

From: Ziehe, Fred
Sent: Friday, June 17, 2016 2:50 PM
To: Mike Castro; Lorri Coody; Kevin Hagerich
Subject: RFQ draft_changes/additions from flood group
Attachments: RFQdraft_with comments from flood group_Ziehe.pdf

Importance: High

To all:

Attached for your information and review is a copy of the flood mitigation RFQ draft, showing the “mark-ups” by our flood group, “Residents Working to Improve Jersey Village”. As indicated, our recommended changes/additions are highlighted in pink and our questions/comments to ourselves or to the reader of the draft are highlighted in green.

We wanted to provide this information to you prior to the Council meeting on Monday, June 17. I have emailed this same information to the City Council members and will also hand out paper copies of this to you all on Monday at the meeting. I would be happy to discuss these items with you at any time.

While it might first appear there are quite a few changes/additions, they are generally to add more specificity to the process to insure the engineering report results in providing the most complete flood mitigation study as possible. We appreciate that the items from our “12 points” were largely incorporated into the original draft.

Thank you in advance for your consideration of these changes.

Best regards

Fred W. Ziehe

Cell: 713.870-4162
8409 Hawaii Ln
Jersey Village, Tx 77040

Pursuant to Texas Board of Professional Engineering statutes, any information contained herein represents PRELIMINARY work-in-progress unless otherwise noted.

SUGGESTED CHANGES, ADDITIONS, etc

QUESTIONS AND/OR COMMENTS

★ City of Jersey Village ★

Long-Term Flood Recovery Consultant Request for Qualifications

WITH INPUT FROM THE
CITIZENS' ADVISORY
COMMITTEE.

A. INTRODUCTION

The City of Jersey Village is seeking consultant services for the development of a Long-Term Flood Recovery Plan. The project consists of the development of a conceptual plan for projects and programs aimed to reduce the effect of chronic flooding within the city. Integral to this project will be an assessment of the current situation along with an assessment of future conditions based on potential strategies examined within the plan. The strategies will be determined and analyzed through the use of hydrologic and hydraulic models. Benefit-cost analysis will be performed on the selected strategies, with the preferred strategy selection being made by the City Council. This project will ultimately determine a realistic road map for the city to follow in order to significantly reduce losses due to repetitive flooding.

B. BACKGROUND

The City of Jersey Village is impacted by chronic flooding along White Oak Bayou. Major flooding within the city has occurred in 1998, 2001, 2002 and 2016. The most recent flooding occurred after extensive efforts by the City and Harris County Flood Control District (HCFCD) to improve the stormwater drainage infrastructure in and around the community. In the 18 years that span the first and last occurrences of flooding within the city, the HCFCD has spent approximately \$95 million within the White Oak Bayou watershed. Most notably, in 2010 the HCFCD completed the Jersey Village Channel, a diversion channel located north of the City proper. Within the past decade, the HCFCD has completed multiple detention basins within and upstream of Jersey Village. During the same period, the City completed three significant street / drainage reconstruction efforts with a value of approximately \$25 million, with the primary goal of reducing neighborhood flooding. Despite these efforts, approximately 200 homes within Jersey Village experienced some level of flooding on April 18, 2016.

Improvements initiated by the HCFCD form the basis of the White Oak Bayou Federal Flood Damage Reduction Project (the Plan). The Plan was approved under the auspices of the Water Resources Development Act of 1996. Although the Plan has Congressional

MOST

approval, it has not received federal appropriation. HCFCF has completed a majority of work within the watershed in anticipation of federal reimbursement. One of the more significant components of the plan that remains incomplete is channel modifications to that portion of White Oak Bayou running through Jersey Village. It is a belief of many residents that the inability of HCFCF to complete the channel improvements within the City, coupled with development pressures upstream of Jersey Village, have led to the present situation.

NOTE TO READER:
Does the City view this as an issue as it's top priority? C.

There is a strong consensus within the community for action. Many of the impacted residents desire to remain in the City, but do not see a viable path forward, having now flooded four times in 18 years. It is incumbent upon the city to lay out a strategic plan that is aspirational, yet realistic in its aim.

PURPOSE OF THE PROJECT

The purposes of the Jersey Village Long-Term Flood Recovery Plan are as follows:

- 1) Provide an Assessment of the Current Situation. Determine the magnitude of the flooding problem in Jersey Village by evaluating the existing conditions and placing the April 18, 2016 storm into perspective. The assessment should incorporate a recap of past watershed improvements completed by the HCFCF and the City. In addition, the assessment should provide details regarding approved HCFCF work that has not been funded. If the city takes no action, what will the future hold for the city and its residents?

Are possible or

AND UPDATES TO THE 1996 STUDY.

- 2) Develop an understanding of potential improvements to reduce flooding experienced within the community. The consultant shall review existing plans, to include the 1996 HCFCF Federal Plan. In addition, the consultant will provide preliminary analysis of potential projects to be provided by the city. Selected options will not be limited to city-sponsored activities.

SOLELY

- 3) Provide a long-term Drainage Improvement Plan. Prepare conceptual drawings, rough cost estimates, benefit-cost analysis, and a description of the advantages and disadvantages of each selected option.

POTENTIAL

D. SERVICES TO BE PROVIDED

The work will be accomplished in six stages:

- 1) Evaluation of Existing Conditions and Data Collection
- 2) Solicitation of Citizen Comments and Experiences

WHICH COULD BE INITIATED BY THE CITY OR OTHERS TO ALLEVIATE THE POSSIBILITY OF FLOODING. [2]

NOTE TO READER:
• WE HAVE REASON TO BELIEVE THERE ARE UPDATES AVAILABLE OF WHICH JV PLANNED A ROLE IN REVIEWING.
• WHY WEREN'T THESE UPDATES MENTIONED IN RFQ?

- 3) Problem Identification
- 4) Development of Alternative Solutions
- 5) Identification of Preferred Alternatives
- 6) Environmental Considerations

**Significant to the effort will be the interaction with, and inclusion of, citizen participation. The selected consultant will be expected to develop a process for soliciting and incorporating citizen comments / experiences as an integral element to the Plan.

1) Evaluation of Existing Conditions and Data Collection:

- a. The consultant will perform a one-day field visit and walk through of the drainage system to gain on the ground information of the existing conditions of the system.
- b. The consultant will perform a one-day workshop with the City officials and stakeholders to gain a better understanding of the conditions, processes, and programs. Stakeholders may include City Officials, Council members, local engineers, developers, insurance providers, large landowners, HCFCD, and FEMA. Stakeholder input is a vital part to establishing an acceptable plan.
- c. The consultant will provide a recap of HCFCD and City efforts to mitigate flooding. The consultant will list those elements of the Federal Project that are complete and those elements that remain unfunded. Cost and performance metrics shall be sufficient to provide the city talking points for future advocacy efforts.
- d. The consultant will provide hydrologic and hydraulic analysis of the existing conditions. The model will be calibrated for the April 18, 2016 storm event, which will be utilized to determine the context of the event (25, 50, or 100-year event).
- e. Through information collected regarding the flooded properties and rainfall, a comparison of the April 18, 2016 event to previous flood events should be correlated.
- f. The consultant will provide analysis of the number of homes in the 100-year floodplain and correlate this to the April 18, 2016 event.
- g. The hydrologic models will be run for the smaller 2, 5, and 10-year storm events.
- h. The consultant will provide analysis of White Oak Bayou channel ownership through Jersey Village. What rights / obligations / abilities does the city possess with regard to current ownership status along White Oak Bayou?
- i. Deliverables:
 - i. Meeting minutes summarizing the stakeholder workshop.
 - ii. Timeline of HCFCD projects, funding, and remaining portions of projects.
 - iii. Hydrologic and Hydraulic Model files
 - iv. Maps showing the 2, 5, 10, 100, and April 2016 flood extents.

NOTE TO READER:
OUR GROUP MIGHT LIKE TO PARTICIPATE IN THIS WITH THE "SELECTED" FIRM.

NOTE TO READER:
IT'S CRITICAL THAT AN ACCURATE NUMBER AND LOCATION OF FLOODED HOMES AND NEARLY FLOODED HOMES BE DETERMINED. OUR GROUP CAN ASSIST WITH THIS!!

QUESTION:
EXPLAIN WHAT EXACTLY WHAT THIS IS !!!

BASED ON UPDATED MODELS.

[3]

QUESTION:

DOES THIS REFER TO JUST PROVIDING TIMELINE OF HCFCD PROJECTS FROM PAST STUDIES?

2.
RESIDENTS?

AND UPDATES

10,

WHICH WAS A 10-YEAR FLOOD EVENT ACCORDING TO HCFCD'S WEBSITE.

OR HCFCD

AND HOW CAN THESE PROBLEMS BE ELIMINATED TO HELP IN FLOOD MITIGATION?

EXISTING

QUESTION:

IS THIS JUST FROM
PAST MODELING?

- v. Memorandum detailing the modeling assumptions and the conclusions to the questions addressed above.

2) Solicitation of Citizen Comments and Experiences:

- The consultant will meet with citizens of the City of Jersey Village in order to gather their experiences and comments; which if applicable, can be used to develop solutions.
- The Consultant will facilitate an evening town hall / information gathering meeting to solicit input from the residents.
- The Consultant will allow citizens to forward comments and experiences to be used in their analysis of potential solutions (two-week window after initial town hall meeting).
- The consultant will meet with the citizens of the City of Jersey Village to present a draft presentation of their recommended solutions and be prepared to hold a question and answer session.
- Deliverables:
 - The consultant will provide a summary of citizen comments.

THE AREA WEST OF 290
AND WEST OF THE JONES RD
EXTENSION AREA.

QUESTION:
IS THIS A
DEFINITE
CERTAINTY??

IMPROVEMENT
OR
MODIFICATION

3) Problem Identification:

- The consultant will identify repetitive loss/flooding locations for both major (25, 50 and 100 year) and minor (2, 5, and 10 year) events
- The consultant will utilize the hydraulic model in order to identify pinch points, undersized structures, and areas in need of channel stabilization or regrading.
- The consultant will examine the build-out scenario for the city's proposed Transit Oriented Development district in the context of existing drainage facilities to determine the impact, if any, on flooding.
- Deliverables:
 - A memorandum detailing the findings listed above
 - The consultant will present its findings to city council. Presentations should utilize graphics that make the findings easily understandable to a lay audience.

SIMILAR IMPACT SHOULD BE
DETERMINED FROM THE 290
EXPANSION/CONTINUED
DEVELOPMENT UPSTREAM

POSSIBLE

AND
HOME DEVELOPMENTS
IN JV NEAR BAYOU
DRAINAGE AREAS.

WITH INPUT
FROM CITIZEN
ADVISORY
COMMITTEE

4) Development of Alternative Solutions

- The consultant will provide preliminary analysis of various options to mitigate flooding within the City. Preliminary analysis shall include cost projections, reduction in flooded area, reduction in flood elevations, and identification of any issues (row acquisition, state, or federal).
- Alternatives will be determined based on the problems and targeted areas of improvement that are identified in Section 3 above. City Council shall ratify the Alternative selection. Alternatives will be limited to five (5), with additional

REGULATION OR CONTROL.

DELETE

EVALUATE AND
SELECT
SPECIFIC
ALTERNATIVES.

QUESTION:
WILL FIRM RUN
MODEL TO EVALUATE
NEW ALTERNATIVES
LISTED
RECON?

NOTE TO READER:

OUR
GROUP CAN
ASSIST.

NOTE TO
READER:
THIS NEEDS
TO INCORPORATE
HOME ACTUAL
FLOODS AND
THOSE NEARLY
FLOODED

SEE INSERT
SHOWN ON
NEXT
PAGE

EXAMINE THE
EFFECTIVENESS,
OR NOT, OF
RECENTLY
CONSTRUCTED
CONTROL STRUCTURES
(i.e. THE ELWOOD
WEIR).

EXAMINE THE
18 SQ MI UPPER
REACH ABOVE JV
TO DETERMINE IF IT
IS A MAJOR CAUSE FOR
FLOODING IN JV. IF SO,
ARE ADDITIONAL DETENTION
CONTROL STRUCTURES, etc
UPSTREAM OF JV
REQUIRED?

INSERT WITHIN 3) PROBLEM IDENTIFICATION SECTION
ON PG 4 OF THIS RFQ

"THE CONSULTANT WILL PROVIDE A DETAILED EVALUATION OF THE FUNCTIONALITY AND EFFICIENCY OF THE WOB AND TRIBUTARIES WITHIN THE JERSEY VILLAGE BAYOU SYSTEM TO HANDLE RAIN AND FLOOD WATERS FLOWING THROUGH JERSEY VILLAGE AND THE SYSTEM'S ABILITY TO DELIVER THAT WATER DOWNSTREAM WITHOUT CAUSING FLOODING WITHIN THE CITY LIMITS."

WIDENING, DEEPENING, "BENCHING" THE BAYOU PROFILE THROUGH JV
TO BE COMPARABLE TO
THE WOB PROFILES DIRECTLY
NORTH AND SOUTH OF JV

MUST

AND/OR ADDING BERMS TO
THE SIDES OF WOB THROUGH
JV.

alternatives to be completed upon the request of the City Council as additional services. Some alternatives may include:

DELETE

ACQUISITION OF PROPERTIES
FOR THE PURPOSE OF
WIDENING AND DEEPENING
THE CHANNEL AND TRIBUTARIES.

AND OTHER
AREAS EXPERIENCING
SIGNIFICANT,
REPETITIVE STREET
FLOODING, WHICH
DO NOT CURRENTLY
HAVE MODERN
STREET / DRAINAGE
IMPROVEMENTS
(i.e., TENBURY,
HAWAII, OTHERS?)

i. Construction of a berm in and around the eastern portion of the city's Golf Course; designed to detain sheet flow from impacting nearby neighborhoods.

ALTERNATIVELY TO i AND ii, CONSIDER REGRADING THE GOLF COURSE OR OTHER ALTERNATIVES TO MITIGATE FLOODING.

ii. Utilization of the golf course, in total, as a detention basin.

iii. Completion of street / drainage improvements in the Wall Street - Crawford neighborhood, similar in scope and design to the three major street projects completed in the city in the preceding 15 years.

iv. Completion of sub-surface retention on Wall Street and Jersey Drive.

v. Reconstruction of the Northern confluence of White Oak Bayou and the Jersey Village Channel (aka, the Bypass Channel).

vi. Construction of new main channel alignment in the vicinity of North Tahoe and Tahoe Dr. to eliminate the 90-degree bend in White Oak Bayou at this location.

c. The hydrologic models will also be utilized to look at the following:

i. The reduction in bayou water levels anticipated from the completion of the Federal Project, AND UPDATED STUDIES.

ii. The reduction in bayou water levels associated with completion of proposed channel modifications through Jersey Village. In addition to examining the HCFCF / GRR recommended option, the analysis shall take into consideration the seven channel improvement options investigated as a part of the Federal Study, AND OPTIONS FROM UPDATED STUDIES.

iii. The number of homes currently within the 100-year floodplain. The number of homes within the floodplain under the proposed LOMR (pending with HCFCF).

d. Deliverables:

i. A memorandum detailing the alternatives analyzed and the results. This must include an General Environmental Assessment of each alternative.

ii. The consultant will make a presentation to city council at a town hall meeting regarding the range of available options examined. The presentation shall incorporate a discussion of the relative effectiveness as well as the disadvantages of each measure.

CITIZENS' ADVISORY COMMITTEE

5) Identification of Preferred Alternatives

a. Based on input from city staff, city council, and the public, the consultant will develop a long-term drainage improvement plan that includes a description of the project, cost, potential funding sources, and timeline for planning, design, and construction.

a. EVALUATE THE CURRENT EFFECTIVENESS OF THE BY-PASS COMPARED TO THE "PROMISED 30% DIVERSION".

b. INCREASE THE EFFECTIVENESS AND CAPACITY OF THE BY-PASS TO MORE THAN 30% [5] DIVERSION.

c. INCLUDE SENSORS TO VALIDATE VOLUMES AND FLOW.

QUESTION TO READER:
WILL MODELS BE
RUN TO CONSIDER
EFFECTS OF
ALTERNATIVE
SOLUTIONS LISTED
IN SECTION 4?

QUESTION TO READER:
IS THIS "DISCUSSION OF
RELATIVE EFFECTIVENESS"

A DETAILED
SUMMARY
OF

FLOOD MITIGATION
RESULTS....
OR WHAT?

b. The plan shall also contain a review of potential city participation in the following FEMA programs:

i. Flood Mitigation Assistance (FMA) Grant

1. Home Elevation Program.

2. Demo-Rebuild option included in Bunning-Bereuter-Blumenauer Insurance Reform Act of 2004.

ii. Home Buy-Out Program.

iii. Home Flood-Proofing Program

iv. Severe Repetitive Loss Grant Program

6) Environmental Considerations of Preferred Alternatives

a. Review the long-term environmental impact resulting from the preferred alternatives chosen by completing a Phase I Study.

E. RFQ INSTRUCTIONS/REQUIREMENTS

- 1) Sealed qualification packets shall be clearly marked "**Long-Term Flood Recovery Consultant**", and shall be delivered to the office of Lorri Coody, City Secretary by 2:00 p.m., July 18, 2016:

By Mail: City of Jersey Village
16327 Lakeview Dr.
Jersey Village, Texas 77040

In person: City of Jersey Village
16327 Lakeview Dr.
Jersey Village, Texas 77040

NO REQUEST FOR QUALIFICATIONS SHALL BE ACCEPTED AFTER 2:00 P.M. AND SHALL BE RETURNED UNOPENED IF RECEIVED AFTER 2:00 P.M.

- 2) The submittal package will include an unbound original, an electronic copy, and five hard copies of the statement of qualifications. Pricing information to accomplish the work shall not be included in the response.
- 3) The City of Jersey Village reserves the right without prejudice to reject any or all statement of qualifications, and at its sole discretion, to accept the state of qualification it considers most favorable to the City's interest. The City further reserves the right to reject all statement of qualifications and seek new statements of qualifications when such procedure is reasonable and in the best interest of the City.
- 4) There is no expressed or implied obligation for the City of Jersey Village to reimburse responding firms for any expenses incurred in preparing statement of qualifications in response to this request.

- 5) The Proposer will acknowledge that it is an engineering firm duly registered under the laws of the State of Texas.
- 6) The City of Jersey Village reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in this request for proposals, unless clearly and specifically noted in the proposal submitted and confirmed in the contract between the City of Jersey Village and the firm selected.
- 7) The proposer shall include a schedule of the work to be performed, including meetings with City staff, meetings with the community / stakeholders, presentations to commissions and City Council.
- 8) Proposals submitted will be evaluated by a Selection Team comprised of appropriate City staff.
- 9) Proposers should highlight relevant experience working with the Harris County Flood Control District on projects of similar scope and complexity.
- 10) During the evaluation process, the City of Jersey Village reserves the right, where it may serve the City's best interest, to request additional information or clarifications from proposers, or to allow corrections of errors or omissions. At the discretion of the City, firms submitting proposals may be requested to make oral presentations as part of the evaluation process.
- 11) Selection of an engineering firm to perform the work contemplated in this Request for Proposals will be a two-stage process. City staff will select a firm to recommend to the City Council based on qualifications. The selection of the engineering firm shall be ratified by the Jersey Village City Council. The City Council will then authorize the City Manager to negotiate a contract with the selected firm. The selected firm will be required to enter into a contract that incorporates the intended goals of this RFQ.
- 12) It is anticipated that the Jersey Village City Council will award the contract for the Long Term Flood Recovery Consultant on September 19, 2016 or as soon thereafter as possible.
- 13) The engineer's principal contact with the City of Jersey Village will be Kevin Hagerich, Director of Public Works, or a designated representative, who will coordinate the work on behalf of the City of Jersey Village.
- 14) The contract is to be governed by the laws of the State of Texas. Venue shall be exclusively in Harris County.

F. PROPOSAL REQUIREMENTS

1) **General Requirements**

a. **Inquiries**

Inquiries concerning the request for proposals and the subject of the request for proposals must be made to:

Kevin Hagerich, Director of Public Works
khagerich@ci.jersey-village.tx.us
(713) 466-2107

Mailing Address:
16327 Lakeview Dr.
Jersey Village, TX 77040

CONTACT WITH PERSONNEL OF THE CITY OF JERSEY VILLAGE OTHER THAN THE ABOVE NAMED OFFICIALS REGARDING THIS REQUEST FOR QUALIFICATIONS MAY BE GROUNDS FOR ELIMINATION FROM THE SELECTION PROCESS.

2) **Submission of Proposals**

The following material is required to be included in the proposal for a proposing firm to be considered:

a. An original unbound master copy (so marked) of a Technical Proposal, an electronic copy and five (5) hard copies to include the following:

i. Title Page

Title page showing the proposal subject; the firm's name; the name, address and telephone number of the contact person; and the date of the proposal.

ii. Table of Contents

Include a clear identification of the material by section and by page number.

iii. Transmittal Letter

A signed letter of transmittal briefly stating the proposer's understanding of the work to be done, the commitment to perform the work within the time period, and a statement

why the firm believes itself to be the best qualified to perform the engagement. Give the names of the persons who will be authorized to make representations for the proposer, their titles, addresses and telephone numbers.

iv. Detailed Proposal

The detailed proposal should follow the order set forth in Section II B of this request for proposals.

3) **Technical Proposal**

a. **General Requirements – 5 points**

The purpose of the Technical Proposal is to demonstrate the qualifications, competence and capacity of the firms seeking to undertake engineering study for the City in conformity with the requirements of this request for proposals. As such, the substance of proposals will carry more weight than their form or manner of presentation. The Technical Proposal should demonstrate the qualifications of the firm and of the particular staff to be assigned to this project. It should also specify an engineering approach that will meet the request for proposal's requirements.

The Technical Proposal should address all the points outlined in the request for proposals. The Proposal should be prepared simply and economically, providing a straightforward, concise description of the proposer's capabilities to satisfy the requirements of the request for proposals. While additional data may be presented, the following subjects, items Nos. 2 through 5, must be included. They represent the criteria against which the proposal will be evaluated.

b. **License to Practice in TEXAS – 5 points**

An affirmative statement should be included that the firm and all assigned key professional staff are properly licensed to practice in TEXAS. Licensed personnel shall be identified as such.

c. **Firm Qualifications and Experience – 25 points**

The proposer should state the size of the firm, the size of the firm's staff to be assigned to this project, and the location of the office from which the work on this engagement is to be performed. Also, state the number and nature of the professional staff to be employed in this engagement on a full-time basis and the number and nature of the staff to be so employed on a part-time basis.

d. Staff Qualifications and Experience – 25 points

The firm should identify the principal supervisory and management staff who would be assigned to the engagement. Indicate whether each such person is licensed to practice as a professional engineer in Texas. The firm also should provide information on the relevant experience of each person on projects similar to the work contemplated in this Request for Proposals.

The firm should provide as much information as possible regarding the number, qualifications, experience and training, of the specific staff to be assigned to this engagement. Indicate how the quality of staff over the term of the agreement would be assured.

Project staff mentioned in response to this request for proposal can only be changed with the express prior written permission of the City of Jersey Village, which retains the right to approve or reject replacements.

e. Specific Approach to the Work – 40 points

The proposal should set forth a detailed work plan, including an explanation of the methodology to be followed, to perform the services required in this request for proposal. Town Hall meetings, presentations to City Council, and other public outreach should be identified in the work plan.

G. EVALUATION PROCEDURES

1) Selection Team

Proposals submitted will be evaluated by a Selection Team comprised of appropriate City staff.

2) Review of Proposals

The Selection Team will meet to review the proposals. The proposals will be ranked and one or more firms may be asked to make an oral presentation.

3) Question and Answer Session

The Selection Team will hold a question and answer session for those interested in participating. The session will take place at the Jersey Village City Hall on July 6, 2016 starting at 10:00a.m. The intent of the session is to allow consultants the opportunity to Review the Request for Qualifications (RFQ) and bring to the meeting any questions or concerns they may have in order to allow all potential consultants the opportunity to have the same understanding of this RFQ.

4) **Oral Presentations**

During the evaluation process, the City may, at its discretion, request any one or all proposing firms to make oral presentations. Such presentations will provide firms with an opportunity to answer any questions the City may have on a firm's proposal. Not all firms may be asked to make such oral presentations.

5) **Final Selection**

The City Manager and staff will select a firm and recommend ratification by the City Council. The City Council will authorize the staff to negotiate a contract with the successful proposer.

It is anticipated that a firm will be selected by August 15, 2016. Following notification of the firm selected, it is expected a contract will be executed between both parties by September 19, 2016.

2016.

NOTE TO SELF:
- RFQ DUE BACK BY 7/10/16
- FIRM SELECTED BY 8/15/16
- EXEC EXERCISE CONTRACT
BETWEEN FIRM & JV
BY 9/19/2016.