FRESNO YOSEMITE
INTERNATIONAL AIRPORT

AIRPORTS DEPARTMENT

October 12, 2016

TO: KEVIN R. MEIKLE, Director of Aviation

THROUGH: MARK W. DAVIS, Airports Planning Manager

FROM: JAMES V. LARKIN, Construction Manager

SUBJECT: **CONTRACT CHANGE ORDER NO. 2**
FRESNO CHANDLER EXECUTIVE AIRPORT (FCH)
RECONSTRUCTION OF DRAPER TAXILANES
AIP-06-0088-21-FFY2015, PROJECT AC00333

On October 23, 2015, the Fresno City Council awarded a contract for the above project to A.J. Excavation, Inc. of Fresno, CA. During the course of construction a number of corrective actions were necessary to accomplish the scope of work. The City of Fresno Airports Department requests your approval of **Contract Change Order No. 2** for these actions.

The elements of work involved in Change Order No. 2 are summarized as follows:

Original Contract Price	$436,003.60
Change in Contract Price Approved to Date	$16,949.63
Contract Total to Date	$452,953.23
Change in Contract Price – CCO2	$128,479.63
Revised Contract Price including this Change Order	$581,432.86

Date of Notice to Proceed	April 4, 2016
Contract Time	90 Calendar Days
Computed Contract Completion Date	July 3, 2016
Time Extension Approved to Date	10 Days
Time Extension Days – CCO2	20 Days
Revised Date for Completion	August 3, 2016

Design Consultant	Blair, Church & Flynn

I. CHANGES TO CONTRACT PLANS AND SPECIFICATIONS

A. CCD04, Remove and Replace unsuitable subgrade

This item, resulting from unforeseen conditions, compensates the Contractor for costs to remove and replace unstable and unsuitable subgrade material over the area identified on the attached Exhibit A. Work involved subgrade soils removal, stabilization with geotextile fabric and base aggregate down to 48" below design grade, and replacement of excavated subgrade. This work was necessary to produce a stable subgrade upon which to construct the designed structural section per the approved plans and specifications. The costs associated with subgrade replacement and stabilization were estimated by the Airports Construction Manager and Engineer, and negotiated with the contractor resulting in an added cost to the Project of **$128,479.63**.

The Project geotechnical study provided by Salem Engineering included borings throughout the work area with no indication of unstable subgrade or high moisture content. In addition, during potholing for utility location no soft or unstable subgrade was encountered. After demolition of the asphalt pavement and aggregate base, the subgrade began to show signs of lateral and vertical displacement (movement) under the load of the grading equipment. The grading equipment encountered two unstable areas where the subgrade failed to support the excavating machine causing it to nearly tip over. For worker safety concerns, the work was stopped and the Airport Construction Manager contacted the Project Engineer to examine the conditions and to develop reasonable alternatives to stabilize the material. Our investigation showed the highest saturated subgrade soils in the top 24" of the section, with decreasing amounts of over optimum moisture and unstable soil down to 36" below finish grade, including some areas deeper than 48" below finish grade.

Direction was given to the contractor to remove unstable subgrade to 24" below finish grade, and to continue excavating unstable subgrade areas to 48" as needed, then reconstruct the subgrade section by replacing subgrade material with localized deep stabilization using geotextile stabilization fabrics and aggregate base material back up to 36" below finish grade. Once stabilized, the remaining backfill from -36" to -12" was replaced and compacted to a minimum 90%.

This remedial work began on April 27, 2016 and progressed until rainfall hit the project on the evening of May 5, 2016 flooding all open excavations. On May 6, 2016 upon discovery of the flooded grade conditions (start of shift) the Contractor immediately went to work dewatering the site. One week of the schedule was lost to this weather delay as the site dried out. The Contractor was able to resume backfill and subgrade stabilization efforts on May 13, 2016 and completed rebuilding the subgrade section to 12" below subgrade elevations on May 19, 2016.

II. CHANGES TO CONTRACT PRICE

	Federal Share	*Sponsor Share*	*Total*
Original Contract Price	$392,403.24	$43,600.36	$436,003.60
Approved Changes to Date	$15,254.67	$1,694.96	$16,949.63
Cost of This Change Order	$115,631.67	$12,847.96	$128,479.63
Revised Contract Price	$523,289.58	$58,143.28	$581,432.86

III. CHANGES TO CONTRACT TIME

Contract Change Order No. 2 extends the contract time of completion by (20) calendar days to account for time spent performing this work.

The elements of work included in this Contract Change Order have been performed in conformance with applicable AIP Standards and Regulations and were essential for the successful completion of the project.

The costs associated with each element of this change order were estimated by the Airports Construction Manager and finalized through negotiations with the Contractor. The Department has reviewed the methods used to develop costs and time extensions for the various change order elements and determined that the resulting Contract Change Order is fair and equitable. Funds are available in AIP Grant No. 3-06-0088-21-FFY2015 to cover the Federal Share of this Contract Change Order. The Sponsor's Share will be funded with Airport revenue allocated in the Airport's project budget (AC00333).

The City of Fresno Airports Department obtained FAA approval of CCO No. 2 on October 6, 2016.