

TWENTIETH AMENDMENT
TO
AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
AND
HDR ENGINEERING, INC.

THIS TWENTIETH AMENDATORY AGREEMENT is made and entered into this 6 day of June 2017, by and between the Three Rivers Levee Improvement Authority, ("TRLIA"), a California Joint Powers Authority, and HDR Engineering, Inc. ("CONSULTANT").

WHEREAS, TRLIA and CONSULTANT entered into an agreement on December 13, 2005 to provide professional services for Engineering Design and Environmental Studies for Phase 4 Levee Repairs - Upper Yuba River, Continuation of Phase 2 Construction Management (2006), and FEMA Certification of Contract Work ("Agreement");

WHEREAS, a FIRST AMENDATORY AGREEMENT, executed February 14, 2006, increased the maximum not to exceed contract fee from \$2,580,038 by \$118,955 to \$2,698,993; and

WHEREAS, a SECOND AMENDATORY AGREEMENT, executed March 7, 2006, increased the maximum not to exceed contract fee from \$2,698,993 by \$117,649 to \$2,876,642; and

WHEREAS, a THIRD AMENDATORY AGREEMENT, executed August 8, 2006, increased the maximum not to exceed contract fee from \$2,876,642 by \$661,193 to \$3,537,835; and

WHEREAS, a FOURTH AMENDATORY AGREEMENT, executed October 16, 2007, increased the maximum not to exceed contract fee from \$3,537,835 by \$280,000 to \$3,817,835; and

WHEREAS, a FIFTH AMENDATORY AGREEMENT, executed August 5, 2008, increased the maximum not to exceed contract fee from \$3,817,835 by \$954,524 to \$4,772,359; and

WHEREAS, a SIXTH AMENDATORY AGREEMENT, executed September 9, 2008, extended the time of services rendered to December 31, 2009; and

WHEREAS, a SEVENTH AMENDATORY AGREEMENT, executed May 12, 2009, increased the maximum not to exceed contract fee from \$4,772,359 by \$2,416,874 to \$7,189,233 and extended the time of services rendered to December 31, 2010; and

WHEREAS, an EIGHTH AMENDATORY AGREEMENT, executed September 15, 2009 increased the maximum not to exceed contract fee from \$7,189,233 by \$155,846 to \$7,345,079;
and

WHEREAS, a NINTH AMENDATORY AGREEMENT, executed July 20, 2010 increased the maximum not to exceed contract fee from \$7,345,079 by \$1,473,064 to \$8,818,143;
and

WHEREAS, a TENTH AMENDATORY AGREEMENT, executed August 12, 2011 increased the maximum not to exceed contract fee from \$8,818,143 by \$162,879 to \$8,981,022;
and

WHEREAS, an ELEVENTH AMENDATORY AGREEMENT, executed October 18, 2011 increased the maximum not to exceed contract fee from \$8,981,022 by \$636,668 to \$9,617,690;
and

WHEREAS, a TWELFTH AMENDATORY AGREEMENT, executed February 21, 2012 increased the maximum not to exceed contract fee from \$9,617,690 by \$50,000 to \$9, 667,690 and extended the contract date to December 31, 2013;
and

WHEREAS, a THIRTEENTH AMENDATORY AGREEMENT, executed September 18, 2012 increased the maximum not to exceed contract fee from \$9, 667,690 by \$59,762 to \$9,727,452;
and

WHEREAS, a FOURTEENTH AMENDATORY AGREEMENT, executed October 24, 2012 increased the maximum not to exceed contract fee from \$9,727,452 by \$29,873 to \$9,757,325;
and

WHEREAS, a FIFTEENTH AMENDATORY AGREEMENT, executed May 7, 2013 increased the maximum not to exceed contract fee from \$9,757,325 by \$625,084 to \$10,382,409;
and

WHEREAS, a SIXTEENTH AMENDATORY AGREEMENT, executed January 21, 2014 extended the Termination Date of the Agreement to December 31, 2014;
And

WHEREAS, a SEVENTEENTH AMENDATORY AGREEMENT, executed October 21, 2014 increased the maximum not to exceed contract fee by \$726,777 from \$10,382,409 to \$11,109,186, and extended the Termination Date of the Agreement to December 31, 2015; and

WHEREAS, a EIGHTEENTH AMENDATORY AGREEMENT, executed December 15th, 2015 extended the Termination Date of the Agreement to December 31, 2017;
And

WHEREAS, a NINETEENTH AMENDATORY AGREEMENT, executed April 19th, 2016 increased the maximum not to exceed contract fee by \$1,533,361 from \$11,109,186 to \$12,642,547;
And

WHEREAS, Article C.24 of the AGREEMENT, states that modifications or amendments to the terms of the AGREEMENT shall be in writing and executed by both parties;
And

WHEREAS, TRILIA and CONSULTANT desire to amend Agreement;

NOW, THEREFORE, TRILIA and CONSULTANT agree as follows:

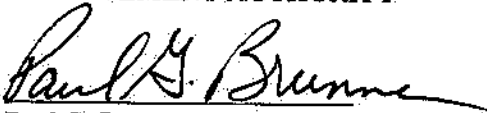
1. Exhibit A of AGREEMENT shall be amended to perform those additional services as described in Exhibit A of this TWENTIETH AMENDMENT.
2. ATTACHMENT B, Provision B.1 of the Agreement shall be revised to increase the maximum not to exceed contract fee by \$690,231 from \$12,642,547 to \$13,332,778.

3. Article 2 of the AGREEMENT shall be amended to extend the Termination Date of the Agreement to May 31, 2018.
4. ATTACHMENT A, Provision A.2 of the Agreement shall be revised to increase the time of services rendered to May 31, 2018.

All other terms and conditions contained in AGREEMENT shall remain in full force and effect.

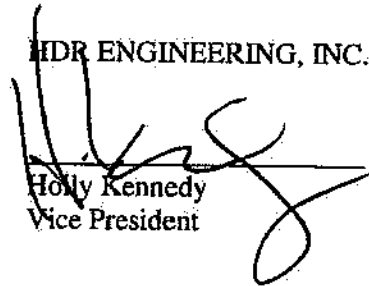
This Amended agreement is hereby executed on this 6 day of June, 2017.

THREE RIVERS LEVEE
IMPROVEMENT AUTHORITY



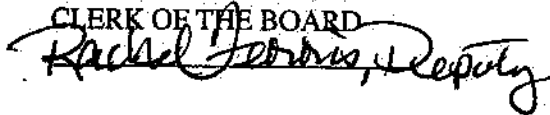
Paul G. Brunner
Executive Director

HDR ENGINEERING, INC.




Holly Kennedy
Vice President

ATTEST:
DONNA STOTTLEMEYER
CLERK OF THE BOARD



APPROVED AS TO FORM:


ANDREA P. CLARK
GENERAL COUNSEL



Change Order No. 1

Date: Wednesday, May 31, 2017
Project: Three Rivers Levee Improvement Authority – Western Pacific Interceptor Canal: Western Levee Improvement Project Construction
To: Paul Brunner – Three Rivers Levee Improvement Authority
Care of Claire Marie Turner – MBK Engineers
From: Garrett Harris, PE, GE
Subject: Amendment No. 19 Contract Fee Amendment

Dear Mr. Brunner,

HDR is requesting amendment to its contract to provide additional scope and fee for construction management services for the WPIC 200-Year Standard Project (WPIC Project). Amendment 19 provided a fee of \$1,963,348.42 for construction management services assuming a single construction season for the WPIC Project. As of the date of this letter, HDR has invoiced \$527,861.98 for the efforts primarily associated with the 2016 construction season. As the project continues for a second construction season, HDR's remaining (available) fee is \$1,005,499.02. This fee is allocated for tasks primarily associated with geotechnical trench logging, post construction surveying, remaining landside fills, and post-construction documentation. HDR requests an additional fee of \$690,231 under Amendment No. 20 to provide continued construction management services.

2016 Construction Season

The 2016 construction season began on July 28 and continued until November 18 for a total of 65 working days. During this period the contractor worked 10 hours per day constructing the landside toe road and stability berms associated with Schedule A. More specifically, the contractor imported and placed materials in the area along the landside toe between project Station 190+28 and 308+30 feet. During this period, HDR reviewed 14 submittals and responded to 9 request-for-information (RFIs) for the project, in addition to, 44 weekly progress meetings, and 8 team meetings.

HDR originally assumed 32 weeks, 6 days per week, at 10 hours per day to complete the WPIC construction. This included project management, on-site residential engineer, inspectors, design engineering support for submittals and enquiries, and subconsultant's associated with quality assurance (QA) services. However, despite 2016 construction being limited to the landside levee toe fills (part of Schedule B), the contractor spent 65 of the originally estimated 192 days on site. HDR had assumed that landside fill work would be completed in 24 days.

Due to the prolonged period of construction activities, HDR's geotechnical QA subconsultant was required to be on site for additional hours and perform additional density testing of fill materials as project specifications require a minimum number of QA density testing be

performed per day of engineered fill placement. Additionally, the prolonged period of construction also meant HDR was required to be on site for additional hours. It should be noted that in an effort to save project fees, HDR utilized a single person to perform the resident engineer and inspection roles.

Contractors proposed schedule

As presented in the contractor's schedule, the current WPIC project will be completed this construction season. Furthermore, the schedule presents that several activities will be active simultaneously in order to achieve this schedule. Based upon the contractor's current project schedule timeline the landside fills, Schedule B items, will be completed within the same period as the cut-off-walls, Schedules C and D.

More specifically, the 2017 timeline presents 179 days of construction activities. As of the date of this letter, it is our understanding that these days are 10 hours per day for 5-days per week with Saturdays being active only during the 9 weeks of cut-off-wall installation. This represents an additional 52 days of construction not envisioned in Amendment 19.

Additional Scope of Work

During the WPIC 2016 construction activities and subsequent 2016 winter, two items were identified for addition to the WPIC construction scope of work. These items included a permanent cattle fence between Stations 216+50 and 256+00, and the investigation of observed water activity along the landside toe near Station 2+00. Construction management services for these two activities are estimated to be:

- Permanent Cattle Fencing - \$7,500
- Water Activity along Landside Toe - \$18,000

Fee Increase Estimate

Based on the prolonged 2016 construction, remaining work to be completed in 2017, and the additional scope of work, HDR requests that the HDR agreement with TRLIA be amended to provide an increase of \$690,231. This fee increase includes fees from HDR and its associated subcontractors, including \$157,865 and \$5,000 for Geotechnical QA Inspection and Surveying Services, respectively. This increase will bring our contract fee amount to a total of \$13,332,778.

Please contact Garrett Harris with any questions or comments.

CC: Doug Handen - handenco@pacbell.net

