plumbing Engineers
ASSE	American Society of Sanitary Engineering
ASTM	American Society for Testing and Materials
AWPA	American Wood Preserver's Association
AWS	American Welding Society
AWWA	American Water Works Association
BID	Building Inspection Division, Department of Public Works
BIM	Building Information Modeling
CAR	Corrective Action Report
CCD	City and County of Denver
CCR	Contractor Change Request
CCRL	Cement Concrete Reference Laboratory
CD	Change Directive
CDOH	Colorado Department of Highways or Colorado Department of Health
CDOT	Colorado Department of Transportation
CMEC	Concrete Materials Engineering Council
CN	Change Notice
CO	Change Order
COE	Corps of Engineers
CPM	Critical Path Method
CR	Change Request
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
DFD	Denver Fire Department

DIA	Denver International Airport
DOT	United States Department of Transportation
DOR	Designer of Record
DWB	Denver Water Board
EEO	Equal Employment Officer or Equal Employment Opportunity
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
FM	Factory Mutual Association
FS	Federal Specifications (U.S. General Services Administration)
GCC	General Contract Conditions
IAPMO	International Association of Plumbing and Mechanical Officials
IBR	Institute of Boiler and Radiator Manufacturer's
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
ISA	Instrument Society of America
ITA	Independent Testing Agency
MIL	Military Specifications (Naval Publications and Forms Center)
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
NAAB	National Association of Air Balance
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards (now called National Institute of Standards and Technology)

NCR	Nonconformance Report
NEC	National Electric Code (NFPA 70)
NECA	National Electric Contractors Association
NEMA	National Electrical Manufacturer's Association
NESC	National Electrical Safety Code
NFC	National Fire Code (as published by NFPA)
NFPA	National Fire Protection Association
NICET	National Institute for the Certification of Engineering Technologies
NIST	National Institute of Standards and Technology
NGS	National Geological Survey
NLMA	National Lumber Manufacturers Association
NOAA	National Oceanic and Atmospheric Administration
NRMCA	National Ready Mix Concrete Association
NTP	Notice to Proceed
NVLAP	National Voluntary Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PDM	Precedent Diagram Method
PS	Product Standard of NIST (U.S. Department of Commerce)
PM	Project Manager (DIA)
PMT	Project Management Team (Parsons/HNTB)
QA	Quality Assurance
QC	Quality Control
RAR	Remedial Action Request
RFI	Request for Information
SC	Special Contract Condition

SDI	Steel Door Institute
SMACNA	Sheet Metal and Air Conditioning Contractor's National Association
SSPWC	Standard Specifications for Public Works Construction
TCP	Traffic Control Plan
TSA	Transportation Security Administration
UBC	Uniform Building Code (published by ICBO)
UL	Underwriters Laboratories, Inc.
UMC	Uniform Mechanical Code (published by ICBO)
UPC	Uniform Plumbing Code (published by ICBO)
USC	United States Code
WBS	Work Breakdown Structure

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 014220

SECTION 014225

REFERENCE STANDARDS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This Section contains a summary of industry-accepted and recognized standards published by trade associations, government and institutional organizations which are referred to in the various Sections of these specifications or elsewhere in the contract documents.
- B. Standards listed herein are included in the contract documents by this reference and become a part of the contract documents to the same extent as though included in their entirety unless specific limitations are noted in the individual Specifications sections.
- C. Listings of reference standards include name and address of the organization publishing the standard, plus the full name and designator of each of the standards referenced herein.
- D. If a publication date or edition number is listed with the reference standard, that publication date or edition number shall apply; otherwise, the publication date or edition number in effect at the contract date shall apply.
- E. Inclusion of reference standards herein does not make the Project Manager an agent of the publishing agency, nor does it obligate the Project Manager to perform inspections required by or to enforce rules or regulations contained in the reference standards.

1.02 REFERENCES

- A. RELATED DOCUMENTS: General Conditions, Special Conditions, and applicable provisions of Division 1 sections apply to this Section.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SCHEDULE OF REFERENCE STANDARDS

- A. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 444 North Capitol Street, NW, Suite 249, Washington, DC 20090
 - AASHTO M 36 Corrugated Metal Pipe
 - AASHTO M216 Standard Specification for Lime for Soil Stabilization
 - AASHTO T26 Standard Method of Test for Water to be Used in Concrete
 - AASHTO T84 Specific Gravity and Absorption of Fine Aggregate
 - AASHTO T85 Specific Gravity and Absorption of Coarse Aggregate

AASHTO T103 Freeze-Thaw

AASHTO T219 Standard Methods of Testing Lime for Chemical Constituents and Particle Sizes

B. AMERICAN CONCRETE INSTITUTE (ACI) P.O. Box 19150, Redford Station, Detroit, MI 48219, (313) 372-9800

ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete

ACI 211.2 Standard Practice for Selecting Proportions for Structural Lightweight Concrete

ACI 301 Specifications for Structural Concrete for Buildings

ACI 304 Recommended Practices for Measuring, Mixing, Transporting and Placing Concrete

ACI 304.2R Placing Concrete by Pumping Methods

ACI 305R Hot Weather Concreting

ACI 306R Cold Weather Concreting

ACI 315 Details and Detailing of Concrete Reinforcement

ACI 318 Building Codes Requirements for Reinforced Concrete

(NOTE: Reference to ACI 318 may be limited to more stringent requirements of local building code)

C. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) 1916 Race Street, Philadelphia, PA 19103, (215) 299-5585

ASTM A 27 Mild to Medium Strength Carbon - Steel Casting for General Application

ASTM A 36 Structural Steel

ASTM A 47 Malleable Iron Castings

ASTM A 82 Specification for Steel Wire, Plain, for Concrete Reinforcement

ASTM A 123 Hot-dip Galvanizing

ASTMA 184 Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement

ASTM A 185 Specifications for Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement

ASTM A 283 Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars

ASTM A 615	Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 706	Specification for Low-Alloy Steel Deformed Bars for Concrete Reinforcement
ASTM C 25	Method for Chemical Analysis of Limestone, Quicklime and Hydrated Lime
ASTM K 29	Unit Weight of Aggregate
ASTM C 31	Methods of Making and Curing Concrete Test Specimens in the Field
ASTM C 33	Specification for Concrete Aggregates
ASTM C 39	Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C 42	Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
ASTM C 76	Reinforced Concrete Culvert, Storm Drain and Sewer Pipe
ASTM C 88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 94	Specification for Ready Mixed Concrete
ASTM C 109	Mortar Bar Test for Cement
ASTM C 110	Methods for Physical Testing of Quicklime, Hydrated Lime and Limestone
ASTM C 117	Materials Finer than 75 mm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C 131	Resistance of Abrasions of Small Size Coarse Aggregate by Use of the Los Angeles Machine
ASTM C 136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C 138	Unit Weight, Yield and Air Content of Concrete
ASTM C 143	Test Method for Slump of Portland Cement Concrete
ASTM C 150	Specification for Portland Cement
ASTM C 171	Specification for Sheet Material for Curing Concrete
ASTM C 172	Method of Sampling Fresh Concrete
ASTM C 173	Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method

ASTM C 231	Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C 260	Specification for Air Entraining Admixture for Concrete
ASTM C 309	Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C 443	Joints for Circular Concrete Sewer and Culvert Pipe Using Rubber Gaskets
ASTM C 494	Specification for Chemical Admixtures for Concrete
ASTM C 595	Blend Hydraulic Cements
ASTM C 618	Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
ASTM C 655	Reinforced Concrete D Load Culvert, Storm Drain and Sewer Pipe
ASTM C 789	Precast Reinforced Concrete Box Sections for Culverts, Storm Drains and Sewers
ASTM C 803	Test Method for Penetration Resistance of Hardened Concrete
ASTM C 805	Test Method for Rebound Number of Hardened Concrete
ASTM C 977	Specification for Quicklime and Hydrated Lime for Soil Stabilization
ASTM D 75	Sampling Aggregate
ASTM D 422	Test Method for Particle Size Analysis of Soils
ASTM D 516-88	Standard Test Method for Sulfate Ions in Water
ASTM D 693	Crushed Stone, Crushed Slag and Crushed Gravel for Dryer Water-Bound Macadam Base Courses and Bituminous Macadam Base and Surface Courses of Pavements
ASTM D 698	Test Method for Moisture Density Relations of Soils and Soil- Aggregate Mixtures Using 5.5-lb. Hammer and 12-Inch Drop
ASTM D 751	Burst Strength
ASTM D 1556	Test Method for Density of Soil in Place by the Sand-Cone Method
ASTM D 1557	Test Method for Moisture Density Relations of Soils and Soil- Aggregate Mixtures Using 10-lb. Hammer and 18-Inch Drop
ASTM D 1682	Ultraviolet Resistance Grab Tensile Strength Grab Tensile Elongation Toughness
ASTM D 1751	Specification for Preformed Expansion Joint Fillers for Concrete Paving

- and Structural Construction
- ASTM D 1752 Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
- ASTM D 2167 Test Method for Density of Soil in Place by the Rubber-Balloon Method
- ASTM D 2216 Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock and Soil Aggregate Mixtures
- ASTM D 2363-78 Trapezoid Tear Strength
- ASTM D 2419 Sand Equivalent Value of Soils and Fine Aggregate
- ASTM D 2487 Test Method for Classification of Soils for Engineering Purposes
- ASTM D 2922 Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Method
- ASTM D 3017 Test Method for Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- ASTM D 3665 Random Sampling of Paving Materials
- ASTM D 4253 Test Method for Maximum Index Density of Soils Using Vibratory Table
- ASTM D 4318 Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils
- ASTM D 4397 Specification for Polyethylene Sheeting for Construction, Industrial and Agricultural Applications
- ASTM D 4546 Test Method for One-Dimensional Swell or Settlement Potential of Cohesive Soils
- ASTM E 329 Recommended Practice for Inspection and Testing Agencies for Concrete, Steel and Bituminous Materials as Used in Construction
- ASTM F 477 Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- ASTM F 758 Smooth-Wall Poly (Vinyl Chloride) (PVC) Plastic Underdrain Systems for Highway, Airport and Similar Drainage
- D. D.AMERICAN WELDING SOCIETY (AWS), 550 NW LeJeune Road, Miami, FL 33135AWS Code for Welding in Building Construction (Structural Welding Code).
- E. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)933 N. Plum Grove Road, Schaumburg, IL 60195, (312) 490-1700
- Manual of Standard Practice
- F. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) Division of Administration, Office of Bid Plans, 4201 E. Arkansas Avenue, Denver, CO 80222

Standard Specifications for Road and Bridge Construction (latest edition) Colorado
Standard Plans, M&S Standards

- G. FEDERAL HIGHWAY ADMINISTRATION (FHWA) Superintendent of Documents, US
Government Printing Office, Washington DC, 20402

Manual of Uniform Traffic Control Devices (latest edition)

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section.

END OF SECTION 01 42 25

SECTION 014230

DEFINITIONS AND CONVENTIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section contains a list of definitions of words or phrases and grammatical or contextual conventions commonly used in these contract documents.

1.02 REFERENCES

- A. Related Documents: General Conditions, Special Conditions, and applicable provisions of Technical Specifications Division 1 apply to this Section.

1.03 DEFINITIONS

- A. Alphabetical Listing of Definitions
1. **As indicated:** Shown on the drawings by graphic indication, notes or schedules, or written in the specifications or elsewhere in the contract documents.
 2. **As directed, as approved, as requested:** Unless otherwise indicated, these terms imply "by the Project Manager" and require that an instruction be obtained by the Contractor from the Project Manager.
 3. **Concealed:** Embedded in masonry, concrete or other construction; installed in furred spaces; within double partitions or hung ceilings; in trenches; in crawl spaces or in enclosures.
 4. **Ensure:** To make certain in a way that eliminates the possibility of error.
 5. **Exposed:** Not installed underground or "concealed" as defined above.
 6. **Furnish or Provide:** To supply, install and connect complete and ready for safe and regular operation of particular work unless specifically otherwise noted.
 7. **Indicated, Shown, or Noted:** As depicted on drawings or specifications.
 8. **Install:** To erect, mount and connect complete with related accessories.
 9. **Or equal, or approved equal:** Refers to products which, in the opinion of the Project Manager, are similar in all respects to products specified by proprietary brand name. (Refer to Section 012510 for procedures for submittal of proposed substitutions.)
 10. **Rework:** To repair existing items or work required to be removed and replaced in order to accomplish the Work in accordance with the contract documents.
 11. **Related Work:** Includes, but not necessarily limited to, mentioned work associated with, or affected by, the work specified.
 12. **Reviewed, Satisfactory, Accepted, or Directed:** Assumes by or to the Project Manager.
 13. **Similar, or Equal:** Same in materials, weight, size, design, construction, capacity, performance and efficiency of specified product.
 14. **Supply:** To purchase, procure, acquire and deliver complete with related accessories.

15. **Unless Otherwise Indicated and Unless Otherwise Noted:** General note to perform work as indicated or shown on drawings or in specifications unless specifically directed otherwise elsewhere in the contract documents; may be abbreviated "U.O.N.", "U.O.I.", or "U.N.O.".

1.04 CONVENTIONS

A. Specifications Format

1. In order to standardize the location of information in the Contract Documents, the specifications generally are organized in one or more of the following formats:
 - a. The 16-Division "MASTERFORMAT" published by the Construction Specifications Institute.
 - b. The Standard Specifications for Road and Bridge Construction published by CDOT.
 - c. The alpha-numeric system as published by the FAA.

B. Organization of Drawings and Specifications

1. Organization of the specifications into divisions and sections, and arrangement or numbering of drawings is intended solely for the convenience of the Contractor in his responsibilities to divide the Work among subcontractors or to establish the extent of work to be performed by any trade.
2. Neither the Owner nor the Project Manager assume any liability arising out of jurisdictional issues or claims advanced by trade organizations or other interested parties based on the arrangement or organization of drawings or specifications.

C. Gender and Number

1. For convenience and uniformity, parties to the Contract, including the Owner, Contractor, and Project Manager, and their subcontractors, suppliers, installers, consultants or other interested parties are referred to throughout the contract documents as if masculine in gender and singular in number. Such reference is not intended to limit the meaning of the contract documents to the masculine gender or singular number.

D. Singular vs. Plural

1. Materials, products, equipment or other items of work referred to in the singular shall be construed as plural where applicable by the intent of the contract documents and shall not limit quantities to be provided by the Contractor.

E. Imperative Mood

1. Specifications and notes on the drawings or elsewhere in the contract documents are generally written in the imperative mood as instructions to the Contractor, whether the Contractor is specifically addressed or not.

F. References to Subcontractors or Trades

1. References to subcontractors, trades or other entities which are not parties to the contract shall be construed as meaning the Contractor whose responsibility it shall be to divide the Work among subcontractors or trades. Such references are used as a matter of convention, and are not intended to preclude or direct the Contractor's responsibility to divide the Work.

G. Abbreviations

1. A list of abbreviations used in the contract documents is included in Technical Specifications Section 014220; an abridged list of abbreviations used on the drawings is included with the drawings.
2. Abbreviations are believed to be those in general use in the construction industry. Contact the Project Manager for clarification of abbreviations for which the meaning is not clear.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section.

END OF SECTION 014230

SECTION 014310

DIA QUALITY ASSURANCE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section identifies DIA Inspection activities to be performed by inspectors employed by DIA and working under the direction of the DIA Project Manager.
- B. Inspection and tests, conducted by persons or agencies other than the Contractor, shall not in any way relieve the Contractor of his responsibility and obligation to meet all specifications and the referenced standards.
- C. The inspection and approval of work by other agencies above does not constitute inspection or acceptance of work required by DIA. Technical specifications may contain requirements more stringent than Building Inspection Division or other code agency requirements.

1.02 RELATED DOCUMENTS

- A. Technical Specifications Section 014510 – “Contractor Quality Control”
- B. General Conditions Title 17, Section 1701 – “Construction Inspection by the City”
- C. General Conditions Title 17, Section 1702 – “Authority of Inspectors”
- D. General Conditions Title 17, Section 1703 – “Observable Defects”
- E. General Conditions Title 17, Section 1704 – “Defects – Uncovering Work”
- F. General Conditions Title 17, Section 1705 – “Latent Defects”
- G. General Conditions Title 17, Section 1706 – “Removal of Defective Materials and Work”.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 MANUFACTURING AND FABRICATION INSPECTIONS

- A. The DIA Project Manager may elect to perform additional inspections and/or tests at the place of the manufacture, the shipping point or at the destination to verify conformance to applicable specifications. Inspections and tests performed by DIA shall not relieve the Contractor from the responsibility to meet the specifications, nor shall such inspections/tests be considered to be a guarantee for acceptance of materials that will be delivered at a later time.
- B. The DIA Project Manager or his authorized representative may inspect at its source any material or assembly to be used in the Work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the Work and to obtain samples for testing and further inspection.
- C. Should the DIA Project Manager conduct plant inspections the following conditions shall exist:

1. The DIA Project Manager shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
 2. The DIA Project Manager shall have full access during scheduled production or warehousing working hours to parts of the plant that are concerned with the manufacture, production, storage or shipping of materials being furnished.
 3. The Contractor shall arrange for adequate office or working space that can reasonably be needed for conducting a plant inspection. Office or working space shall be conveniently located with respect to the plant and/or warehouse as required by the DIA Project Manager.
- D. It is understood and agreed that DIA shall have the right to re-test at DIA's expense any materials that have been tested and accepted at the source of supply after it has been delivered to the site.

3.02 INSPECTIONS AND TESTS

- A. It is understood and agreed that DIA shall have the right to take samples and perform testing of samples at different intervals or at intervals concurrent to the Contractor's testing program. The Contractor shall be issued a Deficiency which may lead to a Nonconformance Report in the event DIA tests fail.
- B. Materials accepted on the basis of a certificate of compliance may be sampled and inspected/tested by DIA or its designer at any time. The fact that the materials were accepted on the basis of such certification shall not relieve the Contractor of his responsibility to use materials that conform to the specifications.
- C. DIA inspection shall include but not be limited to Initial Inspection, Follow-up Inspection, Completion Inspection, Pre-Final Acceptance Inspection, and Final Acceptance Inspection. The Contractor shall comply with the requirements of these inspections as identified in Technical Specifications Section 01 45 10.

3.03 NONCONFORMING WORK AND MATERIALS

- A. Deficiency Log
1. The DIA Project Manager will request the Contractor to take remedial action when minor defect of nonconforming work is discovered and the item does not need engineering evaluation or proposed solution and the nonconformance has not been covered and is repairable.
 2. The Deficiency Log replaces the RAR form and log system if each item on the list has sufficient information to track the item and close it prior to any covering of the defect.
 3. The Deficiency Log includes deficiencies temporarily until an appropriate document like Corrective Action Report, (CAR) or Non-Conformance Report (NCR) is issued.
 4. Items of Non-Conformance that cannot be recovered may require a variation and approval of the Engineer of Record or The Designer of Record or The Special Inspector shall not be addressed by a Deficiency and must be issued as an NCR immediately.
 5. The DIA Project Manager will document remedial action that cannot be taken immediately (the same day) by issuing a Deficiency to the Contractor. Deficiencies are appropriate when the affected element of work is in-progress and discrepancies can be rectified as the work proceeds. Deficiencies shall be written when work can be brought back into conformance with the contract documents.

6. When issued, a Deficiency will preclude payment for elements noted and will remain in effect until corrective actions have been submitted, approved and performed.
 7. Upon satisfactory completion of the remedial action, the Contractor shall transmit their statement of action taken (including any applicable test results) to the DIA Project Manager. The DIA Project Manager will perform a follow-up inspection to verify the Deficiency has been satisfactorily completed. The Deficiency will then be closed.
 8. Deficiency list will preclude payment for the elements noted or a deduction for the amount of defect must be deducted from the progress payment if the element is submitted as completed and up to the total value of the element as indicated by the schedule of value.
- B. Nonconformance Report (NCR)
1. The DIA Project Manager will issue a Nonconformance Report to the Contractor whenever there are violations of the terms of the contract that cannot be immediately brought back into conformance, including materials received and/or items of the work found not to be in conformance with contract requirements. When issued, a Nonconformance Report will preclude payment for elements noted and will remain in effect until corrective actions have been submitted, approved and performed.
 2. The Nonconformance Report form will describe the nature and extent of nonconforming elements and will include space for the Contractor's corrective action proposal, the designer's review of the Contractor's proposal, reinspection and/or verification of approved corrective rework and a space for the Project Manager's disposition of the nonconformance matter. Copies of the Nonconformance Report, at each step of its processing (i.e., initial issuance to Contractor through final disposition) will be sent to the DIA Project Manager.
 3. The DIA Project Manager will make the disposition of nonconforming items/materials.
- C. The Contractor is obligated to correct any item deemed deficient.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the unit price item, work order or lump sum bid item. If the City is required to re-inspect work because the previous inspection showed that the work was defective or not in conformance, the Deputy Manager or his authorized representative may deduct from the contract value the cost of re-inspection at the rate of \$100.00 per man-hour.

END OF SECTION 014310

SECTION 014510

CONTRACTOR QUALITY CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section identifies the Quality Control activities to be performed during all phases of the Contract by the Contractor.
- B. The Contractor shall have in place his/her Quality Control Program as necessary to ensure that all materials and work are completed in compliance with contract documents. The Contractor is solely responsible for Quality Control and shall provide the necessary quality control personnel to assure that all materials, workmanship, and tests are in conformance with the Project documents with the exception of those tests and/or audits that may be conducted by the City as defined in the contract documents.
- C. Test schedules and/or testing requirements for materials used on this project are included in the technical specifications. Laboratory and field testing identified in the specifications shall be conducted by an Independent Testing Agency (ITA) retained by the Contractor.
- D. The Owner or the consultant working as the owner representative will employ a Special Inspector to perform all required inspections and tests required by the Special Inspection Statement as approved by the Building Official and any tests required by the Building Official to fulfill the code and the regulatory authority's requirements. The agency qualifications and requirements is defined in section 014545 "Special Inspection and Owner Testing Agencies".
- E. The Owner or its consultant working as owner agent will employ a testing agency to perform all the required Quality Assurance and Special Inspection Testing of material and Inspection of workmanship required by the Contract Documents. The Contractor must schedule these tests and provide access to the owner agents' inspectors and testers to perform these tests and inspections. The performance of the tests by the owner does not relieve the Contractor of his/her responsibility to deliver a fully functional building meeting all the requirements of the Contract Documents and their intent. The Contractor must develop its own testing program for processing, acceptance from the subcontractor or suppliers at a frequency defined by the contractor for its own process control and to assure delivery of the intended acceptable workmanship. All time impacts of testing and retesting shall be accounted for in the updated schedule and any

mitigation of time impacts shall be the responsibility of the Contractor.

1.3 SUBMITTALS

- A. Refer to Section 013300 "Submittals" and Section 013325 "Submittal Procedures" for submittal requirements.
- B. Quality Control Plan: Within ten (10) days after Notice to Proceed, the Contractor shall submit a Quality Control Plan for review and acceptance. The Quality Control Plan shall be accepted by the DIA Project Manager prior to any Work or materials being incorporated into the Project. Acceptance by the DIA Project Manager does not relieve the Contractor of its responsibility to comply with the Contract Requirements. The Contractor Quality Control Plan shall address the following as a minimum:
1. A general description of Quality Control monitoring to be performed until final acceptance by DIA. Include monitoring activities of Work and the worksite during times that no construction activity is scheduled to take place.
 2. An individual designated by the Contractor whose sole responsibility is Quality Control Management. This individual shall be highly qualified in all phases of construction as it relates to this Project and shall have the authority to direct work changes required to bring the Work into conformance with contract requirements, including stopping non-conforming work in progress. A detailed resume of the proposed Quality Control Manager including applicable education, experience and certifications shall be included in the Quality Control Plan.
 3. At the discretion of the DIA Project Manager, for Small Projects, Early Work Packages and Task Orders all of value less than \$1,000,000 or a duration which is less than three (3) months, the Contractor may assign one of the Contractor's staff, i.e. Contractor's Superintendent, Office Engineer, Field Engineer, or Contractor's Project Manager as Quality Control Manager. The assigned person must be available on site to discuss quality issues and manage all aspects of the Project Quality Control Plan and coordinate all required Special Inspection and Quality Assurance testing and provide proposed solutions on all quality issues at any time as to not cause any delay to the project. Any delays caused in part or in all due to defective or no conforming work shall be borne by the Contractor.
 4. Quality Control inspection staff as needed to assist the Quality Control Manager with implementation of the Quality Control Program. Duties of the Quality Control Inspectors shall be limited strictly to inspection of the ongoing work. Sampling and testing of materials shall be performed by Quality Control personnel other than Quality Control Inspectors. Quality Control Inspectors shall inspect only those work elements for which they are qualified. Resumes of the proposed Quality Control Inspectors including applicable education, experience and certifications shall be included in the Quality Control Plan.
 5. An Organization Chart identifying all Quality Control staff by name and function. The chart shall indicate the total staff required to implement all elements of the Quality Control Program, including inspection and testing for each item of work including tests performed by the special inspection or the independent testing agency or the owner testing Agency. If necessary, different Quality Control staff can be utilized for specific inspection and testing functions for different items of

- work. The chart shall show that the Quality Control Manager, Quality Control Inspectors, and Quality Control testing personnel are outside of the production staff with clear lines of authority for Quality Control.
6. The Owner and/or the Owner Program Management Team acting as the owner agent will employ a testing and /or special inspection agency. The Contractor's testing and inspection shall be performed for the processing, preparation and to request owner's inspection and as necessary to produce the required product as specified in the Contract Documents. While the test frequency performed by the Contractor is not required to meet a minimum frequency, it should be noted that the Owner or its Agent could mandate a testing frequency for those activities that are not meeting a repetitive success rate of 97%. Tests performed by the Owner's agent cannot be used for process control of the Contractor's work or as a subcontractor work acceptance by the prime contractor.
 7. Any test performed by any agency on the Project shall be recorded and show a passing re-inspection of all failing tests.
 8. Any tests submitted by the Contractor for basis of acceptance, or payment reduction when performed by the Contractor's agency, must meet all standards and must be certified to have followed approved procedure, processed in a certified lab by properly certified or licensed personnel by properly certified testers and on calibrated and certified equipment. Authentications of tests must be preapproved and cannot be selectively submitted. All tests shall be recorded in the field witnessed by DIA inspector to be accepted as a record test of the material in question. Any failing tests could be the sole basis for rejecting the material.
 9. Each technical specification division's requirements for quality control identifying each item requiring submittal and approval/acceptance prior to installation of work, all inspections to be performed during work and prior to acceptance of work, each item of work requiring testing by the independent testing agency or the owner provided testing agency, and the testing frequency.
 10. The plan shall address all elements of special inspection required by the statement of special inspection as approved by the Building Official. All special inspections and tests will be performed by an agency(s) employed directly by the Owner or a consultant acting as an owner agent as defined by Chapter 17 of the IBC.
 11. The Contractor is responsible for the complete record of inspection file including but not limited to all manufacturer certificates, certificates of material compliance, Certificates of Material Testing Record, successful re-inspection of all deficiency items, proper deposition of design related NCR's and CAR's, Structural Engineers' observation reports, certification letters from the Special Inspection Agency(s), Building Inspectors' records of approvals, permit cards, fire suppression and fire-alarm tests records as witnessed by the authorities of jurisdiction and any record necessary to achieve a certificate of occupancy.
 12. The Contractor must keep track of all logs of discrepancies and submit periodic updates, as required by the DIA Project Manager, of all open issues and track the closure of open items in a timely manner.
 13. Establish controls and documentation format to ensure that items or materials that have been accepted through receiving inspection are used or installed. Identification and traceability shall be provided throughout all inspections, test activities and records. For stored items, provisions shall be made for the control of item/material identification, consistent with the expected duration and type of

storage.

14. A methodology of monitoring, testing and exercising of all equipment, valves and/or assemblies to ensure the Work installed is in proper working order.
15. A list of suppliers and subcontractors. This list shall include items to be supplied by each supplier and/or subcontractor and shall identify work to be performed by each subcontractor. The list shall be updated and resubmitted as required.
16. Manufacturer's quality control plans and any certification to allow the fabrication of the material without special inspection and testing in accordance with section 1704.2.2 of the IBC.
17. All approvals related to Special Inspection are subject to the acceptance or approval of the Building Official as regulated by sections 105, 106, 109 and Chapter 17 of the Building code as amended by CCD.
18. Emergency contact information including name, company, title, work phone number, home phone number and other means of contact. The Emergency Contact list shall include at least four individuals. The Emergency Contact list shall be maintained on a daily basis. In the event there is any change in any of the information, the Contractor shall forward the updated list to the DIA Project Manager and to DIA Maintenance Control (303-342-2800). The Emergency Contact list shall include the project number, project title and date of issue.

C. Contractor's Daily Foreman Report:

1. A Contractor's Daily Foreman report shall be completed on form included in Technical Specifications Section 019990 "Standard Forms". The Foreman may add sheets of information to this form as needed. The report shall address as a minimum the following:
 - a. Daily activities.
 - b. Quantities of material placed and completed.
 - c. Weather.
 - d. Safety issues.
 - e. Personnel by trade.
 - f. Equipment on site with time used.
 - g. Equipment under repair.
 - h. Work delays.
 - i. Other possible delays.
 - j. Materials delivered.
 - k. Any other issues pertinent to the Work.
2. The Contractor's Daily Foreman Reports reporting shall be computerized or typed and may contain an electronic signature. Reports shall be transmitted to the DIA Project Manager electronically on the following work day.

D. Contractor's Daily Quality Control Inspection Report:

1. Contractor's Daily Quality Control Inspection Reports shall be completed on the form included in Technical Specifications Section 019990 "Standard Forms". The reports shall be written by the Quality Control Manager and all Inspectors. The Quality Control Manager and Inspectors may add sheets of information to this

form as required. The report shall address as a minimum the following:

- a. The work requiring inspection identified by the technical item number and description.
 - b. Results of the inspections.
 - c. Material compliance with approved submittals.
 - d. Proper storage of materials and equipment.
 - e. Adherence to plans and technical specifications.
 - f. Review and description of quality control tests.
 - g. Compliance of testing frequencies.
 - h. Location and nature of defects or deviations found.
 - i. Causes for rejection.
 - j. Corrections required to bring the Work into conformance with the contract.
 - k. Any other issues pertinent to the Work.
2. Contractor's Daily Quality Control Inspection Reports shall be computerized and may contain an electronic signature of the author. Reports shall be transmitted to the DIA Project Manager electronically on the following work day.
- E. For Small Projects, EWP on CM/GC Contracts, Task Orders all for a base bid contract value of less than \$1,000,000 and/or a duration of three months or less, a report with both daily and quality information may be combined at the discretion of the DIA Project Manager.
- F. Deficiency List: The Quality Control Manager shall establish a deficiency list including the minimum information for each deficiency item; description, date, location, drawings reference, detail reference, specification reference and superseding document NCR, or CAR, date of expected solution date repaired date inspected by owner representative and accepted.
- G. Corrective Action Report (CAR)
1. Conditions adverse to quality will be reviewed by the Contractor to determine the cause and to recommend a corrective action that will preclude recurrence. The condition, its cause and the corrective action planned shall be reported to the DIA Project Manager prior to implementation. Follow-up action shall be taken to verify implementation of the corrective action. The Contractor will document the corrective action and a copy of the Corrective Action Report (CAR) will be transmitted to the DIA Project Manager. For any deficiency that deals with a special inspection issue or propose any alteration to the original design must be addressed in a CAR issued by the Contractor or an NCR issued by the owner and must be reviewed by the Engineer of Record for approval and must be re-inspected by the Special Inspector or the DIA/PMT inspector for approval and closure.

1.4 DOCUMENTATION

- A. The Contractor shall not change or alter approved submittals, procedures, specifications, drawings or other pertinent documentation without the DIA Project

Manager's written authorization.

- B. All records and documents that are quality related shall be prepared, identified and maintained by the Contractor and shall be made available to DIA upon request. Records shall be protected from damage, deterioration or loss. A copy of the records and documents shall be maintained at the Work site at all times unless the DIA Project Manager has approved other locations in writing. Retention time for all quality records shall be not less than three (3) years from date of Final Acceptance of the contract.
- C. The Contractor is responsible for the complete record of inspection file including but not limited to all manufacturer certificates, certificates of material compliance, Certificates of Material Testing Record, successful re-inspection of all deficiency items, proper deposition of design related NCR's and CAR's, Structural Engineers' observation reports, certification letters from the Special Inspection Agency(s), Building Inspectors' records of approvals, permit cards, fire suppression and fire-alarm tests records as witnessed by the authorities of jurisdiction and any record necessary to achieve a Certificate of Occupancy. Also reference paragraph 1.2.B.11 of this Section.
- D. The Contractor shall maintain records at the actual worksite and at Contractor's office to show the inspection status of materials and items installed in order to ensure that the required inspections and tests have been performed in a timely and correct manner.
- E. The Contractor must keep a record of all deficiency issues and show positive evidence of closure (passing re-inspection or re-test) to every issue.

1.5 INSPECTIONS AND TESTS

- A. Inspections, tests and system shut down requests, conducted by persons or agencies other than the Contractor, shall not in any way relieve the Contractor of his responsibility and obligation to meet all specifications and the referenced standards. The Contractor's designated Quality Control Representative shall inspect the work and shall ensure the work complies with the contract requirements prior to any requests for inspection or testing.
- B. When the specifications, laws, ordinances, rules, regulations or orders of any public agency having jurisdiction require the DIA Project Manager's surveillance of inspections or tests, the Contractor shall notify the DIA Project Manager of the place, date and time 48 hours prior to the inspection and/or test. The Contractor shall be responsible for notifying and requesting inspection by other agencies including but not limited to the Denver Building Inspection Division, Denver Fire Department and Denver Water Department. Prior to request for other agency inspections, the Contractor shall meet and plan inspection times with the DIA Project Manager and or the DIA Project Manager's designated representative.
- C. Special inspections or tests may be required by the technical specifications, City, State and/or Federal Agencies in addition to those tests already performed. The Contractor shall notify the DIA Project Manager at least 48 hours in advance of the additional inspections or tests.

- D. Quantities will be verified as defined in the Pre-Work Meetings.

1.6 INSPECTION PLAN

- A. The Contractor shall utilize the following six-point inspection plan to ensure the conformance of the Work performed by the Contractor meets the requirements of the contract drawings and specifications, the referenced codes and standards and the approved submittals:
1. Prework Coordination: Prior to the start of construction work on the Contract and prior to the start of work under each separate specification section and prior to the start of work where a change in a construction operation is contemplated by the Contractor, and prior to a new subcontractor starting work, a coordination meeting will be held with the Contractor's superintendent, Quality Control and Safety representative(s), the ITA representative, the DIA Project Manager and DIA inspectors. Supervisory, Safety and Quality Control, representatives of all applicable subcontractors will also attend. Prior to the meeting, the Contractor's Quality Control Manager shall provide the DIA Project Manager with a meeting agenda for review. The Contractor's Quality Control Manager shall conduct the meeting and distribute the approved agenda. The Quality Control Manager shall develop and electronically distribute finalized meeting minutes within 24 hours upon completion of the meeting.
 2. The purpose of the meeting is to ensure that the Contractor's personnel have no misunderstandings regarding their safety and quality procedures as well as the technical requirements of the contract. The following items shall be presented and reviewed by the Contractor:
 - a. Contract requirements and specifications.
 - b. Shop drawings, certifications, submittals and as-built drawings.
 - c. Testing and inspection program and procedures.
 - d. Contractor's Quality Control program.
 - e. Familiarity and proficiency of the Contractor's and subcontractor's workforce to perform the operation to required workmanship standards including certifications of installers.
 - f. Safety, security and environmental precautions to be observed.
 - g. Any other preparatory steps dependent upon the particular operation.
 - h. The Contractor's means and methods for performing the Work.
 3. Initial Inspection: Upon completion of a representative sample of a given feature of the Work and no later than two weeks after the start of a new or changed operation, the DIA Project Manager and/or the DIA Project Manager's designated representatives will meet with the Contractor's Quality Control representative and applicable subcontractor's supervisor and their Quality Control representatives to check the following items, as a minimum:
 - a. Workmanship to established quality standards.
 - b. Conformance to contract drawings, specifications and the accepted shop drawings.
 - c. Adequacy of materials and articles utilized.

- d. Results of inspection and testing methods.
 - e. Adequacy of as-built drawings maintained daily.
 - f. Once accepted, the representative sample will become the physical baseline by which ongoing work is compared for quality and acceptability. To the maximum practical extent, approved representative samples of work elements shall remain visible until all work in the appropriate category is complete. Acceptance of a sample does not waive or alter any contract requirements or show acceptance of any deviation from the contract not approved in writing by the DIA Project Manager.
4. Follow-up Inspection: The Contractor's Quality Control representative will monitor the work to review the continuing conformance of the work to the workmanship standards established during the preparatory and initial inspections.
 5. Completion Inspection: Forty-eight (48) hours prior to the completion of an item or segment of work and prior to covering up any work, the Contractor will notify the DIA Project Manager who will verify that the segment of work is substantially complete, all inspections and tests have been completed and the results are acceptable. The purpose of this inspection is to allow further corrective work upon, or integral to, the completed segment of work. THIS IS NOT AN ACCEPTANCE INSPECTION. If any items are determined to be deficient, need correction or are non-conforming, a Deficiency List will be prepared and issued to the respective Contractor for correction, repair or replacement of any deficient or non-conforming items. The DIA Project Manager and Contractor's Quality Control representative will verify the correction of the deficient and/or non-conforming items prior to the start of the next operation.
 6. Pre-Final Acceptance Inspection: Prior to requesting a Pre-Final Acceptance Inspection by DIA, all work and operational systems to be inspected shall be satisfactorily completed and tested by the Contractor. The Contractor's written request for this inspection shall be made seventy-two (72) hours in advance. With the request shall come a list of any known deficiencies and when they will be corrected. If the list is too large or contains too many significant items, in the opinion of the DIA Project Manager, no inspection will be held because of the incompleteness of the work.
 7. The DIA Project Manager will schedule the Pre-Final Acceptance Inspection and will prepare a list of deficient items (punch list) discovered during the inspection. If during the inspection the list becomes too large or too many significant items are on the list, the inspection will be canceled by the DIA Project Manager. After the inspection is completed, the Deficiency List will be transmitted to the Contractor for correction of the deficient items.
 8. Final Acceptance Inspection: After the Contractor has completed all items on the Deficiency List (generated from the Pre-Final Acceptance Inspection) he shall request a Final Acceptance Inspection. The request shall be made in writing at least seventy-two (72) hours in advance of the inspection. All areas must be cleaned and ready for turnover prior to this inspection. The DIA Project Manager, the design consultant, a representative of the funding agency (if applicable) and other interested parties will inspect the subject Work to ensure that all deficiencies have been satisfactorily attended to and that no new deficiencies have appeared and that all systems are completely functional. Any outstanding or additional deficient items will be noted and handled per the requirements of the Pre-Final

Acceptance Inspection noted above until the Work is acceptable to the DIA Project Manager.

1.7 CONTRACTOR SUBMITTAL OF PROPOSED CONTRATOR’S TESTING AGENCIES

- A. The Contractor shall employ the services of a Testing Agency for process control and acceptance by the subcontractors and suppliers or material delivery for Contractor convenience or contractual obligations with others. The Contractor’s Testing Agency must be accredited agency to perform any test required to be submitted for compliance with a contract requirement or for use of data by the owner agency’s for any official use, for examples and not to grant any obligation on the Project Management Team, any payment reduction factor calculation. Any dispute or requirement to recalibrate testing equipment or machine, proof of compliance of material that was installed in contrary to manufacturer recommendation, any apparent defect due to adverse weather, improper installation, incomplete material record.
- B. Contractor’s testing agency must be a qualified entity(s) that has performed testing on similar jobs in size and complexity and has been accredited by AASHTO or CCRL or an approved equal to perform the test(s) required in the contract. The CTA may also provide technicians to perform the required inspections. However, inspection and testing cannot be performed simultaneously by the same technician.
- C. The Contractor shall not submit for acceptance to the DIA Project Manager any testing agency or laboratory utilized in the design or construction document preparation or presently employed by DIA as part of DIA Quality Assurance.
- D. For consideration of acceptance, the Contractor shall submit to the DIA Project Manager the following items received from the CTA:
 - 1. Affidavit of current accreditation from a national certification and/or accreditation program.
 - 2. Evidence that the CTA Laboratory is accredited to perform the testing required in the Technical Specifications.
 - 3. Resumes and evidence of professional engineer registration and licensing in the State of Colorado for the personnel reviewing and signing test reports.
 - 4. Resumes and current certifications verifying that SIA management and supervisory personnel, laboratory staff, field testing technicians, and inspecting technicians are qualified in accordance with ASTM C 1077, D 3666, D 3740, and E 329 requirements to perform the work. NICET, ACI, WAQTC, Lab-CAT, CDOT, NRMCA, PCA, AWS, ASNT certifications or a degree in a related engineering field with construction field experience can demonstrate qualifications. A list summarizing all management, supervisory, laboratory, field testing, and inspection personnel assigned to the Project including the testing and/or inspection each individual will be performing, certifications held by each individual, and the expiration date of each certification.
 - 5. A matrix indicating each technical specification section, paragraph, quantity and type of sampling and/or testing required.
 - 6. Copies of all laboratory, field testing, and inspection report forms.

1.8 SAMPLES

- A. The Contractor shall maintain at the worksite a copy of all samples submitted and accepted by the DIA Project Manager. Samples shall be made available to the designer or the DIA Project Manager's designated representatives for review and comparison in the field. Prior to use on the project, the DIA Project Manager must accept all items and materials.
- B. The installed work will be compared to the samples and if any of the work is not of the same quality, material, finish, color, texture or appearance as the sample, that portion that is not the same will be considered defective and in nonconformance.
- C. Contractor selection of samples will only be considered if taken at random. The Contractor shall permit representatives of DIA to witness the selection of samples. Inspection or tests of items or materials that fail shall be sufficient cause to terminate further inspections/tests of the same brand, make or source of that product.
- D. The Contractor is obligated to correct any item deemed deficient.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REQUIREMENTS

- A. All materials required for the Contract shall be new except where specified otherwise. The DIA Project Manager may elect to perform additional inspections and/or tests at the place of the manufacture, the shipping point or at the destination to verify conformance to applicable specifications. Inspections and tests performed by DIA shall not relieve the Contractor from the responsibility to meet the specifications, nor shall such inspections/tests be considered a guarantee for acceptance of materials that will be delivered at a later time.
- B. The Contractor is obligated to correct or remove non-conforming materials, whether in place or not. If necessary, the DIA Project Manager will send written notification to the Contractor to correct or remove the defective materials from the project. If the Contractor fails to respond, the DIA Project Manager may order correction, removal and/or replacement of defective materials by others, in which case the Contractor shall bear all costs incurred by such actions.
- C. Materials accepted on the basis of a Certificate of Compliance may be sampled and inspected/tested by DIA or its designer at any time. The fact that the materials were accepted on the basis of such certification shall not relieve the Contractor of his responsibility to use materials that conform to the specifications.
- D. The Contractor shall impose upon his suppliers the same quality control requirements, including inspection and test procedures, as imposed upon him by the specifications

and referenced standards. The Contractor shall apply appropriate controls, designed to ensure that all materials supplied meet the requirements and specifications.

PART 4 - MEASUREMENT

4.1 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.1 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the Work described in this Section shall be included in the applicable multiplier for the division under which the Work falls. If the City is required to re-inspect Work or conduct a special test because a previous inspection, requested by the Contractor, showed that the Work was defective or not in conformance, the Deputy Manager/ Program Manager or his authorized representative may deduct from the contract value the cost of re-inspection at the rate of \$125.00 per man-hour, with a minimum charge of \$250.00.

END OF SECTION 014510

SECTION 014525

CONTRACTORS TESTING AGENCY

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall employ the services of a Material Testing Agency (MTA). This Section identifies the requirements for the Contractor to employ a Material Testing Agency and identifies the required activities of the Material Testing Agency.
- B. Laboratory and field testing requirements to be conducted by the MTA for materials and construction methods used on this project are included in the appropriate technical specifications. Where the technical specifications reference the CDOT Standard Specifications for Road and Bridge Construction, the references shall also mean CDOT Field Materials Manual for schedule of tests unless otherwise stated. As a minimum the MTA described in this section shall perform all applicable tests listed in the manual including the independent assurance sampling and testing. In the event of such a conflict between the schedule and a specification in these technical provisions, the more comprehensive testing shall govern unless otherwise noted.
- C. Inspections and tests conducted by the MTA shall not in any way relieve the Contractor of his responsibility and obligation to meet all specifications and referenced standards. Employment of the MTA does not relieve the Contractor of providing the required Quality Control program.
- D. When inspections or tests by the MTA prove that the item or material does not meet all applicable specifications and requirements, the cost incurred for the re-testing or re-inspection shall be borne by the Contractor (see paragraph 5.01 of this Technical Specifications Section).
- E. Samples will only be considered if taken at random. The Contractor shall permit representatives of the City to witness the selection of samples. Inspection or tests of items or materials that fail shall be sufficient cause to terminate further inspections/tests of the same brand, make or source of that product.
- F. The Contractor is obligated to correct any item deemed deficient at no additional cost to DIA.

1.02 RELATED DOCUMENTS

- A. ASTM C 1077 - Standard Practices for Laboratory Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
- B. ASTM D 3666 – Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
- C. ASTM D 3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
- D. ASTM E 329 - Standard Specification for Agencies Engaged in Construction Inspection and/or Testing
- E. ASTM E 543 - Specification for Agencies Performing Nondestructive Testing.

- F. Standard testing practices for other disciplines.

1.03 SUBMITTALS

- A. All submittals shall comply with requirements of Technical Specifications Sections 013300 and 013325 for submittal requirements.

1.04 CONTRACTOR SUBMITTAL OF PROPOSED TESTING AGENCIES

- A. The Contractor shall employ the services of a Material Testing Agency (MTA) that has been accredited by AASHTO or CCRL or an approved equal to perform the test(s) required in the contract. The MTA may also provide technicians to perform the required inspections. However, inspection and testing cannot be performed simultaneously by the same technician. The Contractor shall receive written acceptance from the Project Manager of the MTA prior to any permanent work being installed or tested.
- B. The Contractor shall not submit for acceptance to the DIA Project Manager any testing agency or laboratory utilized in the design or construction document preparation or presently employed by DIA as part of DIA Quality Assurance, Material Testing or special inspection agencies.
- C. For consideration of acceptance, the Contractor shall submit to the DIA Project Manager the following items received from the MTA:
1. Affidavit of current accreditation from a national certification and/or accreditation program(s).
 2. Evidence that the MTA Laboratory is accredited to perform the testing required in the Technical Specifications.
 3. Resumes and evidence of professional engineer registration and licensing in the State of Colorado for the personnel reviewing and signing test reports.
 4. Resumes and current certifications verifying that MTA management and supervisory personnel, laboratory staff, field testing technicians, and inspecting technicians are qualified in accordance with ASTM C 1077, D 3666, D 3740, and E 329 requirements to perform the work. NICET, ACI, WAQTC, LabCAT, CDOT, NRMCA, PCA, AWS, ASNT certifications or a degree in a related engineering field with construction field experience that can demonstrate qualifications. A list summarizing all management, supervisory, laboratory, field testing, and inspection personnel assigned to the project including the testing and/or inspection each individual will be performing, certifications held by each individual, and the expiration date of each certification.
 5. A matrix indicating each technical specification section, paragraph, quantity and type of sampling and/or testing required.
 6. Copies of all laboratory, field testing, and inspection report forms.

1.05 SUBMITTAL OF REPORTS

- A. Test results shall be submitted by the Contractor to the DIA Project Manager after completion of inspections/tests by the MTA and prior to incorporation of the item(s) into the Work unless the test or inspection must be done during or after installation.

All field test results including but not limited to fresh concrete properties and in-place moisture-density shall be reported in legible draft form to the DIA Inspector immediately at the

test site. Any failing test shall be reported separately to the DIA Inspector or DIA Project Manager. The draft test results shall also be attached to the Daily Quality Control Inspection Report (reference Technical Specifications Section 01 45 10, paragraph 1.02.D) and transmitted to the DIA Project Manager the next work day.

- B. Typed test reports shall be provided to the DIA Project Manager as specified in paragraph 1.06 Weekly Reports. The test reports shall be numbered sequentially in chronological order. Individual tests shall be numbered sequentially. The reports and tests shall also be organized per specification section. All test results must be reviewed and signed by a registered licensed engineer in the State of Colorado. The signature represents that the test procedures used are in strict conformance with the applicable testing standard, the calculated data are true and accurate, the tools and equipment used were in calibration, the sample was not contaminated and the persons running the test were qualified.
- C. Reports of inspections and test activities are record documents and shall be maintained in a manner that provides integrity of item identification, acceptability and traceability. Reports shall identify the following:
1. Contractor's name
 2. DIA Contract number and title
 3. Material Testing Agency name
 4. Name of item(s) inspected/tested including a physical description and, as applicable, model and make
 5. Quantity of items
 6. Inspection/test procedure used. If national standards are used, any deviation from these standards
 7. Date the sample was taken and the date the test was made
 8. Location (by coordinates, building grid or station number and elevation) of where tests and/or samplings were performed including environmental condition where applicable. Include plan drawing indicating location of test, lot size and location and work item sampled or tested
 9. Name of inspector/tester
 10. In the event the testing or sampling is a re-test or re-sampling, reference the previous respective testing or sampling report
 11. Specified requirements in the contract that the item must meet. Include reference to technical specification section and paragraphs
 12. Acceptability
 13. Deviations/nonconformance
 14. Corrective action
 15. Evaluation of results
 16. All information required for the specific test as specified in the applicable ASTM standard
 17. Signature of authorized evaluator.

1.06 WEEKLY SUMMARY REPORTS

- A. The MTA and Quality Control Manager shall prepare and submit to the DIA Project Manager a weekly summary report each week which summarizes by specification section all work activities and results for the quality control tests and inspections conducted during that period. The weekly summary report shall be submitted within two (2) weeks from the end of the reporting period. At a minimum, the weekly summary report shall identify all inspections, test types, test locations, testers, test results, specifications, whether the test passed or failed, quantity of materials placed and the number of tests performed for each material, and the material supplier, installer and Contractor. Re-tests shall be identified in a fashion that easily correlates to the failing test. Any failed tests that have not been corrected when the report is published shall be highlighted and noted in the cover letter of the report. A current Corrective Action Report log (CAR) shall also be included in the weekly summary report.
- B. The weekly report shall be submitted per Technical Specifications Sections 01 33 00 and 01 33 25 requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 REMOVAL OF NONCONFORMING MATERIAL

- A. The Contractor is obligated to correct or remove nonconforming materials, whether in place or not. If necessary, the DIA Project Manager will send written notification to the Contractor to correct or remove the defective materials from the project. If the Contractor fails to respond, the DIA Project Manager may order correction, removal and/or replacement of defective materials by others, in which case the Contractor shall bear all costs incurred by such actions.

3.02 PERFORMANCE

- A. If the DIA Project Manager determines that the MTA or its personnel are not effectively enforcing or performing the testing and documentation requirements specified in the contract, the DIA Project Manager will, in writing, require the Contractor to remove and replace MTA or such personnel at no cost to DIA.

3.03 CONTROL OF MEASURING AND TEST EQUIPMENT

- A. The MTA shall select measuring and test equipment in such a manner as to provide proper type, range, accuracy, calibration and tolerance for determining compliance with specified requirements. Measuring and test devices shall be calibrated, adjusted and maintained at prescribed intervals prior to use based upon equipment stability and other conditions affecting measurement. Provisions shall be made for the proper handling and storage of equipment. Calibration shall be accomplished using certified standards that have a known traceable relationship to the National Institute of Standards and Technology. Every calibrated measuring and test device shall show the current status, date of last calibration and the due date for the next calibration. Calibration records shall be maintained onsite as quality records and shall be made available for inspection upon the Project Manager's request.

PART 4 - METHOD OF MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under the Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item. If the City is required to re-inspect work because the previous inspection showed that the work was defective or not in conformance, the Deputy Manager or his authorized representative may deduct from the contract value the cost of re-inspection at the rate of \$100.00 per man-hour.

END OF SECTION 014525

SECTION 015050

MOBILIZATION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the worksite; for the establishment of all offices, buildings and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the worksite.

1.02 SUBMITTALS

- A. Refer to Technical Specifications Sections 013300 and 013325 for submittal procedures.
- B. Submit a Mobilization Schedule 15 days prior to first billing for mobilization.

1.03 DELIVERY

- A. Delivery to the worksite of construction tools, equipment, materials and supplies shall be accomplished in conformance with local governing regulations.

PART 2 - PRODUCTS

2.01 PRODUCTS

- A. Provide construction tools, equipment, materials and supplies of the type and quantities that will facilitate the timely execution of the Work.

PART 3 - EXECUTION

3.01 EXECUTION AND REMOVAL

- A. Provide personnel, products, construction materials, equipment, tools and supplies at the worksite at the time they are scheduled to be installed or utilized.
- B. Upon completion of the Work, remove construction tools, apparatus, equipment, unused materials and supplies, plant, and personnel from the jobsite.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. The Contractor shall submit for the DIA Project Manager's approval 15 days prior to the first mobilization billing a detailed breakdown of all items, including subcontractor mobilization items that are proposed to be invoiced under Mobilization as part of the Schedule of Values (reference Technical Specifications Section 012910). This breakdown shall be labeled MOBILIZATION SCHEDULE. This schedule will be reviewed by the DIA Project Manager to inform the Contractor what exact types of costs will be approved and paid under Mobilization.
- B. All requests for payment for mobilization shall include a detailed Mobilization Schedule which

shall identify the nature of each expense item, its delivery date, setup and startup date and the actual invoice amounts inclusive of acquisition, taxes, transportation assembly, and installation less all discounts.

- C. The Contractor shall identify a line item in the Mobilization Schedule as "Demobilization" and shall establish the value for this line item, at a minimum, of fifteen percent (15%) of the pay item for mobilization.
- D. The initial approved Mobilization Schedule shall determine the basis for all future mobilization payments.

PART 5 - PAYMENT

5.01 MOBILIZATION

- A. Payment will be made only for substantiated Mobilization costs in accordance with the approved Mobilization Schedule, and only to the limit of the contract lump sum amount for the pay item Mobilization. In no case will the City pay Mobilization in excess of five percent (5%) of the total Contract amount.
- B. Payment for the Contractor's bonds may be included in the Mobilization Schedule to the limits of the actual amount.
- C. Payment amounts for personnel involved in mobilization and listed on the approved Mobilization Schedule shall be limited to the Contractor's certified payroll amounts.
- D. Payment amounts for materials, supplies and transportation involved in mobilization and listed on the approved Mobilization Schedule shall be for the actual amounts paid as shown on invoices marked paid. No payment will be made under mobilization for the cost of permanent materials to be installed for this contract. Payment for permanent material shall be paid in accordance with section 012910
- E. No payment under mobilization will be made for rented or leased equipment other than actual transportation cost.
- F. No separate payment will be made as part of the Mobilization Schedule for the maintenance and/or use of personnel, equipment, supplies and incidentals after project setup except for demobilization. These costs are to be incorporated in the remaining items of work in the Schedule of Values by multiplier or work request.
- G. For any mobilization payment amounts requested by the Contractor that are unsubstantiated or exceed the allowable limit of five percent of the total Contract amount, the Project City, may in its sole discretion reallocate any, all, or none of those amounts to other work items in the Schedule of Values for lump sum contracts or to be disbursed on a prorated basis as determined by the DIA Project Manager for unit price contracts. Any unsubstantiated mobilization payment amounts not reallocated by the DIA Project Manager will not be paid

END OF SECTION 015050

SECTION 015200

TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of furnishing, installing, operating, maintaining and removing temporary construction barriers, enclosures and field facilities including the Contractor's construction offices, staging areas, yards, storage areas, electrical power, telephone, water, fire protection and sanitary service. A construction office is required upon execution of the first awarded Task Order.
- B. Construction Offices, Construction Yards and Storage Areas
1. The Contractor's offices, construction yards laydown and storage areas shall be located as shown on the contract drawings and/or as designated by the Project Manager. All construction offices, staging areas and material storage areas are to occur within these areas.
 2. Any activity that is expected to result in disturbance of the ground surface equal to or greater than one acre or part of a larger project that is expected to disturb equal to or greater than one acre, is required to be identified in the Construction Activities Stormwater Management Plan (CASMP) and/or Stormwater Management Plan (SWMP). These areas include, but are not limited to, laydowns, borrow areas, stockpiles, and storage areas regardless of the location.
 3. All areas of ground disturbance are required to be stabilized in accordance with State, local, and airport rules and regulations prior to permit termination and/or closure of the contract.
 4. The Contractor shall restore any area on DIA property that becomes contaminated as a result of its operations in accordance with Airport Rule and Regulation 180. Restoration shall be either to applicable standards under Federal and State law or to such other levels as may be required by the Manager of Aviation, at the Manager's sole discretion.
 5. All temporary facility sites must be inspected prior to contract closeout. The DIA Project Manager or authorized representative shall conduct an inspection of contractor areas used during the life of the project. These areas include but are not limited to, staging areas, laydown areas, borrow areas, and contractor yards and offices. The DIA PM will ensure these areas have been properly stabilized in accordance with DIA Rules and Regulations and restored to the condition in which the City initially provided to the Contractor. A representative from DIA Environmental Services shall be present during the final walk through.
 6. Contractor materials shall be managed in accordance with applicable Environmental Regulations.
 7. Temporary facilities which the Contractor desires to locate in secondary laydown and staging areas adjacent to the Work or within the project limits are subject to approval by the Project Manager. If approved, these areas must also be included in the CASMP and/or SWMP.
 8. Access to and security of the Contractor's construction offices, yard, temporary facilities and storage areas shall be as shown on the Contract Drawings or as specified in the contract Special Conditions.

9. Contractor Field Office
 - a. The Contractor shall acquire all necessary permits for installation and construction work related to the Contractor's field office and fencing.
 - b. The Contractor shall provide, as part of his on-site field office, a conference room for weekly meetings. Minimum size to accommodate 15 people with the currently approved schedule posted on a wall. The conference room shall have one available telephone.
 - c. Jack the mobile office unit off its wheels and provide support. Enclose the underside of the trailer with weatherproof skirting.
 - d. Install tie downs in compliance with code.
 - e. Provide access to the field office and easily accessible space for parking six full size passenger automobiles as a minimum. Grade the field office site, access roadway and parking area for drainage, and surface with gravel paving or crushed stone.
 - f. Water and sewer lines to the field office, if installed, shall be installed so they will not freeze.

- C. Electrical Service
 1. Provide lighting and power for field offices, storage facilities and other construction facilities and areas.
 2. Provide power centers for electrically operated and controlled construction facilities including tools, equipment, testing equipment, interior construction lighting, heating, cooling and ventilation equipment.
 3. Provide night security lighting at secured areas within construction limits at offices, storage facilities, temporary facilities and excavated areas.
 4. Provide battery operated or equivalent emergency lighting facilities at construction areas where normal light failures would cause employees to be subjected to hazardous conditions. Test such facilities monthly and maintain a record of these tests for the Project Manager's review.
 5. Bear all costs of temporary electric and water service permits, fees and deposits required by the governing authorities, and connection charges and temporary easements including installation, maintenance and removal of equipment.

- D. Telephone Service
 1. The Contractor shall furnish, install and maintain at least two telephones in his main field office. These phones shall be manned at all times by the Contractor's personnel or by an answering machine.
 2. The Contractor shall supply one separate facsimile line for facsimile equipment.

- E. Water Service
 1. The Contractor shall make all connections and extensions required and shall make use of water in direct support of the Work. The Contractor shall install an approved Water Department tap at the City's water source prior to obtaining any water. The Contractor shall arrange and pay for its supply/distribution system from the City's point of connection. The location and alignment of the Contractor's temporary supply/distribution system must be approved by the Project Manager prior to its installation. The Contractor shall leave in place all above ground and underground water distribution facilities unless otherwise directed by the Project Manager.

2. The Contractor shall not use in place fire hydrants or standpipes as sources for construction water or potable water.

F. Fire Protection

1. Furnish, install and maintain temporary portable fire protection equipment throughout the construction period at all buildings (including the project site), maintenance shops, and fuel storage on all large construction equipment and at the location of any flammable materials or construction materials.

G. Sanitary Service

1. Furnish, install and maintain temporary sanitary facilities and services throughout the construction period.
2. Ensure that separate or single user toilets shall be provided to ensure privacy between the sexes.
3. Provide general washing facilities adequate for the number of employees.
4. Provide special washing facilities adequate for the number of employees engaged in the application of paints, coating and other volatile or hazardous materials.

1.02 QUALITY CONTROL

- A. Provide products for, and the execution of, the Work of this Section that will satisfy the requirements of the NEC, OSHA and local codes. Provide products that satisfy requirements of NEMA and are UL listed.

1.03 SUBMITTALS

- A. Refer to Technical Specifications Sections 01300 and 01340 for submittal procedures.
- B. Submit a shop drawing within five days of the Notice to Proceed that shows the following:
 1. Temporary facilities equipment and materials (include manufacturer's literature)
 2. Details and layout of temporary installations including fences, roads, parking, buildings, storage areas and drainage plans.
 3. Lighting plan showing temporary lighting facilities, electrical service panel location, electrical circuit diagram and anticipated light level on the working roadway, pathway or construction surface.
 4. As-built description of any temporary underground utilities referenced to the Airport grid and benchmark system within five days of completion of the installation.

PART 2 - PRODUCTS

2.01 ELECTRICAL SERVICE

- A. Provide temporary power and lighting equipment consisting of fixtures, transformers, panel boards, groundings, lamps, switches, poles, conduits and wiring sized and capable of continuous service and having adequate capacity to ensure a complete operating system. Comply with NEMA.
- B. Provide temporary extension cords to supply tools not longer than 200 feet, except that additional length may be used if equipment will be grounded within 200 feet of tool or power.

- C. Portable power generators shall be grounded.

2.02 TELEPHONE SERVICE

- A. Provide equipment that is compatible with that of Qwest Communications Company and the telephone exchange to which the Contractor connects.

2.03 DRINKING WATER SERVICE

- A. Provide sanitary materials and equipment that satisfies the requirements of codes and regulations pertaining to temporary water systems. Bottled products may be used if those products comply with codes. Clearly label portable containers having a dispensing tap and used only for drinking water. Provide single service disposable cups and a sanitary container for dispensing cups. A trash receptacle shall be provided and maintained beside each portable water supply.

2.04 FIRE PROTECTION

- A. Fire extinguishers shall be UL rated and shall comply with the Uniform Fire Code.

2.05 SANITARY SERVICE

- A. Provide materials and equipment adequate for the intended purposes, which will neither create unsanitary conditions nor violate the codes applicable to temporary sanitary facilities. Enclosures for toilet and washing facilities shall be weatherproof, sight proof, ventilated and sturdy.
- B. Provide portable type toilet facilities that satisfy the requirements of OSHA.
- C. Provide washing facilities as needed. Furnish soap, single-service paper towels, towel dispenser and towel receptacle. If paints, coatings and other volatile or hazardous materials injurious to humans will be applied as part of the contract, provide washing facilities with warm water of approximately 120 degrees F.

PART 3 - EXECUTION

3.01 ELECTRICAL SERVICE

- A. The approximate location of primary power lines is shown on the Construction Drawings. The Contractor shall locate electrical service where it will not interfere with equipment, storage spaces, traffic, and prosecution of the Work or the work of others. Installation shall present a neat and orderly appearance and shall be structurally sound. Maintain service in a manner that will ensure continuous electrical service and safe working conditions.

3.02 TELEPHONE SERVICE

- A. Install temporary telephone service in a neat and orderly manner and make structurally and electrically sound to ensure continuous service. Modify, relocate and extend as work progress requires. Place conduit and cable where those products will not interfere with traffic, work areas, materials, handling equipment, storage areas and the work of other contractors. Service lines may be aerial.

3.03 WATER SERVICE

- A. Install the systems in a neat and orderly manner. Make them structurally and mechanically sound. Provide continuous service. Modify, relocate and extend the systems as the work progresses.
- B. Locate systems where they will be convenient to work stations, sanitary facilities and first aid station but will not interfere with traffic, work areas, materials handling equipment, storage areas or the work of other contractors.
- C. Provide sanitary bubbler drinking fountains if potable water service is available. Disinfect water piping before using for the potable water service.
- D. Install vacuum breakers, backflow preventers and similar devices in a manner and location which will prevent temporary water from returning to the water mains.
- E. Do not incorporate any part of temporary water distribution system into the permanent water distribution system.

3.04 FIRE PROTECTION

- A. Install products in conformance with the requirements of the applicable Denver Fire Department and OSHA regulations.
 - 1. Provide functional fire extinguishers that are clearly identified for fire and an accessible supply of water during the period of construction. These fire extinguishers shall remain in place until permanent fire protection systems are functional.
 - 2. Furnish not less than one 20-pound fire extinguisher, type 2A-20ABC within ten feet of cutting and welding operations.
 - 3. Provide 20-pound fire extinguishers, type 2A-20ABC no further then 100 feet apart in buildings.
 - 4. Provide not less than one 20-pound fire extinguisher, type 2A-20ABC on any equipment of 75 horsepower or more.
- B. Instruct construction personnel as to location and use of temporary fire protection equipment.
- C. Fire extinguishers shall be located for easy access. Their location shall be clearly marked so that they can be seen at least 75 feet away.

3.05 SANITARY SERVICE

- A. Place temporary sanitary (and washing) facilities in a neat and orderly manner within the limits of the work and convenient to the work stations. Make these facilities structurally and mechanically sound. Modify, relocate and extend the facilities as required by progress of the work.
- B. Service toilets at those time intervals which will minimize the accumulation of wastes and prevent creation of unsanitary conditions, but not less than once a week.
- C. The waste from the sanitary and wash facilities shall be disposed of in accordance with all applicable rules, regulations and laws and with the least environmental impact.

3.06 FENCING

- A. Contact all utility service companies prior to planning fence location and post locations for certification of current utilities. Locate pothole posts planned within 5 feet of known utilities. Submit fencing plan and typical details to DIA Project Manager at least seven days before planned execution for review and acceptance.

3.07 SIGNAGE

- A. Contractor shall not provide any signage for temporary facilities without prior approval from the DIA Project Manager.

3.08 TEMPORARY FACILITIES AS-BUILT DRAWINGS

- A. Provide as-built drawings showing vertical and horizontal location. The location of all regulating and shut off devices along with all branches shall be shown. The as-built drawings shall be based upon the DIA grid coordinate system and benchmark. As-built drawings shall be furnished within 48 hours prior to the Contractor's request for turning on services.

3.09 REMOVAL

- A. The Contractor shall locate all temporary facilities including the underground utilities so they can be completely removed without damaging permanent work or the worksite of other contractors.
- B. The Contractor shall remove all temporary facilities, including all underground utilities, and restore the site to the condition in which the City initially provided it to the Contractor.
- C. The Contractor shall stabilize all areas of disturbance in accordance with State, local, and airport rules and regulations.
- D. In accordance with Part 1, an inspection of temporary facilities used by the Contractor is required prior to contract close out.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 015200

SECTION 015525

TRAFFIC CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The Work specified in this Section consists of furnishing plans and designs for traffic control and haul routes, implementing these plans with all necessary personnel and equipment. Installation may require, but not be limited to, signage, cones, flaggers, signal lights, lighting and temporary roads. All work must be in conformance with the Manual of Uniform Traffic Control Devices (MUTCD), Colorado Department of Highway Standard Plans. The Contractor must coordinate his proposed traffic control needs with the needs of other contractors on the airport construction site in writing through the DIA Project Manager.
- B. Reference Contract General Condition, GC 805

1.3 QUALITY CONTROL

- A. Temporary signal work shall conform to "Standard Specifications for Public Works Construction".
- B. Designate a qualified person to inspect and test traffic control devices daily and to ascertain that those devices are continuously operating, serviceable, in place and clean.
- C. Provide trained personnel who will be responsible for design, implementation and inspection of traffic control needs.

1.4 SUBMITTALS

- A. Refer to Technical Specifications Sections 013300 "Submittals" and 013325 "Shop and Working Drawings, Product Data and Samples" for submittal procedures.
- B. Submit a Traffic Control Plan (TCP) that includes, at a minimum, the following list of items for approval before starting work. Submit an updated TCP when necessary to modify traffic operation or undertake a construction activity that creates a different traffic pattern:

1. Traffic blockade and reductions anticipated to be caused by construction operations.
 2. Temporary detours.
 3. Show and describe proposed location, dates, hours and duration of detours, vehicular traffic routing and management, traffic control devices for implementing detours and details of barricades.
- C. Submit Haul Route Plan for both on- and off-site hauls. The Haul Route Plan shall be submitted 30 days prior to hauling any material. The plan shall be updated as the contractor's plans change.
- D. Specific Traffic Considerations: The DIA Project Manager may require the Contractor to revise the Traffic Control Plan to address traffic considerations not included in the Contractor's plan.

PART 2 - PRODUCTS

2.1 TRAFFIC CONTROL DEVICES

- A. Devices which include signs, delineators, striping, barriers, barricades and high level warning devices shall conform to the latest revision of the "Manual on Uniform Traffic Control Devices" and the latest revision of the Colorado Department of Transportation Standard Plans.

PART 3 - EXECUTION

3.1 TEMPORARY TRAFFIC CONTROL DEVICES

- A. Place temporary control devices in a manner that allows for the smooth flow of traffic at the posted speed limit, limiting hazards or abrupt changes in direction. Place traffic cones or delineators as directed by the MUTCD. Operate warning lights between sunset and sunrise. Place control devices so that approaching traffic is alerted to hazards and variances to normal traffic patterns. Place high rise warning flag units where motorist's visibility of warning devices, traffic signals, and pedestrian crosswalks will be either limited or obscured. Place barricades, cones and similar protective devices where personnel and equipment will be working within five feet of the edge of a lane bearing traffic. Clean and repair damaged devices or replace them with new devices as required.

3.2 TEMPORARY TRAFFIC STRIPING AND PAVEMENT MARKINGS

- A. Stripe and mark bituminous and Portland cement pavement before diverting traffic. Maintain stripes and marks until permanent traffic marking and striping has been provided, or the temporary condition is no longer required. Remove temporary striping and marks when no longer required.

3.3 FLAGGERS

- A. Furnish flaggers where construction equipment may intermittently encroach on traffic lanes, haul routes, and where construction operations would affect public or construction safety and convenience and also where active haul roads cross existing access roads.

3.4 CONSTRUCTION VEHICULAR TRAFFIC

- A. Restrict construction vehicles to approved haul routes.

3.5 CONTROLLING VEHICULAR AND PEDESTRIAN FLOW ADJACENT TO WORKSITE

- A. Ensure that construction operations will not impede normal traffic. Where work is in the area of pedestrian or occupant activity, the Contractor shall erect barriers to prevent pedestrian intrusion into the worksite. The barriers will be a minimum of 42 inches in height and shall not be penetrable from floor or grade to the top of the barrier. Barriers erected in areas where there is a change in grade of over 6 inches shall meet barrier requirements as defined in the UBC and the DBC.

3.6 SIGNS

- A. Coordinate and pay any expense associated with the furnishing and installation of all parking regulatory signs, such as "No Stopping Any Time," etc., at the worksite. The Contractor must contact the DIA Project Manager a minimum of five (5) working days in advance of construction for installation, relocation or removal of regulatory parking signs.
- B. Furnish and install any necessary advance detour or guidance signing.
- C. Authorize, modify and install regulatory parking controls and vehicle turn restrictions.
- D. Implement those traffic control modifications outside of the traffic control zone which are necessary to manage diverted traffic.

PART 4 - MEASUREMENT

4.1 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.1 PAYMENT

- A. Payment for Traffic Control under these schedules will be for work performed under the applicable unit price item, task order or lump sum bid item.

END OF SECTION 015525

SECTION 015700

ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of avoiding or mitigating adverse environmental impacts caused by construction activities in the areas of air quality, water quality, natural resources, and noise pollution. Reference the General Contract Conditions 806 (Protection of Drainage ways), 807 (Protection of Environment), 808 (Hazardous and Explosive Materials or Substances), and 809 (Archeological and Historical Discoveries).
1. The Contractor, in conducting any activity on airport property or in conducting work for an airport project not on airport property, shall comply with all applicable airport, local, state, and federal rules, regulations, statutes, laws, and orders ("Environmental Requirements"). In addition, Environmental Requirements shall include applicable Environmental Guidelines developed for DIA's Environmental Management System (EMS), as summarized in the airport's Rules and Regulations Part 180 (Environmental Management). Information on DIA's EMS as well as current versions of DIA's Environmental Guidelines and Environmental Policy are also located on the airport's website at: <http://business.flydenver.com/community/enviro/index.asp> These Environmental Requirements address, but are not limited to, requirements regarding the management of hazardous materials, petroleum products, or any other substance; the National Environmental Policy Act (NEPA); and water quality, air quality, and solid waste regulations. Each entity, including subcontractors and sub-consultants providing products, goods, or services on behalf of DIA, must be aware of the DIA Environmental Policy, the significant environmental aspects for DIA, and which of these aspects are relevant to the activities conducted by the entity.
 2. The Contractor shall comply with all Environmental Requirements and accept responsibility for compliance with all environmental quality standards, limitations and permit requirements promulgated thereunder. The Contractor shall obtain all environmental permits required for implementation of the project. Failure of these specifications to specifically mention any Environmental Requirement does not relieve the Contractor from compliance.
 3. If the City, as owner, is determined by any federal, state or local government agency, department, board or commission, or in any judicial proceeding to have violated any such environmental protection rules, laws or regulations as a result of Contractor's acts or omissions, the Contractor agrees to indemnify and hold harmless the City from any and all prosecutions, payment of any and all fines or penalties, and the cost of abatement and remediation, except that the Contractor shall not be required under General Contract Condition 807 to indemnify the City from any amounts which are attributable to the negligence of the City.
 4. Work shall not commence on any project until all FAA approvals have been received, applicable permits have been issued and signed by permittee, and all inspection requirements have been satisfied in accordance with State and local permitting requirements.

1.02 SUBMITTALS

- A. Refer to Technical Specifications Sections 013300 (Submittals) and 013325 (Shop and Working Drawings, Product Data and Samples) for procedures.

- B. Within 10 days after Notice to Proceed on a task order, the Contractor shall submit the following if applicable, unless waived by the DIA Project Manager:
1. Submittals pertaining to water quality management:
 - a. Copy of the application completed for the City and County of Denver Construction Activities Stormwater Discharge Permit (CASDP) and the CASDP issued for the project by the Denver Department of Public Works. This submittal consists of three items: the Authorization to Discharge, the Sewer Use & Drainage Permit, and the approved Construction Activities Stormwater Management Plan (CASMP).
 - 1) Revisions or amendments to the CASMP by the Contractor. At the completion of the project, after final stabilization has been achieved and accepted in accordance with CASDP requirements, the Contractor shall submit a copy of the CASDP Inactivation Request.
 - b. Copy of the certification issued by the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD) under the Colorado Discharge Permit System (CDPS) for discharges associated with construction activities and/or industrial activities. Before obtaining this permit, the Contractor shall submit a **draft** permit application and the final permit application for DIA review and approval PRIOR to submittal to CDPHE. The Contractor need not submit copies of the general permits or the general permit rationales.
 - 1) At the completion of the project, after final stabilization has been achieved and accepted in accordance with the State of Colorado CDPS requirements, the Contractor shall submit a copy of the CDPS Inactivation Notice or Notice of Termination.
 - c. Copy of the certification issued by the State of Colorado CDPS under its General Permit for Construction Dewatering Activities. Before obtaining this permit, the Contractor shall submit a **draft** permit application and the final permit application for DIA review and approval PRIOR to submittal to CDPHE. The Contractor need not submit a copy of the general permit or the general permit rationale.
 - 1) At the completion of the project, the Contractor shall submit a copy of the CDPS Notice of Termination.
 - d. Copies of any certification issued by the State of Colorado under its Industrial Permitting program for minimal discharges of process wastewater. Before obtaining a permit, the Contractor shall submit a **draft** permit application and the final permit application for DIA review and approval PRIOR to submittal to CDPHE. The Contractor need not submit a copy of the issued permit or the permit rationale.
 - 1) The Contractor shall submit copies of Discharge Monitoring Reports (DMRs) and at completion of the project, the CDPS Notice of Termination.
 - e. A copy of the well permit from the state Division of Water Resources for every new well that diverts or for the monitoring of groundwater.
 - f. A copy of the Notice of Intent for any borehole structure filed with the state Division of Water Resources.
 2. Submittals pertaining to sewage holding tanks associated with buildings and trailers. For purposes of this Section 015700, the generic term “sewage holding tank” means “individual sewage disposal system (ISDS)”, “privy vault”, “septic tank”, or “septic system”.
 - a. Copy of the permit application for a sewage holding tank.
 - b. Copy of the Sewer Use & Drainage Permit issued by the Denver Department of Public Works.
 - c. Copy of the ISDS permit issued by the Denver Department of Public Health and Environment.

3. Submittals pertaining to air quality management:
 1. Copy of any permit issued by the CDPHE Air Pollution Control Division (APCD). Before obtaining a permit, the Contractor shall submit Air Pollution Emission Notice(s) (APEN) and the final permit. In cases where the City has already obtained a dust control permit, the Contractor shall submit a copy of the paperwork transferring the permit over to the Contractor's company name and a copy of the transferred permit.
 - a. Dust control plan. For projects where the State of Colorado requires a dust control permit, a copy of such application and permit shall be submitted. This plan must address appropriate control measures that the Contractor will employ to minimize the release of fugitive dust from the site. In addition, the Contractor must comply with the requirements in Section 3.01 below.
 - b. Copies of the Notices of Relocation.
4. Submittals pertaining to storage tanks and containers:
 - a. Copy of the installation application issued by the State of Colorado, Department of Labor and Employment, Division of Oil and Public Safety, for petroleum (or other regulated substances) storage tanks located on airport property or used for the project.
 - b. Copy of permits issued by the Denver Fire Department for storage tank installations, storage tank removals, and hazardous materials use or storage.
 - c. Copy of Spill Prevention, Control, and Countermeasure (SPCC) Plan for petroleum storage tanks and containers with capacity of 55 gallons of oil or greater located on airport property or used for the project.
5. Copies of any other plans, permits, permit applications, correspondence with regulatory agencies (including violations), waste manifests, results of laboratory analyses, or other environmental documentation required for the project not previously identified.

1.03 RELATED DOCUMENTS

- A. Code of Federal Regulations (CFR) Publications (including but not limited to):
 1. 33 CFR 323 - Permits for discharges of dredged or fill materials into waters of the United States
 2. 40 CFR - Protection of Environment
 3. 49 CFR 171-180 Hazardous Materials Transportation Regulations
- B. Colorado Revised Statutes (including but not limited to):
 1. Water Quality Control, Title 25, Article 8
 2. Air Quality Control, Title 25, Article 7
 3. Hazardous Waste, Title 25, Article 15
 4. Noise Abatement, Title 25, Article 12
 5. Petroleum Storage Tanks, Title 8, Article 20.5
 6. Liquefied Petroleum Gas (LPG) Storage Tanks, Title 8, Article 20, Part 4
 7. Solid waste regulations
- C. City and County of Denver Executive Orders (including but not limited to):

1. Executive Order No. 115 – Required Use of Denver-Arapahoe Disposal Site (Landfill)
 2. Executive Order No. 123 – Greenprint Denver Office and Sustainability Policy
- D. Denver Revised Municipal Code, Title II, Sections 48-44 and 48-93 – Solid Waste
- E. City and County of Denver Construction Sites Program
- F. City and County of Denver Construction Activities Stormwater Management Plans Information Guide
- G. Any other applicable rules, regulations, ordinances, and guidance must be followed as applicable.
- H. Technical Specification section 013300 and 013325 for submittals procedures.
- I. Refer to DIA Technical Specification 017419 for Waste Management Requirements

PART 2 - PRODUCTS

2.01 PRODUCTS

- A. Products required for the work shall meet all Environmental Requirements.
- B. At a minimum, products for erosion and sediment control must conform to the technical requirements contained in the City and County of Denver Construction Activities Stormwater Manual and the current version of the Urban Drainage and Flood Control District's Urban Storm Drainage Criteria Manual, Volume 3: Best Management Practices.

PART 3 - EXECUTION

3.01 AIR POLLUTION CONTROLS

- A. The Contractor shall use appropriate control measures to comply with applicable air quality permit requirements. Additionally, the Contractor must be aware of the following procedures and techniques while conducting construction activities on DIA property. NOTE: Application of dust control measures should be discussed in the Dust Control Plan.
1. Apply water as needed to the construction site haul roads, disturbed surface areas and public access roads as needed to suppress dust. The use of chemical stabilizer can be requested by the Contractor. The type of stabilizer to be used and locations of use must be included in the Dust Control Plan, which must be approved by the DIA PM prior to application.
 2. The Contractor shall suspend all earthmoving activities if wind speed exceeds 30 mph. For purposes of this Section 015700, the generic term "earthmoving" means clearing, grubbing, excavation, topsoil removal, backfilling, embankment work, grading, trenching, drilling, and installation of borings. Contractors are expected to check wind speeds with the airport's ramp tower to demonstrate compliance with this requirement. In addition, the project may be shut down if two of three of the Runway Visual Range (RVR) instruments read visibility of 2,400 feet or less. The instruments are used by FAA Control Tower personnel to ensure safe aircraft operations. Costs for shutdowns due to wind velocities or RVR readings shall not be grounds for delay or extra cost claims.

- B. Burning of materials is strictly prohibited on DIA property.

3.02 WATER POLLUTION CONTROLS

- A. The Contractor shall conduct construction activities in accordance with all applicable permit requirements. In addition, the Contractor shall comply with the following procedures and requirements while conducting activities on DIA property.
 - 1. Water encountered during construction cannot be discharged to the stormwater system or placed onto the ground surface without a permit AND prior written approval by the DIA Project Manager. If groundwater or stormwater is anticipated to be encountered and the Contractor desires to discharge it to the stormwater system or onto the ground surface, then the Contractor must obtain an appropriate CDPS discharge permit in advance of the discharge unless this activity is specifically authorized under the CDPS Construction Stormwater Permit.
 - 2. If water is encountered and the Contractor desires to discharge these waters to the sanitary sewer system, then the Contractor must obtain approval from DIA Environmental Services in advance of the discharge.
 - 3. The Contractor shall ensure that stormwater that comes in contact with storage areas does not become impacted and discharged to the stormwater sewer system or to an impervious surface. Furthermore, any materials in storage areas shall not be stored directly on the ground (refer to DIA Technical Specification 264200 for "Cathodic Protection" Requirements).
 - 4. The Contractor shall not operate any valves, sluice gates or other drainage appurtenances related to any DIA sewer system(s) without the prior approval of both the DIA Project Manager and DIA Environmental Services. Any violation of this directive may result in the payment of a financial penalty by the Contractor if the State of Colorado assesses such a penalty.

3.03 EROSION CONTROL AND SEDIMENTATION CONTROL

- A. This work consists of constructing, installing, maintaining and removing, if required, temporary and permanent control measures during the life of the contract (and possibly afterward) until the Contractor achieves final stabilization of the site to prevent or minimize erosion, sedimentation, and pollution of any state waters in accordance with all Environmental Requirements.
- B. The Contractor is responsible for compliance with all requirements in accordance with the CASDP, the City and County of Denver Construction Sites Program, the approved CASMP, and CDPS-issued permits.
- C. The Contractor shall submit a copy of all inspection reports related to compliance with the CASDP, the City and County of Denver Construction Sites Program, the approved CASMP, and CDPS-issued permits.
- D. Temporary facilities, including but not limited to storage areas, laydowns, borrow areas, and contractor offices and work yards, shall be managed in accordance with DIA Technical Specification 015200 for Temporary Facilities.
- E. Clean soil fill may be stockpiled in any area that has been previously approved and signed off by the DIA Section Manager of Construction, Design and Planning, and Environmental Services. Soil stockpiles are considered a potential pollutant source and must be addressed

in the CASMP and/or SWMP.

- F. Make immediately available, upon the DIA PM's request, all labor, material and equipment judged appropriate by the Project Manager to maintain suitable erosion and sediment control features. These actions requested by the DIA PM take precedence over all other aspects of project construction that have need of the same labor, material and equipment, except those aspects required to prevent loss of life or severe property damage.

3.04 CONSTRUCTION OF CONTROL MEASURES FOR EROSION AND SEDIMENTATION

- A. The Contractor must install control measures in accordance with the most recent version of the Urban Drainage and Flood Control District's *Urban Storm Drainage Criteria Manual, Volume 3: Best Management Practices* and the City and County of Denver Construction Activities Stormwater Manual. Deviations from these two documents are allowed with written consent from the City and County of Denver NPDES Inspector.

3.05 STORAGE OF OIL, FUELS, OR HAZARDOUS SUBSTANCES

- A. The Contractor shall prevent oil or other hazardous substances (as defined in federal and state regulations) from entering the ground, drainage or local bodies of water, and shall provide containment, diversionary structures, or equipment to prevent discharged oil from reaching a watercourse and take immediate action to contain and clean up any spill of oily substances, petroleum products, or hazardous substances. The Contractor shall provide one or more of the following preventive systems at each petroleum storage site:
 - 1. Dikes, berms, or retaining walls capable of containing at least 100% of the volume of the largest single tank and equipped with sufficient freeboard to contain precipitation events. The secondary containment must be "sufficiently impermeable" to prevent a release to the environment.
 - 2. Culverting, curbing, guttering or other similar structures capable of containing at least 100% of the volume of the largest single tank and freeboarding from precipitation.
- B. The provision of such preventive systems shall be subject to acceptance by the DIA PM prior to tank installation and shall follow the SPCC regulations (40 CFR Part 112).
- C. Prior to bringing any containers of 55-gallon or above capacity onto DIA property for storage of oil, fuel, or other petroleum substances, the Contractor may be required to prepare an SPCC Plan that conforms to 40 CFR Part 112. The plan must include either a certification from a Professional Engineer or self-certification (if applicable), as well as management approval from the legally responsible Contractor representative.

3.06 SPILL RESPONSE AND NOTIFICATION

- A. The Contractor is responsible for all spills that may result from its activities. For ANY suspected or confirmed release or spill of oil, fuel, solid waste, hazardous waste, unknown materials, lavatory waste, or miscellaneous chemicals, etc. that occurs as the result of the Contractor's activities on DIA property, the Contractor is required to take immediate action to mitigate the release or spill and report it to the DIA Project Manager and to the DIA Communications Center at **(303) 342-4200**.
- B. The Contractor is responsible for notifying the appropriate regulatory agency(ies) in the event suspected and/or confirmed releases are identified, in accordance with regulatory requirements.

3.07 SITE REMEDIATION AND RESTORATION

- A. The Contractor shall be required to perform any necessary site assessment and remediation activities required by applicable regulatory agency(ies).
- B. During routine construction activities, the Contractor is required to manage soils using typical construction techniques. The Contractor must differentiate between soils and wastes (including contaminated soils versus clean soils) and determine those materials that can remain on DIA property and those that must be transported offsite for disposal.
- C. During all construction activities that require the management of soils, the Contractor must notify the Project Manager and DIA Environmental Services (ES) that soils being managed may be impacted by industrial activities conducted at the airport. "Process knowledge" pertaining to previous use and/or impact for the location(s) under construction can be used to determine whether impacted soils are probable. Also, common indices such as soil staining and odor can be used as a determination for the probable condition. If probable contamination conditions are suspected, the Contractor will notify the Project Manager and DIA ES immediately. At that time (which may be before the work is initiated where indicative conditions exist), all work will cease until a sampling and analysis approach is determined and implemented by the proper responder.
- D. If the site conditions warrant based on evidence of spillage or contamination, process knowledge, and/or visual or olfactory observations, the Contractor may be required to conduct sampling and analysis to confirm that no remedial action is required. Prior to conducting any removal activities, the Contractor must provide a Scope of Work to the DIA PM describing the proposed site assessment activities.
- E. The impacted project will modify its operation to include a segregation area where probable impacted soils can be placed, stored, and sampled for characterization. Should the soil materials be determined to exceed the applicable standards, the Project Manager, in conjunction with DIA ES, will be responsible for the proper disposal of these materials. Materials that are determined to contain contamination levels below the applicable standards can be considered clean soils and placed back into the excavation or reused elsewhere on DIA property. In accordance with Section 3.06, materials removed that are suitable for recycling will be placed within areas designated on DIA to store these materials.
- F. The Contractor shall restore any area on the Airport which becomes contaminated as a result of its operations. Restoration shall be either to applicable standards under federal and state law or to such other levels as may be required by the Manager of Aviation, at the Manager's sole discretion. Such restoration shall be completed at the earliest possible time, and the Contractor's restoration shall be subject to inspection and approval by the Manager of Aviation or her duly authorized representative (see DIA Rules & Regulations – Part 180).

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid items. The Contractor shall be responsible for payment of all fees associated with review of environmental permit applications and processing of environmental permits.

END OF SECTION 015700

SECTION 015810

TEMPORARY SIGNS

PART 1 - GENERAL

1.01 CONSTRUCTION SIGNAGE VISIBLE TO THE PUBLIC.

1.02 TEMPORARY DIRECTIONAL, INFORMATIONAL OR REGULATORY SIGNAGE.

1.03 QUALITY CONTROL

- A. Construction and other temporary signage visible to the public must be commercial grade quality, professionally fabricated and installed for the location of the sign. The contractor is responsible to maintain this signage until it is no longer needed.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Interior signs that are visible and not physically accessible to the public may be made of rigid board, such as "Gator Board" with vinyl messages. All edges must be finished and conceal all attachments.
- B. Interior signs that are visible and physically accessible by the public must be vandal-proof. Acceptable examples of vandal-proof signs are messages applied second surface with concealed tamperproof fasteners.
- C. Exterior signs must be vandal-proof and fabricated of weatherproof materials.

PART 3 - EXECUTION

3.01 HARDWARE

- A. Interior Signs: Attach with suitable adhesive and/or tape which may be removed with out damage to finishes.
- B. Exterior Signs: Must be secured to withstand site conditions and varying weather conditions.

3.02 SIGN FINISHES, MATERIALS AND PAINT

- A. Provide temporary signage to reflect permanent sign design and/or as directed by the Signage Design Project Manager. Submit temporary sign finishes, materials and paint, etc., for review and approval prior to any fabrication.

3.03 MAINTENANCE

- A. The Contractor is responsible to maintain temporary signage until it is no longer needed.

3.04 REMOVAL

- A. The contractor is responsible to remove all temporary signs, clean and refurbish affected areas to their original (or intended) condition.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 01 58 10

SECTION 016610

STORAGE AND PROTECTION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of providing storage and protection of the materials, products and supplies which are to be incorporated into the construction and indicating such storage areas on the working drawings with the location and dates when such areas will be available for each purpose.

1.02 SUBMITTALS

- A. Refer to Technical Specifications Sections 01 33 00 and 01 33 25 for submittal procedures. Submit concurrently with submittals required in Section 01 32 23 layout of work and survey.
- B. Submit working drawings showing locations of storage areas not indicated on the Contract Drawings.
- C. Submit descriptions of proposed methods and locations for storing and protecting products.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials required for the storage and protection of the items specified shall be durable, weatherproof and either factory finished or painted to present an appearance acceptable to the City. Storage facilities shall be uniform in appearance with similar materials used to the maximum extent possible.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS OF EXECUTION

- A. Palletize materials, products and supplies which are to be incorporated into the construction and stored off the ground. Material and equipment shall be stored only in those areas that are indicated as storage areas on the contract drawings and on the reviewed and accepted working drawings. Store these items in a manner which will prevent damage and which will facilitate inspection. Leave seals, tags and labels intact and legible. Maintain access to products to allow inspection. Protect products that would be affected by adverse environmental conditions.
- B. Periodically inspect stored products to ensure that products are being stored as stipulated and that they are free from damage and deterioration.
- C. Do not remove items from storage until they are to be incorporated into the Work.
- D. The Contractor shall ensure that all protective wrappings and coverings are secure and ballasted to prevent any items from deterioration and/or subsequent dislodgment. All items on the worksite that are subject to becoming windborne shall be ballasted or anchored.

3.02 HANDLING AND TRANSPORTATION

- A. Handling
 - 1. Avoid bending, scraping or overstressing products. Protect projecting parts by blocking with wood, by providing bracing or by other approved methods.
 - 2. Protect products from soiling and moisture by wrapping or by other approved means.
 - 3. Package small parts in containers such as boxes, crates or barrels to avoid dispersal and loss. Firmly secure an itemized list and description of contents to each container
- B. Transportation
 - 1. Conduct the loading, transporting, unloading and storage of products so that they are kept clean and free from damage.

3.03 STORAGE

- A. Store items in a manner that shall prevent damage to the owner's property. Do not store hydraulic fluids, gasoline, liquid petroleum, gases, explosives, diesel fuel and other flammables in excavations, except one day's supply of diesel fuel may be stored in open excavations.
- B. Provide sheltered weather-tight or heated weather-tight storage as required for products subject to weather damage.
- C. Provide blocking, platforms or skids for products subject to damage by contact with the ground.
- D. All material shall be stored according to the manufacturer's recommendations. Any material that has to be stored within specified temperature or humidity ranges shall have a 24-hour continuously written recording made of the applicable condition. Should the recording show that the material was not stored within the recommended ranges the material shall be considered defective and in nonconformance. If a certification from the manufacturer's engineering design representative is provided stating that the actual variations are acceptable and will in no way harm the material or affect warranties, then the deficiency will be considered corrected.
- E. Store hazardous material separately, with all material marked with a label showing the hazard and how to treat exposure to the material.

3.04 LABELS

- A. Storage cabinets and sheds that will contain flammable substances and explosive substances shall be labeled FLAMMABLE--KEEP FIRE AWAY and NO SMOKING with conspicuous lettering and conforming to OSHA requirements.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. The cost of the Work described in this Section shall be included in the applicable unit price item, task order, or lump sum bid item. See Technical Specifications Section 012910 for additional requirements for the possible payment of stored material.

END OF SECTION 01 66 10

SECTION 017419

CONSTRUCTION WASTE MANAGEMENT

PART 1 – GENERAL

1.01 SUMMARY

1. This section describes the requirements for recycling and construction waste management for construction and demolition work.
2. All wastes shall be managed in accordance with local, state, and federal regulations.
3. The contractor shall recycle 100 % by weight of concrete, asphalt, and metal; the contractor shall recycle at least 75% by weight of all other recyclable and salvageable materials.

1.02 RELATED SECTIONS

- A. Technical Specification Section 013300 and 013325 for submittal procedures.
- B. Technical Specification 015700 Environmental Control.

1.03 DEFINITIONS

- A. Salvaged Materials are defined as waste materials or materials that exist on the site that can be reused, either on site or by another entity.
- B. Recyclable Waste is defined as all waste materials that exist on site or are generated during the construction process that can be recycled and/or remanufactured into another material. Recyclable waste includes:
 - concrete,
 - ferrous and non-ferrous metals,
 - untreated wood, engineered wood,
 - gypsum wallboard,
 - corrugated cardboard, paper goods,
 - plastic,
 - glass, insulation,
 - carpet,
 - paints, fabric,
 - rubber,
 - stone and brick,

- C. Non-Recyclable Waste is defined as all waste material that is not able to be recycled due to contamination, lack of recycling facilities, or salvage options, or high cost.
- D. High Cost is defined as the cost to dispose of solid waste at a landfill plus 20%.
- E. Hazardous Waste is defined at 40 CFR 261.3, and 6 CCR 1007-3 as a solid, a liquid, or a contained gaseous material that is no longer used or that no longer serves the purpose for which it was produced and meets the definitions of the regulations.

1.04 SOLID WASTE MANAGEMENT

- A. This paragraph applies to solid waste. Solid waste is defined at 40 CFR 261.2 and includes all putrescible and non-putrescible solid, semisolid and liquid wastes, but does not include hazardous waste which is treated as a separate subset of solid waste. Hazardous waste is defined at 40 CFR 261.3, and 6 CCR 1007-3 as a solid, a liquid, or a contained gaseous material that is no longer used or that no longer serves the purpose for which it was produced and meets the definitions of the regulations. Certain types of non-hazardous solid waste may require special handling; such wastes are sometimes called “special waste.”
- B. Hazardous and special solid waste may be generated by the actions of the Contractor including, but not limited to, the direct purchase of hazardous materials, demolition, site preparation, grading, excavation, construction, or maintenance of equipment. If questionable material is encountered during construction activities, the Contractor must immediately notify the DIA Communications Center at (303) 342-4200 and the DIA Project Manager (PM). Refer to Technical Specification 01566 for additional information regarding the storage of hazardous substances.
- C. Remove scrap and waste material and dispose of it in accordance with laws, codes, regulations, ordinances, and permits.
- D. The Contractor is responsible for the safe management and disposal of all hazardous and non-hazardous solid waste and shall dispose of such waste in accordance with all environmental requirements. Waste disposal options include reuse on the project (with DIA approval only), sale, use for fuel, donation to other public or private projects, or through disposal in approved disposal sites, either free of charge or for a fee. The method of disposal is restricted according to the classification of the waste. Hazardous and non-hazardous solid waste shall not be abandoned, dumped, buried or in any other way disposed on DIA property.
- E. City and County of Denver Executive Order No. 115 requires all non-recyclable non-hazardous solid waste generated at DIA to be directed to the Denver Arapahoe Disposal Site (DADS) landfill. This includes all non-hazardous solid waste collected or transported in Denver vehicles, Contractor vehicles, or subcontractor vehicles. Through the DIA Project Manager, the Contractor shall establish accounts in advance for the disposal of non-hazardous solid waste generated on the project. Therefore, this bid shall include costs for transportation to the DADS landfill only and the City is responsible for disposal fees and any applicable State surcharges. The Contractor is responsible for any special handling charge imposed by the transporter or the DADS landfill operator.

NOTE: To establish contractor accounts, the DIA PM shall follow procedures outlined in ES-308-06.03: *Municipal and Special Solid Waste Administrative Management Work Instruction*.

1. In the interest of public relations and to maximize the long-term use of the Site, haul

routes adjacent to DADS shall be limited to State Highway 30 or E-470 unless these routes are impassable (refer to Exhibit A for preferred haul route). Specifically, Gun Club Road between Interstate Highway 70 (“I-70”) and Mississippi Avenue shall be avoided.

- F. Some of the naturally occurring material found by the Contractor, especially tar or oil-impregnated soil, may not be obviously hazardous. Physical and chemical analyses and tests may be required to determine if the material meets the criteria set forth in State of Colorado, CDPHE, Hazardous Materials and Waste Management Division (HMWMD) regulations. The Contractor shall pay for such chemical analyses and will coordinate with local authorities to determine the quantity and origin of samples analyzed for any questionable material. The Contractor will provide the classification of the material to the City.
- G. The routes to be followed when transporting solid or hazardous wastes may be subject to the approval of the local agency having jurisdiction.
- H. The Contractor shall not wash down equipment in such a manner as to flush grease and oils into the project site or onto airport property unless the waste is properly contained, treated, and disposed.
- I. The Contractor shall maintain copies of MSDSs for any and all materials used at the airport project, at its on-site project office or other designated location. DIA Environmental Services may, at any time, request copies of MSDSs and/or waste manifests for any waste shipments from the project site. Any such request must be fulfilled within 1 business day.
- J. The Contractor shall require all shipments to the worksite to contain documentation that shows whether the material is hazardous or requires special handling, storage, or disposal; what type of material it is; what hazard(s) it poses; how to treat exposure(s); and the quantity of hazardous material in the shipment. This information must be provided to the DIA PM prior to any hazardous material being allowed on site.
- K. Before leaving the site with any hazardous waste or material requiring special handling, storage or disposal, the Contractor must provide the DIA PM with a detailed description of the material, its source, quantity, who is hauling it off site, and where it is being taken, along with verification that the destination site can legally receive it.

1.05 WASTE MANAGEMENT PLAN

- A. The Contractor shall submit a Waste Management Plan within 10 days of NTP to the PM and DIA Environmental Services that meets these minimum requirements:
 - 1. Contractor's name and contract number;
 - 2. Include a communication plan that will describe how the waste management plan will be conveyed to each new subcontractor that comes onto the site and how containers will be identified.
 - 3. A list of all materials, products, and wastes generated by the project; materials that require special handling or storage for environmental, safety, or fire code reasons; and acknowledgment whether any of the wastes will become regulated wastes upon disposal. The list of materials, products, and wastes may include, trash and unclassified construction debris, asphalt spoils, concrete spoils, pavement sweepings, soils contaminated by chemicals or petroleum products during the project, lime and cement trimmings, scrap metal, and every chemical product used on the project. Reuse of a product on site for its original intended purpose (e.g., cement trimmings

from one part of the project used elsewhere on the airport) does not constitute generation of a waste for disposal.

4. A copy or an electronic link to MSDSs for any and all materials used.
5. A list of salvaged materials and recyclable waste. The list should detail the measures taken to salvage and/or recycle waste.
6. Identify and justify non-recyclable waste. Justification for non-recyclable waste should include at a minimum: cost and/or logistical obstacles that preclude a contractor from salvaging or recycling the waste. This justification must be approved by DIA Environmental Services.
7. For each material and product listed, the Contractor shall identify the storage method, and identify measures to store hazardous waste separately from non-hazardous waste.
8. For each waste listed, the Contractor shall identify the handling/transportation method, the disposal method, and the disposal facility utilized.
9. If the Contractor anticipates generation of hazardous waste, the Contractor shall provide its USEPA (generator) identification number.
10. Describe project practices which will reduce waste at the source, such as requiring vendors to deliver materials in reusable packaging.
11. Tonnage calculations that demonstrate the contractor will meet the Waste Management Goals to recycle, reuse, or salvage the demolition materials generated. Calculation shall be done by weight (tons).
12. Pollution prevention measures.
13. Training measures for management of hazardous materials and hazardous wastes on site.
14. Approval of Contractor's Waste Management Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations.

1.06 CONSTRUCTION DEBRIS RECYCLING

- A. The contractor shall salvage or recycle all materials and wastes as defined in 1.03. The Contractor is responsible for coordinating all aspects with regard to recycling. The Contractor is encouraged to contact DIA Purchasing or DIA Environmental Services for information regarding recycling policies and practices.
- B. Dry concrete and asphalt materials are to be recycled. DIA maintains two dry concrete and asphalt recycling yards used for the accumulation and crushing of these materials. The only allowable materials at the recycle yards are dry concrete and asphalt materials derived from construction activities occurring on DIA property. The South Yard is located on 71st Ave just east of Jackson Gap Street. The North Yard is located on the south side of 110th, west of Queensburg Street. The use of these yards must be approved by the DIA PM.
 1. Concrete washout activities are prohibited anywhere on DIA property unless a) the activity is specifically authorized under a CDPS permit and included in the SWMP or b) the wash-water is collected and hauled offsite for disposal at an appropriately permitted facility. Concrete washout activities authorized by permit are only allowed at a designated concrete washout area as indicated in the approved CASMP and include the washing of the chute and tools ONLY. Concrete washout spoils are eligible for recycling once the washout has been segregated and allowed to dry and harden in accordance with permitted methods.

2. Rejected loads and/or other wet concrete or asphalt materials are prohibited to be placed ANY WHERE on DIA property unless the Contractor holds a permit that authorizes the placement of such material on the site. Unless specifically authorized in a CDPS permit issued to the Contractor, these materials must be returned to the facility of origination or other permitted facility for proper disposal.
3. A Recycle Materials Manifest is required to be filled out by the Contractor for each load of concrete or asphalt placed in these areas and given to the responsible Project Manager. It will be the responsibility of the Contractor to ensure the accuracy and completeness of the manifests. The Contractor will also be responsible for instituting controls to ensure that only the manifested materials are placed in the approved site. If two or more Contractors have material going into a site at the same time, they will need to coordinate their efforts to ensure that only approved and manifested materials are allowed on the site.
4. A copy of all manifests must be turned in on a monthly basis to the PM and DIA Environmental Services. A copy of the Recycled Materials Manifest form is available from the DIA PM.

1.07 SUBMITTALS

- A. The Contractor shall submit a Disposal and Recycling Summary Report once a month to the PM and DIA Environmental Services, quantifying the construction and demolition waste generated and recycled, reused, salvaged or disposed of on a monthly basis. This Disposal and Recycling Summary Report shall be in the format of Appendix A: The Contractor shall include the recycled materials manifests; weight tickets, receipts, and invoices specifically identifying the Project and waste material.
- B. The contractor shall submit a Waste Management Plan within 10 days of NTP to the Project Manager and DIA Environmental Services. See Section 1.06 for Waste Management Plan Requirements. Products (not used)

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 IMPLEMENTATION OF WASTE MANAGEMENT PLAN

- A. The Contractor is fully responsible to comply with all laws and regulations applicable.
- B. The City will deduct any fines, back-charges or any associated costs due to the Contractor's lack of compliance with all rules law and regulations.

THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL IMPACTS OF THE CONSTRUCTION ACTIVITIES BASED ON A PERFORMANCE BASIS AND WILL BE REQUIRED TO BE PROACTIVE TO AVOID ANY FORESEEABLE NEGATIVE IMPACT WHETHER NOTED IN THE APPROVED PERMIT CONDITIONS ON THE PLANS OR WHETHER IT IS REQUIRED AS PART OF THE PERMIT OR NOT.

PART 4 - PAYMENT

4.01 METHOD OF PAYMENT

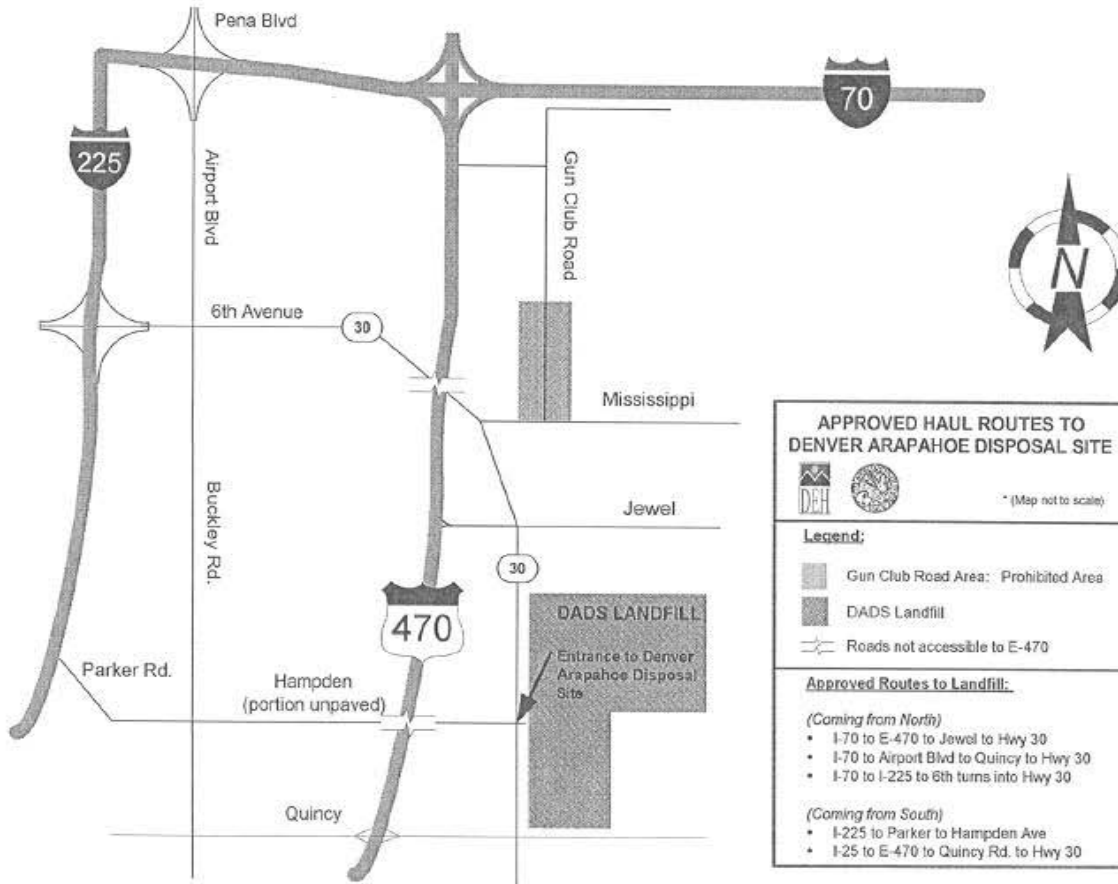
- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item. The Contractor shall pay all applicable and charges as shown in Appendix B of this Section. Where the Contract Bid items assigns an allowance line item; The Contractor will be paid on actual invoices for recycling costs but no time will be paid

more than the cost of waste dump at landfill plus 20% and hauling.

NOTE: Concrete and asphalt waste materials are considered a potential pollutant source and must be addressed in the CASMP and/or SWMP.

EXHIBIT A

MAP OF ROUTE TO DADS LANDFILL



Appendix A. Monthly Summary of Solid Waste Disposal and Diversion

Project Name _____				Project Number _____			
Contractor Name _____				License Number _____			
Contractor Address _____							
Month/year _____							
Solid Waste Material	Recycled, Reused, Salvaged or Disposed	Date Material Disposed/ Diverted	Amount Disposed (Tons)	Amount Diverted (Tons)	Municipal Solid Waste Facility	Recycling /Reuse Facility	Comment (if disposed, state why not diverted.)
Concrete	1		n/a		n/a		
Ferrous/nonferrous metals			n/a		n/a		
Asphalt			n/a		n/a		
Untreated wood/engineered wood							
gypsum wall board							
corrugated cardboard, paper goods			0	0			
plastic			0				
glass, insulation							
carpet							
Paints							
fabrics							
Rubber							
Stone and brick							
Diversion rate (excluding concrete metal, and asphalt)				#DIV/0!			
All receipts or equivalent for salvage, recycling, reuse, and disposal are hereby attached. This project has recycled all of the concrete and asphalt and at least 75% of all other debris generated.							
Contractor signature _____				Date _____			
DIA Approval: _____							

Appendix B

Schedule of Prices (2014)

Excludes Applicable Taxes and Fees:

Incoming Recyclable Rubble Clean, uniform size, pre break and stokpiled.	Price	Unit
Weigh and inspect Incoming Rubble	\$0.48	per ton
<24" Rubble size	\$2.30	per ton
>24" Rubble Size	\$6.03	per ton
Structural Reinforced Rubble	\$13.92	per ton
Reinforced Concrete Pipe	\$9.85	Lin Ft.
Outgoing Recycled Material		
Class 6- CDOT ¾" recycled Concrete Base	\$5.43	per ton
Class 6- CDOT ¾" recycled asphalt Base	\$5.43	per ton
Class 5- CDOT 1 ½" recycled Concrete Base	\$5.33	per ton
Class 5- CDOT 1 ½" recycled asphalt Base	\$5.33	per ton
Class 1 - CDOT Structural Fill	\$4.68	per ton
-2" x ¾" Concrete Dry Screened Stone	\$12.03	per ton
-4" x 2" Concrete Dry Screened Stone	\$11.05	per ton
ASTM (#57/#67) Concrete Dry Screened	\$16.83	per ton
DIA Stone (6" & 12")	\$22.08	per ton
¾" Fines	\$3.33	per ton
Load Recycled Material (Out- Going)	\$0.84	per ton
Weigh Recycled Material (Out-Going)	\$0.48	per ton

SECTION 017420

CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this section consists of maintaining a clean, orderly, hazard free worksite during construction, and final cleaning for the City's Final Acceptance. Failure to maintain the worksite will be grounds for withholding monthly payments until corrected to the satisfaction of the Project Manager.

1.02 JOB CONDITIONS

A. Safety Requirements

1. Maintain the worksite in a neat, orderly and hazard-free manner in conformance with all federal, state and local rules, codes, regulations and orders, including all OSHA requirements, until Final Acceptance of the Work. Keep catwalks, underground structures, worksite walks, sidewalks, roadways and streets, along with public and private walkways adjacent to the worksite, free from hazards caused by construction activities. Inspect those facilities regularly for hazardous conditions caused by construction activities.

B. Hazards Control

1. Store volatile wastes in covered metal containers and remove those wastes from worksite daily.
2. Do not accumulate wastes which create hazardous conditions.
3. If volatile and noxious substances are being used in spaces that are not naturally ventilated, provide artificial ventilation.
4. Hazard controls shall conform to the applicable federal, state and local rules and regulations.
5. Provide appropriate waste receptacles in all areas in which employees are working. Waste receptacles shall be kept covered at all times. All materials on site shall be anchored and covered to prevent any objects from becoming wind-borne.

C. Access

1. Maintain the worksite to permit access by other City contractors as required and to allow access by emergency personnel.

1.03 SUBMITTALS

- A. Washing Plan. The Contractor shall prepare a plan describing the specific procedures and materials to be utilized for any equipment, vehicle, etc. washing activities. The plan must be submitted to the PM and also approved by the PM and Environmental Services. Outdoor washing at DIA is not allowed unless the materials will be collected or managed in a manner to ensure that they will not enter the municipally-owned separate storm sewer system (MS4). The materials can only be disposed at a location pre-approved by DIA Environmental Services (refer to DIA SWMP). Failure to comply with this requirement would result in the

discharge of non-stormwater. Indoor washing must be conducted in accordance with the Best Management Practices (BMPs) detailed in the DIA SWMP. Refer to Technical Specification 01 57 00. In addition, all indoor washing must be conducted in a manner that ensures that there are no prohibited discharges to the sanitary sewer system.

PART 2 - PRODUCTS

2.01 CLEANING MATERIALS

- A. Utilize the type of cleaning materials recommended by the manufacturer for the surfaces to be cleaned.
- B. Maintain current Material Safety Data Sheets (MSDS) on site for all chemicals. DIA Environmental Services must approve the chemicals used prior to discharge to the sanitary sewer system.
- C. Ensure proper disposal of all wastes generated from the use of these materials. Must ensure compliance with all environmental regulations. No wastes can be disposed on DIA property.

PART 3 - EXECUTION

3.01 INTERIM CLEANING

- A. Clean the worksite every shift/workday for the duration of the construction contract. Maintain structures, grounds, storage areas and other areas of worksite, including public and private properties immediately adjacent to worksite, free from accumulations of waste materials caused by construction operations. Place waste materials in covered metal containers. All hard concrete, steel, wood and finished walking surfaces shall be swept clean daily.
- B. Remove or secure loose material on open decks and on other exposed surfaces at the end of each workday or more often in a manner that will maintain the worksite hazard free. Secure material in a manner that will prevent dislodgment by wind and other forces.
- C. Sprinkle waste materials with water or acceptable chemical palliative to prevent blowing of dust.
- D. Promptly empty waste containers when they become full and legally dispose of the contents at dumping areas off the City's property.
- E. Control the handling of waste materials. Do not permit materials to be dropped or thrown from structures.
- F. Immediately remove spillage of construction related materials from haul routes, work site, private property, public rights of way, or on the Denver International Airport site.
- G. Clean only when dust and other contaminants will not precipitate upon newly painted surfaces.
- H. Cleaning shall be done in accordance with manufacturer's recommendation.
- I. Cleaning shall be done in a manner and using such materials as to not damage the Work.
- J. Clean areas prior to painting or applying adhesive.

- K. Clean all heating and cooling systems prior to operations. If the contractor is allowed to use the heating and cooling system it shall be cleaned prior to testing.
- L. Clean all areas that will be concealed prior to concealment.
- M. Dispose of all fluids according to the approved Washing Plan.

3.02 FINAL CLEANING

- A. Inspect interior and exterior surfaces, including concealed spaces, in preparation for completion and acceptance.
- B. Remove dirt, dust, litter, corrosion, solvents, discursive paint, stains and extraneous markings.
- C. Remove surplus materials, except those materials intended for maintenance.
- D. Remove all tools, appliances, equipment and temporary facilities used in the construction.
- E. Remove detachable labels and tags. File them with the manufacturer's specifications for that specific material for the City's records.
- F. Repair damaged materials to the specified finish or remove and replace.
- G. After all trades have completed their work and just before Final Acceptance, all catch basins, manholes, drains, strainers and filters shall be cleaned; roadway, driveways, floors, steps and walks shall be swept. Interior building areas shall be vacuum cleaned and mopped.
- H. Final cleanup applies to all areas, whether previously occupied and operational or not.
- I. Dispose of all fluids according to the approved Washing Plan.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item.

END OF SECTION 017420

SECTION 01 77 20

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work specified in this Section includes procedures required prior to Final Acceptance of the Work in addition to those specified in Title 20 of the General Conditions and Technical Specification Section 01 78 40 – Contract Record Documents.
- B. This Section also includes procedures and penalties to ensure prompt completion of the project closeout.

1.02 RELATED REQUIREMENTS

- A. Title 20 of the General Conditions
- B. General Specification Section 01 78 40 – Contract Record Documents
- C. General Specification Section 01 99 90 – Standard Forms

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PREPARATION FOR FINAL INSPECTION

- A. Before requesting inspection for Final Acceptance of the Work by the City, the Contractor shall inspect, clean, and repair the Work as required.
- B. The Contractor shall ensure that all items on the Closeout Checklist have been addressed and accepted by the DIA Project Manager.

3.02 FINAL INSPECTION

- A. The Contractor shall submit written certification to the DIA Project Manager when, in the opinion of the Contractor, the Work is complete. Such communication shall certify that:
 - 1. The Work has been inspected by the Contractor for conformance with the Contract Documents.
 - 2. The Work has been completed in conformance with the Contract Documents, including all punchlist items.
 - 3. The Work is ready for final inspection by the City.
 - 4. All as-built documents have been submitted and accepted.
 - 5. All damaged or destroyed real, personal, public, or private property impacted by the Work has been repaired or replaced.
 - 6. All Warranties and Bonds have been completed, executed, submitted, and accepted.
 - 7. All personnel badges and vehicle permits have been returned to DIA Airport Security.

- B. The DIA Project Manager will inspect the Work in accordance with the Section 2002.1 of the City and County of Denver's Department of Aviation's General Contract Conditions.
- C. If the DIA Project Manager finds incomplete or defective Work:
 - 1. The DIA Project Manager may, at the DIA Project Manager's sole discretion, either terminate the inspection, or prepare a punchlist and notify the Contractor in writing, listing the incomplete or defective Work.
 - 2. The Contractor shall take immediate steps to remedy all identified deficiencies and resubmit a written certification to the DIA Project Manager that Work is complete.
 - 3. The DIA Project Manager will then re-inspect the Work.

3.03 RE-INSPECTION FEES

- A. Should the DIA Project Manager be required to perform re-inspection(s) of the Work due to the Contractor prematurely claiming the status of the Work to be complete:
 - 1. The Contractor shall compensate the City for such additional services at the rate of \$125.00 per man-hour, with a minimum charge of \$250.00.
 - 2. The City shall deduct the amount of such compensation from the final payment to the Contractor.

3.04 FINAL SURVEY FEES

- A. The Contractor shall complete and submit the final survey within 60 days after issuance of substantial completion. If the Contractor fails to complete and submit the final survey within this time frame it is understood that DIA will arrange for a qualified Surveying company to complete this work at the Contractor's expense. All costs associated with DIA arranging for and completing the final survey will be deducted from the final payment including compensation due the City for the Project Manager's time to manage this work.
 - 1. The Project Manager's rate of compensation shall be set at \$150.00 per man-hour.
 - 2. Survey submittals needing to be revised may extend the 60 day time frame at the Project Manager's discretion.
 - 3. Costs, including the Project Manager's, for the review of the resubmitted survey shall be deducted from the final payment.

3.05 LATE CLOSEOUT FEES

- A. Within 60 days after issuance of substantial completion, all documentation required by this contract to achieve project closeout shall be submitted. Failure to submit all required documentation shall result in fees to compensate the City for project management work while the project remains open.
 - 1. Fees at a minimum of two hours per working day for the Project Manager at the rate listed above.
 - 2. Fees at a minimum of four hours per working day for the Contract Administrator at the rate of \$75.00 per hour.
 - 3. The resubmittal of required documents may extend the 100 day time frame at the Project Manager's discretion.

A working day shall be defined as Monday through Friday excluding City holidays.

3.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a Final Statement of Accounting to the DIA Project Manager.
- B. The Final Statement of Accounting shall reflect all adjustments to the Contract Value and shall include the following:
 - 1. The original Contract Value.
 - 2. Additions and deductions resulting from:
 - a. Approved Change Orders
 - b. Allowances
 - c. Final quantities for unit price items, including required backup for the quantities
 - d. Deductions for corrected work
 - e. Penalties
 - f. Deductions for liquidated damages
 - g. Deductions for re-inspection payments
 - h. Other adjustments
 - 3. Total Contract Value, as adjusted
 - 4. Previous payments
 - 5. Sum remaining due
- C. If required, the DIA Project Manager will prepare a final Change Order, reflecting the approved adjustments to the Contract Value that were not included in previously issued Change Orders.

3.07 FINAL APPLICATION FOR PAYMENT

- A. The Contractor shall submit the final application for payment in accordance with the procedures and requirements detailed in Title 20 of the General Conditions.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for Work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for Work under this Section, including any and all necessary relocations requested by the City. The cost of the Work described in this Section shall be included in the applicable bid items or contract price.

END OF SECTION 01 77 20

SECTION 017835

WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of preparing and submitting warranties and bonds required by these specifications.

1.02 SUBMITTALS

- A. Refer to Technical Specifications Section 013300 for submittal procedures.
- B. Submit executed warranties and bonds.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 WARRANTIES AND BONDS

- A. Execute the warranties and bonds required by the Contract Documents. Prepare and submit a list of all warranties and bonds on the form provided by the City. Reference Technical Specifications Section 019990.
- B. Provide warranties or bonds for the materials, labor and time period set forth in the sections of these specifications requiring such documents. All warranties shall be for a minimum period of one year unless the technical specifications for a specific item require a greater period of time.
- C. Provide all warranties and bonds that the manufacturer or supplier furnishes at no additional cost in regular commercial trade. All warranties shall be for a minimum period of one year unless the technical specifications for a specific item require a greater period of time.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item.

END OF SECTION 017835

SECTION 017840

CONTRACT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work specified in this Section consists of maintaining, marking, recording and submitting contract record documents which include shop drawings, warranties, contract documents and contractor records.

1.02 RELATED DOCUMENTS

- A. Refer to DIA –Design Standard Manual (DSM) 12 and Approved BIM execution for data format and file types acceptable for different type of data.
1. Section 013300 Submittals
 2. Section 013325 SHOP AND WORKING DRAWINGS, PRODUCT DATA AND SAMPLES.
 3. Section 013100 PROJECT MANAGEMENT AND COORDINATION.
 4. Section 013223 CONSTRUCTION, LAYOUT, ASBUILT AND QUANTITY SURVEYS.
 5. Section 017720 CONTRACT CLOSEOUT
 6. Section 017840 OPERATION AND MAINTENANCE DATA.

1.03 SUBMITTALS

- A. Each submittal of record documents shall contain the following information:
1. Date
 2. Project title and numbers
 3. Contractor's name and address
 4. Title and number of each record document
 5. Certification that each document as submitted is complete and accurate
 6. Signature of the Contractor or his authorized representative.
- B. At the completion of this contract, deliver all record documents including the following:
1. As-built shop drawings, diagrams, illustrations, schedules, charts, brochures and other similar data
 2. Warranties, guarantees and bonds
 3. Contract documents
 4. Contractor records.
- C. As-built contract drawings shall be submitted with each monthly progress payment application, and a complete set shall be submitted prior to final payment.
1. The Contractor shall provide a single electronic copy of each contract drawing sheet

which has been used to produce work during the payment period or work that payment is being requested on, which records the current as-built conditions of work, including the posting of any change orders or change directives not shown on the contract documents at the time of contract signing.

- a. The Contractor must show as-built work completed through the payment application date including but not limited to utilities, empty conduit, conduit for actual electrical lines, plumbing, HVAC, location of anchor bolts and support points for use by others.
- b. The Contractor shall be liable for any costs incurred by the City or a third party due to errors or lack of information provided on the as-built drawings.
- c. All markings on drawings shall be legible to identify the portion of work completed.
- d. For projects utilizing BIM system by the Contractor or a consultant of the Contractor; all data formats shall be compatible and as approved by the BIM execution plan.as required in DSM 12.

1.04 QUALITY CONTROL

- A. Record documents shall be prepared to a high standard of quality, such as that set forth in MIL STD 100, ANSI Standard Drafting Manual Y14 or other relevant lower tier specification defining equal drafting quality for microfilming, except for daily reports.
- B. For projects utilizing BIM for Revit; follow approved BIM execution plan and DIA DSM 12 for record documents, formats and quality control and assurance procedures.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 MAINTENANCE OF DOCUMENTS

- A. The Contractor must follow all the procedures established in the Contract Documents and DIA-DSM 12
- B. The Contractor shall maintain at the worksite on a current basis one record copy of all drawings, specifications, addenda, change orders, approved shop drawings, working drawings, product data and samples in good order and marked currently to record all changes made during construction.
- C. Maintain at the field office one copy of the following record documents:
 1. Contract Documents
 - a. Contract drawings with all clarifications, requests for information, directives, changes and as-built conditions clearly posted.
 - b. Contract specifications with all clarifications, requests for information, changes, directives and record of manufacturer actually used along with product trade name.
 - c. Reference Standards in accordance with Technical Specifications Section 01091.
 - d. Affirmative Action Plan and documents.
 - e. One set of drawings to record the following:
 - 1) Horizontal and vertical location of underground utilities affected by the Work.
 - 2) Location of internal utilities; include valves, controls, conduit, duct work, switches, pressure reducers, size reducers, transitions, crosses, tees, filters, motors, heaters, dampers, regulators, safety devices, sensors, access doors and appurtenances that are concealed in the construction shall be shown with

- dimensions given from a visible and recognizable reference to the item being located in all three dimensions. The drawing shall also reference the applicable submittal for the item being located.
- 3) Field changes of dimensions and details including as-built elevations and location (station and offset).
 - 4) Details not on original contract drawings but obtained through requests for information or by other communications with the City.
2. Contractor Records
 - a. Daily QC Reports
 - b. Certificates of compliance for materials used in construction
 - c. Nonconformance Reports (NCRs)
 - d. Remedial Action Requests (RARs)
 - e. Completed inspection list
 - f. Inspection and test reports
 - g. Test procedures
 - h. Qualification of personnel
 - i. Approved submittals
 - j. Material and equipment storage records
 - k. Safety Plan
 - l. Erosion, sediment, hazardous and quality plans
 - m. Hazardous material records
 - n. First report of injuries..

3.02 RECORDING

- A. Label each document page or article "PROJECT RECORD" in two inch high letters.
- B. Keep record documents current daily.
- C. Legibly mark copies of the contract drawings to record actual construction.
- D. Legibly mark up each Section of the technical specifications and contract drawings to record:
 1. Manufacturer, trade name, catalog number and supplier of each product and item actually installed
 2. Changes made by change orders, requests for information, substitutions and variations approved by submittals.

3.03 DOCUMENT MAINTENANCE

- A. Follow all the required processes of the approved BIM Execution Plan as approved by DIA for this specific project or in formats acceptable to DIA BIM management system.
- B. Do not use record documents for construction purposes.
- C. Make documents available for inspection by the Project Manager and any others having jurisdiction.

3.04 MONTHLY REVIEW

- A. Prior to any application for payment, the DIA Project Manager or his designated representative will inspect the record documents to ensure that they are being maintained and contain the most current correct data with particular attention to as-built drawings.
- B. If, during the inspection, the DIA Project Manager determines that the documents are not being maintained and kept current as to as-built conditions, an amount may be withheld from the payment request and deducted from the contract value to cover the City's cost of collecting and recording the as-built contract data. This cost will be determined on the basis of \$100.00 per man-hour of effort.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, task order or lump sum bid item.

END OF SECTION 017840

SECTION 019990
STANDARD FORMS

PART 1 - GENERAL

1.01 FORMS

- A. The forms listed below and appended to this Section will be used for performance of the Work as indicated. This is not a complete listing of all required forms. The Contractor shall properly complete all forms required by the contract or the DIA Project Manager. The Project Manager shall review and approve all submitted forms. If submitted forms are not acceptable the Contractor shall resubmit forms in an acceptable format.

1.02 APPENDICES

- A. Attached to this Technical Specifications Section are the following forms:
1. Daily Quality Control Report (Form CM-13) (1 Page)
 2. Request for Information (Form CM-17) (1 Page)
 3. Submittal Transmittal Form (Form CM-30) (Page 1 of 2)
 4. Submittal Transmittal Form (Form CM-30) (Page 2 of 2)
 5. Contractor Warranty (Form CM-10) (4 Pages)
 6. Contractor/Subcontractor Warranty (Form CM-11) (4 Pages)
 7. Contractors Certification of Payment (Form CM-19) (this form shall be completed and submitted with each pay application) (1 Page)
 8. Pay Application Form (CM-18) (1 Page)
 9. Certificate of Current Cost or Pricing Data (Form CM-69) (1 Page)
 10. Subcontractor Partial Lien Release Form (Form CM-26) (1 Page)
 11. Subcontractor Final Lien Release Form (Form CM-70) (1 Page)
 12. Request for Substitution (Form CM-09) (5 pages)
 13. Closeout Check List (CM-75)
 14. System Shutdown Request Forms:
 - a. Roadways

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 COMPLETING FORMS

- A. All documents are to be filled digitally by the Contractor using the format provided by the DIA Project Manager or using Adobe Acrobat 6 or newer. It is at the discretion of the DIA Project Manager if other forms or formats will be accepted.

3.02 SIGNING FORMS

- A. Original hand written signatures are acceptable for all documents. The Contractor is to fill out the document as indicated above prior to signing the hard copy. If the form is to be submitted digitally to the Project Manager the document shall be scanned and saved as an Adobe Acrobat 6 or newer file.
- B. Digital signatures are acceptable for all documents. The Contractor is to fill out the document digitally in the format provided by the DIA Project Manager or Adobe Acrobat 6 or newer. The file must be signed using Adobe Acrobat 6 or newer and submitted digitally to the Project Manager.
 - 1. Add digital signatures must contain the name of signer in plain text and the time and date the signature is executed.

PART 4 - MEASUREMENT

4.01 METHOD OF MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

PART 5 - PAYMENT

5.01 METHOD OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the applicable unit price item, work order or lump sum bid item.

END OF SECTION 019990



DENVER INTERNATIONAL AIRPORT

Contractor's Daily Quality Control Inspection Report

DIA Project Name: _____

Contractor: _____ DIA Project No: _____

Subcontractor: _____ Date: _____

Prepared By: _____ Report No.: _____

Weather: Sunny Fair Cloudy Rain _____ inches Snow _____ inches
 Max. Wind: _____ mph Max/Min Temp. _____ deg F / _____ deg F

CONTRACTOR:		MAJOR SHIPMENTS RECEIVED and INSPECTED			
START	STOP	MATERIAL	SUBMITTAL NUMBER	MATCH SUBMITTAL	
				YES	NO
SUBCONTRACTOR:					
START	STOP				
SUBCONTRACTOR:					
START	STOP				
SUBCONTRACTOR:					
START	STOP				

METHODS OF MATERIAL AND EQUIPMENT STORAGE:	EQUIPMENT ON SITE		
	DESCRIPTION	NO.	HRS.

DAILY ACTIVITIES REQUIRING INSPECTION (INCLUDE SPECIFICATION REFERENCE, MATERIAL, DESCRIPTION OF INSPECTION, AND RESULTS OF INSPECTION):			

CERTIFIED BY (signatures required):

Inspector: _____

Program Manager: _____

NOTE: This report must be completed with legible handwriting and submitted to the City and County of Denver Project Manager with original signatures. Use a separate sheet per shift.



DENVER INTERNATIONAL AIRPORT

DIA Project Name: _____

Contractor: _____ DIA Project No.: _____

Subcontractor: _____ Date: _____

Prepared By: _____ Report No.: _____

Daily Quality Control Inspection Report

(CONTINUED)

DAILY ACTIVITIES REQUIRING INSPECTION CONTINUED

DEFICIENCY NOTES:

CORRECTIVE ACTION TAKEN:

PROBLEMS AND UNUSUAL OCCURENCES:

DAILY MATERIAL QUANTITIES AND QC FIELD TESTING SUMMARY

Material Type / Specification Section References	Approximate Quantity	Testing Required	Testing Performed	Additional Testing Performed	Draft Tests Provided	
					Yes (v)	No (v)

NOTE: This report must be completed with legible handwriting and submitted to the City and County of Denver Project Manager with original signatures. Use a separate sheet per shift.

DENVER INTERNATIONAL AIRPORT REQUEST FOR INFORMATION

Contractor: _____
Subcontractor: _____
Contract Title: _____
Site Location: _____

RFI No.: _____
Procurement No.: _____
Date Logged: _____
Logged by: _____

Subject: _____ Reply Required by: _____ URGENT?
Dwg./Spec. No.: _____ Detail/Sec. No.: _____

Problem: _____

Proposed Solution from Contractor by:	Date:	Reviewed By:
---------------------------------------	-------	--------------

Response by Project Manager:

Solution by:	Date:	Reviewed By:	Date:
--------------	-------	--------------	-------

SUBMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE (Read instructions on the reverse side prior to initiating this form)	DATE:	<input type="checkbox"/> New Submittal <input type="checkbox"/> Resubmittal
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REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the Contractor)

TO: City and County of Denver 8500 Pena Boulevard Denver, Colorado 80249 Attention:	FROM:	CONTRACT NO.	SUBMITTAL NO. PREVIOUS SUBMITTAL NO.
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Q T E M #	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	CAT. CURVE DRAWING OR BROCHURE NO. (See Instruction No. 7)	No. of Copies	CONTRACT REFERENCE DOCUMENT		VAR. (See Instruction No. 5)	FOR CCD ACTION CODE
				SPEC. PARAGRAPH NO.	DRAWING SHEET NUMBER		
Á	Á	&É	áÉ	^É	-É	*É	@É

REMARKS:	APPROVAL ACTION
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C	[]	F9J-69 / F9GI 6A-H	Item Nos.																		
E	[]	BCH5779DH98	Item Nos.																		
F	[]	F979-DH57?BCK @8; 98 "	Item Nos.																		

COMMENTS BY PROJECT MANAGER ATTACHED (if applicable)

CM-30 INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each submittal shall be numbered consecutively in the space provided for "Submittal No.". This number shall begin with the overall sequential number 001 through the last total number of submittals to date. This number shall not be repeated. Next, show the specification section number (e.g.; 01370) and end with the specification section sequential number 001 through the last submittal in that section.

EXAMPLE NO. 1: 005-01370-002 five submittals have been logged overall with two submittals made to specification section 01370.

EXAMPLE NO. 2: 009-01370-002R1 nine submittals made overall and one revision to submittal 01370-002.

Mark the appropriate box "New Submittal" or "Resubmittal". For first time specification section submittals place the submittal number in the "Transmittal No." box and an N/A in the "Previous Submittal No." box. For resubmittals place the new submittal number in the "Submittal No." box with the previous submittal number of that item in the "Previous Submittal No." box.
3. The "Item No." will be consecutive from 001 to the last item on the submittal form.
4. Use separate submittal forms for each specification section. Do NOT use more than one specification section on the same CM-30.
5. A check mark shall be placed in Column "g" when a submittal is not in accordance with the plans and specifications. Include a written statement to that effect in the "Remarks" box.
6. This form is self-transmitted; a separate Letter of Transmittal is NOT required.
7. When a sample of material or manufacturer's Certificate of Compliance is submitted, indicate "Sample" or "Certificate" in Column "c".
8. The CCD approving authority will assign action codes as indicated below in spaces provided in Column "h" for each item submitted. In addition, the CCD will ensure enclosures are indicated and attached to the form prior to return to the Contractor.

THE FOLLOWING ACTION CODES SHALL BE GIVEN TO ITEMS SUBMITTED:

A - Accepted as submitted.	E - Not Accepted.
B - Accepted as Noted. Resubmission is NOT required.	F - Receipt Acknowledged.
C - Revise and Resubmit. Resubmission IS required.	
9. Acceptance of items does not relieve the Contractor from complying with all requirements of the contract plans and specifications.

DENVER INTERNATIONAL AIRPORT CONTRACTOR WARRANTY

CONTRACT NO.

Contractor: _____

Work - means all work performed by the Contractor under the contract referred to above.

City - means the City and County of Denver, Colorado

Contract Documents - means contract documents for the DIA contract between the City and the contractor referred to above.

I. CONTRACTOR'S WARRANTIES AND CORRECTION WORK

A. The contractor warrants to the City that all parts, materials, components, equipment, and other items incorporated into the Work are new, unless otherwise specified, and are suitable for the purpose used, are of good quality, are free from faults and defects, and are in conformance with the contract documents. The contractor also warrants that its workers are sufficiently skilled to produce quality Work free from faults and defects. Work not so conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The contractor, when requested, shall furnish the City with satisfactory evidence as to the kind and quality of materials and equipment incorporated into the Work. The contractor further warrants that the construction processes and methods employed to perform the Work have in the past proven to be suitable for the results expected.

B. The contractor further warrants that it has full title to all parts, materials, components, equipment, and other items conveyed to the City under the terms of this contract, that its transfer of such title to the City is rightful, and that all such parts, materials, components, equipment, and other items shall be transferred free and clear from all security interests, liens, or encumbrances whatsoever. The contractor agrees to warrant and defend such title against all persons claiming the whole, or any part thereof, at no cost to the City.

C. The contractor shall promptly investigate, repair, replace or otherwise correct any of its workmanship and any parts, materials, components, equipment, or other items incorporated into the Work which contain faults or defects whether such failures are observed by the City or the contractor at any time during the contract term or during the warranty period. The contractor shall bear all costs of investigating and correcting, which includes the design efforts necessary to correct such Work covered by the warranty as described under the 1999 edition of the General Contract Conditions, Title 18 or elsewhere in the contract documents. If repair or replacement of faulty items of the Work is necessary, proper temporary substitutes shall be provided by the contractor in order to maintain the progress of the Work and/or keep systems operating without any additional costs to the City. The obligations of this Contractor Warranty shall survive termination of the contract under the provisions of the 1999 edition of the General Contract Conditions, Title 22. Nothing herein shall limit the City's right to seek recovery for latent defects that are not observable until after the warranty periods have run.

D. The contractor's warranty for all Work components shall continue for the following period:

1. For a period of one (1) year after the date of Substantial Completion or for such longer period of time as may be prescribed by the terms of any special warranties required by the contract documents.

E. Nothing contained in this Contractor Warranty shall be construed to establish a period of limitation with respect to any other obligation that the contractor might have under the contract documents. The establishment of the warranty period set forth above relates only to the specific obligation of the contractor to correct the Work and has no relationship to the time within which its obligation to comply with the contract

DENVER INTERNATIONAL AIRPORT CONTRACTOR WARRANTY

CONTRACT NO.

documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the contractor's liability with respect to its obligations and resulting damages other than specifically to correct the Work.

F. The contractor, at its own expense, shall also investigate, repair, or replace any damages to any equipment, facilities, or other personal or real property owned or leased by the City which is damaged as a result of any such fault or defect in the Work with no cost to the City.

G. All subcontractor's, manufacturer's, and supplier's warranties, express or implied, for any part of the Work and any materials used therein, shall be obtained and enforced by the contractor for the benefit of the City whether or not these warranties have been assigned or otherwise transferred to the City. The contractor shall assign or transfer such warranties to the City if the City requests the contractor to do so, but such transfer shall not affect the contractor's obligation to enforce such warranties. These warranties are listed at the end of this document and attached hereto.

II. PERFORMANCE DURING WARRANTY PERIOD

A. The City will notify the contractor of Work found to be defective and fails to satisfy the warranties as described the 1999 edition of the General Contract Conditions, Article 18, Section 1801, or elsewhere in the contract documents. The contractor shall, within ten (10) days or such longer time as may be requested and set forth in the notice, commence the repair, replacement, or correction of the defective work. Should the contractor fail to complete such Work within a reasonable period, the City may make the repairs or replacements at the expense of the contractor. If the City determines that immediate action to make repairs, replacements, or other corrections is necessary because of emergency conditions or to prevent further loss or damage, the City may proceed without notice to the contractor, but at the expense of the contractor.

B. If the contractor does not proceed with the correction of such defective work within the time fixed by written notice from the Project Manager, or in an emergency condition, the City may remove the defective work and may store the materials or equipment at the expense of the contractor. If the contractor does not pay the cost of the removal and storage within ten (10) days thereafter, the City may, upon ten (10) additional days written notice, sell the stored Work at auction.

C. If the proceeds of any such sale do not cover all costs which the City has incurred and which the contractor should have borne, the difference shall be charged to the contractor and the contractor and its surety shall be liable for and pay the difference to the City.

D. If the contractor does not agree that the Work is defective or the defective work is its responsibility and if there are no emergency conditions, the contractor may request review, in writing, of the City's decision in accordance with the 1999 edition of the General Contract Conditions, Title 13. If such review is not requested within ten (10) days of the notification of defective work, the contractor shall have waived the right to contest its responsibility for the correction of the defective work. Under emergency conditions, the contractor shall immediately correct the alleged defective work, and the question of responsibility for the expense shall be determined by the Deputy Manager of Aviation, subject to the right of the contractor to seek review, within ten (10) days of the City's notice allocating responsibility for the expense.

E. Should the City claim by written communication sent or mailed before the warranty period expires that certain defective work exists and that it requires repair or replacement, the warranty period for such defective work shall be automatically extended for as long as that defective work exists.

DENVER INTERNATIONAL AIRPORT CONTRACTOR WARRANTY

CONTRACT NO.

III. CONTRACTOR'S SPECIAL EXTENDED WARRANTIES AND OTHER WARRANTIES REQUIRED BY THE TECHNICAL SPECIFICATIONS.

(Copies of applicable pages from the technical specifications are attached.)

The list below represents contractor warranty requirements and warranty periods specifically required by the contract document technical specifications. The fact that warranty requirements or warranty periods for all work performed by the contractor are not listed in the technical specifications does not affect or limit the contractor's general warranty described in paragraph I of this Contractor Warranty.

<u>Specification Number</u>	<u>Specification Title</u>	<u>Warranty Period</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

IV. MANUFACTURER WARRANTIES REQUIRED BY THE TECHNICAL SPECIFICATIONS

(Copies of applicable pages from the technical specifications are attached.)

The list below represents the manufacturer's warranties specifically required by the contract documents. These warranties are attached.

<u>Specification Number</u>	<u>Warranty Period</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**DENVER INTERNATIONAL AIRPORT
CONTRACTOR WARRANTY**

CONTRACT NO.

ASSIGNMENT OF WARRANTY

The contractor hereby assigns this Contractor Warranty, special extended warranties, and manufacturer's warranties listed above, and attached hereto, to the City (except those that may be listed below), but such assignment shall not affect the contractor's obligation to enforce such warranty as provided under paragraph I.G above of this Contractor Warranty and such assignment does not affect the contractor's warranties described elsewhere in the contract documents.

Contractor:

By: _____

Title: _____

Date: _____

**DENVER INTERNATIONAL AIRPORT
CONTRACTOR / SUBCONTRACTOR WARRANTY**

CONTRACT NO.: _____

CONTRACT TITLE: _____

Subcontract No.: _____

Contractor: _____

Subcontractor: _____

Description:

Work – means all work performed by the Contractor under the contract referred to above.

City – means the City and County of Denver, Colorado

Contract Documents – means contract documents for the DIA contract between the City and the contractor referred to above.

Subcontract Documents – means subcontract documents for the subcontract between the contractor and subcontractor referred to above.

I. SUBCONTRACTOR’S WARRANTIES AND CORRECTION WORK

A. The subcontractor warrants to the contractor that all parts, materials, components, equipment, systems and other items incorporated into the Work are new, unless otherwise specified, and are suitable for the purpose used, are of good quality, are free from faults and defects, and are in conformance with the subcontract documents. The subcontractor also warrants that its workers are sufficiently skilled to produce quality work free from faults and defects. Work not so conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The subcontractor, when requested, shall furnish the contractor with satisfactory evidence as to the kind and quality of materials and equipment incorporated into the Work. The subcontractor further warrants that the construction processes and methods employed to perform the Work have in the past proven to be suitable for the results expected.

B. The subcontractor further warrants that it has full title to all parts, materials, components, equipment and other items conveyed to the contractor under the terms of this subcontract, that its transfer of such title to the contractor is rightful, and that all such parts, materials, components, equipment and other items shall be transferred free and clear from all security interests, liens or encumbrances whatsoever. The subcontractor agrees to warrant and defend such title against all persons claiming the whole, or any part thereof, at no cost to the contractor.

C. The subcontractor shall promptly investigate, repair, replace or otherwise correct any of its workmanship and any parts, materials, components, equipment or other items incorporated into the Work which contain faults or defects whether such failures are observed by the City or the contractor at any time during the subcontract term or during the warranty period. The subcontractor shall bear all costs of investigating and correcting, which includes the design efforts necessary to correct such Work covered by the warranty as described under the 1999 edition of the General Contract Conditions, Title 18 or elsewhere in the subcontract documents. If repair or replacement of faulty items of the Work is necessary, proper temporary substitutions shall be provided by the subcontractor in order to maintain the progress of the Work and/or keep systems operating without any additional costs to the contractor or the City. The obligations of this Subcontractor Warranty shall survive termination of the subcontract under the provisions of the 1999 edition of the General

**DENVER INTERNATIONAL AIRPORT
CONTRACTOR / SUBCONTRACTOR WARRANTY**

CONTRACT NO.:

CONTRACT TITLE:

Contract Conditions, Title 22. Nothing herein shall limit the contractor's right to seek recovery for latent defects that are not observable until after the warranty periods have run.

D. The subcontractor's warranty for all Work components shall continue for the following period:

1. For a period of one (1) year after the date of Substantial Completion or for such longer period of time as may be prescribed by the terms of any special warranties required by the subcontract documents.

E. Nothing contained in this Subcontractor Warranty shall be construed to establish a period of limitation with respect to any other obligation that the subcontractor might have under the subcontract documents. The establishment of the warranty period set forth above relates only to the specific obligation of the subcontractor to correct the Work and has no relationship to the time within which its obligation to comply with the subcontract documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the subcontractor's liability with respect to its obligations and resulting damages other than specifically to correct the Work.

F. The subcontractor, at its own expense, shall also investigate, repair or replace any damages to any equipment, facilities or other personal or real property owned or leased by the contractor or the City which is damaged as a result of any such fault or defect in the Work with no cost to the contractor or the City.

G. All subcontractor's sub-tier subcontractors, manufacturer's and supplier's warranties, express or implied, for any part of the Work and any materials used therein, shall be obtained and enforced by the subcontractor for the benefit of the City whether or not these warranties have been assigned or otherwise transferred to the contractor or the City. The subcontractor shall assign or transfer such warranties to the contractor or the City if the contractor requests the subcontractor to do so, but such transfer shall not affect the subcontractor's obligation to enforce such warranties. These warranties are listed at the end of this document and attached hereto.

II. PERFORMANCE DURING WARRANTY PERIOD

A. The contractor will notify the subcontractor of Work found to be defective and fails to satisfy the warranties as described in the 1999 edition of the General Contract Conditions, Article 18, Section 1801, or elsewhere in the subcontract documents. The subcontractor shall, within ten (10) days or such longer time as may be requested and set forth in the notice, commence the repair, replacement or correction of the defective work. Should the subcontractor fail to complete such Work within a reasonable period, the contractor may make the repairs or replacements at the expense of the subcontractor. If the contractor determines that immediate action to make repairs, replacements or other corrections is necessary because of emergency conditions or to prevent further loss or damage, the contractor may proceed without notice to the subcontractor, but at the expense of the subcontractor.

B. If the subcontractor does not proceed with the correction of such defective work within the time fixed by written notice from the contractor, or in an emergency condition, the contractor may remove the defective work and may store the materials or equipment at the expense of the subcontractor. If the subcontractor does not pay the cost of the removal and storage within ten (10) days thereafter, the contractor may, upon ten (10) additional days written notice, sell the stored Work at auction.

C. If the proceeds of any such sale do not cover all costs which the contractor has incurred and which the subcontractor should have borne, the difference shall be charged to the subcontractor and the subcontractor and its surety shall be liable for and pay the difference to the contractor.

**DENVER INTERNATIONAL AIRPORT
CONTRACTOR / SUBCONTRACTOR WARRANTY**

CONTRACT NO.: _____

CONTRACT TITLE: _____

D. If the subcontractor does not agree that the work is defective or the defective work is its responsibility and if there are no emergency conditions, the subcontractor may request, in writing, a review of the contractor's decision in accordance with the 1999 edition of the General Contract Conditions, Title 13. If such review is not requested within ten (10) days of the notification of defective work, the subcontractor shall have waived the right to contest its responsibility for the correction of the defective work. Under emergency conditions, the subcontractor shall immediately correct the alleged defective work, and the question of responsibility for the expense shall be determined by the contractor, subject to the right of the subcontractor to seek review, within ten (10) days of the contractor's notice allocating responsibility for the expense.

E. Should the contractor claim by written communication sent or mailed before the warranty period expires that certain defective work exists and that it requires repair or replacement, the warranty period for such defective work shall be automatically extended for as long as that defective work exists.

III. SUBCONTRACTOR'S SPECIAL EXTENDED WARRANTIES AND OTHER WARRANTIES REQUIRED BY THE TECHNICAL SPECIFICATIONS

(Copies of applicable pages from the Technical Specifications are attached.)

The list below represents subcontractor warranty requirements and warranty periods specifically required by the subcontract document technical specifications. The fact that warranty requirements or warranty periods for all work performed by the subcontractor are not listed in the technical specifications does not affect or limit the subcontractor's general warranty described in paragraph I of this Subcontractor Warranty.

<u>Specification Number</u>	<u>Specification Title</u>	<u>Warranty Period</u>
-----------------------------	----------------------------	------------------------

IV. MANUFACTURER WARRANTIES REQUIRED BY THE TECHNICAL SPECIFICATIONS
(Copies of applicable pages from the Technical Specifications are attached.)

The list below represents the manufacturer's warranties specifically required by the contract documents. These warranties are attached.

<u>Specification Number</u>	<u>Specification Title</u>	<u>Warranty Period</u>
-----------------------------	----------------------------	------------------------

Subcontractor:

By: _____

Title: _____

**DENVER INTERNATIONAL AIRPORT
CONTRACTOR / SUBCONTRACTOR WARRANTY**

CONTRACT NO.: _____ **CONTRACT TITLE:** _____

Date: _____

ASSIGNMENT OF WARRANTY

The subcontractor hereby assigns this Subcontractor Warranty, special extended warranties and manufacturer's warranties listed above, and attached hereto, to the contractor (except those that may be listed below), but such assignment shall not affect the subcontractor's obligation to enforce such warranty as provided under paragraph I.G above of this Subcontractor Warranty and such assignment does not affect the subcontractor's warranties described elsewhere in the contract documents.

Subcontractor:

By: _____

Title: _____

Date: _____

Contractor:

By: _____

Title: _____

Date: _____



CONTRACTOR'S CERTIFICATION OF PAYMENT

**CITY AND COUNTY OF DENVER
DEPARTMENT OF AVIATION**

CONTRACT NO.: _____
PAYMENT NO.: _____
CONTRACT ENCUMBRANCE NO.: _____
CURRENT COMPLETION DATE: _____
PERCENT COMPLETE: _____

PROJECT NAME: _____
CONTRACTOR NAME: _____
TELEPHONE NO.: _____
PROJECT MANAGER: _____
ORIGINAL CONTRACT AMOUNT: \$ _____
REVISED CONTRACT AMOUNT THRU C.O. NO. : \$ _____

SUBCONTRACTOR NAME & ADDRESS	TIER OR SUPPLIER	SUBCONTRACTOR PERSON TO CONTACT	SUBCONTRACTOR TELEPHONE NO.	SUBCONTRACT AMOUNT (\$)	DBE, SBE or NON	PERCENT OF ORIGINAL CONTRACT	PERCENT OF REVISED CONTRACT	NET PAID TO DATE (\$)	NET PAID PERCENT COMPLETE	NET DUE THIS MONTH (\$)

- () Check here if all undisputed CERTIFIED PAYROLLS have been submitted to the CITY AUDITOR for this Pay Application
- () Check here if copies of documentation for all disputed CERTIFIED PAYROLLS for this Pay Application have been attached

The undersigned certifies that the information contained in this document is true and accurate and that the payments shown have been made to all subcontractors and suppliers used on the project and listed herein.

Contractor Name (print): _____

Date: _____

Contractor Signature: _____

Page _____ of _____



**CITY AND COUNTY OF DENVER
DEPARTMENT OF AVIATION
DENVER INTERNATIONAL AIRPORT**

**CONSTRUCTION CONTRACT
APPLICATION FOR PROGRESS PAYMENT
SUMMARY AUTHORIZATION FOR TASK ORDER CONTRACTS**

Date of Invoice: _____

Contract/TASK No.: _____

Contract/TASK Title: _____

Contractor: _____

Application for Progress Payment No.: _____

For the Period: _____ to _____

CONTRACTOR:
I hereby warrant that:

1) The title to the Work covered by this estimate of Work completed will pass to the City by incorporation into the completed work.
2) The Work covered by previous estimates of Work completed is free and clear of liens, claims, security interests or encumbrances, except for any interest created by retainage.
3) No Work covered by this estimate of Work completed is subject to an agreement under which an interest therein, or an encumbrance thereon, is retained by the seller or otherwise imposed by the Contractor or any other person or entity.
4) All subcontractor payments have been reported within the B2G system as required by the Procedures for Payment.

CONTRACTOR SIGNATURE / TITLE

DATE

CITY AND COUNTY OF DENVER:
I hereby certify that, to the best on my knowledge this payment application represents a true and correct statement of the work performed and is in conformance with the terms of the Contract documents.

_____, Project Manager - AIM
DATE

_____, Director - AIM
DATE

CC: _____, Director - AIM

TASK STATUS			
	TOTAL TASK	CURRENT APPLICATION	PREVIOUS PAYMENT
a) ORIGINAL TASK ORDER AMOUNT	\$ -		
b) PREVIOUS TASK CHANGE ORDERS NOS. (+ or -)	\$ -		
c) NEW TASK CHANGE ORDERS NO. (+ or -)	\$ -		
	\$ -		
	\$ -		
	\$ -		
d) TOTAL AUTHORIZED d= [a+ b + c]	\$ -		
e) TOTAL LEFT UNAUTHORIZED e = [a - d]	\$ -		
f) PREVIOUS EARNINGS			\$ -
g) EARNINGS THIS APPLICATION		\$ -	
h) TOTAL CURRENT EARNINGS h = [f + g]	\$ -		
i) AUTHORIZED TO COMPLETE i = [d - h]	\$ -		
j) PREVIOUS RETENTION 5%			\$ -
k) RETENTION THIS APPLICATION 5%		\$ -	
l) TOTAL RETENTION l = [j + k]	\$ -		
m) OTHER DEDUCTIONS	\$ -	\$ -	\$ -
n) AUTHORIZED BALANCE DUE ON CONTRACT n = [i + l + m]	\$ -		
o) TOTAL BALANCE REMAINING ON CONTRACT o= [e + i + l + m]	\$ -		
p) TOTAL PREVIOUS PAYMENTS p = [f - d - m]			\$ -
q) PAYMENT THIS APPLICATION q = [g - k - m]		\$ -	

Note: Items a, b, c, d, e, h, i, l, n, and o amounts - place only in TOTAL TASK column.

DENVER INTERNATIONAL AIRPORT

CERTIFICATE OF CURRENT COST OR PRICING DATA

Contract Title:

Contract No.:

This is to certify that, to the best of my knowledge and belief, the cost of pricing data submitted in writing to the City in support of _____ is accurate, complete and current as of _____ and represents the best price that is available from suppliers and subcontractors.

This certification includes the cost of pricing data supporting any advance agreements and forward pricing rate agreements between the offeror and the City that are part of the proposal.

FIRM
NAME
TITLE
DATE



DENVER INTERNATIONAL AIRPORT PARTIAL LIEN RELEASE – CONSTRUCTION (Subcontractor)

Project: _____

Date: _____

City Contract No. _____

Current Subcontract
Amount: \$ _____

FROM:
Subcontractor _____

(1) Last Progress Payment for billing
period ending _____ 20__

Address: _____

\$ _____

City/State: _____

(2) Progress invoiced for previous billing
period (if unpaid) _____ 20__

Telephone: _____

\$ _____

TO:
Contractor _____

(3) Progress invoiced for current billing
period ending _____ 20__

Address: _____

\$ _____

City/State: _____

(4) **Total Paid to Date:**
\$ _____

() MBE/WBE () SBE () DBE () Non

The undersigned Subcontractor hereby (1) acknowledges receipt of the progress payment referred to above as the Last Progress Payment which, when added to the total of all previous progress payments, constitutes full payment, less retainage, for all labor, services, material and supplies which the undersigned has provided for use in and upon the project described above through _____, 20__ and, (2) hereby releases the Contractor, surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier from any and all claims prior to the above mentioned date, except for the withheld retainage.

The Subcontractor also hereby agrees that the Contractor, Surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier shall be released from any and all claims arising out of its performance or non-performance of any contract associated with the above project through _____, 20__, except for withheld retainage after it has received full payment, less retainage, of the amount invoiced for the current billing period.

Subcontractor: _____

Certified by: _____

Title: _____

Date: _____



DENVER INTERNATIONAL AIRPORT FINAL LIEN RELEASE – CONSTRUCTION (Subcontractor)

Project: _____

Date: _____

City Contract No. _____

Subcontractor Contract No. _____

FROM:

Subcontractor: _____

Dated: _____, 20__

(1) Last Progress Payment for billing
period ending _____, 20__

Address: _____

\$ _____

City/State: _____

(2) Does not apply

Telephone: _____

TO:

Contractor: _____

(3) Does not apply

Address: _____

City/State: _____

(4) **Total Paid to Date:**

\$ _____

SBE DBE MBE WBE Non

The undersigned Subcontractor hereby (1) acknowledges receipt of the progress payment referred to above as the Last Progress Payment which, when added to the total of all previous progress payments, constitutes full payment for all labor, services, materials and supplies which the undersigned has provided for use in and upon the project described above through _____, 20__ and, (2) hereby releases the Contractor, Surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier from any and all claims prior to the above mentioned date.

The Subcontractor also hereby agrees that the Contractor, Surety, the City and County of Denver, and any intermediate subcontractor or supplier of any tier shall be released from any and all claims arising out of its performance or non-performance of any contract associated with the above project.

Subcontractor: _____

Certified by: _____

Title: _____

Date: _____

DENVER INTERNATIONAL AIRPORT REQUEST FOR SUBSTITUTION

CONTRACT NO. (Number)

CONTRACT TITLE: (Title)

This form is to be used only after Notice to Proceed. Completely fill in this form. If necessary, use additional pages. If a question is not applicable, write "NA". Use of this form will help ensure a faster response to the Contractor's request.

I. In accordance with General Condition 406, check the appropriate item for the reason for the substitution request:

A. The specified material or equipment is not available (provide name and telephone number of who was contacted at bid time and at time order was placed):

B. The specified material or equipment is not deliverable within a reasonable time (provide the delivery time quoted at the time of bid, telephone number and name of person contacted, when the contractor was notified this time could not be met, and why:

C. The substitution is being requested as allowed by technical specification:

II. What is specified in the contract?

A. Specification section and page _____

B. Drawing number and detail _____

C. Specific product _____

D. Specified manufacturer _____

E. Specified model number and features _____

F. Other specified requirements _____

III. Substitution being requested:

A. Substitution product _____

B. Substitution manufacturer _____

C. Substitution model number and features _____

DENVER INTERNATIONAL AIRPORT REQUEST FOR SUBSTITUTION

CONTRACT NO. (Number)

CONTRACT TITLE: (Title)

- IV. Provide additional reasons why the substitution is being requested under technical specification Section 01630: _____
-
- V. Provide a list of all variations from what is specified in the contract. Any variation not listed and later found to impact the City could lead to rejection of the substitution at a later date.
- VI. Provide detailed manufacturer's literature, samples and drawings to comply with technical specification submittal requirements.
- VII. Provide details on compatibility with the rest of the project, including but not limited to:
- A. Dimensions, including required clearances (provide a sketch showing an outline of the substitution with dimensions and clearances as required).
 - B. Utility connection size, type and locations, including electrical, plumbing, HVAC, fire protection, and controls (provide a sketch showing the locations of each utility connection and a brief description of the connection).
 - C. Samples of color and texture, as required.
 - D. Performance characteristics, including performance curves and different operating conditions.
- VIII. Provide details on reliability, ease of use and maintenance, including:
- A. Instructions on operation and maintenance
 - B. The name and location of the local organization that is certified to maintain the substitution.
 - C. A list of at least three other projects of similar nature to this contract where the substitution has been in use for at least one year. This list shall include the telephone number and the name of the person to contact at these projects.
- IX. Provide detailed information on cost of the specified material versus the substitution, including but not limited to:
- A. Operating cost for one year and for the life of the substitution
 - B. Energy consumption for one year.
 - C. Maintenance cost for one year and for the life of the substitution
 - D. Cleaning cost for one year and for the life of the substitution

DENVER INTERNATIONAL AIRPORT REQUEST FOR SUBSTITUTION

CONTRACT NO. (Number)

CONTRACT TITLE: (Title)

- E. Repair parts list recommended by the manufacturer, including prices
 - F. Cost to install parts
 - G. Cost to upgrade to the next higher performance level
 - H. A list of any license fees or royalties that must be paid
 - I. Any additional costs for the area in which the substitution is located; such as, additional heating or cooling requirements to maintain a prescribed environment
- X. Provide detailed information on the schedule impact of approving the substitution, including but not limited to:
- A. Date by which the substitution must be approved to avoid any schedule impact (note that substitution requirements must be submitted 30 days prior to when the order must be placed per GC 406).
 - B. Date the order will be placed.
 - C. What item in the schedule is the substitution connected to or with, and how is it connected?
 - D. When the submittal requirements of technical specification section 01300 and 01340 will be met.
 - E. Any impact on Milestone dates or Contract Time.
 - F. Any impact on the sequence of work as shown on the accepted schedule.
- XI. Provide potential cost savings to the Contractor and the Contractor's willingness to share with the City, including but not limited to savings in:
- A. Change in material price due to substitution \$ _____
 - B. Change in installation price due to substitution \$ _____
 - C. Increased float or altered schedule critical path? Yes _____ No _____
 - D. Increased production rates on other work? Yes _____ No _____
 - E. Change in prices from subcontractors due to substitution? \$ _____

DENVER INTERNATIONAL AIRPORT REQUEST FOR SUBSTITUTION

CONTRACT NO. (Number)

CONTRACT TITLE: (Title)

SUBSTITUTIONS WHICH WILL INCREASE OR DECREASE THE CONTRACT AMOUNT, OR MODIFY ANY SCHEDULED EVENT, MUST BE SUBMITTED WITH A DETAIL NARRATIVE AND COST AND/OR SCHEDULE BREAKDOWN

XII. The substitution's ability to meet all applicable governing regulations, rules and laws, including funding agency requirements.

NOTE: Specified materials and equipment on FAA funded contracts must meet FAA requirements. The Contractor will provide proof that the exact substitution being requested is FAA approved.

CONTRACTOR'S STATEMENT:

The substitution being submitted is equal to or superior in all respects to the contract required item or process. All differences between the substitution and the contract required items or process are described in this request along with all cost and scheduling data.

Contractor's Superintendent Name

Date

Signature

As a condition of submitting a Request for Substitution, the Contractor waives all rights to claim for extra cost for change in Contract Time other than those outlined in the request and approved by the Deputy Manager of Aviation. The Contractor also, by submitting a Request for Substitution, accepts all liability for cost and scheduling impact on other contractors or the City due to the substitution.

DENVER INTERNATIONAL AIRPORT REQUEST FOR SUBSTITUTION

CONTRACT NO. (Number)

CONTRACT TITLE: (Title)

RECOMMENDATION AND APPROVAL: (IF DISAPPROVED, STATE THE REASON)

- I. _____, Designer of Record recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:
- II. _____, Project Manager – AIM recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:
- III. _____, Project Controls – AIM recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:
- IV. _____, QA Project Manager – AIM recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:
- V. _____, Supervisor - AIM recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:
- VI. _____, Director - AIM recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:
- VII. Somer Shindler, Senior Director - AIM recommendation:
APPROVED ____ **APPROVED AS NOTED** ____ **DISAPPROVED** ____
Notes:

If approval is given, it is based on the information provided with particular emphasis on the list of variations. If any information is incorrect or incomplete, approval may be withdrawn at the Contractor's expense.

CLOSEOUT MATRIX

CONTRACT No.:
 CONTRACT TITLE:
 CONTRACTOR:
 Substantial Completion Date:
 Final Completion Date:
 Project Advertisement Date:

	Total Count
Total Potential Closeout Issues:	84
Contractor Issues:	57
CCD Issues:	12
BMS Issues:	5
Contractor/CCD Issues:	10
Items N/A:	0
Total Issues to Complete:	84
Items N/A:	0
Items Complete:	0
	84

* Note: If the Responsibility Party for an item is classified as Not Applicable (N/A), the status is N/A.

#	Item #	REFERENCE CONTRACT	Description of task	Ref. Documents	RESPONSIBLE PARTY	STATUS *	COMPLETION DATE (NA if Not Applicable)	COMMENTS
NTP (N) through Close-Out								
1	N1	GC 323	State Sales Tax Exemption Certificates from GC & Subs Submitted to PM		Contractor	OPEN		
2	N2	01401/01403/01404	Complete Quality Control Plan. Including Amendments & Quality Control Personnel Qualifications Submitted & Accepted		Contractor	OPEN		
3	N3	GC 1601	Insurance Certificates Submitted (Auto Liability)		Contractor	OPEN		
4	N4	GC 1601	Insurance Certificates Submitted (Builders Risk, General Liability, Workers Compensation)		Contractor	OPEN		
5	N5	GC 801 GC 802 01110/01111/ 01112/01720	Complete Safety Plan including Amendments & Sub-Contractors Safety Plans/Job Hazard Analysis Submitted and Accepted		Contractor	OPEN		
6	N6	01200/01720	Pre-construction Meeting Minutes Recorded, Submitted and Filed		Contractor/CCD	OPEN		
7	N7	01566/01720	Erosion & Sediment Control Plan Documents Including Amendments & Reports Submitted & Accepted		Contractor	OPEN		
Construction (C) through CloseOut								
8	C1	1370, 1620	Stored Materials Inspection Records, Including Drawings Showing Locations of, Submitted & Accepted		Contractor	OPEN		
9	C2	01566	MSDS Sheets & Logs Maintained On-Site		Contractor	OPEN		
10	C3	GC 2003 01720	As-Built Shop Drawings Submitted & Accepted		Contractor	OPEN		
11	C4	01630	Substitution Requests have been closed out - either accepted & change order issued or rejected		Contractor	OPEN		
12	C5	01340/01720	Certificate of Compliance for Materials Submitted & Accepted		Contractor	OPEN		
13	C6	01401/01650/01720	Test Procedures Submitted and Accepted (Equipment or Materials)		Contractor	OPEN		
14	C7	01403/01720	Daily Quality Control & Construction Reports Submitted & Accepted		Contractor	OPEN		
15	C8	01401/01720	Materials Test Reports Submitted and Accepted		Contractor	OPEN		
16	C9	01401/01403/01720	Proper Number and Type of Materials Tests Verified & Submitted		Contractor	OPEN		
17	C10	01401/01720	Lab Inspection Reports Submitted & Accepted		Contractor	OPEN		
18	C11	GC 309/GC 404 01720	All RFIs are Responded to & the Log Updated		Contractor	OPEN		
19	C12	GC 309 01720	All Correspondence Logs & Submittal Logs Are Complete and Show Final Action on all items needing Contractor Reply		Contractor	OPEN		
20	C13	01720	Coring Reports Submitted to Determine Thickness of Materials - FAA and CDOT Requirement		Contractor	OPEN		
21	C14	01720	Quality Control Self-Audits, Including Minutes of QC Meetings, Submitted & Accepted		Contractor	OPEN		
22	C15	01200/01720	Copies of Weekly Progress Meeting Minutes Submitted & Accepted		Contractor	OPEN		
23	C16	01566/01720	Record Copy of Hazardous and Regulated Materials Use and Disposition Submitted & Accepted		Contractor	OPEN		
24	C17	01310/01380	Copies of All Monthly Progress & Schedule Reports/ Photos / Maps Submitted & Accepted		Contractor	OPEN		
25	C18	GC 801	Copies of All OSHA Correspondence Submitted		Contractor	OPEN		
26	C19	GC 801 01110/01720	All First Reports of Injury Submitted & Accepted		Contractor	OPEN		
27	C20	GC 317 01020	All Utility Company Permits & Licenses Obtained & Submitted According to Contract Requirements		Contractor	OPEN		
28	C21	GC 121/GC 205/GC 206 01060/01566	All Permits Issued & Received for Use of Facility from Building Inspection, Dept. of Health, Zoning Administration & Wastewater Management Division Submitted		Contractor	OPEN		
29	C22	01566	All Changes & Amendments to the SWMP Submitted & Accepted		Contractor	OPEN		
30	C23	GC 2001 01710	As Part of Clean-up, All Catch Basins, Manholes, Drains and Traps Cleaned, and All Temporary Erosion Control Removed (Verified)		Contractor/CCD	OPEN		
31	C24	GC 2001/GC 2002 01710	Final Clean of Building (s) Complete / Ready to Use / Accepted by CCD		Contractor	OPEN		
32	C25	GC 2001/GC 2002 01710	As part of Final Clean-up, Broken & Scratched Windows Repaired/Replaced, scratched Surfaces Repaired/Replaced, and Clean and Adjust All Units of Equipment That Are part of the Building System.		Contractor	OPEN		
33	C26	GC 316 01410	All Cutting/Fitting/Patching Completed in Accordance with Contract Documents/Contract Requirements		Contractor	OPEN		
34	C27	GC 2001/GC 2002 01710	Clean Work Constructed and Ready For Use Before Final Inspection, Including Roadways, Drives and Walks		Contractor	OPEN		
35	C28	GC 2001/GC 2002 01500/01505	As Part of Final Clean/De-Mob All Waste Materials, Excess Materials, Tools, Equipment, Temporary Structures & Temporary Facilities, etc. Removed/Cleaned, Inspected & Accepted by CCD		Contractor	OPEN		
CLOSE OUT (CT)								
36	CT1	GC 1901/GC 1902/ GC 2002 01700	Notice Given of Substantial Completion and the Contractor's Punch List to the Project Manager. Inspection of Work Completed by DOR, PM, City Maintenance and AOR Team. Punchlist Prepared by DOR following Inspection.		Contractor/CCD	OPEN		

#	Item #	REFERENCE CONTRACT	Description of task	Ref. Documents	RESPONSIBLE PARTY	STATUS *	COMPLETION DATE (NA if Not Applicable)	COMMENTS
37	CT2	GC 1902/GC 1903/ GC 2003 01700	Certificate of Substantial Completion issued by PM including Punch List.		CCD	OPEN		
38	CT3	GC 2002 01310/01720	Final as-built Schedule, Drawings and Specifications Submitted and Accepted.		Contractor	OPEN		
39	CT4	GC 910	All Change Notices Settled. CN Log Updated and Closed.		Contractor/CCD	OPEN		
40	CT5	GC 602/GC 910	Liquidated Damages Assessed and Change Order Issued, Accepted and Executed.		Contractor/CCD	OPEN		
41	CT6	GC 910	All CCR's Responded to and Closed		Contractor/CCD	OPEN		
42	CT7	GC 910	All CODs/TODs Reconciled and Closed. Change Orders Issued when Applicable.		Contractor/CCD	OPEN		
43	CT8	01401/01403/01404/ 01720 GC 1706	All NCR Dispositions Agreed to and Accepted.		Contractor/CCD	OPEN		
44	CT9	01401/01403/01404/ 01720 GC 1706	Deficiency Log Accepted and Closed		CCD	OPEN		
45	CT10	01401/01403/01404/ 01720 GC 1706	All Contractor's and DIA Project Manager's NCRs are Closed and the Log Updated. Deductions Confirmed in Final Change Order.		Contractor/CCD	OPEN		
46	CT11	01050/01720	Survey Books Submitted and Accepted (must be legible)		Contractor	OPEN		
47	CT12	01720	Record of Caisson Drill Logs Submitted & Accepted		Contractor	OPEN		
48	CT13	GC 910 01700	All Contractor's and DIA Project Manager's Deficiencies are Closed and the Log Updated.		CCD	OPEN		
49	CT14	GC 2003 01740	Fully Executed Warranties and Bonds Submitted and Executed		Contractor	OPEN		
50	CT15	GC 2003 01730	Operation and Maintenance Manuals Submitted and Accepted		Contractor	OPEN		
51	CT16	SC-9 01015/01700	All Airport ID Badges returned to Security		Contractor	OPEN		
52	CT17	SC-9/SC 11 01016/01700	All Vehicle Permits turned in to Security		Contractor	OPEN		
53	CT18	01720	O&M Manuals for PM's Office Trailer (as part of the contract) Submitted and Accepted		Contractor	OPEN		
54	CT19	GC 2001 01500	All Temporary Facilities Removed and Areas Cleaned and/or Repaired to Original State		Contractor	OPEN		
55	CT20	GC 2003 01500/01620/01700/0171 0/01720	Lighting, Electrical & Circuit Diagrams for All Temporary Facilities, Including As-Built Drawings of All Underground Utilities/Shop & Working Drawings/Manufacturer Literature Submitted and Accepted		Contractor	OPEN		
56	CT21	01710	Permanent Keys for Cabinets and Doors/Detachable Labels and Tags Handed Over to PM		Contractor	OPEN		
57	CT22	SC-9	Construction Keys for Doors Returned to PM		Contractor	OPEN		
58	CT23	As Req'd by Specs.	Spare Parts Provided and Delivered as per Contract Documents		Contractor	OPEN		
59	CT24	01650	Startup & Testing of All Equipment and Systems in Work Completed and Verified		Contractor	OPEN		
60	CT25	01650	All Training of Appropriate Personnel Regarding the Work Completed and Verified. Training Videos Received and Accepted.		Contractor	OPEN		
61	CT26	GC 910 01025/01050/01720	Final Field Survey Completed - Submitted and Accepted to Verify Final Quantities		CCD	OPEN		
62	CT27	01025	Weight Tickets Submitted & Accepted for Final Payment		Contractor	OPEN		
63	CT28	GC 910 01025/01050	All Area Measurements and Linear Measurements Submitted and Accepted for Final Payment		CCD	OPEN		Detachable labels & Tags removed and Filed with City?
64	CT29	01050	As-Built Survey Completed, Submitted & Accepted		Contractor	OPEN		
65	CT30	GC 910	Change Order Issued to Reconcile Final Quantities, Defects, or Final Contract Amount - All Change Orders Settled		CCD	OPEN		
66	CT31	GC 803	All Contractor Damaged Property, Public or Private, Repaired or Replaced at Contractors Expense, Verified & Accepted		Contractor	OPEN		
67	CT32	01050	FAA EALP Survey/BIM Survey Completed, Submitted & Accepted		Contractor	OPEN		
68	CT33	GC 2002	Certificate of Final Completion and Acceptance Issued by CCD		CCD	OPEN		
69	CT34	GC 2003	Written Certificate (Contractors Affidavit) that Work is Complete Submitted and Accepted		Contractor	OPEN		
70	CT35	GC 2003	Signed Final Lien Releases from all Subcontractors, materialmen, Suppliers, Manufacturers & Dealers for all labor, equipment & materials used or furnished on the Work Submitted and Accepted.		Contractor	OPEN		
71	CT36	GC 2002 01590/01720	Bill of Sale and Title for Contractor provided Office Trailers (Including Inventory of Furnishings), Equipment Trailers & Equipment Submitted and Accepted		Contractor	OPEN		
72	CT37	GC 910 01700	Final Statement of Accounting Submitted to the PM and Accepted		Contractor	OPEN		
73	CT38	GC 2003	Consent of Surety Delivered to the PM, Notice Sent to Finance Re: Advertisement for Final Payment		Contractor/CCD	OPEN		
74	CT39	GC 2003	Final Application for Payment Submitted and Accepted		Contractor	OPEN		
75	CT40	GC 2003	Received Certificate of Contract Release from Contractor		CCD	OPEN		
76	CT41		Final Report by PM Submitted to FAA ADO - FAA Requirement		CCD	OPEN		
77	CT42		Turnover of PM & Resident Engineers Files to Records Management		CCD	OPEN		
OTHER DIVISIONS - OD (The following items to be Provided by CCD)								
78	OD1		Notification Sent to Airport Security		BMS	OPEN		
79	OD2		Notification Sent to Airport Legal Services		BMS	OPEN		
80	OD3		Notification Sent to City Treasurer		BMS	OPEN		
81	OD4		Notification Sent to DSBO Requesting Approval to Close Contract		BMS	OPEN		
82	OD5		Received Certificate of Contract Release from Contractor		BMS	OPEN		
83	OD6		Certificate Issued for Use of Facility (TCO or CO)		CCD	OPEN		
84	OD8		Permit(s) for Use of Facility from Wastewater Mgmt.		CCD	OPEN		



DENVER INTERNATIONAL AIRPORT

Contractor's Daily Construction Report

Contract Name: _____
 Contractor: _____ Contract No.: _____
 Date: _____
 Prepared by: _____ Report No.: _____

Weather: Sunny Fair Cloudy Rain _____ inches Snow _____ inches
 Max. Wind: _____ mph Max/Min Temp. _____ deg F/ _____ deg F

DAILY ACTIVITIES WITH LOCATION	SHIFT START _____ STOP _____	LOAD COUNTS	COMPLIES WP&S	
			YES	NO

QUANTITY COMPLETE				MAJOR SHIPMENTS RECEIVED			

Subcontractors								EQUIPMENT AT SITE		
								DESCRIPTION	NO.	HRS.

PERSONNEL

Work Delayed and Reason

Rework and Reason

Potential Future Delays

Problems and Unusual Conditions **UNDER REPAIR**

Direction Received

CERTIFIED BY (signature required):
 Contractor QC Representative: _____
 Contractor Superintendent: _____ Page ____ of ____

NOTE: This report must be completed with legible handwriting and submitted to the City and County of Denver Project Manager with original signatures. Use a separate sheet per shift.

SYSTEM SHUTDOWN REQUEST

System Shutdown Request Status: [Choose an item.](#)

Shutdown Type

Additional Shutdown Type (if any)

Additional Shutdown Type (if any)

Completed form is to be received no later than five (5) working days, (Monday – Friday) prior to requested shutdown time. PLEASE COMPLETE THIS FORM IN ITS ENTIRETY.

DIA DEPT. SUPV. / PROJECT MGR. [Click here to enter text.](#)

DIA CONTACT PERSON [Click here to enter text.](#)

radio channel & # [Click here to enter text.](#)

cell # [Click here to enter text.](#)

REQUESTED BY:

NAME: [Click here to enter text.](#)

COMPANY: [Click here to enter text.](#)

CONTACT PERSON: [Click here to enter text.](#)

24 HR PHONE NUMBERS:

OFFICE: [Click here to enter text.](#)

CELL: [Click here to enter text.](#)

HOME: [Click here to enter text.](#)

REQUESTED SHUTDOWN:

TIME: [Click here to enter text.](#)

DATE: [Click here to enter text.](#)

SCHEDULED COMPLETION:

TIME: [Click here to enter text.](#)

DATE: [Click here to enter text.](#)

PURPOSE OF SHUTDOWN: [Click here to enter text.](#)

SPECIFIC LOCATIONS / EQUIPMENT AFFECTED: [Click here to enter text.](#)

OTHER CONDITIONS: [Click here to enter text.](#)

Name of requesting individual: [Click here to enter text.](#)

Date: [Click here to enter text.](#)

Revised 8/05/2010



DENVER
INTERNATIONAL
AIRPORT

REQUEST FOR PROPOSALS

MISCELLANEOUS ROADWAY & PARKING LOT IMPROVEMENTS ON-CALL

CONTRACT NO. 201417353

PART II

TECHNICAL PROVISIONS

VOLUME 3:

DIVISION 2: SPECIAL PROVISIONS

Issued for Construction March 2015

CITY & COUNTY OF DENVER
DEPARTMENT OF AVIATION

DIVISION 02 – TECHNICAL SPECIFICATIONS

Division 02 – Technical Specifications shall be the Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction, 2011 Edition, except as modified in this document.

DIVISION 02 – SPECIAL PROVISIONS

GENERAL
SECTION 104

GENERAL PROVISIONS
LANE RENTAL FEE

GENERAL PROVISIONS

PART 1: GENERAL

DESCRIPTION

- A. Work described elsewhere in the technical specifications, contract drawings or Part I of the contract documents shall be done in accordance with the Colorado Department of Transportation (CDOT) **2011 Standard Specifications for Road and Bridge Construction** (except as noted below) and the latest edition of the **Colorado Standard Plans (M&S Standards)**.
- B. The Colorado Department of Transportation General Provisions consisting of Section 100 through 109 of the above referenced "Standard Specifications" and are NOT applicable to this Contract and are hereby deleted, except were specifically added in, these project Special Provisions. In place of the deleted, the City and County of Denver's General Provisions, General Conditions, Special Conditions and Technical Specifications are attached to and made part of the contract.

The following sections shall apply as noted:

1. Section 101 Definitions and Terms
2. Section 105 Control of Work with the following exceptions:
 - a. If there are any conflicts with City and County of Denver's General Provisions, General Conditions, Special Conditions or Technical Specifications and this section, those documents will take precedence.
 - b. Any reference to incentives shall be disregarded. NO incentives will be paid on this project. References to disincentives, corrective work or removal and rejection of work and/or materials shall apply.
 - c. Section 105.21 Acceptance shall not apply.
 - d. Section 105.22 through 105.24 shall not apply.
3. Section 106 Control of Material
4. Section 109.01 Measurement of Quantities

PART 2: REFERENCES

1. All references to "CDOT or the Department" shall be changed to "City and County of Denver" unless otherwise noted.
2. All references to the CDOT Project Engineer and CDOT Regional Transportation Director shall mean DIA Project Manager and DIA Manager of Construction.
3. Any and all reference to incentives or positive pay factors within any documents pertaining to this contract shall not apply. NO incentives or increase pay factors will be paid on this project. References to disincentives, negative pay factors, corrective work or removal and rejection of work and/or materials shall apply.

PART 3: APPLICABLE PUBLICATIONS

Copies of the Colorado Department of Transportation's Standard Specifications for Road and Bridge Construction, Colorado Standard Plans (M&S) Standards (most recent edition), and the Colorado Procedures Field Materials Manual 2012 are available for purchase at:

Colorado Department of Transportation
Bid Plans Room
4201 East Arkansas Avenue
Denver, CO 80222

END OF SECTION

**REVISION OF SECTION 104
LANE RENTAL FEE**

Lane Rental Fee. The Contractor shall pay an hourly lane-mile rental fee for lane closures on Peña Boulevard during construction. The Contractor will not be assess a lane rental fee for the hours between 10:00 pm and 4:00 am but will be assessed a lane rental fee for the hours from 4:00 am to 10:00 pm. The deduction will be based on the applicable rate for any and all closures, whether work is being performed or not. This deduction will be reflected in each progress payment.

The lane-mile rental fee for closures on Peña Boulevard shall be **\$6,000.00 per lane-mile hour**.

Lane-miles of closures will be measured for each closed 12 foot lane, or portion thereof, times the length of closure in miles. The length will be measured to the nearest 0.1 mile, rounded up, from the beginning of the taper to the last traffic control device that obstructs the lane.

Lane-mile hours of closure will be measured by the number of lane-miles multiplied by the duration in hours of the closure. The duration begins when the closure set-up begins, and ends when all traffic control devices, excluding signs, are removed from the roadway. The duration will be measured in 15 minute increments or any portion thereof.

A lane is considered closed when the number of available lanes is reduced from the number available prior to the work. Acceleration lanes, deceleration lanes, and shoulders will not be included in the calculations to determine lane-mile hours.

Lane closures shall be documented by the Traffic Control Supervisor's (TCS) diary each day that lane closure is in use. The diary shall be signed by the TCS and the Contractor's representative. A copy of the day's diary shall be given to the DIA Project Manager at the end of each work day on which a lane closure is used.

END OF SECTION