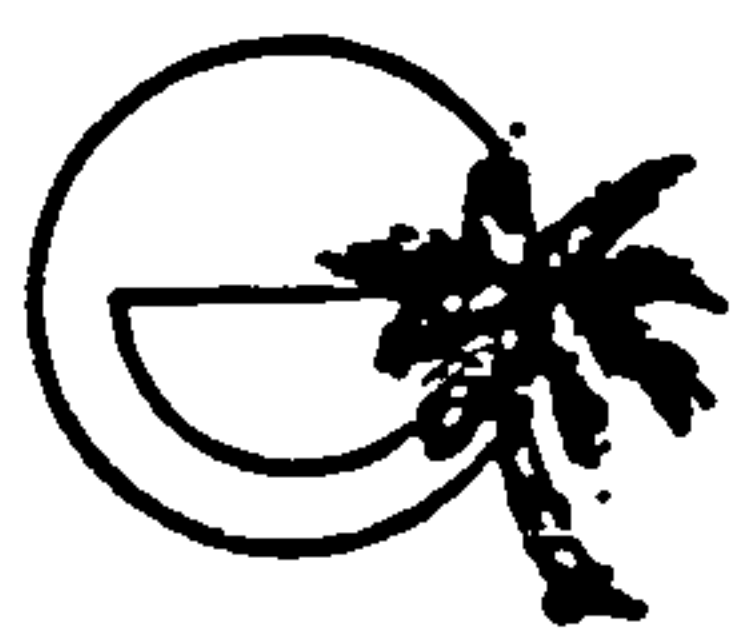
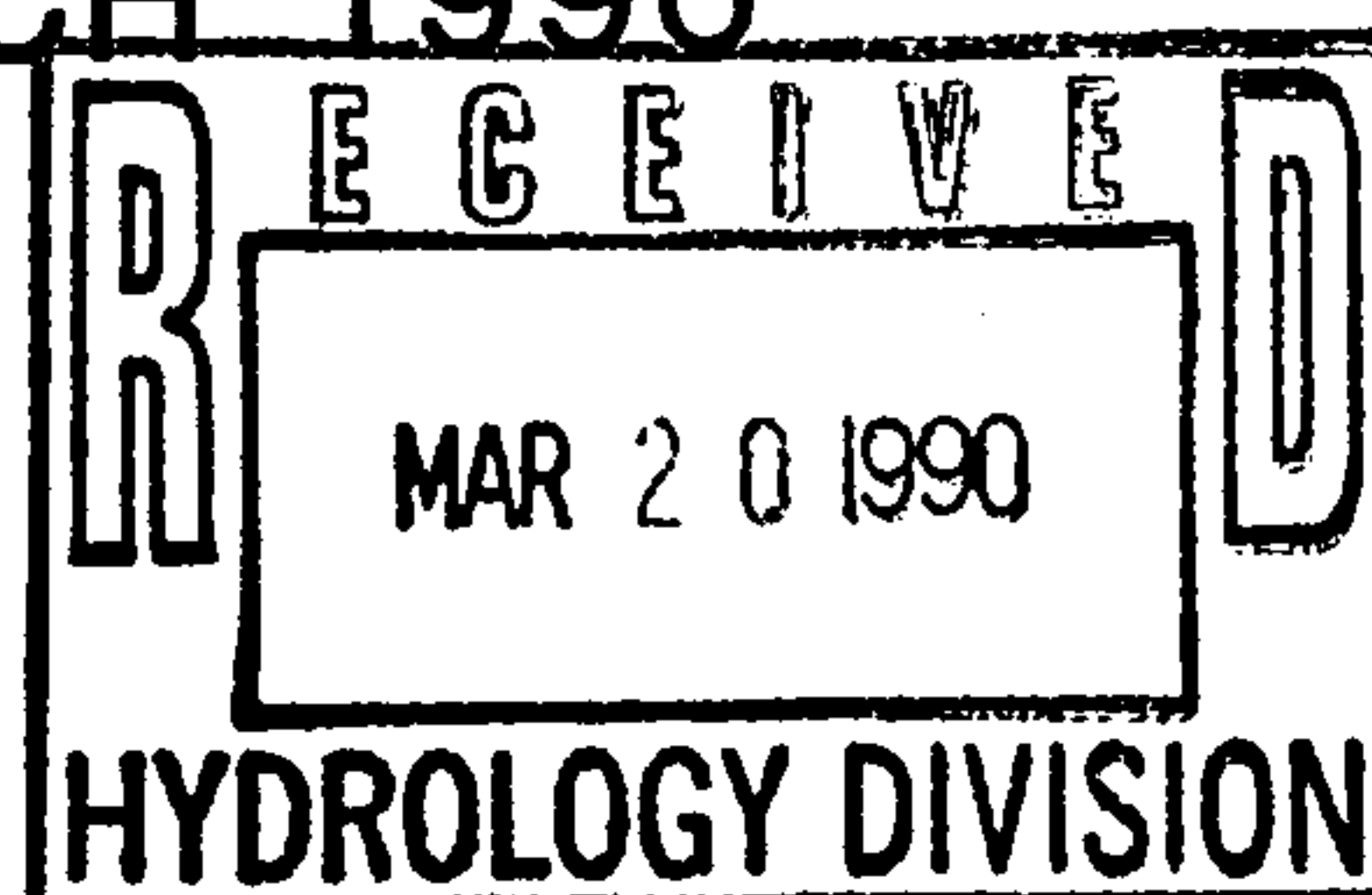


PHIL CHACON PARK PHASES I & II

CITY OF ALBUQUERQUE
PARKS & RECREATION DEPARTMENT

SPECIFICATIONS
MARCH 1990



MORROW & COMPANY
LANDSCAPE ARCHITECTS

210 La Veta Drive NE
Albuquerque, New Mexico 87108
505-268-2266

PRELIMINARY
NOT FOR CONSTRUCTION

[includes SFPA]

TABLE OF CONTENTS

	<u>PAGE NO.</u>
ADVERTISEMENT FOR BIDS.	AB-1
INSTRUCTIONS TO BIDDERS	IB-1 - IB-9
SPECIAL PROVISIONS.	SP-1 - SP-31
LIQUIDATED DAMAGES.	SP-1
TAXES	SP-1 SP-2
PROJECT SIGNS AND PROJECT PUBLICITY	SP-2 - SP-4
AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION	SP-5 - SP-8
NOTICE TO CONTRACTORS - ADDITIONAL AFFIRMATIVE ACTION AND EEO EMPLOYMENT DATA REQUIREMENTS.	SP-9 - SP-17
DISADVANTAGED AND WOMEN BUSINESS ENTERPRISES.	SP-18- SP-24
MINIMUM WAGE RATES.	SP-25- SP-29
SUBCONTRACTORS FAIR PRACTICES ACT COMPLIANCE.	SP-30- SP-31
 BID PROPOSAL.	 BP-1a- BP-3
CERTIFICATION OF BIDDER REGARDING AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION	 CB-1
BIDDER'S SOLICITATION REPORT ON DBE/WBE SUBCONTRACTORS AND SUPPLIERS.	 MBE-1
DBE/WBE BIDDERS QUESTIONNAIRE	MBE-2
BIDDERS LISTING OF SUBCONTRACTORS FOR COMPLIANCE WITH SUBCONTRACTORS FAIR PRACTICES ACT.	 SFPA-1
BID BOND.	BB-1 - BB-2
AGREEMENT	AG-1
PERFORMANCE BOND.	PB-1 - PB-3
LABOR AND MATERIAL PAYMENT BOND	LMB-1 - LMB-2
CONTRACTOR'S LIST OF SUBCONTRACTORS/SUPPLIERS	CFL-1
STANDARD SPECIFICATIONS	SS-1 - SS-2
SUPPLEMENTAL TECHNICAL SPECIFICATIONS	STS-1 - STS-

ADVERTISEMENT FOR BIDS

For the Construction of:

PHIL CHACON PARK, PHASES I AND II

City Project No. 2746

Sealed bids will be received in the office of the City Clerk of the City of Albuquerque at the Albuquerque/Bernalillo County Government Center, 11th floor, One Civic Plaza N.W., Albuquerque, New Mexico for the project described herein no later than 1:30 p.m. local time, _____ at which time the public opening and reading of bids received will begin in the Council Chambers, on the lowest level of the Government Center. Delivery of bids is the sole responsibility of the Bidder. The bids will be considered by the City following the opening of the bids, and an award of the Contract, if made, will be within thirty (30) days after the Bid Opening.

For Instructions to Bidders, bidding forms, and other Contract Documents, including plans, etc. to be used in connection with the submission of bids, the prospective Bidders are invited to contact the ENGINEER listed below. A \$ 100.00 deposit will be required for each set of plans, contract documents, and bidding forms. This deposit is refundable provided the bidding documents are returned in usable condition within ten (10) days after the Bid Opening. Portions of bidding documents may be purchased at the cost of reproduction.

The Bidder's attention is specifically directed to the Instructions To Bidders and Special Provisions contained in the Contract Documents.

A Pre-Bid conference will be held at _____

Attendance at the Pre-Bid Conference for this project is/is not
<line out one> mandatory to qualify to submit a Bid Proposal.

Name and Description of Project: Phil Chacon Park, Phases I and II,
including grading, asphalt, concrete, brick paving, decorative fountain, plantings,
irrigation, and related work

Name and Address of Landscape
Architect

MORROW AND COMPANY, LTD.

210 La Veta NE
Albuquerque, NM 87108

Advertised In: Albuquerque
Journal & Albuquerque Tribune

For the City of Albuquerque
Albuquerque, New Mexico

By:

Advertising Dates: _____

Public Works Department
Date: _____

INSTRUCTIONS TO BIDDERS

1. TIME AND PLACE OF RECEIVING AND OPENING OF BIDS: This information will be found in the "Advertisement for Bids". Bids received after the specified time will be returned to the Bidder unopened.
2. SPECIFICATIONS, FEES AND TAXES:
 - a) Specifications: The construction of this Project will be in accordance with the City of Albuquerque, Standard Specifications for Public Works Construction, referenced on page SS-1. Note that the term "Bidding Documents" includes all "Contract Documents" required to be used in the Construction Contract with the City.
 - b) License and Royalty Fees: All license and royalty fees for products or for processes shall be paid directly by the CONTRACTOR.
 - c) Taxes: The Bidder shall include all applicable taxes, except New Mexico Gross Receipts Tax, in all bid amounts, including Lump Sum, Unit Price and Alternate Bid amounts. The Bid Proposal shall contain a separate entry for New Mexico Gross Receipts Tax immediately preceding the Base Bid. All Alternates shall contain a separate entry for New Mexico Gross Receipts Tax immediately preceding the total amount of the Alternate. No Unit Prices nor Lump Sum Amounts contained within the bid shall include New Mexico Gross Receipts Tax.
3. INTERPRETATION OF DOCUMENTS: If any person contemplating submitting a Bid Proposal for the Work is in doubt as to the meaning of any part of the plans, specifications or other Contract Documents, he may submit to the ENGINEER a written request for an interpretation thereof at any time prior to three (3) working days before the time of opening of bids. Any interpretation of the documents will be made only by Addendum duly issued. No verbal response shall be binding.
4. ADDENDA: Each Addendum shall be a part of the Contract Documents to the same extent as though contained in the original documents and itemized listings thereof and all Bidders shall be bound by such Addenda. On his Bid Proposal, each Bidder shall acknowledge receipt of each Addendum. Each Bidder shall ascertain, prior to submitting the bid, that the Bidder has received all Addenda issued, and shall acknowledge receipt of each Addendum on his Bid Proposal.

5. EXAMINATION OF CONTRACT DOCUMENTS AND SITE:

Before submitting his Bid Proposal, each Bidder must:

- a) Examine the Contract Documents thoroughly.
- b) Visit the site to familiarize himself with local conditions that may in any manner affect the performance of the Work and employment of labor thereon.
- c) Familiarize himself with federal, state, and local laws, ordinances, rules and regulations affecting performance of the work and employment of labor thereon.
- d) Familiarize himself with the Regulation Governing the Award and Rejection of Bids and Debarment of Contractors for Public Works Projects of the City of Albuquerque. These regulations govern the award or rejection of bids.
- e) Carefully correlate his observations with the requirements of the Contract Documents.

6. SUBMISSION OF BID PROPOSALS: Bid Proposals shall be made on the printed forms, which are a part of these Contract Documents, without separation from the documents. Prices shall be filled in for all items in the Bid Proposal including alternates, as required in the proposal form. Prices shall be shown in numerals in ink, printed or typed in the spaces provided. Alterations to bid amounts by erasures or by interlineations shall be initialed by the signer of the Bid Proposal. All Bid Proposals shall be submitted and received with the understanding that the Bidder accepts the terms and conditions contained herein. Each Bid Proposal shall be placed in a sealed opaque envelope marked "Bid Proposal" with the project title and name and address of the Bidder and addressed to the City Clerk, Albuquerque/Bernalillo County Government Center, One Civic Plaza N.W., Albuquerque, New Mexico 87102, and submitted as provided in the Advertisement for Bids. Delivery of bids to the City Clerk's office is the sole responsibility of the Bidder. Bids received after the time specified in the Advertisement for bids shall not be considered and shall be returned to Bidder unopened.

7. BID SECURITY: Each Bid Proposal shall be accompanied by a bid bond issued by a surety duly authorized to conduct business in the State of New Mexico and acceptable to the OWNER in the amount of five percent (5%) of the total amount of the bid. Bid security is submitted as a guarantee that the Bidder, if awarded the Contract, will promptly execute such Contract in accordance with the Bid

Proposal and in the manner and form required by the Contract Documents, will furnish good and sufficient bond for the faithful performance of the same and for the payment of all labor and materials, and furnish required certificates of insurance. The bid security of the three lowest Bidders will be retained until the Contract is awarded or other disposition is made thereof. The bid security of all Bidders except the three lowest will be returned promptly after the canvas of bids. OWNER shall have the right to retain the bid security of the three apparent lowest Bidders until either (a) the Contract has been executed and the labor and material bond and the performance bond and all required proof of insurance, including certificates of insurance, have been furnished to OWNER; (b) the time specified in the Bidding Documents has elapsed so that Bidder may withdraw the Bid Proposal; or (c) all bids have been rejected, whichever occurs first. Should the Bidder refuse to enter into such Contract or fail to furnish such Bonds or proof of insurance, the amount of the Bid Security shall be forfeited to OWNER as liquidated damages, not as a penalty. Bid Proposals submitted without the required Bid Security will not be considered.

8. MODIFICATION AND WITHDRAWAL OF BID PROPOSALS: Bid Proposals may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid Proposal must be executed) and delivered to the place where Bid Proposals are to be submitted at any time prior to the scheduled closing time for the receipt of bids. Bids shall be unconditionally accepted for consideration of award without alteration or correction except as specified below or allowed by the Regulation Governing the Award or Rejection of Bids and Debarment of Contractors for Public Works Projects of the City of Albuquerque.

a) The OWNER may allow a correction or withdrawal of a bid because of an inadvertent, non-judgmental mistake in the bid, within the limitations below.

b) The OWNER may require the apparent low Bidder to confirm its bid when obvious errors regarding the amount of the bid are apparent on the face of the bid or the bid amount is unreasonably lower than other bids submitted.

c) The OWNER may allow a Bidder to correct mistakes discovered after Bid Opening, and prior to award of the Contract, by either OWNER or Bidder, without forfeiture of bid security in the following circumstances:

1) when technical irregularities exist that have no effect on the price, quantity, quality, delivery or contractual conditions.

2) when mistakes exist and the intended correct bid is clearly evident on the face of the bid.

d) The OWNER may allow a Bidder to correct mistakes discovered after Bid Opening or to withdraw a bid without forfeiture of bid security if a mistake is clearly evident on the face of the Bid Document and the intended correct bid is not evident and the low Bidder submits evidence which clearly and convincingly demonstrates that a mistake was made which; (1) relates to a material and fundamental feature of the bid and (2) is of such a grave consequence that enforcement would be unconscionable and (3) the Bidder gave prompt notice of the mistake prior to award of Bid and (4) the Bidder acted in good faith and (5) the mistakes did not come about as a result of the violation of a positive legal duty or from gross negligence and the OWNER's status has not been changed, or if changed, the OWNER suffers no serious hardship or prejudice other than loss of the bargain.

9. OPENING OF BIDS:

Bidders are invited to be present at the Bid Opening. The person reading the bids will utilize the following procedure prior to reading the amount of the bid:

- a) Read name of Bidder, Bidder's New Mexico contractor's license number and classification, and when applicable the Bidder's Resident Contractor Number.
- b) Read the amount of the Bid Security.
- c) Verify Bidder's acknowledgment of Addenda.
- d) Determine whether the Bid Proposal is signed.
- e) Verify Bidder's execution of Certification of Bidder Regarding Affirmative Action/Equal Employment Opportunity and Nondiscrimination.
- f) Verify Bidder's submittal of MBE Form Number 1.
- g) Verify Bidder's submittal of MBE Form Number 4 (if applicable).
- h) Verify submittal of Bidder's Listing of Subcontractors for compliance with Subcontractors Fair Practices Act (if applicable).
- i) Determine whether other requirements are met.

If any of the above requirements have not been met, the bid shall be read after the deficiency or deficiencies have been announced and noted.

10. BID CONSIDERATION TIME: The OWNER will require time to study and canvass each Bid Proposal and to determine the Bid Proposal it deems to be in the best interest of the OWNER to accept. In consideration thereof, no Bid Proposal may be withdrawn after the scheduled closing time for receipt of bids for the period of time specified in the Bid Proposal.
11. QUALIFICATION OF BIDDERS: The OWNER may make such investigations it deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the OWNER that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated herein.
12. SUBCONTRACTORS, OTHER PERSONS, ORGANIZATIONS:
- a) If the Contract Documents require the identity of certain Subcontractors and other persons and organizations to be submitted to the OWNER in advance of the Notice of Award, the apparent successful Bidder, and any other Bidder so requested, will within seven (7) days after the day of the Bid Opening, submit to the OWNER a list of all Subcontractors and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualification for each such Subcontractor, person and organization if requested by the OWNER. If the OWNER, after due investigation, has reasonable objection to any proposed Subcontractor, other person, or organization, the OWNER may, before giving the Notice of Award, request the apparent successful Bidder to submit an acceptable substitute without an increase in his bid amount. If the apparent successful Bidder declines to make any such substitution, he will not thereby sacrifice his Bid Security. Any Subcontractor, other person or organization so listed and to whom the OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to the OWNER.
- b) Some Public Works Projects may be subject to the provisions of the "Subcontractors Fair Practices Act" (Chapter 18, Laws 1988; Sections 13-4-31 through 13-4-43 NMSA 1978). When this Act is applicable, each Bidder shall comply with the requirements set forth in the Special Provisions of these Bidding Documents.

13. AWARD OF CONTRACT:

a) The OWNER reserves the right to reject any and all bids and waive any and all informalities and irregularities and the right to disregard all nonconforming or conditional bids or counter proposals. The OWNER reserves the right to cancel the opportunity for submission of bids. OWNER further reserves the right to reject for OWNER's convenience all bids submitted. Bidders shall not be entitled to recover damages of any nature against OWNER for OWNER'S rejection of all bids, for cause or for convenience.

b) If a Contract is awarded, it will be awarded to the lowest responsible Bidder on the Base Bid shown on the Bid Proposal; provided, however, that if the Bid Proposal is a Unit Price Bid Proposal and there is a discrepancy between the amount shown as the Base Bid and the actual total amount of the Base Bid determined by multiplying the Unit Price shown for each Bid Item by the Estimated Quantity shown for that Bid Item, adding each such amount to obtain a subtotal amount and then adding the New Mexico Gross Receipts Tax amount determined by multiplying the subtotal amount by the New Mexico Gross Receipts tax percentage given on the Bid Proposal, it will be awarded to the lowest responsible Bidder on the actual total amount of the Base Bid ;provided further, that when Alternates are to be accepted by Owner, it will be awarded to the Responsible Bidder who bids the lowest combined bid of the Base Bid and all accepted Alternates. New Mexico Gross Receipts Tax shall be shown as a separate entry after the subtotal, using the method described above, for each Alternate, followed by a total derived by adding the subtotal and Gross Receipts Tax amounts. Alternates, if any, and if accepted, will be accepted in ascending order as numbered in the Bid Proposal.

c) In the event that two or more of the bids submitted are identical in price and are the low bid, the OWNER may:

1) If, after application of the Resident Contractor Preference the identical low bids are submitted by a resident business and a non-resident business, award to the Resident Contractor;

2) Award by lottery to one of the identical low Bidders.

d) If the Contract is to be awarded, the OWNER will give the apparent successful Bidder a Notice of Award within the period specified in the Bid Proposal unless the Bidder and the OWNER agree to extend the period specified.

14. PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND AND INSURANCE CERTIFICATES: Simultaneously with his delivery of the executed Contract, the CONTRACTOR shall furnish separate surety bonds each in the amount of one hundred percent (100%) of the total Contract Price as security for the faithful performance of the Contract and for the payment of all labor and materials. The sureties on such bonds shall be duly authorized to conduct business in the State of New Mexico and acceptable to the OWNER. In addition, the CONTRACTOR shall furnish certificates of insurance as required by the Bidding Documents.
15. GUARANTEE PROVISIONS: The CONTRACTOR shall guarantee the Work as provided in the Contract Documents.
16. AFFIRMATIVE ACTION PROGRAM: The CONTRACTOR shall comply with the Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements in the Special Provisions.
17. CERTIFICATION OF BIDDER REGARDING AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION: Each Bidder shall execute and submit the Certification of Bidder Regarding Affirmative Action/Equal Employment Opportunity and Nondiscrimination with the completed Bid Proposal.
(AHRO Form - CC-2, page CB-1)
18. DISADVANTAGED AND WOMEN BUSINESS ENTERPRISES: Each Bidder shall comply with the Disadvantaged and Women Business Enterprises requirements in the Special Provisions, including the submission of MBE Form Number 1 with the completed Bid Proposal.
19. WAGE RATES: The Bidder's attention is directed to the fact that wages to be paid on this Project shall not be less than the prevailing wage rates as listed by the New Mexico State Office of Labor Commissioner and (where applicable) the prevailing Federal Wage Rate Decision listed by the U.S. Department of Labor and in effect at the scheduled closing time for receipt of bids.
20. PREFERENCES: In the construction of this Project, the OWNER has no preference for any process, type of equipment or kind of material but will consider all processes, types of equipment or kinds of material offered on an equal competitive basis if they are in fact the equal to that specified and will accomplish the purpose intended. The OWNER reserves the right to be the sole judge as to whether or not a different process, type of equipment or kind of material offered is in fact the equal to that specified.

21. UTILITIES: The CONTRACTOR shall make all provisions for supply of power and water for construction purposes. The CONTRACTOR shall comply with City Ordinance No. 234-1972, "Public Use of Fire Hydrants" (Refer to Article II of Chapter 8 of the Revised Ordinances of Albuquerque, New Mexico, 1974).
22. COLLUSION: No Bidder shall be interested in more than one bid. Collusion among Bidders or the submission of more than one bid under different names by any firm or individual shall be cause for rejection of all bids without consideration.
23. PRE-BID CONFERENCE: When a pre-bid conference date is given in the Advertisement for Bid or by Addendum, the conference shall be conducted to explain the Project. Attendance at the pre-bid conference shall be mandatory only when so required in the Advertisement for Bids or Addendum. When attendance is mandatory, failure to attend shall disqualify the prospective Bidder from submitting his Bid. Whenever attendance is not specified as mandatory, prospective Bidders are encouraged to attend and should be prepared to ask questions or request clarifications regarding the Project and Bidding Documents. Nothing stated at the pre-bid conference shall change the Bidding Documents unless a change is made by Addendum. When attendance is not mandatory, failure of a Bidder to attend the pre-bid conference shall mean that the Bidding Documents are clear, unambiguous, and acceptable to all non-participants, with respect to all who submit bids.
24. RESIDENT CONTRACTOR PREFERENCE: A resident contractor is any person, firm, corporation or other legal entity if, at the time the Contract for this Project is advertised for bids and at the time bids are opened, it maintains its principal place of business in New Mexico, has all required licenses and meets the following requirements:
- a. If the Bidder is a corporation, it must be incorporated in New Mexico, and a majority of its outstanding shares must be owned by one or more individual citizens who are domiciled in the state;
- b. If the Bidder is a partnership, general or limited, or other legal entity, the partners or associates owning a majority beneficial interest must be domiciled in the state. If the entity is a trust, a majority of the beneficial interest thereof must be owned by individual citizens who are domiciled in the state;
- c. If the Bidder is an individual, the individual must be a citizen of and domiciled in the state.

When bids are received from non-resident contractors and resident contractors and the lowest responsible bid is from a non-resident contractor, the Contract shall be awarded to the resident whose bid is nearest to the bid price of the otherwise low non-resident contractor if the bid price of the resident contractor is made lower than the bid price of the non-resident contractor when multiplied by a factor of ninety-five one-hundredths (0.95).

No contractor shall be treated as a resident contractor in the awarding of public works contracts by the City of Albuquerque unless the Contractor has been certified by the State Purchasing Agent (Director of the Purchasing Division, General Services Department) of the State of New Mexico, or his successor, as a resident contractor and has been issued a certification number that is valid at the time the Contract for this project is advertised for bids, and at all times thereafter.

The certification number shall be clearly identified in the bid. The Bidder shall be denied resident contractor status if he does not have the certification number issued to him prior to the time the Contract for this Project is advertised for bids or he fails to submit the certification number at the time of submitting his bid.

25. LOCAL PARTICIPATION PREFERENCE NOTICE: Some Public Works Projects are subject to a Local Participation Preference. When applicable, each Bidder shall comply with the Local Participation Preference requirements in the Special Provisions of these Bidding Documents.
26. DEBARRED CONTRACTORS: The bid of a Contractor that has been debarred pursuant to the procedures set forth in the Regulation Governing the Award and Rejection of Bids and the Debarment of Contractors for Public Works Projects of the City of Albuquerque shall not be considered for award of Contract on a Public Works Project during the period for which it is debarred.
27. WORKER'S COMPENSATION INSURANCE/NON-RESIDENT CONTRACTORS: Notice is given that in addition to the requirements of the General Conditions of the Contract, Non-Resident Contractors shall comply with the provisions of Sections 52-1-66; 59A-17-10.1; 59A-18-1; and 59A-18-12 NMSA 1978, pertaining to the worker's compensation insurance policy and rate for employers not domiciled in New Mexico.

SPECIAL PROVISIONS

The following provisions are hereby made a part of the Contract Documents:

SECTION 1. LIQUIDATED DAMAGES:

Liquidated damages, in the amount per day shown in the Bid Proposal will be assessed against the CONTRACTOR for each calendar day, or portion thereof, that the Work remains incomplete after expiration of the agreed time allotted for construction, including any approved extensions of time granted. The sum of the liquidated damages will be deducted from any monies due the CONTRACTOR. If no money is due the CONTRACTOR, said sum may be recovered by the OWNER from the CONTRACTOR or the CONTRACTOR'S surety, or from both combined. These deductions are to cover liquidated damages to the OWNER for losses to OWNER that include, but are not limited to, additional expenses of Contract administration, overhead and other costs resulting from failure of the CONTRACTOR to complete the Work within the designated time, and are not to be considered as penalties. The OWNER shall not be considered liable for any extra or additional payment to the CONTRACTOR as a bonus or premium for early completion.

SECTION 2. TAXES:

A. GENERAL

The CONTRACTOR shall pay all applicable gross receipts, local option, sales, consumer, use and other similar taxes and assessments and levies. OWNER shall not be responsible for payment of taxes which Contractor is responsible for paying to any taxing authority of any governmental unit. For purposes of these Bid Documents the term "Gross Receipts Tax" shall include local option taxes, whenever applicable.

B. GROSS RECEIPTS TAX INCREASES OR DECREASES and LIMITATIONS ON PAYMENT OF INCREASES:

The amount of all taxes in effect at the scheduled closing time for receipt of bids shall be included in the contract price. In addition, the amount of any gross receipts tax, (including local option tax) increase or decrease enacted by law on or before the bid submission date and scheduled to go into effect during the contract performance time shall be included in the bid. Payment of any change of rate of gross receipts that take effect during the performance of the contract, but was not enacted as law at the time of the scheduled closing time for receipt of bids, shall be allowed as a corresponding change in the Contract Price, provided however, that OWNER'S payment to CONTRACTOR of such gross receipts rate change shall be only for progress payments or other billings submitted under the provisions of the Contract on or after the date the rate change goes into effect.

C. SPECIAL INSTRUCTIONS ON ENTERING GROSS RECEIPTS TAX
WHERE DIFFERENT TAX RATES APPLY:

In the event the Work on the Project is within areas where different New Mexico Gross Receipts Tax Rates apply, the Bid Proposal form provided in these Bidding Documents will provide the applicable tax rate for each such area and, the estimated percentage of the work to be performed in each such area. All Bidders shall use the rate and percentage provided in the Bidding Documents only for purposes of calculating the Bid. It shall be the sole responsibility of the Contractor awarded the Contract to determine and properly use the correct tax rate and the amount of work performed in each such area.

D. GROSS RECEIPTS TAX SURETY BOND

Section 7-1-55A NMSA 1978 provides that any person engaged in the construction business who does not have its principal place of business in New Mexico and enters into a prime construction contract to be performed in this state shall, at the time such contract is entered into, furnish the Director of the New Mexico State Revenue Division or the Director's delegate with a surety bond, or other acceptable security, in a sum equivalent to the gross receipts to be paid under the Contract multiplied by the applicable rate of the gross receipts tax imposed by Section 7-9-4 NMSA 1978, to secure payment of the tax imposed on the gross receipts from the Contract, and shall obtain a certificate from the Director of the New Mexico State Revenue Division or the Director's delegate that the requirements of this section have been met.

SECTION 3. PROJECT SIGNS AND PROJECT PUBLICITY:

A. PROJECT CONSTRUCTION SIGNS

(1) GENERAL: Unless otherwise provided in the Contract Documents, the CONTRACTOR shall provide, erect, and maintain for the duration of the construction Project, one Project construction sign for each travel direction on arterial or collector streets approaching the Project. These signs shall be installed subsequent to the award of the Contract but not less than seven (7) days prior to the expected start of the Construction Work.

The sign(s) shall be similar to the one shown in Paragraph E below. The sign(s) shall be painted on one side of 1/2" thick 4'x8' marine grade plywood. Each sign shall be mounted on a minimum of two 4"x4" posts, with the bottom of the sign four (4) feet above grade. The sign(s) shall be mounted level and at location(s) designated by the City Project Engineer.

(2) COLORS AND LETTER SIZES: The colors and letter sizes to be used for all signs shall be as shown in the Sign Format, Paragraph E below.

(3) DECALS: The OWNER will furnish the CONTRACTOR with the required number of decals, depicting City of Albuquerque logos, for placement on the sign(s).

(4) ADDITIONAL INFORMATION: The information to be painted on the sign(s), including the names of the Project, Engineer and CONTRACTOR and the name and telephone number of the Project Engineer, will be furnished by the City's Project Engineer.

B. CONSTRUCTION SCHEDULE SIGNS

At the time that the Project construction signs required by Paragraph A above for arterial and collector streets are installed, the CONTRACTOR shall provide and install a construction schedule sign at the top of each construction sign.

The size of the construction schedule sign(s) shall be 1'x8' and shall be of the same material as the construction sign(s). Additional bracing shall be provided as needed to support the construction schedule sign(s). The sign face(s) shall have a white background painted on one side and painted in blue letters the following words: "CONSTRUCTION TO START (date)".

The CONTRACTOR shall maintain the "CONSTRUCTION TO START (date)" sign(s) until construction begins. Once construction begins, the "CONSTRUCTION TO START (date)" sign(s) shall be changed or replaced to read "CONSTRUCTION TO FINISH (date)". Paint colors and letter sizes shall be same as above.

The sign change from "CONSTRUCTION TO START (date)" to "CONSTRUCTION TO FINISH (date)" shall be completed within ten (10) days after construction actually begins. If the CONSTRUCTION TO FINISH date is revised by Change Order during the course of the project, the respective Change Order shall include as incidental, costs to revise or replace the "CONSTRUCTION TO FINISH (date)" sign(s) within ten (10) days after approval of the Change Order by the OWNER.

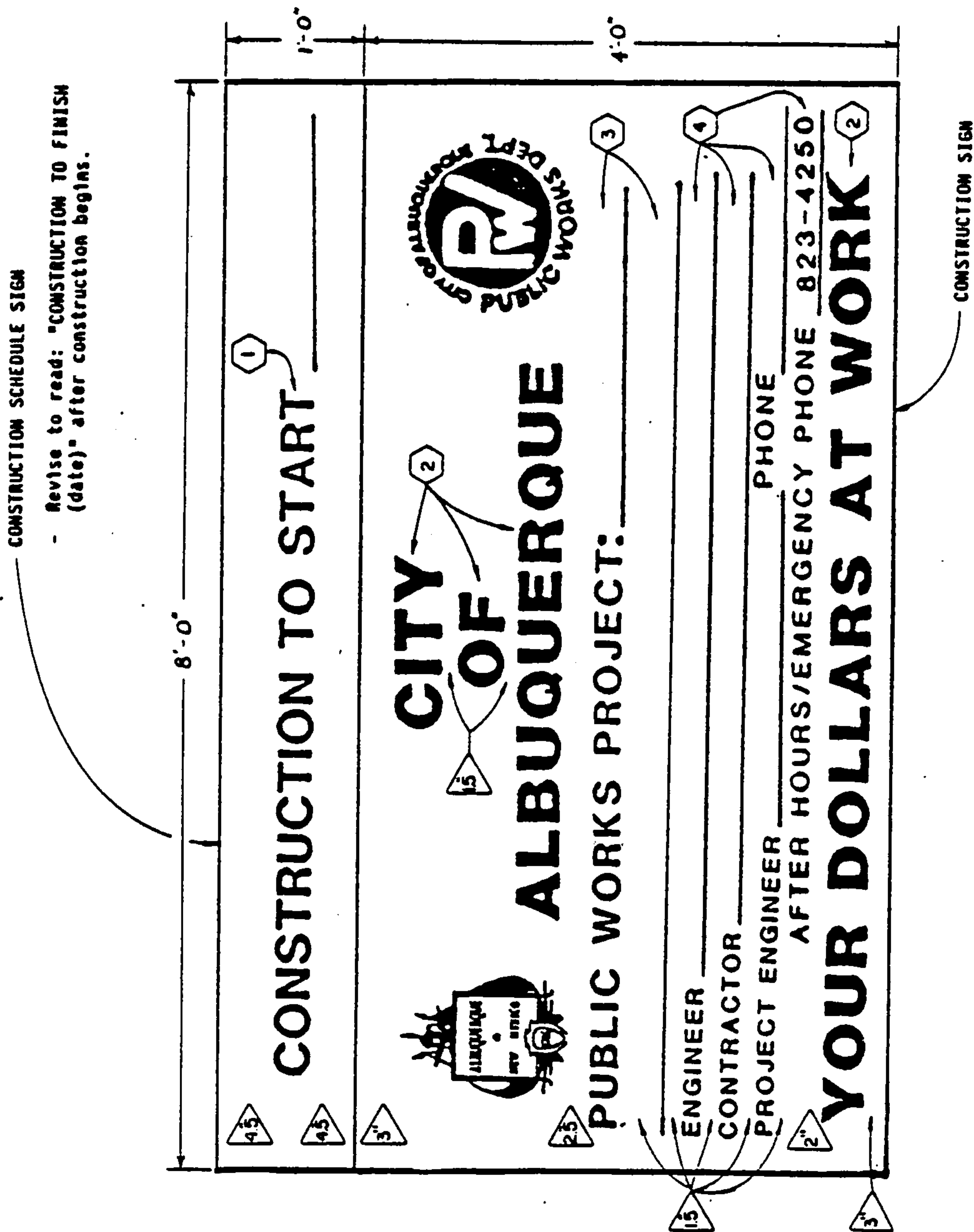
C. MEASUREMENT AND PAYMENT

The unit of measurement for furnishing, installing, maintaining and removing Project construction signs and for furnishing, installing and revising construction schedule signs shall be on a per Project construction sign basis. Payment for the signs shall be the unit price per Project construction sign specified in the Bid Proposal and shall be included in the first Application for Payment submitted following sign installation. The cost for construction schedule signs shall be incidental to the Contract and shall be included in the Contract Price.

D. CONTACTING NEWS MEDIA

For projects affecting travel on arterial or collector streets, the OWNER will place a notice of construction activity in local newspaper(s) at least two weekends preceding the beginning of each phase of construction. The CONTRACTOR shall provide the OWNER's Project Engineer with timely schedule and detour information and updates for preparation of these notices.

E. SIGN FORMAT



LEGEND:

TEXT KEY NO.	1	2	3	4
TEXT COLOR	BLUE	RED	BLUE	BLACK
TEXT HEIGHT	3"	.4"	2 1/2"	1 1/2"
FHWA STD. SERIES	C	E	C	C
STROKE WIDTH (IF PAINTED)	1/2"	.69"	13/32"	1/4"

X.X. HEIGHT OF SPACE BETWEEN TEXT IN INCHES

SECTION 4. AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY
AND NONDISCRIMINATION

During the performance of this Contract, the CONTRACTOR agrees as follows:

A. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, national origin or ancestry, or physical or mental handicap. The CONTRACTOR will take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, age, national origin or ancestry, physical or mental handicap. Such action shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, recruitment advertising, layoff, termination, disciplinary actions and grievances, rates of pay or other forms of compensation, other terms and conditions of employment 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 by the Contract Compliance Officer, City of Albuquerque Human Rights Office, setting forth the provisions of this nondiscrimination clause.

B. The CONTRACTOR will make reasonable accommodation to the known physical or mental handicap of an otherwise qualified employee or applicant for employment as required by law, under the New Mexico State Human Rights Act (Sections 28-1-1 to 28-1-7, 28-1-9 to 28-1-14 NMSA 1978).

C. 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 of employment without regard to race, color, religion, sex, age, national origin or ancestry, or physical or mental handicap.

D. The CONTRACTOR will send to each labor union, organization, or representative of workers, with which it has a collective bargaining agreement or other contract or understanding, and training programs, a notice advising the labor union, organization or workers' representatives and training programs of its Equal Employment Opportunity (EEO) policy and request their cooperation in meeting its EEO obligations. The CONTRACTOR shall post copies of the notice in conspicuous places available to employees, applicants for employment, and the general public.

E. The CONTRACTOR will comply with all provisions of the City of Albuquerque Human Rights Ordinance and Title VII of the US Civil Rights Act of 1964, as amended. Contractors, required by Section 5 of these Special Provisions to take affirmative action steps and/or to submit a written Affirmative Action Plan, will follow the guidelines found in Executive Order 11246, Revised Order No. 4 (41 CFR part 60-2 or 60-4 as appropriate), 41 CFR Part 60-250 and 41 CFR Part 60-741 in the preparation of its Affirmative Action Plan and in the performance of its Affirmative Action/Equal Employment Opportunity duties under this Contract.

F. The CONTRACTOR will furnish all information and reports required by the Contract Compliance Officer, Albuquerque Human Rights Office, and as required by the Albuquerque Human Rights Ordinance, Title VII of the US Civil Rights Act of 1964 as amended, and Executive Order 11246 as amended, and will permit access to its books, records, and accounts by the OWNER and the City of Albuquerque Human Rights Office for purposes of review or investigation to ascertain compliance with such laws, rules, orders and regulations.

G. The CONTRACTOR will post in conspicuous places available to employees, applicants for employment and the general public, nondiscrimination notices issued by the City of Albuquerque Human Rights Board, and notices required to be posted by state and federal agencies.

H. In the event of the CONTRACTOR'S noncompliance with the nondiscrimination clauses of this Contract or with any other applicable laws, rules or orders pertaining to Affirmative Action/Equal Employment Opportunity and Nondiscrimination, this Contract may be cancelled, terminated or suspended in whole or in part, the CONTRACTOR may be declared ineligible for further City contracts in accordance with procedures established by the City of Albuquerque, and such other sanctions may be imposed and remedies invoked as otherwise provided by law.

I. The CONTRACTOR will include the provisions of Paragraphs (A) through (H) in every subcontract or purchase order so that such provisions shall be binding upon every Subcontractor. The CONTRACTOR shall take such action, with respect to any subcontract, as necessary to enforce such provisions, including sanctions provided for noncompliance.

J. When the CONTRACTOR delivers the executed Agreements to OWNER, the CONTRACTOR shall also submit to the Contract Compliance Officer, Albuquerque Human Rights Office, the executed CONTRACTOR'S LIST OF SUBCONTRACTORS/SUPPLIERS INTENDED FOR PROJECT on AHRO Form CC-1.

K. In the event that a state or federal agency is providing funding for this Contract and has specific Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements, which are in conflict with these requirements, the specific state or federal requirements will govern.

CITY OF ALBUQUERQUE
CONTRACTOR'S LIST OF SUBCONTRACTORS/SUPPLIERS
INTENDED FOR

PROJECT: _____

NAME AND ADDRESS OF SUBCONTRACTOR/SUPPLIER	NAME OF OWNER/COMPANY OFFICIAL	TYPE OF CONTRACT (WORK DESCRIPTION)
---	-----------------------------------	--

EXAMPLE ONLY

USE FORM ON PAGE CFL-1

Name of Contractor

By (Signature)

Date

Printed Name & Title of Contractor's Authorized Representative

AHRO Form-CC-1

COA-3E 8-8-88 (Blue) SP-8

SECTION 5. NOTICE TO CONTRACTORS - ADDITIONAL AFFIRMATIVE ACTION AND EEO EMPLOYMENT DATA REQUIREMENTS:

IN ADDITION TO THE AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION REQUIREMENTS SPECIFIED IN SECTION 4, THE REQUIREMENTS FOR SPECIFIC AFFIRMATIVE ACTIONS, SUBMITTING AFFIRMATIVE ACTION PLANS AND FOR EEO EMPLOYMENT DATA REPORTING FOR CONSTRUCTION AND NONCONSTRUCTION CONTRACTORS ARE AS FOLLOWS:

A. CONSTRUCTION AND NONCONSTRUCTION CONTRACTORS' AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

(1) The OWNER requires that each Bidder shall submit, with the Bidder's Bid Proposal, Certification of Bidder Regarding Affirmative Action/Equal Employment Opportunity and Nondiscrimination, AHRO Form-CC-2, and submit a copy of the Certification to the Contract Compliance Officer, City of Albuquerque Human Rights Office.

(2) The OWNER requires that Contractors and Subcontractors holding contracts or subcontracts of \$10,000 or more shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the CONTRACTOR'S compliance with these requirements shall be based upon its effort to achieve maximum results from its actions. The CONTRACTOR shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

(a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the CONTRACTOR'S employees are assigned to work. The CONTRACTOR shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the CONTRACTOR'S obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites in such facilities.

(b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the CONTRACTOR or its union have employment opportunities available, and maintain a record of the organization's responses.

(c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a

union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the CONTRACTOR by the union or, if referred, not employed by the CONTRACTOR, this shall be documented in the file with the reason therefore, along with whatever additional actions the CONTRACTOR may have taken.

(d) Provide immediate written notification to the Contract Compliance Officer, Albuquerque Human Rights Office, when the union or unions with which the CONTRACTOR has a collective bargaining agreement has not referred to the CONTRACTOR a minority person or woman sent by the CONTRACTOR, or when the CONTRACTOR has other information that the union referral process has impeded the CONTRACTOR'S efforts to meet its obligations.

(e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the CONTRACTOR'S employment needs. The CONTRACTOR shall provide notice of these programs to the sources compiled under (b) above.

(f) Disseminate the CONTRACTOR'S EEO policy by providing notice of the policy to the unions and training programs and requesting their cooperation in assisting the CONTRACTOR in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

(g) Review, at least annually, the company's EEO policy and affirmative action obligations under these requirements with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(h) Disseminate the CONTRACTOR'S EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the CONTRACTOR'S EEO policy with other contractors and subcontractors with whom the CONTRACTOR does or anticipates doing business.

(i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the CONTRACTOR'S recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the CONTRACTOR shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of the CONTRACTOR'S workforce.

(k) Validate all tests and other selection requirements where there is an obligation to do so under 29 CFR Part 1607.

(l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

(m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the CONTRACTOR'S obligations under these requirements are being carried out.

(3) The OWNER requires that Contractors and Subcontractors holding contracts or subcontracts of \$50,000 or more and having at least 50 employees shall submit, to the Contract Compliance Officer, City of Albuquerque Human Rights Office, a written Affirmative Action Plan.

B. CONSTRUCTION CONTRACTORS EEO EMPLOYMENT DATA REQUIREMENTS

The OWNER requires that Construction Contractors and Subcontractors holding contracts, not including material suppliers, of \$10,000 or more, shall submit employment data as required in the Albuquerque Human Rights Office's Form - EEO-1 for every month during which work is performed. This data will be taken from the payroll week reflecting the highest employment for the Company or Firm for that month. This data is to be submitted to the Contract Compliance Officer, City of Albuquerque Human Rights Office, Albuquerque/ Bernalillo County Government Center, One Civic Plaza, P.O. Box 1293, Albuquerque, New Mexico 87103.

C. NONCONSTRUCTION CONTRACTORS AND MATERIAL SUPPLIERS EEO EMPLOYMENT DATA REQUIREMENTS

The OWNER requires that Nonconstruction Contractors and Subcontractors (vendors, suppliers, professional services, security, lessee, etc.) holding contracts of \$10,000 or more, and Material Suppliers with purchase orders of \$10,000 or more, shall submit employment data as required in the Albuquerque Human Rights Office's Form - EEO-2 for every month during which work is performed. This data will be taken from the payroll week reflecting the highest employment for that month. This data is to be submitted to the Contract Compliance Officer, City of Albuquerque Human Rights Office, Albuquerque/Bernalillo County Government Center, One Civic Plaza, P.O. Box 1293, Albuquerque, New Mexico 87103.

D. CONTRACTORS NEEDING ASSISTANCE WITH THE AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION REQUIREMENTS

CONTACT THE:

Contract Compliance Officer
City of Albuquerque Human Rights Office
Albuquerque/Bernalillo County Government Center
One Civic Plaza N.W.
P.O. Box 1293
Albuquerque, New Mexico 87103

TELEPHONE: (505) 768-2980

CITY OF ALBUQUERQUE
CERTIFICATION OF BIDDER REGARDING
AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY
AND NONDISCRIMINATION

PROJECT _____

The Bidder hereby acknowledges and agrees to abide by the Special Provisions for Affirmative Action/Equal Employment Opportunity and Nondiscrimination and all other provisions, regulations and/or requirements of the OWNER for Affirmative Action/Equal Employment Opportunity and Nondiscrimination.

The Bidder has participated with an agency in a previous contract or subcontract subject to Equal Employment Opportunity and Nondiscrimination in Employment requirements?

Yes () No ()

Compliance reports were required to be filed in connection with such contract or subcontract?

Yes () No ()

The Bidder has filed all compliance reports due under applicable instructions? If answer to this statement is "No", explain in detail on reverse side of this certification.

Yes () No ()

The Bidder has submitted a copy of this Certification to the Contract Compliance Officer, City of Albuquerque Human Rights Office, Albuquerque/Bernalillo County Government Center, One Civic Plaza, P.O. Box 1293, Albuquerque, New Mexico 87103.

EXAMPLE ONLY

Name of Bidder

USE FORM ON PAGE CB-1

Address of Bidder

Telephone Number

By (Signature)

Date

Printed Name & Title of Bidder's Authorized Representative

AHRO Form - CC-2

COA-3E 8-8-88 (Blue) SP-13

HUMAN RIGHTS OFFICE
City/County Government Center
P.O. Box 1293, Albuquerque, New Mexico 87103

EEO REPORT (CONSTRUCTION)

1. CHECK APPROPRIATE BLOCK	2. NAME AND ADDRESS OF FIRM	3. CURRENT CITY CONTRACTS/PROJECTS NAMES	4. TYPE OF CONTRACT
----------------------------	-----------------------------	--	---------------------

() PRIME CONTRACTOR
() SUBCONTRACTOR

5. EMPLOYMENT DATA

[illegible]

TABLE B

[illegible]

6. PREPARED BY: (Signature and Title of Contractor's Representative)

DATE _____

COA-3E
8-8-88
(Blue)

SP-15

INSTRUCTIONS

1. This report is to list only those employees your company employs in the Albuquerque Metropolitan Statistical Area (includes all of Bernalillo County).
2. In preparing this report, take the data from the week with the highest number of employees for the month.
3. In "Report for the month of" block, specify month for which the data is being provided.
4. ITEMS 1 through 4: Provide information as requested.
5. ITEM 5: EMPLOYMENT DATA:

JOB CATEGORIES: In addition to categories already listed, add trade categories applicable to your firm.

TABLE A: List number of male and female employees in each applicable column.

TABLE B: List number of apprentices and on-the-job trainees under each applicable column of Table A.
6. ITEM 6: Self-explanatory.

Note: Monthly reports must be submitted no later than the 10th day following the close of each month.

DESCRIPTION OF JOB CATEGORIES

OFFICIALS AND MANAGERS: Administrative personnel who set broad policies, exercise over-all responsibility for execution of these policies, and direct individual departments or special phases of a firm's operations. Includes: Officers, executives, plant managers, department managers, etc.

SUPERVISORS AND FOREMEN/WOMEN: Include those who supervise employees but are not directly involved in setting company policy and are not included in the above category.

PROFESSIONALS: Occupations requiring college graduation or equivalent experience, includes: accountants, architects, designers, engineers, scientists, surveyors, etc.

OFFICE AND CLERICAL: Includes: clerk-typists, stenographers, bookkeepers, cashiers, dispatchers, messengers, office machine and keyboard operators, shipping and receiving clerks, etc.

EQUIPMENT OPERATORS: Employees who operate machine or processing equipment, not including general office machines, i.e. forklift, small tractor, small trencher, tamper, etc.

MECHANICS: Employees performing repair/maintenance of automotive vehicles, gas or electric motors, equipment, machines, etc.

TRUCK DRIVERS: Employees who operate automotive vehicles, i.e., trucks, vans, etc.

LABORERS, Unskilled: Employees in manual occupations which generally require no special training, perform elementary duties that may be learned in a few days, and require the application of little or no independent judgement.

TRADE CATEGORIES: Includes: welders, tapers, electricians, plumbers, pipefitters, carpenters, masons, painters, iron workers, roofers, other building trades, heavy equipment operators, etc.

APPRENTICES: Persons involved in union-sponsored training programs for skilled trades.

TRAINEES: Persons other than union apprentices involved in training programs.

HUMAN RIGHTS OFFICE
City/County Government Center
P.O. Box 1293, Albuquerque, New Mexico 87103

EEO REPORT (NON-CONSTRUCTION)

1. CHECK APPROPRIATE BLOCK () PRIME CONTRACTOR () SUBCONTRACTOR () SUPPLIER () OTHER	2. NAME AND ADDRESS OF FIRM	3. CURRENT CITY CONTRACTS/PROJECTS NAMES	4. TYPE OF CONTRACT/SERVICE

5. EMPLOYMENT DATA

TABLE A

[illegible]

TABLE 8 (Formal on-the-job-trainees)

[illegible]

5. PREPARED BY: (Signature and Title of Contractor's Representative)

DATE _____

INSTRUCTIONS

COA-3E

8-8-88

(Blue)

SP-17

1. This report is to list only those employees your company employs in the Albuquerque Metropolitan Statistical area (includes all of Bernalillo County).

If your company is located outside of the Albuquerque metropolitan statistical area, complete this report showing total number of employees.

2. In preparing this report, take the data from the week with the highest number of employees for the month.
3. In "Report for the month of" block, specify month for which the data is being provided.

4. ITEMS 1 through 4: Provide information as requested.

5. ITEM 5: EMPLOYMENT DATA:

TABLE A: List number of male and female employees (including On-the-Job Trainees) in each applicable column.

TABLE B: List number of male and female apprentices and On-the-Job trainees under each applicable column of Table A.

6. ITEM 6: Self-explanatory.

DESCRIPTION OF JOB CATEGORIES

OFFICIALS AND MANAGERS: Occupations requiring administrative personnel who set broad policies, exercise overall responsibility for execution of these policies, and direct individual departments or special phases of a firm's operations. Includes officials, executives, middle management, plant managers, department managers and superintendents, salaried supervisors who are members of management, purchasing agents and buyers, and kindred workers.

PROFESSIONALS: Occupations requiring college graduation or equivalent experience, includes: accountants, architects, designers, engineers, scientists, surveyors, etc.

TECHNICIANS: Occupations requiring basic knowledge or skill which would be obtained through approximately two years of post high school education. Includes: draftsmen, engineering aides, nurses, laboratory technicians, etc.

SALES WORKERS: occupations engaged wholly or primarily in direct selling.

OFFICE AND CLERICAL: Includes: clerk-typists, stenographers, bookkeepers, cashiers, dispatchers, messengers, office machine and keypunch operators, shipping and receiving clerks, etc.

CRAFTWORKERS (Skilled): Includes: building trades, mechanics and repairmen, skilled machining occupations, compositors and typesetters, tool and dye makers, tailors, etc.

OPERATIVES (Semi-Skilled): Includes: machine operators, assemblers, truck drivers, welders etc.

LABORERS (Unskilled): Includes: construction laborers, car washers, warehouse dockmen, etc.

SERVICE WORKERS: Includes: guards, counter fountain workers, janitors etc.

ON-THE-JOB-TRAINEES:

PRODUCTION-Persons engaged in formal training for craft worker--when not trained under apprentice programs--operative, laborer and service occupations.

WHITE COLLAR-Persons engaged in formal training for official, managerial, professional, technical, sales, office and clerical occupations.

SECTION 6. DISADVANTAGED AND WOMEN BUSINESS ENTERPRISES

A. GENERAL

(1) Minority and Women's Business Enterprises Ordinance:

(a) Bidders intending to submit bids for this project must comply with the City of Albuquerque's Minority and Women's Business Enterprises Ordinance, Article II, Chapter 5, Revised Ordinances of Albuquerque, New Mexico, 1974.

(b) Bidders desiring further procedural information, additional forms or current listings of DBE/WBE subcontractors and/or suppliers, should contact the Minority Business Enterprise Program Office, City of Albuquerque, Albuquerque/Bernalillo County Government Center, One Civic Plaza, Albuquerque, New Mexico 87102, Telephone Number (505) 768-3540.

(2) Policy: The City of Albuquerque's policy, as stated in the Minority and Women's Business Enterprises Ordinance, is:

"It is the policy of the City of Albuquerque to take affirmative action to assure that a fair share of City purchases of goods and services, including construction work, is made from enterprises owned and controlled by minorities and women. As part of this policy the City undertakes to assure there are no undue or unnecessary requirements imposed by the City that inhibit or prevent purchases of goods and services from businesses that are otherwise qualified to provide such goods and services. It is further City policy to impose similar affirmative action upon prime contractors providing goods and services to the City with regard to subcontractors involved in such work to assure a fair share of business for minority and women's business enterprises. The Mayor shall implement the policies and procedures set out in this ordinance."

(3) Goal Requirement Assurance:

For the purposes of this Project, a Minority and Women's Business Enterprise Participation Goal, in the amount shown in the Bid Proposal, has been established for City Certified Disadvantaged Business Enterprise (DBE) and/or Women Business Enterprise (WBE) participation. Participation by DBE(s), WBE(s), or combination of DBE(s) and WBE(s) can make up the established percentage goal for the Project.

The Bidder shall give written assurance that it will meet or exceed this goal or demonstrate GOOD FAITH EFFORTS to meet or exceed this goal; otherwise, the bid shall be considered non-responsive and shall not be considered for award of the Contract.

(4) Good Faith Effort:

If the Bidder does not meet the established DBE/WBE goal(s), the Bidder shall document and submit with the Bid Proposal justification stating why the Bidder could not meet the established DBE/WBE goal(s). The OWNER will review the documentation prior to award of the contract.

To demonstrate GOOD FAITH EFFORTS to meet the DBE/WBE goal(s) the Bidder shall document the steps taken to obtain City Certified DBE/WBE participation. This information should include, but not be limited to the following:

(a) Whether the Bidder attended any presolicitation or prebid meetings that were scheduled by the OWNER to inform DBEs/WBEs of contracting and subcontracting opportunities;

(b) Whether the Bidder advertised in general circulation, trade association, and DBE/WBE focus media concerning the subcontracting opportunities;

(c) Whether the Bidder provided written notice to a reasonable number of specific DBEs/WBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs/WBEs to participate effectively;

(d) Whether the Bidder followed-up initial solicitations of interest by contacting DBEs/WBEs to determine with certainty whether the DBEs/WBEs were interested;

(e) Whether the Bidder selected portions of the work to be performed by DBEs and WBEs in order to increase the likelihood of meeting the DBE/WBE goals (including, where appropriate, breaking down subcontracts into economically feasible units to facilitate DBE/WBE participation);

(f) Whether the Bidder provided interested DBEs/WBEs with adequate information about the plans, specifications and requirements of the contract;

(g) Whether the Bidder negotiated in good faith with interested DBE/WBEs, not rejecting DBEs/WBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;

(h) Whether the Bidder made efforts to assist interested DBEs/WBEs in obtaining bonding, lines of credit, or insurance required by the OWNER or the Bidder; and

(i) Whether the Bidder effectively used the services of available minority community organizations; women's organizations; minority and/or women contractor groups; local, state and federal minority/women business assistance offices; and other organizations that provide assistance in the recruitment and placement of DBEs/WBEs.

B. FORMS

MBE Form Number 1:

Each Bidder, submitting a bid on this project, shall complete MBE Form Number 1, on which the solicited DBE/WBE subcontractors and suppliers will be listed. This form shall be completed and submitted with the bid proposal. If the Bidder cannot meet the DBE/WBE participation requirements of this project, the Bidder shall document and submit with his/her Bid Proposal justification stating why the Bidder could not meet the required DBE/WBE business participation. The OWNER will review the documentation prior to award of the contract. Failure to complete this form and provide documentation for solicitation of DBE/WBE subcontractors and suppliers with the Bid Proposal may be cause for rejection of the bid when the DBE/WBE participation goal is not met.

MBE Form Number 2:

The apparent low bidder shall complete MBE Form Number 2, Final List of DBE/WBE Subcontractors and Suppliers, and submit it to the OWNER for review and approval no later than fifteen (15) consecutive calendar days after the day of opening of the bid proposals. If during the course of the contract, additions, substitutions, or deletions are to be made to the list of approved disadvantaged or women business enterprise participants, the change will be submitted to the OWNER for review and approval. Copies will also be furnished to the ENGINEER or PROJECT MANAGER and to the MINORITY BUSINESS ENTERPRISE OFFICER. This form must also be submitted by other bidders requested by the City to submit this form.

MBE Form Number 3:

The CONTRACTOR shall submit monthly DBE/WBE PARTICIPATION REPORTS, as per MBE Form Number 3. Blank copies of this form will be made available to the CONTRACTOR during the pre-construction conference or in the absence of such conference, it shall be attached to the Notice to Proceed.

MBE Form Number 4:

Disadvantaged and Women Business Enterprises, submitting a bid on this project, shall complete MBE Form Number 4, DBE/WBE Questionnaire, and submit it together with MBE Form Number 1 with the Bid Proposal. Failure to complete this form and submit it with the Bid Proposal may be cause for disqualification of the Bidder as a DBE or WBE.

CITY OF ALBUQUERQUE
MBE FORM NUMBER 1

BIDDER'S SOLICITATION REPORT ON DBE/WBE
SUBCONTRACTORS AND SUPPLIERS

PROJECT _____
City Project No. _____

NAME AND ADDRESS OF
DBE/WBE SUBCONTRACTOR
OR SUPPLIER

PERSON CONTACTED
AND TELEPHONE NO.

DATE CONTACTED

EXAMPLE ONLY

USE FORM ON PAGE MBE-1

Bidders may obtain additional forms from the Minority Business Enterprise Program.

Name of Bidder

By (Signature)

Title of Bidder's Authorized Representative

Date

This Form shall be completed and submitted with the Bid Proposal.

MBE FORM NUMBER 1

**PRIME CONTRACTOR'S FINAL LIST OF DBE/WBE
SUBCONTRACTORS/SUPPLIERS**

ITEM, SUPPLY, OR SUBCONTRACT WORK DESCRIPTION	NAME OF DISADVANTAGED OR WOMEN BUSINESS ENTERPRISE	DBE OR WBE	AMOUNT
---	--	------------------	--------

SP-22

CITY OF ALBUQUERQUE
MONTHLY CONTRACTOR'S DBE/WBE PARTICIPATION REPORT

PROJECT _____

DATE _____, 198__

To be completed by Contractor.

Reporting Period from: _____ 198__ To: _____ 198__

<u>DESCRIPTION</u>	<u>NAME OF SUPPLIER OR SUBCONTRACTOR</u>	DBE	<u>AMOUNT(s) PAID THIS PERIOD</u>
		<u>OR WBE</u>	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
<u>TOTALS</u>			

If any business enterprise listed above is a supplier and not the manufacturer, the Contractor may only report twenty percent (20%) of the total amount of award to the supplier.

SUMMARY OF DBE/WBE PARTICIPATION ON THIS PROJECT

<u>DBEs</u>			<u>WBES</u>		
<u>PREVIOUS AMOUNT PAID AMOUNT</u>	<u>THIS PERIOD</u>	<u>TOTAL AMOUNT PAID YTD</u>	<u>PREVIOUS AMOUNT</u>	<u>AMOUNT PAID THIS PERIOD</u>	<u>TOTAL AMOUNT PAID YTD</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Total percentage of original
contract amount paid to DBEs: ____%

Total percentage of original
contract amount paid to WBES: ____%

I certify that the amounts listed above for DBE/WBE participation on this project for this reporting period and year to date have been paid.

Name of Contractor

By (Signature)

Date

Title of Contractor's
Authorized Representative

MBE FORM NUMBER 3

COA-3E 8-8-88 (Blue)

SP-23

CITY OF ALBUQUERQUE
MBE FORM NUMBER 4

DBE/WBE BIDDERS QUESTIONNAIRE

PROJECT _____
City Project No. _____

*** COMPLETE AND RETURN THIS QUESTIONNAIRE WITH BID PROPOSAL ***

1. NAME OF BIDDING FIRM AND ADDRESS
(Street Address-City-State-Zip)
(P.O. Box not acceptable.)

2. NAME OF PERSON TO CONTACT

3. BUSINESS TELEPHONE NUMBER
(List only one)EXAMPLE ONLY
USE FORM ON PAGE MBE-24. THIS FIRM IS A:
☐ PERSONAL SERVICES ☐ JOBBER ☐ MANUFACTURER ☐ RETAILER
☐ CONTRACTOR ☐ BROKER ☐ WHOLESALER ☐ PROFESSIONAL SERVICES
(Construction) ☐ OTHER (Explain _____)5. CONTROLLING INTEREST (Check One) 6. TYPE OF OWNERSHIP (Check One)
☐ BLACK AMERICAN(S) ☐ SOLE PROPRIETOR
☐ NATIVE AMERICAN(S) DATE BUSINESS STARTED _____
☐ HISPANIC AMERICAN(S) CORPORATION
☐ ASIAN-PACIFIC AMERICAN(S) DATE INCORPORATED _____
☐ ASIAN-INDIAN AMERICAN(S) PARTNERSHIP
☐ FEMALE DATE OF AGREEMENT _____
☐ U.S. CITIZEN ☐ YES YEARS IN BUSINESS UNDER THE OWNERSHIP
☐ NO REFLECTED IN ITEM #5 _____

- (A) "BLACK AMERICANS," WHICH INCLUDES PERSONS HAVING ORIGINS IN ANY OF THE BLACK RACIAL GROUPS OF AFRICA
- (B) "HISPANIC AMERICANS," WHICH INCLUDES PERSONS OF MEXICAN, PUERTO RICAN, CUBAN, CENTRAL OR SOUTH AMERICAN OR OTHER SPANISH CULTURE OF ORIGIN, REGARDLESS OF RACE
- (C) "NATIVE AMERICANS," WHICH INCLUDES PERSONS WHO ARE AMERICAN INDIANS, ESKIMOS, ALEUTS OR NATIVE HAWAIIANS
- (D) "ASIAN - PACIFIC AMERICANS," WHICH INCLUDES PERSONS WHOSE ORIGINS ARE FROM JAPAN, CHINA, TAIWAN, KOREA, VIETNAM, LAOS, CAMBODIA, THE PHILIPPINES, SAMOA, GUAM, THE U.S. TRUST TERRITORIES OF THE PACIFIC, AND THE NORTHERN MARIANAS
- (E) "ASIAN - INDIAN AMERICANS," WHICH INCLUDES PERSONS WHOSE ORIGINS ARE FROM INDIA, PAKISTAN, AND BANGLADESH
- (F) "FEMALE," BUSINESS WHICH IS AT LEAST 51% OWNED, CONTROLLED AND MANAGED BY A "WOMAN" ON A DAILY BASIS. "WOMAN" SHALL INCLUDE ALL WOMEN, REGARDLESS OF RACE OR ETHNICITY.

7. HAS THIS FIRM EVER BEEN DENIED CERTIFICATION AS A MINORITY BUSINESS ENTERPRISE BY ANY GOVERNMENT AGENCY?
YES _____ NO _____ N/A _____
8. IS YOUR FIRM CERTIFIED AS A SMALL BUSINESS BY THE SMALL BUSINESS ADMINISTRATION UNDER SECTION 8(a) OF THE SMALL BUSINESS ACT?
YES _____ NO _____ N/A _____
9. ARE YOU CURRENTLY CERTIFIED AS A DISADVANTAGED OR WOMAN BUSINESS ENTERPRISE WITH THE CITY OF ALBUQUERQUE?
YES _____ NO _____

The information on this questionnaire will not be used
as a determining factor in the awarding of bids.

MBE FORM NUMBER 4

SECTION 7: MINIMUM WAGE RATES:

STATE OF NEW MEXICO - LABOR AND INDUSTRIAL LABOR REQUIREMENTS:

(a) The minimum wages to be paid the various classes of mechanics and laborers engaged by the CONTRACTOR and Subcontractors for Work under this Contract including any additional, omitted or changed work, shall not be less than the amount as determined and established by the Office of the State Labor and Industrial Commission as provided by Section 13-4-11 NMSA 1978 and in full force and effect, without exception, on the date of the Contract and during the lifetime of this Contract.

(b) The CONTRACTOR and each of his Subcontractors shall pay each of his employees working under this Contract in full, in cash, and not less than once a week, less all legally required deductions or withholdings. When circumstances are such that payment in cash is not feasible or is impractical, payment may be made by check, provided, however, that adequate funds to cover same are on deposit at the bank upon which the checks are drawn, and further that the checks may be cashed without charge, trade requirements or undue inconvenience to the payee.

(c) The minimum wage rates, if any, specified for apprentices shall apply only to persons working with the tools of the trade that they are learning, and under the direct supervision of the journeyman or master mechanics. Except as otherwise required by law, the number of apprentices in each trade or occupation employed by the CONTRACTOR or any Subcontractor shall not exceed the number permitted under the usual practice prevailing between trade unions and Employers Association of the respective trades or occupations.

(d) Extra Work - Minimum Wage: In case the OWNER orders the CONTRACTOR to perform extra work or additional work which may make it necessary for the CONTRACTOR or any Subcontractor under him, to employ in the performance of such Work, any person in any trade or occupation for which no minimum wage rate is specified, the OWNER will include in the Contract Change Order for such extra or additional work the minimum wage rate for such trade or occupation, and insofar as such extra or additional work is concerned, there shall be paid each employee engaged in the Work in such trade or occupation, not less than the minimum wage rate included.

(e) Wage Underpayments and Adjustments: The CONTRACTOR agrees that, in case of underpayment of wages to any worker on the project under this Contract, that the OWNER may withhold out of payments due, an amount sufficient to pay such worker the difference between the wages required to be paid under this Contract and the wages actually paid such worker for the total number of hours worked and that the OWNER may disburse such amount so withheld by it, for and on account of the CONTRACTOR to the employee to which such amount is due. The CONTRACTOR further agrees that the amounts to be withheld pursuant to this paragraph may be in addition to the percentages to be retained by the OWNER pursuant to other provisions of this Contract.

A copy of the New Mexico State Office of the Labor Commissioner Minimum Wage Rates and Apprentices minimum wage scales in effect at the time of the Contract shall be posted or otherwise made available to the CONTRACTOR'S employees at all times on the job.

NOTE: STATE MINIMUM WAGE RATES FOR THIS PARTICULAR PROJECT SHALL BE INSERTED HERE UPON RECEIPT FROM THE OFFICE OF THE LABOR COMMISSIONER, NEW MEXICO STATE LABOR AND INDUSTRIAL COMMISSION.

STATE MINIMUM WAGE RATES WILL BE
ISSUED WITH THE FINAL BID PACKAGE

SECTION 8. SUBCONTRACTORS FAIR PRACTICES ACT COMPLIANCE:

This Public Works Project is subject to the provisions of the Subcontractors Fair Practices Act (Chapter 18, Laws of 1988; Sections 13-4-31 through 13-4-43 NMSA 1978).

A. The listing threshold is: \$ _____
[enter the greater of \$5000 or 1/2 of 1% of the eligible portion of the estimated Project cost].

B. List of Subcontractors Required: The Bidder shall define the categories of subcontractors in the bid and shall list on page SFPA-1 of the Bid Proposal, no more than one subcontractor for each such category, PROVIDED HOWEVER, that such listing shall not include subcontractors whose work does not exceed the threshold dollar amount given in subparagraph A, above. Such list shall give the name and location of the place of business of each subcontractor under subcontract to the Bidder who will perform work or labor or render service to the Bidder in an amount exceeding the threshold stated in subparagraph A. Those subcontractors whose work does not exceed the amount given in subparagraph A shall be listed in accordance with Paragraph 12 a) of the Instructions to Bidders.

C. All subcontractors whose estimated work exceeds the threshold shall be listed at the time the Bid is submitted to OWNER. The listing of all other subcontractors shall be made pursuant to Paragraph 12 a) of the Instructions to Bidders. The listing of subcontractors at the time of submitting the bid shall not be a substitute to the requirements of SECTION 6 of the Special Provisions requiring a separate listing of City Certified DBE/WBE subcontractors for Minority and Women's Business Enterprise participation requirements.

D. The apparent low Bidder may allow a subcontract that exceeds the threshold amount to be voluntarily assigned or transferred or to be performed by anyone other than the original subcontractor listed in the original bid only if the OWNER, City of Albuquerque, gives prior written approval.

E. No Bidder whose Bid is accepted shall sublet or subcontract any portion of the Work in an amount exceeding the threshold amount given in subparagraph A, above, where the original bid did not designate a subcontractor, unless:

(1) the Bidder received no bid for that category (note: the Bidder must designate on the list of subcontractors required in subparagraph B, above, that "no bid was received"), or

(b) the Work is pursuant to a Change Order that causes changes or deviations from the original Contract.

[OPTIONAL SECTION]

F. Subcontractors List Submitted with Bid (Compliance with SECTION 6. Disadvantaged and Women's Business Enterprises of these Special Provisions): All approvals, consents or determinations made by the OWNER to a substitution of a Subcontractor pursuant to the Subcontractors Fair Practices Act shall be made only to the extent that the provisions of SECTION 6 of these Special Provisions and the requirements set forth in the Contract Documents between OWNER and CONTRACTOR are not modified with respect to Minority and Women's Business Enterprises. A determination by OWNER that an existing subcontractor may be substituted shall not be construed as approval to diminish any requirements in the Contract Documents regarding Minority and Women's Business Enterprise participation.

G. Delays Attributable to Hearings Required by the Subcontractors Fair Practices Act: In the event a hearing is required pursuant to the provisions of the Subcontractors Fair Practices Act and a delay in the Work is caused as a result of a subcontractor protesting its substitution, the CONTRACTOR shall not be entitled to an increase in the Contract Price or Contract Time.

H. Applicability of Section: This section shall apply to:
[ONLY ONE will be checked as applicable to this Project]

☐ 1) All work required of the CONTRACTOR.

☐ 2) Only the following work required of CONTRACTOR (list areas):

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

☐ 3) All work required of CONTRACTOR except (list areas):

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

UNIT PRICE

BID PROPOSAL

To the City of Albuquerque, New Mexico (hereinafter called "OWNER").

1. The undersigned (hereinafter called "Bidder") in compliance with your invitation for bids for the construction of _____

having carefully examined the Contract Documents and the site of the proposed Work, and being familiar with all of the conditions surrounding the construction of the proposed Project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the Project in accordance with the Contract Documents, within the time set forth herein, and at the unit prices stated below plus New Mexico Gross Receipts Tax. These unit prices plus New Mexico Gross Receipts Tax are to cover all expenses incurred in performing the Work required under the Contract Documents of which this proposal is a part. Quantities shown in this Unit Price Bid Proposal and in Alternates, if any, are estimated and actual payment will be made on the basis of confirmed quantities as constructed.

2. UNIT PRICES

<u>BID</u> <u>ITEM</u>	<u>SPEC</u> <u>ITEM ID.</u>	<u>ITEM DESCRIPTION & UNIT</u>	<u>ESTIMATED</u> <u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
---	---	-----	-----	-----	-----
---	---	BID LIST WILL BE PROVIDED	-----	-----	-----
---	---	BY ADDENDUM TO	-----	-----	-----
---	---	THIS DRG REVIEW SET	-----	-----	-----
---	---	-----	-----	-----	-----
---	---	-----	-----	-----	-----
---	---	-----	-----	-----	-----

2. UNIT PRICES

<u>BID</u> <u>ITEM</u>	<u>SPEC</u> <u>ITEM ID.</u>	<u>ITEM DESCRIPTION & UNIT</u>	<u>ESTIMATED</u> <u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
---	---	-----	-----	-----	-----
---	---	BID LIST WILL BE PROVIDED	-----	-----	-----
---	---	BY ADDENDUM TO	-----	-----	-----
---	---	THIS DRC REVIEW SET	-----	-----	-----
---	---	-----	-----	-----	-----

SUBTOTAL OF BID ITEMS 1 - _____ = \$ _____

NEW MEXICO GROSS RECEIPTS TAX (NMGRT) at * 5.5 % = \$ _____

BASE BID - TOTAL OF BID ITEMS 1 - _____ PLUS NMGRT = \$ _____

3. ADDENDA: The Bidder acknowledges receipt of the following Addenda:

Addendum No. _____ Date _____ Addendum No. _____ Date _____
Addendum No. _____ Date _____ Addendum No. _____ Date _____

4. The Bidder agrees that this Bid Proposal may not be withdrawn for a period of forty-five (45) calendar days after the scheduled closing time for receipt of bids.
5. If the Contract is to be awarded, the OWNER will give the apparent successful Bidder a Notice of Award within thirty (30) days after the scheduled closing time for receipt of bids.
6. Upon receipt of Notice of Award, Bidder will execute the formal Contract Documents within ten (10) days and deliver Performance Bond, Labor and Material Payment Bond, and Certificates of Insurance as required herein.
7. The attached Bid Security is to become the property of the OWNER, in the event the Agreement and bonds are not executed within the time specified in this Bid Proposal, as liquidated damages for the delay and additional expenses caused the OWNER.
8. The Bidder hereby agrees to commence Work under this Contract in accordance with the Notice to Proceed from the OWNER and to fully complete the Project as provided in the Contract Documents within one hundred and twenty (120) consecutive calendar days after the date Contract Time begins as provided in the Contract Documents.

The Bidder further agrees to pay, as liquidated damages, the amount of \$one hundred fifty dollars and 00/100 (\$150.00) for each consecutive calendar day thereafter as provided in the Special Provisions.

9. The undersigned, as Bidder, hereby declares that the only persons or firms interested in the Bid Proposal as principal or principals is or are named herein and that no other persons or firms than herein mentioned have any interest in this Bid Proposal or in the Contract to be entered into; that this Bid Proposal is made without collusion with any person, company, or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.
10. AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION: The Bidder hereby agrees if awarded the Contract, to comply with the Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements of the Special Provisions and to submit all information and reports required therein.

11. DISADVANTAGED AND WOMEN BUSINESS ENTERPRISES: The Bidder hereby agrees, if awarded the Contract, to comply with the Disadvantaged and Women Business Enterprises requirements of the Special Provisions and to submit all information and reports required therein.

The Bidder hereby acknowledges that, for the purposes of this Project, a Minority and Women's Business Enterprise Participation Goal in the amount of ten percent of the Contract Price has been established for City Certified Disadvantaged Business Enterprise (DBE) and/or Women Business Enterprise (WBE) participation.

12. If requested, the Bidder agrees to furnish to the OWNER all information and data necessary for the OWNER to determine the ability of the Bidder to perform the Work.

This Bid Proposal is hereby respectfully submitted by:

Name of Bidder

By (Signature)

Date

Printed Name & Title of Bidder's Authorized Representative

Bidder's New Mexico Contractor's License No. & Classification

Resident Contractor Number: _____
(Bidders current New Mexico Resident Contractor number as issued by the State Purchasing Agent)

Address

Telephone Number

(SEAL) If Bid Proposal is
submitted by a corporation.

**CITY OF ALBUQUERQUE
CERTIFICATION OF BIDDER REGARDING
AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY
AND NONDISCRIMINATION**

PROJECT _____

The Bidder hereby acknowledges and agrees to abide by the Special Provisions for Affirmative Action/Equal Employment Opportunity and Nondiscrimination and all other provisions, regulations and/or requirements of the OWNER for Affirmative Action/Equal Employment Opportunity and Nondiscrimination.

The Bidder has participated with any agency in a previous contract or subcontract subject to any Equal Employment Opportunity and Nondiscrimination in Employment requirements?

Yes () No ()

Compliance reports were required to be filed in connection with such contract or subcontract?

Yes () No ()

The Bidder has filed all compliance reports due under applicable instructions? If answer to this statement is "No", explain in detail on reverse side of this certification.

Yes () No ()

The Bidder has submitted a copy of this Certification to the Contract Compliance Officer, City of Albuquerque Human Rights Office, Albuquerque/Bernalillo County Government Center, One Civic Plaza, P.O. Box 1293, Albuquerque, New Mexico 87103.

Name of Bidder

Address of Bidder

Telephone Number

By (Signature)

Date

Printed Name & Title of Bidder's Authorized Representative

AHRO Form - CC-2

COA-5 8-8-88 (Pink)

CB-1

BIDDER'S SOLICITATION REPORT ON DBE/WBE
SUBCONTRACTORS AND SUPPLIERS

NAME AND ADDRESS OF
DBE/WBE SUBCONTRACTOR
OR SUPPLIER

DATE CONTACTED

Name of Bidder

By (Signature)

Title of Bidder's Authorized Representative

Date _____

MBE FORM NUMBER 1

CITY OF ALBUQUERQUE
MBE FORM NUMBER 4

DBE/WBE BIDDERS QUESTIONNAIRE

PROJECT _____

City Project No. _____

*** COMPLETE AND RETURN THIS QUESTIONNAIRE WITH BID PROPOSAL ***

1. NAME OF BIDDING FIRM AND ADDRESS
(Street Address-City-State-Zip)
(P.O. Box not acceptable.)

2. NAME OF PERSON TO CONTACT

3. BUSINESS TELEPHONE NUMBER
(List only one)

4. THIS FIRM IS A:

____ PERSONAL SERVICES

____ CONTRACTOR

(Construction)

____ JOBBER

____ BROKER

____ OTHER (Explain _____)

____ MANUFACTURER

____ WHOLESALER

____ RETAILER

____ PROFESSIONAL SERVICES

5. CONTROLLING INTEREST (Check One)

____ BLACK AMERICAN(S)

____ NATIVE AMERICAN(S)

____ HISPANIC AMERICAN(S)

____ ASIAN-PACIFIC AMERICAN(S)

____ ASIAN-INDIAN AMERICAN(S)

____ FEMALE

____ U.S. CITIZEN ____ YES

____ NO

6. TYPE OF OWNERSHIP (Check One)

____ SOLE PROPRIETOR

____ DATE BUSINESS STARTED _____

____ CORPORATION

____ DATE INCORPORATED _____

____ PARTNERSHIP

____ DATE OF AGREEMENT _____

____ YEARS IN BUSINESS UNDER THE OWNERSHIP

REFLECTED IN ITEM #5 _____

(A) "BLACK AMERICANS,"

WHICH INCLUDES PERSONS HAVING ORIGINS IN ANY
OF THE BLACK RACIAL GROUPS OF AFRICA

(B) "HISPANIC AMERICANS,"

WHICH INCLUDES PERSONS OF MEXICAN, PUERTO
RICAN, CUBAN, CENTRAL OR SOUTH AMERICAN OR
OTHER SPANISH CULTURE OF ORIGIN, REGARDLESS
OF RACE

(C) "NATIVE AMERICANS,"

WHICH INCLUDES PERSONS WHO ARE AMERICAN
INDIANS, ESKIMOS, ALEUTS OR NATIVE HAWAIIANS

(D) "ASIAN - PACIFIC AMERICANS,"

WHICH INCLUDES PERSONS WHOSE ORIGINS ARE
FROM JAPAN, CHINA, TAIWAN, KOREA, VIETNAM,
LAOS, CAMBODIA, THE PHILIPPINES, SAMOA,
GUAM, THE U.S. TRUST TERRITORIES OF THE
PACIFIC, AND THE NORTHERN MARIANAS

(E) "ASIAN - INDIAN AMERICANS,"

WHICH INCLUDES PERSONS WHOSE ORIGINS ARE
FROM INDIA, PAKISTAN, AND BANGLADESH

(F) "FEMALE,"

BUSINESS WHICH IS AT LEAST 51% OWNED,
CONTROLLED AND MANAGED BY A "WOMAN" ON A
DAILY BASIS. "WOMAN" SHALL INCLUDE ALL
WOMEN, REGARDLESS OF RACE OR ETHNICITY.7. HAS THIS FIRM EVER BEEN DENIED CERTIFICATION AS A MINORITY BUSINESS ENTER-
PRISE BY ANY GOVERNMENT AGENCY?

YES ____

NO ____

N/A ____

8. IS YOUR FIRM CERTIFIED AS A SMALL BUSINESS BY THE SMALL BUSINESS ADMINIS-
TRATION UNDER SECTION 8(a) OF THE SMALL BUSINESS ACT?

YES ____

NO ____

N/A ____

9. ARE YOU CURRENTLY CERTIFIED AS A DISADVANTAGED OR WOMAN BUSINESS
ENTERPRISE WITH THE CITY OF ALBUQUERQUE?

YES ____

NO ____

The information on this questionnaire will not be used
as a determining factor in the awarding of bids.

MBE FORM NUMBER 4

CITY OF ALBUQUERQUE
BIDDER'S LISTING of SUBCONTRACTORS
for
COMPLIANCE with SUBCONTRACTORS FAIR PRACTICES ACT

PROJECT _____
City Project No. _____

The Bidder must list all Subcontractors to be used for work identified in the Special Provisions, "Section 8 - SUBCONTRACTORS FAIR PRACTICES ACT COMPLIANCE", subsection "H", when the subcontract amount exceeds the threshold amount of \$_____.
[Use additional sheets if necessary.]

<u>NAME of SUBCONTRACTOR and</u> <u>LOCATION OF PLACE OF BUSINESS</u>	<u>CATEGORY of WORK</u> <u>of SUBCONTRACTOR</u>
_____ (Name)	_____ (Category)
_____ (Location)	
_____ (Name)	_____ (Category)
_____ (Location)	
_____ (Name)	_____ (Category)
_____ (Location)	
_____ (Name)	_____ (Category)
_____ (Location)	
_____ (Name)	_____ (Category)
_____ (Location)	

NOTICE TO BIDDER

The above listing must include the NAME, LOCATION OF PLACE OF BUSINESS and CATEGORY OF WORK which will be done by each subcontractor on the list. List only one subcontractor for each category of work. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL MAKE THE BID NON-RESPONSIVE and the Bid will be rejected.

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____,
as Principal, hereinafter called the Principal, and _____,
a corporation duly organized and existing under and by virtue
of the laws of the State of _____,
and authorized to do business in the State of New Mexico, as
Surety, hereinafter called the Surety, are held and firmly
bound unto the City of Albuquerque, New Mexico, as Obligees,
hereinafter called the OWNER, in the sum of _____
_____ for the payment of which
sum well and truly to be made, we bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and
severally, firmly by these presents.

WHEREAS, the Principal has submitted the accompanying Bid
Proposal dated _____, 19____, for _____

which Bid Proposal is by reference made a part hereof and is
hereinafter referred to as the Bid.

NOW, THEREFORE, the condition of this obligation is such
that, if the OWNER shall accept the Bid of the Principal and
the Principal shall enter into a Contract with the OWNER in
accordance with the terms of such Bid, and give such bond or
bonds as may be specified in the Bidding or Contract Documents
with good and sufficient surety for the faithful performance of
such Contract and for the prompt payment of labor and material
furnished in the prosecution thereof or in the event of the
failure of the Principal to enter into such Contract and give
such bond or bonds, if the Principal shall pay to the OWNER the
difference not to exceed the penalty hereof between the amount
specified in said Bid and such larger amount for which the
OWNER may in good faith contract with another party to perform
the Work covered by said Bid, then this obligation shall be
null and void, otherwise to remain in full force and effect.

BID BOND

SIGNED AND SEALED this _____ day of _____, 19____.

Principal

By: _____
Title: _____

ATTEST:

Surety

By: _____
Title: _____

ATTEST:

AGREEMENT

This AGREEMENT, is made and entered into on the date last entered below, by and between the City of Albuquerque, a New Mexico municipal corporation, hereinafter called the OWNER, and _____ hereinafter called the CONTRACTOR.

WITNESSETH: That the OWNER and the CONTRACTOR for the consideration stated herein mutually agree as follows:

1. STATEMENT OF WORK: The CONTRACTOR shall furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services, including utility and transportation services, and perform and complete the Work for the construction of _____

_____(City Project #_____) and any authorized supplemental work, all in strict accordance with the Contract Documents, including all Addenda thereto, numbered and dated as follows:

Addendum No. _____	Date _____	Addendum No. _____	Date _____
Addendum No. _____	Date _____	Addendum No. _____	Date _____

2. CONTRACT PRICE: The OWNER will pay the CONTRACTOR for the performance of the Contract in current funds, as provided in the Contract Documents, the amount of _____ Dollars (\$_____).

3. CONTRACT DOCUMENTS: The Contract Documents consist of this Agreement together with the other documents defined in the General Conditions. These form the Contract and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year last entered below.

CITY OF ALBUQUERQUE:

CONTRACTOR:

Chief Administrative Officer

By: _____
Title: _____

Date: _____

Date: _____

State Taxation and Revenue Dept.
Taxpayer Identification Number

Federal Taxpayer
Identification Number

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____,
_____,
as Principal, hereinafter called the CONTRACTOR, and _____,
_____,
a corporation organized and existing under and by virtue of the laws of the State of _____ and authorized to do business in the State of New Mexico, as a surety, hereinafter called the Surety, are held and firmly bound unto the City of Albuquerque, New Mexico, as Obligee, hereinafter called the OWNER, in the amount of _____ Dollars (\$_____), for the payment whereof CONTRACTOR and Surety firmly bind themselves, their heirs, executors, administrators, successors, and assigns jointly and severally by these presents.

WHEREAS, the CONTRACTOR shall by written agreement enter into a contract with the OWNER described as follows,

_____, (City Project No. _____),
which Contract shall by reference be made a part hereof and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if CONTRACTOR shall faithfully perform and complete said Contract according to its terms and comply with all requirements of law, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the OWNER.

The Surety hereby consents to progress payments to CONTRACTOR and acknowledges that such payments shall not preclude the OWNER from showing the true character and quality of materials furnished or services rendered or from recovering from CONTRACTOR or Surety such damages as OWNER may sustain by reason of deficiency in quantity or quality of materials or services furnished with respect to which a progress payment was made.

PERFORMANCE BOND

Whenever the CONTRACTOR shall be, and declared by the OWNER to be, in default under the Contract, the OWNER having performed its obligations thereunder; the Surety may promptly remedy the default or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or

2. Obtain a bid or bids for submission to the OWNER for completing the Contract in accordance with its terms and conditions and, upon determination by the OWNER and Surety of the lowest responsible Bidder, arrange for a contract between such Bidder and the OWNER and make available as Work progresses (even though there should be default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract Price," as used in this paragraph shall mean the total amount payable by the OWNER to the CONTRACTOR under the Contract and any amendments thereto, less the amount properly paid by the OWNER to the CONTRACTOR.

The Surety acknowledges that the Contract may contain express guarantees and agrees that said guarantees, if any, are covered by the Surety's obligation hereunder.

Any suit under this bond must be instituted before the expiration of three years from the date on which final payment under the Contract falls due, except that, with respect to express guarantees of a longer term, a suit thereon must be initiated within six months following the expiration of said express guarantees, if any.

Right of action with respect to any express guarantees, if any, in the Contract shall accrue following completion and formal acceptance of the Work under the Contract.

No right of action shall accrue on this bond to or for the use of any persons or corporation other than the OWNER named herein or its successors or assigns.

PERFORMANCE BOND

SIGNED AND SEALED this _____ day of _____, 19____.

CONTRACTOR

By: _____
Title: _____

ATTEST:

Surety

By: _____
Title: _____

ATTEST:

Claims or Notice given to Surety pursuant to this Bond shall be sent to the following Mailing Address:

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____

_____,
as Principal, hereinafter called the CONTRACTOR, and _____

_____,
a corporation organized and existing under and by virtue of the laws of the State of _____ and authorized to do business in the State of New Mexico, as a surety, hereinafter called the Surety, are held and firmly bound unto the City of Albuquerque, New Mexico, as Obligee, hereinafter called the OWNER, in the amount of _____

_____, Dollars
(\$ _____), for the payment whereof CONTRACTOR and Surety firmly bind themselves, their heirs, executors, administrators, successors, and assigns jointly and severally by these presents.

WHEREAS, the CONTRACTOR shall by written agreement enter into a contract with the OWNER described as follows,

_____, (City Project No. _____),
which Contract shall by reference be made a part hereof and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if CONTRACTOR shall pay as they become due, all just claims for labor performed and materials and supplies furnished upon or for the Work under said Contract, whether said labor be performed and materials and supplies be furnished under the original Contract or any contract thereunder, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

The right to sue on this bond accrues only to the OWNER and the parties to whom Sections 13-4-18 through 13-4-20 NMSA 1978, as amended, grant such right; and any such right shall be exercised only in accordance with the provisions and limitations of said statutes.

LABOR AND MATERIAL PAYMENT BOND

SIGNED AND SEALED this _____ day of _____, 19____.

CONTRACTOR

By: _____
Title: _____

ATTEST:

Surety

By: _____
Title: _____

ATTEST:

Claims or Notice given to Surety pursuant to this Bond shall be sent to the following Mailing Address:

This bond is issued simultaneously with the Performance Bond in favor of the OWNER for the faithful performance of the Contract.

PROJECT: _____

[illegible]

Date _____

CFL-1

STANDARD SPECIFICATIONS

INCORPORATION OF CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS:
The City of Albuquerque Standard Specifications for Public Works Construction, 1986 Edition, General Conditions and Technical Specifications, as updated, are incorporated by reference, the same as if fully written herein and shall govern this Project except where revised, updated or supplemented by the Special Provisions and/or the Supplemental Technical Specifications.

The City of Albuquerque Standard Specifications for Public Works Construction, 1986 Edition, may be purchased separately by contacting the Engineering Group, Public Works Department, P.O. Box 1293, Albuquerque, New Mexico 87103.

Updates to the City of Albuquerque Standard Specifications for Public Works Construction, 1986 edition, are listed on page SS-2.

UPDATES
TO
STANDARD SPECIFICATIONS

The following is a list of Updates which have been issued to the City of Albuquerque Standard Specifications for Public Works Construction, 1986 Edition:

<u>Update No.</u>	<u>Effective Date</u>
One	March 25, 1987
Two	January 1, 1988
Three	July 1, 1988

SUPPLEMENTAL TECHNICAL SPECIFICATIONS

The following revisions and/or additions to the Technical Specifications of the Standard Specifications are hereby made a part of the Contract Documents.

Table of Contents

<u>Specification Section</u>	<u>Title/ Description</u>	<u>STS Page</u>
201	Clearing and Grubbing	STS-2
337	Portland Cement Concrete Pavement	STS-2
1001	Landscape Irrigation	STS-3
1005	Plantings	STS-4
1011	Seeding	STS-5A
15010	Mechanical	STS-6
16010	Electrical	STS-31

SUPPLEMENTAL TECHNICAL SPECIFICATIONS

The following revisions and/or additions to the City of Albuquerque Standard Specifications for Public Works Construction, 1986, are hereby made a part of the contract documents.

SECTION 201 - CLEARING AND GRUBBING

201.6 REMOVAL OF TREES AND TREE BRANCHES: At the end of the subsection, add the following:

When noted on drawings, "REMOVE (designated plant material)" shall mean to remove and dispose of trunks, branches, leaves and root systems. Root systems shall be dug out by scarifying and then cross-scarifying the soil to a depth of twelve (12) inches over the area formerly covered by the tree canopy or within a diameter of twenty (20) feet, whichever is greater. Roots of 1/2 inch diameter or greater shall be raked out and removed. The scarified area shall then be restored to grade using additional, approved soil as necessary.

201.7 REMOVAL AND DISPOSAL OF DEBRIS: At the end of the subsection, add the following:

The City of Albuquerque Landfill is the approved disposal site. The Contractor shall obtain permits and pay fees required for disposal at the landfill. These costs shall be incidental to the construction contract.

SECTION 337 - PORTLAND CEMENT CONCRETE PAVEMENT

Add the following:

337.3.6 COLOR: Where colored concrete is specified, concrete shall be integrally colored with pigments as manufactured by Davis Colors at the rate of 3 lbs. per sack of cement, or approved equal pigments at rates recommended by manufacturer to produce finished concrete of similar color to the Davis Color specified. Color to be specified on the plans or determined by the Landscape Architect.

346.3.3 CURING: Use matching Davis seal color or approved equal which is compatible with the pigmentation furnished.

SECTION 1001 - LANDSCAPE IRRIGATION

- 1001.5.5.8 Add the following sentence at the end of the subsection:
Sleeves shall extend 12" beyond the sidewalks, roadways, etc.
- 1001.5.11.3 Add the following sentence at the end of the subsection:
After flushing, all risers shall remain capped until the sprinkler heads or bubblers have been installed.
- 1001.5.12.4 Delete this subsection in its entirety.
- 1001.5.14.3 Delete the last sentence and substitute with the following:
When trenches used for piping are not appropriate for routing of wire, a trench, 30" deep, shall be provided by the Contractor for 24 volt wires.
- 1001.5.24.2 Add the following at the end of the subsection:
If Additive Alternate #2 is accepted, minor maintenance of the system shall be the responsibility of the CONTRACTOR and the Contractor shall continue to maintain the entire irrigation system for a period of one year from final project acceptance.
- 1001.5.24.5 Add the following at the end of the subsection:
If Additive Alternate #2 is accepted, maintenance of repaired areas for one year following project acceptance shall be the responsibility of the CONTRACTOR.
- 1001.7.7 Add the following:
Measurement and payment will be made as specified in the Bid Proposal, and shall include trenching, backfilling, pipe materials, fittings, heads, and all other miscellaneous irrigation equipment as well as adjustment of the irrigation system for optimum performance.

SECTION 1005 - PLANTINGS

- 1005.3 MATERIALS: At the end of the section add the following:
- 1005.3.5 SOIL IN PLANTED AREAS: Soil shall be free of rocks 1-1/2 inches or more in diameter, vegetation (especially weeds), debris, and construction residue.
- 1005.3.6 SOIL CONDITIONER: Shall be granulated sulfur (equal to Agri-Sul by Eagle-Picher Industries, Inc.) 92%.
- 1005.3.7 WATER: No water that has been contaminated by oil, acid, salt, or construction residue shall be used to irrigate any of specified plantings. Hoses and additional accessories that may be needed for plant installation shall be furnished by the Contractor. If a fire hydrant is utilized, the hydrant valve must be completely opened and a regulator valve installed on attached hoses. Any damage sustained by a hydrant or adjacent improvement due to improper use shall be repaired by the Contractor at no expense to the Owner.
- 1005.4.3.2 At the end of the first sentence add the following:
Native soil in backfill shall be as specified in 1005.3.5 SOIL IN PLANTED AREAS. Apply and thoroughly mix soil conditioner at the rate of .10 pounds per cubic foot in backfill material.
- 1005.5 MULCHING: Delete the subsection and substitute the following:
Unless specified otherwise, after completion of planting operation, a 2 inch thick layer of bark mulch shall be applied to all planting beds, and at the base of all trees outside planting beds, including existing trees, to a 3 foot diameter around the tree trunk. Vines planted next to a fence, which are not located in a shrub bed shall have a one foot diameter of bark mulch installed at a 2 inch depth at the base of the vine unless otherwise specified on the plans.
- 1005.6 MAINTENANCE AND PROTECTION: Add the following at the end of this subsection:
If Additive Alternate #2 is accepted, maintenance and protection of trees, shrubs, and groundcover shall begin immediately following the last operation of installation for each plant and shall continue until the entire landscape project is accepted and for a period of one year after final project acceptance.

SECTION 1011 SEEDING

1011.3 MATERIALS

At the end of the section add the following:

1011.3.8 SOIL IN TURF AREAS:

Soil shall be free of rocks 1-1/2 inches or more in diameter, vegetation (especially weeds), debris, and construction residue.

1011.3.9 WATER:

No water that has been contaminated by oil, acid, salt, or construction residue shall be used to irrigate any of specified plantings. Hoses and additional accessories that may be needed for plant installation shall be furnished by the Contractor. If a fire hydrant is utilized, the hydrant valve must be completely opened and a regulator valve installed on attached hose. Any damage sustained by a hydrant or adjacent improvement due to improper use shall be repaired by the Contractor at no expense to the Owner.

1011.3.1.1 Delete the first two sentences and substitute with the following:

Turf grass seed shall be as specified on the drawings.

1011.3.3 FERTILIZER AND SOIL AMENDMENTS

At the end of the section add the following:

1011.3.3.3 ORGANIC FERTILIZER:

Organic fertilizer shall be dry, aged, heat treated steer manure and decomposed shredded pine bark.

1011.3.3.4 SOIL CONDITIONER:

Shall be granulated sulfur (equal to Agri-Sul by Eagle-Picher Industries, Inc.) 92%.

- 1011.5.1.2 Delete references to 2.5 tons per acre and replace with 1.5 tons per acre.
- 1011.5.1.3 Delete reference to 1.5 tons per acre and replace with 2.5 tons per acre.
- 1011.4.1 Add the following at the end of this subsection:
Turf seeding operations shall be Class J. Native seeding operations shall be Class A.
- 1011.4.3.1 At the end of the subsection, add the following:
Apply soil conditioner at the rate of 15 pounds per 1000 square feet. Spread organic fertilizer to a depth of 4 inches (2 inches steer manure and 2 inches bark) and till 6 inches into soil.
- 1011.7.2.3 Add the following at the end of this subsection:
Native seed outside of irrigated areas shall be watered by a temporary water source for 6 weeks after the completion of seeding operations at the following rates:
Weeks 1 thru 3: 1/2" water twice per week.
Weeks 3 thru 6: 1/2" water once per week.
- 1011.9.1 Add the following at the end of this subsection:
If Additive Alternate #2 is accepted, the CONTRACTOR shall be responsible for protecting and caring for seeded areas until final acceptance of the work and for a period of one year following final acceptance and shall repair at his expense any damage to seeded areas resulting from trespass, erosion (including watering) weather, vandalism, vehicular and pedestrian traffic, disease, and the like.

ADD THE FOLLOWING: SECTION 15010 - GENERAL MECHANICAL REQUIREMENTS

15010.1 SCOPE OF WORK:

15010.1.1 See General Conditions and Supplementary Conditions.

15010.1.2 The requirements listed under General Conditions and Supplementary Conditions and the General Requirements are applicable to this section and all subsequent sections of Division 15 and form a part of the contract.

15010.1.3 See Section 700 for for Trenching, Backfilling and Compaction requirements.

15010.1.4 See Section 800 and 900 for additional site utility system requirements for sanitary sewer and water distribution systems.

15010.2 MECHANICAL DIVISION INDEX:

15010 General Mechanical Requirements
15060 Pipe and Pipe Fittings
15100 Valves
15400 Outside Utilities

15010.3 CODES AND PERMITS:

15010.3.1 The mechanical work shall be performed in strict accordance with the applicable provisions of the Uniform Building Code, 1988 Edition, the Uniform Plumbing Code, 1988 Edition, Uniform Mechanical Code, 1988 Edition as adopted and interpreted by the City of Albuquerque and the National Fire Protection Association (NFPA Regulations), current adopted edition, regarding fire protection, and plumbing systems. All materials and labor necessary to comply with rules, regulations and ordinances shall be provided. Where the drawings and/or specifications indicate materials or construction in excess of code requirements, the drawings and/or specifications shall govern. The Contractor shall hold and save the Architect free and harmless from liability of any nature or kind arising from his failure to comply with codes and ordinances.

15010.3.2 Permits necessary for performance of the work shall be secured and paid for by the Contractor. All utility connections, extensions, meter pits and meter sets and tap fees for water, storm sewer, sanitary sewer and natural gas shall be paid for by the Contractor, unless otherwise specified herein.

15010.3.3 The following lists some applicable codes and standards that shall be followed:

Applicable county and state mechanical, electrical, gas, plumbing, health and sanitary codes, laws and ordinances.

Underwriters Laboratories, Inc. Standards.

American National Standards Institute.

American Society for Testing Materials Standards.

Standards and requirements of local utility companies.

National Fire Protection Association Standard.

Occupational Safety and Health Act.

Uniform Mechanical and Plumbing Codes.

ANSI Power Piping Code.

Commercial and Industrial Insulation Standards (MICA).

American Gas Association.

15010.4 RECORD DRAWINGS: The Contractor shall be responsible to maintain a complete and accurate set of marked up drawings showing information on the location of all mechanical work, and in particular, where changes were made during construction. These drawings shall be transmitted to the Architect.

15010.5 QUALIFICATIONS:

15010.5.1 All mechanics shall be skilled in their respective trade.

15010.5.2 All welders shall be certified in accordance with the ASME Boiler Test Code, Section IX, latest issue.

15010.6 SUBMITTALS:

15010.6.1 The Contractor shall submit to the Architect submittal brochures of all equipment, fixtures and materials to be furnished under Division 15, including but not limited to the following:

Piping materials, valves, installation methods, fire protection material and piping as well as pipe installation methods and all equipment listed on equipment schedules, fixture schedules and in related construction documents.

15010.6.2 The Contractor shall submit seven (7) copies of submittal brochures for review. Brochures shall be submitted within thirty (30) days after contract award.

15010.6.3 Complete data must be furnished showing performance, quality and dimensions. No equipment or materials shall be purchased prior to receiving written notification from the Architect that submittals have been reviewed and marked either "NO EXCEPTIONS TAKEN" or "EXCEPTIONS AS NOTED". Submittals returned marked "EXCEPTIONS AS NOTED" do not require resubmittal provided that the Contractor

agrees to comply with all exceptions noted in the submittal, and so states in a letter to the Architect.

- 15010.6.4 Review and Approval of Submittals: Submittals will be reviewed with reasonable promptness, but only for conformance with the design concept of the Project and with the information indicated on the Drawings and stated in the Specifications. Approval of a separate item as such will not indicate approval of the assembly in which the item functions. Approval of submittals shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents, for errors or omissions in the submittals; or for the accuracy of dimensions and quantities, the adequacy of connections, and the proper and acceptable fitting, execution, functioning and completion of the Work.
- 15010.6.5 Shop drawings will be returned unchecked unless the following information is included: cover sheet shall be provided for each submittal of equipment, products and material proposed for use on the project. A common cover sheet for similar equipment (example: all valves or all fire protection products) is acceptable. The cover sheet shall list equipment by symbol number; reference all pertinent data in the Specifications or on the drawings; provide size and characteristics of the equipment, name of the project and a space large enough to accept an approval stamp. The data submitted shall reflect the actual equipment performance under the specified conditions and shall not be a copy of the scheduled data on the drawings. Cover sheet shall clearly identify any deviations from the specifications for submitted equipment, products, and materials.
- 15010.6.6 Use of approved substitutions does not relieve the Contractor from compliance with the Contract Documents. Contractor shall bear all extra expense resulting from approved substitutions where substitutions affect adjoining or related work required in this Division or other Divisions of this Specification.
- 15010.6.7 Unauthorized Substitutions: If substitute materials, equipment or systems are installed without prior approval or are installed in a manner which is not in conformance with the requirement of this Specification and for which the Contractor has not received written approval, removal of all the unauthorized materials and installation of those indicated or specified shall be provided at no change in contract amount.
- 15010.6.8 All equipment shall be installed in accordance with the manufacturer's recommendations. Provide all accessories and components for optimum operation as recommended by the manufacturer.
- 15010.6.9 Expense: All costs for the preparation, correction, delivery, and return of the submittals shall be borne by the Contractor.
- 15010.6.10 Submittals and a resubmittal will be reviewed by the Architect/Engineer. If the Contractor fails to provide the required data with

his second submittal, he will be charged for the third and subsequent reviews.

15010.7 PRIOR APPROVAL:

15010.7.1 Submittal of proposed substitutions for items of mechanical equipment and plumbing fixtures is not required prior to bidding.

15010.8 IDENTIFICATION OF VALVES:

15010.8.1 Each valve shall be provided with a stamped metal tag secured to the valve with "Lead Seal" type braided stainless steel wire anchor. Tag shall indicate the valve number, the service and function of each valve. Tags shall be stamped brass 1-1/2" diameter, and secured to valves by heavy figure eight hooks.

15010.9 GUARANTEE-WARRANTY:

15010.9.1 The following guarantee is a part of the specifications and shall be binding on the Contractor:

"The Contractor guarantees that this installation is free from mechanical defects. He agrees to replace or repair to the satisfaction of the Architect any part of the installation which may fail within a period of one year after date established below, provided that such failure is due to defects in the materials or workmanship or to failure to follow the specifications and drawings. Warranty of the Contractor-furnished equipment or systems shall begin on the date the system or equipment is placed in operation for beneficial use of the Owner or occupancy by the Owner, whichever occurs first; such date to be determined in writing by the Architect by means of issuing a 'Certificate of Substantial Completion', AIA Form G704."

15010.9.2 The extent of guarantees or warranties by Equipment and/or Materials Manufacturers shall not diminish the requirements of the Contractor's guarantee-warranty to the Owner.

PART 2 - PRODUCTS

15010.10 QUALITY OF MATERIALS: All equipment and materials shall be new, and shall be the standard product of manufacturers regularly engaged in the production of plumbing equipment and shall be the manufacturer's latest design. Specific equipment, shown in schedules on drawings and specified herein, is to set forth a standard of quality and operation.

15010.11 ALTITUDE RATINGS: Unless otherwise noted, all specified equipment capacities are for an altitude of 5,300 feet above sea level and adjustments to manufacturer's ratings must be made accordingly.

15010.12 PAINTING: All finish painting of mechanical equipment will be under "Painting".

PART 3 - EXECUTION

15010.13 COOPERATION WITH OTHER TRADES:

15010.13.1 The Contractor shall refer to other parts of these specifications covering the work of other trades which must be carried on in conjunction with the mechanical work so that the construction operations can proceed without harm to the Owner from interference, delay, or absence of coordination. The Contractor shall be responsible for the size and accuracy of all openings.

15010.14 DRAWINGS:

15010.14.1 The mechanical drawings show the general arrangement of all piping, etc., and shall be followed as closely as actual construction and work of other trades will permit. Whenever discrepancies occur between plans and specifications, the most stringent shall govern. All Contract Documents shall be considered as part of the work insofar as this information furnishes the Contractor with details relating to design and construction of the building. Because of the small scale of the Mechanical Drawings, it is not possible to indicate all offsets, fittings and accessories which may be required. The Contractor shall investigate the finish conditions affecting the work and shall arrange his work accordingly, providing such fittings, valves, and accessories as may be required to meet such conditions. Should conditions necessitate a rearrangement of piping, such departures and the reasons therefor shall be submitted by the Contractor to the Architect for approval in the form of detailed drawings showing the proposed changes. No such changes shall be made without the prior written approval of the Architect. All changes shall be marked on a set of drawings which shall subsequently be turned over to the Architect.

15010.14.2 Should any doubt or question arise on respect to the true meaning of the drawings or specifications, the question shall be posed to the Architect whose decision shall be final and conclusive.

15010.15 FIELD MEASUREMENTS:

15010.15.1 The Contractor shall verify the dimensions and conditions governing his work at the site. No extra compensation shall be claimed or allowed on account of differences between actual dimensions, including dimensions of equipment, fixtures and materials furnished, and those indicated on the drawings. Contractor shall examine adjoining work, on which his work is dependent for perfect efficiency, and shall report any work which must be corrected. Coordination of all mechanical work on the site will be the direct responsibility of the Contractor. Review of submittal data in accordance with paragraph "Submittals" shall in no manner relieve the Contractor of responsibility for the proper installation of the mechanical work within the available space. Each contractor shall so harmonize his work with that of the several other trades that it may be installed in the most direct and workmanlike manner without hindering or handicapping the other trades. Piping interferences

shall be handled by giving precedence to pipe lines which require a stated grade for proper operation.

15010.16 PROTECTION OF MATERIALS AND EQUIPMENT.

15010.16.1 The Contractor shall be responsible for the protection of all work, materials and equipment furnished and installed under this section of the specifications, whether incorporated on the site or not.

15010.16.2 The Contractor shall provide protection for all work where necessary and shall be responsible for all damage done to property, equipment and materials. Storage of materials on the site shall be approved by the Architect prior to such storage.

15010.16.3 Pipe openings shall be closed with caps or plugs to prevent lodgement of dirt or trash during the course of installation.

15010.17 TRENCHING AND BACKFILLING:

15010.17.1 All excavation, trenching and backfilling required for the mechanical installation shall be provided by this Contractor. See Division 700.

15010.18 MANUFACTURER'S INSTRUCTIONS:

15010.18.1 All equipment shall be installed in strict accordance with recommendations of the manufacturer. If such recommendations conflict with plans and specifications, the Contractor shall report such conflicts to the Architect who shall make such compromises as he deems necessary and desirable.

15010.19 TESTS:

15010.19.1 All tests shall be conducted in the presence of the Architect. The Contractor shall notify the Architect one week in advance of all tests. Requirements for testing are specified under the sections covering the various systems. The Contractor shall furnish all necessary equipment, materials, and labor to perform the required tests.

15010.20 CERTIFICATIONS:

15010.20.1 Before receiving final payment, the Contractor shall certify in writing that all equipment furnished and all work done is in compliance with all applicable codes mentioned in these specifications. Submit certifications and acceptance certificates to the Architect.

END OF SECTION

ADD THE FOLLOWING: SECTION 15060 - PIPE AND PIPE FITTINGS

PART 1 - GENERAL

15060.1 REQUIREMENTS:

15060.1.1 Conform with applicable provisions of the General Conditions, Supplementary Conditions and General Requirements.

15060.1.2 Lead Ban: All piping, solder, and flux used in the installation of piping systems furnished and installed under Division 15 shall be lead free. The term lead free is defined as pipe which does not contain more than 8.0% lead, and solder and flux which does not contain more than 0.2% lead.

15060.2 RELATED SECTIONS:

15060.2.1 See Section 15010 for general mechanical requirements.

15060.3 SUBMITTAL DATA:

15060.3.1 Contractor shall furnish complete submittal data for all piping materials, including manufacturer's specifications, certifications, class, type, and schedule. Submittal data shall additionally be furnished for pipe hangers and supports.

PART 2 - PRODUCTS

15060.4 PIPE AND PIPE FITTINGS:

15060.4.1 Piping system materials shall be furnished as specified under the Sections describing the various piping systems. Pipe fittings shall be compatible with the piping systems in which they are installed.

15060.4.2 Pipe fittings for steel piping systems shall be weld, screwed or mechanical couplings. Butt weld fittings shall be manufactured by Weld-Bend, Laddish, or equivalent, standard or extra strong as specified in the applicable Sections of this Specification, conforming to ANSI Standard B16.9. All 90° weld elbows shall be long radius unless otherwise specified. Wherever tee connections are required in the piping system, manufacturer's straight or reducing tees shall be utilized. The use of fittings formed from welded pipe or pipe sections will not be permitted. Forged steel weldolets, branchlets, and threadolets, as manufactured by Bonney Forge or equivalent, may be utilized for welded branch and tap connections up to one half the size of the main. Forged steel half-couplings conforming to ANSI B16.11 may be used for drain, vent and gauge connections. Flanges shall be forged steel weld neck or slip-on, raised face, Class 150 or 300 as specified in the applicable Sections of this Specification with full face or ring type non-asbestos gasket material suitable for the application.

- 15060.4.3 Socket weld fittings shall be Schedule 40, 2000 pound or Schedule 80, 3000 pound construction, as specified in the applicable Sections of this Specification, conforming to ANSI B16.11, as manufactured by Grinnell or equivalent.
- 15060.4.4 Screwed fittings shall be Class 150 standard or Class 300 extra heavy, black or galvanized, malleable iron or cast iron, as specified in the applicable Sections of this Specification, as manufactured by Grinnell or equivalent. Screwed malleable iron fittings shall conform to ANSI B16.3 and cast iron screwed fittings shall conform to ANSI B16.4. Bushing reduction of a single pipe size or use of close nipples will be permitted.
- 15060.4.5 Pipe fittings for copper piping system shall be wrought copper conforming to ANSI B16.22. Cast brass fittings conforming to ANSI B16.23, may be utilized for sanitary drainage, waste and vent systems, and other non-pressure applications as approved by the Architect. Bronze flanges, Class 125 and 150, shall conform to ANSI B16.24. "T-drill" or equivalent mechanically formed tee connections and couplings may be utilized for water and drainage services. Installation of mechanically formed connections shall be in strict accordance with the manufacturer's specifications. Mechanically extracted collars shall be formed in a continuous operation by drilling pilot hole and drawing out tube surface to form collar, having a height of not less than three times the thickness of tube wall. Adjustable collaring device shall insure proper tolerance and complete uniformity of the joint. Branch tube shall be notched and dimpled in a single process to provide free flow such that the branch tube penetrates the fitting sufficiently for proper brazing and ensures that the branch tube does not obstruct the flow in the main line. All joints shall be brazed with cadmium brazing alloy. Mechanically formed collars shall be listed by the National Standard Plumbing Code, I.A.P.M.O., and Underwriters Laboratory.
- 15060.4.6 Cast iron fittings for cast iron sanitary soil, waste, and venting piping systems shall be as specified in Section 15400.
- 15060.4.7 Ductile iron fittings for ductile iron water service piping systems shall be as specified in Sections 15400.
- 15060.5 UNIONS:
- 15060.5.1 Piping 2-1/2" and larger shall be provided with bolted flange union connections. Weld flanges and bolting shall conform to ANSI B16.5. Bronze flanges shall conform to ANSI B16.24. Flange class shall be as specified in the applicable Sections of the specifications.
- 15060.5.2 Malleable iron grooved joint unions with brass to iron seats, Class 125, 250, or 300, as required by the application and

compatibility requirements with the piping system fitting classification, conforming to MSS SP-77 and ANSI B16.39, shall be provided in piping systems 2" and smaller. Copper unions conforming to ANSI B16.22 shall be provided in copper piping systems. Union connections shall be installed at all control valves, equipment connections, and at other locations shown on the drawings, and required for proper system operation and maintenance.

15060.6 DIELECTRIC FITTINGS:-

15060.6.1 Dielectric insulating fittings shall be provided to connect dissimilar metals, such as copper tubing to ferrous metal pipe. Connections 2" and smaller shall be threaded dielectric union conforming to ANSI B16.39. Connections 2-1/2" and larger shall be flange union with dielectric gasket and bolt sleeves, conforming to ANSI B16.42. Insulating fittings will not be required between bronze valves and steel piping, unless otherwise specified.

PART 3 - EXECUTION

15060.7 PIPING INSTALLATION

15060.7.1 Provide and erect, according to the best practices of the trade, all piping shown on drawings and required for the complete installation of these systems. The piping shown on the drawings shall be considered as diagrammatic for clearness in indicating the general run and connections, and may or may not in all parts be shown in its true position. The piping may have to be offset, lowered or raised as required or as directed at the site. This does not relieve the Contractor from responsibility for the proper erection of systems or piping in every respect suitable for the work intended as described in the specifications and approved by the Architect. In the erection of all piping, it shall be properly supported and proper provisions shall be made for expansion, contraction and anchoring of piping. All piping shall be cut accurately for fabrication to measurements established at the construction site. Pipe shall be worked into place without springing and/or forcing. All pipes shall have burrs and/or cutting slag removed by reaming or other cleaning methods. All changes in direction shall be made with fittings. All open ends of pipes and equipment shall be properly capped or plugged to keep dirt and other foreign materials out of the system. Plugs of rags, wool, cotton waste or similar materials may not be used in plugging. All valves and specialties shall be so placed to permit easy operation and access, and all valves shall be regulated, packed and adjusted at the completion of the work before final acceptance. All piping shall be erected to ensure proper draining. Water piping may be run level but shall be free from traps.

15060.8 JOINTS:

15060.8.1 Caulked Joints: Caulked joints in hub-and-spigot cast iron piping shall be packed firmly with white oakum, "Sealite No. 110", or hemp and caulked with pure molten lead not less than 1" deep. Resilient molded gasket joints, "Ty-Seal" or equivalent, may be used in lieu of lead and oakum for sanitary soil, waste, and vent piping. No-hub pipe and fittings may be utilized as allowed by the applicable Sections of this Specification, except that no-hub pipe and fittings shall not be allowed for buried installation.

15060.8.2 Screwed Joints: Screwed joints shall have American Taper pipe threads. Ream pipe ends and remove burrs after threading. Make up joints using Teflon tape or other approved compound applied to the male threads only.

15060.8.3 Solder Joints: Copper tubing shall be cut square and burrs removed. Both inside of fittings and outside of tubing shall be well cleaned before sweating. Care shall be taken to prevent annealing of fittings and tubing when making connections. Joints for sweated fittings shall be made with a noncorrosive paste flux and solid 95-5 tin-antimony wire solder, unless otherwise specified. Cored solder will not be permitted. 50/50 lead solder shall not be permitted for any applications.

15060.8.4 Welded Joints: On black steel piping 2-1/2" and above in size, the joints may be welded. Welding shall be done using either gas or electric welding equipment. Certified welders shall be used. Welders shall be certified in accordance with Section IX of ASME Boiler and Pressure Vessel Code, latest edition. All pipe surfaces shall be thoroughly cleaned before welding. Each joint shall be beveled before being welded. Piping shall be securely aligned and spaced, and the width of circumferential welds shall form a gradual increase in thickness from the outside surface to the center of the weld. All fittings used in the welded piping systems shall be standard ASA fittings, and shall be of standard pipe thickness. The Contractor shall provide a fireproof mat or blanket to provide adequate fire protection at all locations where welding is done. The use of fittings formed from welded pipe sections will not be permitted.

15060.8.5 Flanged Joints: Flanged joints shall conform to the American Standard for cast iron and forged steel flanged pipe fittings, Class 125, 150 or 300 as specified in the applicable Sections of these specifications. Gaskets shall be full face or ring type, non-asbestos, suitable for the service on which used.

15060.9 EXPANSION AND CONTRACTION:

15060.9.1 The Contractor shall make all necessary provisions for expansion and contraction of piping.

15060.10 PROTECTIVE COATINGS:

15060.10.1 All underground steel pipe shall be wrapped with "Scotchwrap" No. 50 tape or equivalent, to give not less than two complete layers on the entire underground piping system, or piping shall have X-Tru-Coat factory applied plastic protective covering.

15060.11 FLUSHING, DRAINING AND CLEANING PIPE SYSTEMS:

15060.11.1 The Contractor shall flush out all water systems with water before placing them in operation. Other systems shall be cleaned by blowing them out with compressed air or nitrogen.

15060.12 TESTING:

15060.12.1 Before any piping is covered or enclosed, all piping systems shall be tested and proven tight at not less than 150% of the maximum service pressure which the piping systems will be required to handle. Piping system tests shall be as specified in the applicable sections of this Specification. All tests shall be witnessed and approved by the Architect.

15060.12.2 All labor, material, and equipment required for testing shall be furnished by the Contractor. The Contractor shall be responsible for all repairs and retesting as required. All instruments and other equipment whose safe pressure range is below that of the test pressure shall be removed from the line or blanked off before applying the tests. To performing tests, all lines shall be flushed and cleaned.

15060.12.3 All safety measures required by codes or ordinances or reasonably applicable to the situation shall be provided by the Contractor in conjunction with the testing of the piping systems.

15060.12.4 Tests shall not be used to establish pressure ratings.

15060.12.5 Protect all piping against overpressure, collapse from vacuum, and hydraulic shock during the filling, testing and draining procedures. Seats of iron valves shall not be subjected to a pressure in excess of the maximum cold working pressure of the valve. Pressure tests against other closed valves shall not exceed twice the normal rating.

15060.12.6 Apply test pressure only after the system and test medium are at approximately the same temperature, preferably not less than 60 deg. F. Note that some applicable codes may require testing above a specified minimum temperature.

15060.12.7 Systems may be separated into sub-systems for testing if such action will expedite or simplify the testing.

15060.12.8 During hydrostatic testing of lines, provide temporary supports to prevent overstressing supports or hangers. When tests are completed, remove all temporary supports, locks, stops, etc., and adjust supports for their cold load and alignment.

END OF SECTION

ADD THE FOLLOWING:

SECTION 15100 - VALVES

15100.1 REQUIREMENTS:

15100.1.1 All Valves shall conform with current applicable provisions of the General Conditions, Supplementary Conditions, and General Requirements.

15100.1.2 All Valves shall meet the current MSS Specifications covering Bronze & Iron Valves. MSS-SP-80, MSS-SP-70, MSS-SP71, MSS-SP-85 where applicable.

15100.1.3 Lead Ban: Valves used in the installation of piping systems delivering water for human consumption shall be lead free. The term lead free is defined as valves which do not contain more than 8.0% lead.

15100.2 RELATED SECTIONS:

See Section 15010 for general mechanical requirements.

See Section 15010 for valve identification.

See Section 15060 for pipe fittings.

See Section 15400 for outside utility requirements.

15100.3 SCOPE:

15100.3.1 Contractor shall furnish and install all valves and accessories necessary for satisfactory operation of the systems.

15100.4 VALVE REQUIREMENTS:

15100.4.1 All Gate, Globe, Check, Ball valves shall be manufactured by Milwaukee, Nibco, Stockham, Powell or approved equal.

15100.4.2 All lubricated plug valves shall be as manufactured by Rockwell or Walworth or approved equal.

15100.4.3 Butterfly valves shall be as manufactured by W. C. Norris, Centerline, Crane, Demco, Keystone, Victaulic, Nibco, or Dezurik. Butterfly valves may be used only where specifically stated. Butterfly valves shall not be used for domestic water or other non-specified service.

PART 2 - PRODUCTS

15100.5 GENERAL SERVICE VALVES:

15100.5.1 Gate Valves - 2" and Smaller

Valves 2" and Smaller shall be cast of ASTM B-62 bronze, Class 125 construction, Solid disc, NRS, Gland packed, N.A. Packing.

Milwaukee 105 (Threaded) or Equal
Milwaukee 115 (Solder) or Equal

15100.5.2 Gate Valves - 2-1/2" and Larger

Valves 2 1/2 and larger shall be of ASTM A-126 C1 B Cast Iron, Flanged Ends, Class 125 construction, OS & Y Type, Bronze trim, N.A. Packing.

Milwaukee F2885 (RS) or Equal
Milwaukee F2882M (NRS) or Equal

15100.5.3 Globe Valves - 2" and Smaller

Valves 2" and Smaller shall be cast of ASTM B-62 bronze, Class 125 construction, Teflon disc, gland packed, N.A. Packing.

Milwaukee 502 (THD) or Equal 1502(Solder)

15100.5.4 Globe Valves - 2 1/2: and Larger

Valves 2-1/2" and Larger shall be of ASTM A-126 C1 B Cast Iron, Flanged ends, Class 125 construction, OS & Y Type, Bronze trim, N.A. Packing.

Milwaukee F2981M or Equal

Check Valves - 2" and Smaller

15100.5.5 Valves 2" and Smaller shall be cast of ASTM B-62 bronze, Clasee 125 construction, Swing type design, teflon seats.

Milwaukee 509-T(THD) or Equal
Milwaukee 1509-T(Solder) or Equal

15100.5.6 Check Valves - 2 1/2" and Larger

Valves 2-1/2" and Larger shall be of ASTM A-126 C1 B, Cast Iron, Flanged Ends, Class 125 construction, Bronze trim, Swing type design.

Milwaukee F2974M or Equal

15100.5.7 Ball Valves - 2" and Smaller

Valves 2" and smaller shall be cast of ASTM B-62 bronze, 600# WOG, 150# WSP, Chrome plated ball, Threaded gland follower, Reinforced Teflon seats, N.S> packing.

Milwaukee BA 100 or Equal
Milwaukee BA 150 (SOLDER) or Equal

15100.6 NATURAL GAS VALVES:

15100.6.1 Butterfly Valves - 2" and Smaller

Valves 1 1/4" and smaller shall have cast bronze bodies, Viton
Seat seals, full port, Stainless Steel trim, AGA/UL Approvals.

Milwaukee BB2-100 or Equal

PART 3 - EXECUTION

15100.7.1 INSTALLATION:

All valves shall be installed in locations which will allow
easy operation and facilitate maintenance.

Gate and Globe valves shall be installed with stems
horizontal.

END OF SECTION

ADD THE FOLLOWING: SECTION 15400 - OUTSIDE UTILITIES

15400.1 GENERAL:

15400.1.1 The General Conditions and other Contract Requirements in the Table of Contents apply to this section.

15400.1.2 Lead Ban: All piping, solder, and flux used in the installation of piping systems delivering water for human consumption shall be lead free. The term lead free is defined as pipe which does not contain more than 8.0% lead, and solder and flux which does not contain more than 0.2% lead. Soldered joints below grade shall be made using Sil-Fos or Phos-Copper.

15400.2 SCOPE OF WORK:

See Special Conditions.

See Supplementary Conditions and Special Conditions for substitutions.

Domestic Water and Fire Protection Systems.

Sanitary Sewer Systems.

Natural Gas System.

15400.3 GENERAL REQUIREMENTS:

15400.3.1 Excavation and backfilling shall conform to the requirements of Section 700 on Excavation, Trenching, and Backfilling for Utilities. Work covered by this section will not be accepted until backfilling connected with the work has been completed satisfactorily. Any section of the utilities that is found defective in material, alignment, grade, or joints before acceptance shall be corrected to the satisfaction of the Architect. All pipe and accessories shall be of new and unused material. The full length of each section of pipe shall rest solidly upon the pipe bed, with recesses excavated to accommodate the bells and joints. Any pipe that has the grade or joint disturbed after laying shall be taken up and relaid. The interior of the pipe shall be thoroughly cleaned of all foreign matter before being lowered into the trench and shall be kept clean during laying operations by means of plugs or other approved methods. The pipe shall not be laid in water, or when trench or weather conditions are unsuitable for the work, except by permission of the Architect. Water shall be kept out of the trench, until the joints are completed. When work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth or other substance will enter the pipes or fittings. Any section of pipe found to be defective before or after laying shall be replaced with new pipe without additional expense to the Owner. Minimum depth of trench for water piping shall provide

3 feet of cover over the pipe. Minimum depth of trench for gas shall be 18 inches.

15400.4 PROXIMITY OF WATER AND SEWER LINES:

15400.4.1 Whenever possible, it is desirable to lay parallel water and sewer lines at least 10 feet apart horizontally, and the water line should be at a higher elevation than the sewer. If this is not possible, separate trenches will be required in all cases (this shall be effective even though one line has been installed prior to the other), and the water line shall be at least 2 feet above the sewer. When water and sewer lines cross each other, the water line shall be at least 3 feet above the sewer; otherwise, the sewer shall be cast iron pipe, for 10 feet on each side of the water line.

PART 2 - PRODUCTS

15400.5 WATER SYSTEM:

15400.5.1. Provide any of the following optional piping as noted unless shown otherwise on the plans. All pipe and accessories shall be new and unused.

15400.5.2 Ductile Iron Pipe, 24" Size and Smaller: Working pressure 150 P.S.I.G. Ductile iron pipe shall conform to AWWA Spec. C151. For fire protection or domestic water:

Joints:

Push-on or mechanical joints shall conform to AWWA Spec. C111.

Flanged joints (in concrete pits) shall conform to AWWA Spec. C115.

Fittings: Working pressure 350 P.S.I.G. Ductile iron fittings with push-on, mechanical joint or 125 pound flanges shall conform to AWWA Spec. C110.

Thickness: Wall thickness of ductile iron pipe shall be determined in accordance with AWWA Spec. C150 for trench condition, depth of pipe cover and truck loading. Working pressure 150 P.S.I.G.

Lining: Ductile iron pipe and fittings shall be cement lined with bituminous seal coat inside conforming to AWWA Spec. C104.

15400.5.3 PVC Pipe, 3" Size and Smaller: Either Schedule 40 or Schedule 80, shall meet ASTM D-1785-67a Spec. For domestic water only. Not allowed for fire protection water.

Joints: Solvent cement shall meet ASTM D-2564 threaded as per ASA Standard B-2.1.

Fittings: Fittings shall be Schedule 40 PVC socket type as per ASTM D-2466 Spec. Male threaded adapters shall be used where threaded connections are required.

15400.5.4 Copper Tube, 3" Size and Smaller: Type "K" hard and soft copper tube as per ASTM B88 Specification. For domestic water only. Not allowed for fire protection water.

Joints: Solder type, and shall be made using Sil-Fos or Phos-Copper.

Fittings:

Wrot solder joint fittings shall be in accordance with ANSI Standard B16.22.

Cast bronze solder joint fittings shall be in accordance with ANSI Std. B16.18.

Threaded adapters shall be used where threaded connections are required.

15400.5.5 Valves: Valves shall be iron body, bronze mounted and shall conform to the Standard Specifications of the American Water Works Association, 7F.1, 150-pound working pressure Class C - NRS for underground installation, and Class C - O.S.&Y. for installation above ground and in valve pits, or to the requirements of Federal Specification WW-V-58a. M & H Valve and Fitting Co. Fig. 67 or 68 with ends as required.

15400.5.6 Valve Boxes: Valve boxes shall be of cast iron of extension type and flared base and shall be two piece, 5-1/4" shaft, screw type, with water cover. The minimum thickness of metal shall be 3/16" and the nominal diameter of the box shall be at least 4". The cover shall have the word "WATER" cast in the metal. Boxes shall be installed over each outside gate valve unless otherwise shown on the drawings. The boxes shall be of such length as will provide a cover of not less than 3 ft. over the pipe.

15400.5.7 Fire Hydrants: Fire hydrants shall have 5-1/4" valve opening and 6" mechanical joint shoe connection. Hydrants shall have one 4-1/2" N.S.T. pumper nozzle and two 2-1/2" N.S.T. hose nozzles. Paint with two coats of asphalt varnish below grade and two coats of "Yellow Traffic-Lac" above grade. Fire hydrant shall be Traffic Model.

15400.5.8 Meter and Meter Pit: The meter box shall be constructed as detailed on the drawings. The water meter shall be installed in accordance with the requirements of the City of Albuquerque with all associated costs paid for by the Mechanical Contractor.

- 15400.5.9 Setting Hydrants, Valves and Valve Boxes: Hydrants, valves and valve boxes shall be installed in the lines as shown on the drawings. Hydrants, valves and valve boxes shall be set plumb, and centered with valve boxes directly over the valves. Valve boxes shall, if possible, be located outside the area of roads and streets. Earth fill shall be carefully tamped around the valve box to a distance of four feet on all sides of the box, or to the undisturbed trench face if less than four feet. Hydrants shall be set at such elevation that the connecting pipe will have the same depth of cover as the distributing mains. The hydrants shall be set upon a slab of stone or concrete not less than 4" thick and 15" square. The back of the hydrant, opposite the pipe connection, shall be firmly wedged against the vertical face of the trench to prevent the hydrant from blowing off the line. If the character of the soil is such that, in the opinion of the Architect, the hydrant cannot be securely wedged, bridle rods and rod collars shall be used. Bridle rods and rod collars shall be not less than 3/4" stock and shall be protected by a coat of acid resisting paint. Not less than 7 cu.ft. of broken stone shall be placed around the base of the hydrant to ensure drainage. The backfill around hydrants shall be thoroughly compacted to the grade line. Hydrants and valves shall have the interiors cleaned of all foreign matter before installation. Stuffing boxes shall be tightened and the hydrant or valve shall be inspected in opened and closed positions, to see that all parts are in working condition.
- 15400.5.10 Indicator post for fire protection line shall be adjustable cast iron type and shall be approved by Underwriters' Laboratories and Factory Mutual.
- 15400.6 SEWER SYSTEMS:
- 15400.6.1 Provide any of the following optional piping unless shown otherwise on the plans. All pipe and accessories shall be new and unused.
- 15400.6.2 Vitrified Clay Pipe, 3" thru 42" Diameter: standard strength and conforming to ASTM C700. Compression joints for vitrified clay pipe and fittings shall conform to ASTM C425.
- 15400.6.3 Service Weight Cast Iron Soil Pipe: and 2" thru 15" Diameter fittings shall conform to ASTM A-74. Compression joints for cast iron soil pipe and fittings shall conform to ASTM C564.
- 15400.6.4 Polyvinylchloride (PVC) Sewer Pipe, and fitting, 4" thru 15" shall conform to ASTM D3034. Joints shall be solvent cement type as per ASTM D-2855 or elastomeric seal type conforming to ASTM D-3212.

15400.7 NATURAL GAS SYSTEM:

15400.7.1 General: The gas distribution system is intended for the distribution of natural gas, and the materials, appurtenances and workmanship used in this system shall be suitable for the accomplishment of this purpose. Any section of the gas distribution system that is found defective in materials or workmanship before acceptance shall be corrected to the satisfaction of the Architect.

15400.7.2 Codes: The gas system shall conform to the applicable requirements of all applicable State or City codes and ordinances and to the rules and regulations of the utility company supplying the gas.

15400.7.3 Handling: In shipping, delivering, and installing, pipe and accessories shall be handled in such manner as to ensure a sound, undamaged condition. Particular care shall be taken not to injure pipe coating. No pipe or material of any kind shall be placed inside another pipe or fitting after the coating has been applied. Coated and wrapped steel pipe shall be handled in conformance with the American Water Works Association Specification C204.

15400.7.4 Pipe: Pipe for gas lines shall be Schedule 40 black steel pipe with forged steel welding fittings below ground and screwed malleable iron fittings above ground. Steel pipe, fittings and specials shall be coated with protective covering as hereinbefore specified.

15400.7.5 Valves: Valves shall be Rockwell-Nordstrom Figure No. 142 lubricated plug valve or equivalent by Walworth. Suitable extensions for the application of lubricant shall be provided where required for ease of applying lubricant.

15400.7.6. Valve Boxes: Valve boxes of cast iron shall be installed at each underground valve. The valve boxes shall be of the extension type and have the word "GAS" cast in the cover. The valve box shall be protected against movement by a concrete slab 12" square and 4" thick.

PART 3 - EXECUTION

15400.8 WATER SYSTEM INSTALLATION:

15400.8.1 Handling: Pipe and accessories shall be handled in such manner as to ensure delivery on the work in sound undamaged condition.

15400.8.2 Cutting: Cutting of pipe shall be done in a neat and workmanlike manner without damage to the pipe. Unless otherwise authorized by the Architect, cutting shall be done by means of an approved type of mechanical cutter. Wheel cutters shall be used when practicable.

- 15400.8.3 Placing and Laying: While suspended in the sling and before lowering into the trench, the pipe shall be inspected for defects and tapped with a light hammer to detect cracks. Defective, damaged, or unsound pipe will be rejected. Deflections from a straight line or grade, as required by vertical curves, horizontal curves, or offset, shall not exceed $5/D$ inches per linear foot of pipe, where D represents the nominal diameter of the pipe expressed in inches, between the center lines extended, for any two connecting pipes. If the alignment requires deflections in excess of these limitations, the Contractor shall provide special bends or a sufficient number of shorter lengths of pipe to provide angular deflections within the limit set forth, as approved by the Architect. Unless in conflict with other provisions of these specifications, Section 7 of AWWA C600-54T shall apply in placing and laying of cast iron pipe.
- 15400.8.4 Joints: Joints shall be installed in accordance with the recommendations of the joint manufacturer.
- 15400.8.5 Incidental Items of Work: Fittings at bends in the pipeline and at ends of lines shall be firmly wedged against the vertical face of the trench by means of concrete thrust blocks with 4 square feet minimum bearing on undisturbed earth, to prevent the fittings from being blown off the lines when under pressure. Where pipe ends are left for future connections, they shall be valved, plugged, or capped, as directed by the Architect. Where connections are made between new work and existing mains, the connections shall be made using specials and fittings to suit the actual conditions. Thrust blocks shall be Class B concrete.
- 15400.8.6 Minimum cover over buried water lines shall be 3 feet.
- 15400.8.7 Tests: After the pipe is laid, the joints completed, and the trench partially backfilled, leaving the joints exposed for examination, the newly laid piping or any valved section of piping shall be subjected to a pressure test of 200 pounds per square inch minimum for a period of at least two (2) hours. All exposed pipe, joints, fittings and valves shall be carefully examined during the open trench test. Cracked or defective pipe, fittings or valves disclosed in the pressure test shall be replaced by the Contractor with sound material, and the test shall be repeated until the test results are satisfactory to the Architect.
- 15400.8.8 Torque Wrench Test on Bolts for Mechanical Joints: The Contractor shall provide a torque wrench of a length which will allow testing of bolt tightening by the authorized representative of the Architect. Before backfilling and pressure testing, the bolts of each joint shall be tested to a torque as recommended by the joint manufacturer or as otherwise determined by the Architect.

15400.8.9 Sterilization: Each unit of complete supply line and distribution system shall be sterilized with chlorine before acceptance for domestic operation. Chlorine shall be applied so as to provide a dosage of not less than 250 parts per million. Pipes shall be cleaned of all interior dirt before sterilizing. Sterilizing procedure shall be witnessed and approved by the Architect or his representative. All valves in the lines being sterilized shall be opened and closed several times during the procedure to ensure that the sterilizing mixture is thoroughly and evenly distributed through the system. After a contact period of not less than 12 hours, the system shall be flushed with clean water until the residual chlorine content is not greater than 0.2 parts per million. Water lines or distribution systems will not be accepted until a negative bacteriological test is made on water taken from the system and dosing will be repeated as necessary until such negative test is accomplished. The Architect will be notified sufficiently in advance of sterilization of water lines or distribution systems in order that he may witness sterilization and tests if deemed necessary.

15400.9 SEWER SYSTEMS:

15400.9.1 Pipe Laying: The bottom of the trench shall be shaped to give substantially uniform circumferential support to the lower third of each pipe. Pipe laying shall proceed upgrade with the spigot ends pointing in the direction of flow. Each pipe shall be laid true to line and grade and in such manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line. As the work progresses, the interior of the sewer shall be cleared of all dirt and superfluous materials of every description. Where cleaning after laying is difficult because of small pipe size, a suitable swab or drag shall be kept in the pipe and pulled forward past each joint immediately after the jointing has been completed. Trenches shall be kept free from water until the pipe jointing material has set and pipe shall not be laid when the condition of the trench or the weather is unsuitable for such work. At all times when work is not in progress, all open ends of pipe and fittings shall be securely closed to the satisfaction of the Architect so that no trench water, earth or other substance will enter the pipe or fittings.

15400.9.2 Lines and Grades: All work shall conform to lines and grades as shown on the drawings. The Contractor shall provide and set all stakes from base lines and grades established by the Architect.

15400.9.3 Cleanouts: The size of cleanouts shall be of the same size as the line to which it is connected, except that cleanouts need not be larger than 4". Pipe and fittings for cleanouts shall be cast iron and shall have lead-caulked joints. Cleanouts

shall be constructed in accordance with details shown on the drawings. Iron ferrules shall be provided as shown on the drawings. Cleanout plugs shall be brass.

15400.10 CONNECTIONS TO EXISTING MANHOLES:

15400.10.1 Make pipe connections and alterations to existing manholes as indicated on drawings, including concrete and masonry work, cutting, and shaping.

15400.11 INSPECTION OF SEWERS:

15400.11.1 Sewers shall be inspected and approved before being backfilled. Thoroughly flush out before inspection. Lamp between manholes, or other points as directed, and show full bore indicating sewer is true to line and grade. Lips at joints on inside of sewer will not be permitted.

15400.12 TESTING OF SANITARY SEWERS:

15400.12.1 Upon completion of the sewer construction, tests will be required on all sanitary sewer lines.

15400.12.2 Air Test: Make air test when sewer is clean. Plug line at each manhole with pneumatic balls. Introduce low pressure air into plugged line until internal air pressure reaches 4.0 psig greater than average back pressure of any ground water pressure that may submerge the pipe. Allow at least two minutes for air temperature to stabilize before readings are taken and timing started. Portion being tested shall pass if it does not lose air at a rate to cause pressure to drop from 3.6 to 3.0 psig greater than average back pressure of any ground water that may submerge the pipe in less time than listed below:

Pipe Diameter In Inches	Minimum Allowable Minutes (3.6 - 3.0 Psig Pressure)
4	2.0
6	3.0
8	4.0
10	5.0
12	6.0
15	7.5

15400.12.3 Exfiltration Test: In lieu of standard sanitary sewer air test, Contractor may make exfiltration tests on sewers. Subject pipe to hydrostatic pressure produced by head of water at depth of three feet above invert of sewer at upper manhole under test. In areas where ground water exists, head of water shall be three feet above existing water table. Maintain head of water for a period of one hour during which it is presumed that full absorption of pipe body has taken place, and thereafter for a further period of one hour for actual test of

leakage. During one hour test period, measured maximum allowable rate of exfiltration for any section of sewer shall be 3.0 gallons per hour per 100 feet. In event that measurements indicate exfiltration greater than maximum allowable leakage, additional measurements shall be taken and continued until leaks are located and necessary repairs and corrective work have reduced leakage in section being tested below maximum allowed by specifications. For purpose of test, line between adjoining manholes will be considered a section and will be tested as such.

15400.12.4 Infiltration Test: If ground water level is greater than three feet above invert of the upper manhole, infiltration tests may be allowed in lieu of the above tests. Allowable leakage for this test will be the same as for the exfiltration test.

15400.13 NATURAL GAS SYSTEM:

15400.13.1 Pipe Laying: Lines may conform to the surface profile but should be graded as uniformly as practicable between pronounced high and low points. Pipe shall be laid on firm soil for the full length, and where the trench has been excavated below grade, either inadvertently or purposely, it shall be backfilled with suitable material and thoroughly tamped so as to provide full length bearing. Laying the pipe on blocks to produce uniform grade shall not be done. The pipe shall be clean inside before it is lowered in the trench and shall be maintained free of water, soil, and all other foreign matter that might injure or obstruct the operation of valves, regulators, burners, or other equipment. All openings to the pipe shall be closed by suitable means at all times except as the actual progress of the work may require. Stub ends and fittings installed for future connections shall be closed with metal plugs or caps. Minor changes in line or grade of steel pipe, which can be accomplished through flexibility of the pipe without producing permanent deformation or overstressing the joints, may be made when approved by the Architect. Changes in line or grade which exceed the limitations specified above shall be made with suitable fittings.

15400.13.2 Jointing: All joints in gas distribution system shall be made by the metal arc-welding process or oxyacetylene welding process in conformance with the American Standards Association Code B31.1, Section 6, Chapters 4 and 5, except that the leakage test shall be as specified elsewhere herein instead of by hydrostatic test.

15400.13.3 Tests: The Contractor shall provide the entire system to be gas-tight by air test under a pressure of 100 pounds per square inch gage. When it is necessary to backfill before testing, the following procedure shall be followed. The test may be made on the system as a whole or on the sections that can be valved off by the valves shown on the drawings.

Smaller sections may be tested when backfilling of the trenches in such sections in advance of the completion of other sections is essential. The test shall continue for at least 24 hours between the times of the initial and final readings of pressure and temperature. The initial test readings of the instruments shall not be made for at least one hour after the pipe has been subjected to the test pressure, and neither the initial nor final readings shall be made at times of rapid changes in atmospheric conditions. The temperatures shall be representative of the actual trench conditions.

15400.14 CLEANUP:

- 15400.14.1 Upon completion of the installation of outside utilities, Contractor shall remove all surplus construction materials and debris resulting from the work.

END OF SECTION

Add the following:

SECTION 16010

GENERAL PROVISIONS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions and General Requirements.

1.02 REQUIREMENTS:

- A. Furnish all labor, materials, service, equipment and appliances required to complete the installation of the complete Electrical System in accordance with the specifications and contract drawings.

1.03 REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS:

- A. Regulatory Agencies: Installations, materials, equipment and workmanship shall conform to the applicable provisions of the National Electrical Code (NEC), the National Electrical Safety Code (NESC) and the terms and conditions of the electrical utility and other authorities having lawful jurisdiction pertaining to the work required. All modifications required by these codes, rules, regulations and authorities shall be made by the Contractor without additional charge.
- B. Underwriters Laboratories (UL): All materials, appliances, equipment or devices shall conform to the applicable standards of Underwriters' Laboratories, Inc. The label of, or listing by, UL is required.
- C. Standards: Where referenced in these specifications or on the drawings, the publications and standards of the following organizations shall apply: American Society of Testing and Materials (ASTM), Insulated Power Cable Engineers Association (IPCEA), National Electrical Manufacturers Association (NEMA), National Fire Protection Association (NFPA), and American National Standards Institute (ANSI).

1.04 SUBMITTALS:

- A. Material List: Within 30 days of CONTRACT AWARD and/or NOTICE TO PROCEED, whichever occurs first, and before material is ordered, the Contractor shall submit for approval a list of all proposed material and equipment, indicating manufacturer's name and general description.
- B. Shop Drawings: Submit for review the required number of shop drawings outlined in GENERAL CONDITIONS within 45 days of CONTRACT AWARD and/or NOTICE TO PROCEED, whichever occurs first. Show complete outlines, dimensions, electrical services, electrical characteristics of special nature or critical to the installation and pertinent data required for installation. Contractor shall indicate in the transmittal that submittal has been reviewed and accepted and all contract deviations identified. In addition to specific references or requests, submit shop drawings for the following applicable items: panelboards and lighting fixtures.

PART 2 - PRODUCTS

2.01 EQUIPMENT REQUIREMENTS: The electrical requirements for equipment specified or indicated on the drawings are based on information available at the time of design. If equipment furnished for installation has electrical requirements other than indicated on the electrical drawings, the Contractor shall make all adjustments to wire and conduit size, controls, overcurrent protection and installation as required to accommodate the equipment supplied, without additional charge to the Owner. All adjustments to the drawings reflecting the electrical system shall be delineated in a submittal to the Architect immediately upon knowledge of the required adjustments. The complete responsibility and costs for such adjustments shall be assigned to the respective section of these specifications under which the equipment is furnished.

2.02 MATERIALS:

- A. All similar materials and equipment shall be the product of the same manufacturer.
- B. Where no specific material, apparatus or appliance is mentioned, any first-class product made by a reputable manufacturer may be used, providing it conforms to the contract requirements and meets the approval of the Architect.

- C. Materials and equipment shall be the standard products of manufacturers regularly engaged in the production of such material and shall be the manufacturer's current and standard design.

2.03 ALTITUDE: Equipment affected by altitude shall perform satisfactorily the function intended at the altitude of the project site. The altitude of this project is 5280 mean sea level.

PART 3 - EXECUTION

3.01 GENERAL: Fabrication, erection and installation of the complete electrical system shall be done in a first class workmanlike manner by qualified personnel experienced in such work and shall proceed in an orderly manner so as not to hold up the progress of the project. The Contractor shall check all areas and surfaces where electrical equipment or material is to be installed, removed or relocated and report any unsatisfactory conditions before commencing work. Commencement of work signifies this Contractor's acceptance of the prevailing conditions.

3.02 TEMPORARY POWER AND LIGHTING: Furnish and install all temporary electrical facilities required for construction and safety operation. No part of the permanent electrical systems or the existing electrical system may be used for temporary service unless approved by the Architect.

3.03 UTILITIES:

- A. General: The drawings reflect requirements of the serving utilities based on information derived from representatives of the utilities. During the project design phase, the fact that the Architect may undertake to show the utility(s) requirements, does not necessarily indicate that the Architect represents the utilities or their requirements; therefore, within 45 days after contract award and/or notice to proceed has been issued, the Contractor shall be responsible for coordinating the requirements of the utilities for the following systems:

Power
Telephone

- B. Any deviations from the documents shall be brought to the attention of the Architect no later than 30 days after Award of Contract and/or notice to proceed. Failure to notify the Architect within the 30 day time frame signifies the acceptance of documents and utility requirements by the Contractor and all associated costs therein.

3.04 EXCAVATION:

- A. The Contractor shall comply with all requirements imposed upon persons engaging in excavation by the laws of the State of New Mexico, and by municipal or other local ordinances, rules or regulations, if any, to prevent injury to persons and damage to property from accidents resulting from damage to pipelines, underground utility lines and related facilities. By way of example, and not by limitation, the Contractor shall:
1. Make reasonable efforts to inform himself of the location of any pipeline or underground utility line in or near the area where the excavation is to be conducted;
 2. Plan the excavation to avoid or minimize interference or damage to pipelines or underground utility lines in or near the excavation area;
 3. Provide reasonable advance notice of the commencement, extent and duration of the excavation work to the owners of the pipelines or underground utility lines in and near the excavation area, so that such owners may locate and mark the location of pipelines and underground utility lines in the excavation area;
 4. Maintain at least an estimated clearance of eighteen inches between any nonexposed pipeline or underground utility line and the cutting edge or point of any mechanical excavating equipment utilized in such excavation;
 5. Provide such support for existing pipelines and underground utility lines in or near the excavation area as may be reasonably necessary to prevent damage to such pipelines and underground utility lines;

6. Backfill all excavations in a manner and with materials as may be necessary to prevent damage to and provide reliable support during and following backfilling activities for pre-existing pipelines and underground utility lines in or near the excavation area; and
 7. Notify as promptly as possible the owner of any pipelines or underground utility lines which may have been damaged or dislocated during the excavation work.
- B. The fact that the Architect may undertake to show utilities, pipelines or underground utility lines or related facilities on the drawings shall not relieve the Contractor of responsibility for performing the requirements set forth in the preceding paragraphs; if such lines or facilities are shown, they are shown in an approximate way only, and lines may exist where none are shown, or at locations or depths other than as shown.

3.05 PERFORMANCE TESTS:

- A. Thoroughly test all fixtures, services and all circuits for proper operating conditions and freedom from grounds and short circuits before acceptance is requested. All equipment appliances and devices shall be operated under load conditions.
- B. After the interior-wiring system installation is complete and at such time as the Architect may direct, conduct operating tests for approval. When requested, test all the wire, cable, devices and equipment after installation to assure that all material continues to possess all the original characteristics as required by the governing codes and standards as listed in these specifications.
- C. After occupancy of the building has taken place and nominal building power loads have been established, make voltage readings at all panelboards. Based on these readings, make final adjustments of tap changers on all transformers in the building as directed by the Architect. Submit to Architect correspondence and/or drawing delineating readings.
- D. Perform such other tests as required by other sections of these specifications or as requested by the Architect to prove acceptability.
- E. Furnish all instruments and labor for testing.

3.06 OPERATING INSTRUCTIONS AND MANUALS:

- A. Instructions: Without additional charge to the Owner, furnish competent instruction to the Owner in the care, adjustment and operation of all parts of the electrical equipment and systems.
- B. Manuals: Upon completion of the work, prepare and deliver to the Architect two (2) sets of complete operating and maintenance manuals for the systems and major equipment installed. Include catalog data, shop drawings, wiring diagrams, performance curves and rating data, spare parts lists and manufacturer's operating and maintenance data.
- C. Other: The above requirements are in addition to specific instruction and manuals specified for individual systems or equipment.

3.07 DRAWINGS:

- A. General: The electrical drawings show the general arrangement of all conduit, equipment, etc. and shall be followed as closely as actual building construction and the work of other trades will permit. The architectural and structural drawings shall be considered as a part of the work insofar as these drawings furnish the contractor with information relating to the design and construction of the building. Architectural drawings shall take precedence over electrical drawings. The contractor shall investigate the structural and finish conditions affecting the work and shall arrange his work accordingly, providing such fittings, elbows, pullboxes and accessories as may be required to meet such conditions.
- B. Field Measurements: The Contractor shall verify the dimensions governing the electrical work at the building. No extra compensation shall be claimed or allowed on account of differences between actual dimensions and those indicated on the drawings.

3.08 LOCATION OF EQUIPMENT AND OUTLETS:

- A. The approximate locations of cabinets, panelboards, wiring gutters, switches, light outlets, power outlets, etc., are indicated on the drawings; however, the exact location shall be determined after thoroughly examining the general building plans and by actual measurements during construction to avoid conflicts with any structural, architectural, or other trades, with all locations subject to the approval of the Architect.

- B. Verify with the Architect all locations of stubbed conduits prior to installation.

3.09 IDENTIFICATION AND SIGNS:

- A. Mark each individual motor controller, disconnect switch, transformer and remote control device to identify each item with its respective service. Marking may be stenciled on the enclosure or adjacent surface in utility areas. Provide engraved nameplates in finished areas.
- B. Provide nameplates with engraved lettering not less than 3/8 inch high where specified or noted. In general, use white core laminated plastic, attached with screws. Embossed plastic adhesive tape is not acceptable. Flush mounted devices may have identification engraved in the device plate.
- C. Identify panelboards, transformers and cabinets by engraved nameplates with descriptions indicated on the drawings together with indication of the location of the feeder overcurrent protection. Install on inside of hinged doors or panelboards and cabinets.

Example: Panel 2P

120/208V, 3-phase, 4-wire
Fed from Panel MDP/cct. #4

- D. Provide warning signs on all equipment or devices operating at 300 volts or more, reading "DANGER-480 VOLTS", etc. with white letters on red background of standard code size. Signs may be decals, stencils or nameplates.
 - E. All underground utilities indicated on the drawings shall have a 6" wide plastic marker installed continuously in the trench at 12" below grade. The marker shall have continuous markings embossed in the tape identifying the system installed, i.e., communications, telephone, power, secured computer, etc.
- 3.10 WARRANTY: Deliver originals of all guarantees and warranties on this portion of the work to the Architect. Warrant all equipment, materials and workmanship for one year in accordance with the terms of the Contract.
- 3.11 PRODUCT HANDLING: Use all means necessary to protect electrical materials and equipment before, during and after installation and to protect the installed work other trades.

3.12 RECORD DRAWINGS: As part of this contract, the Contractor shall provide a complete marked-up set of contract documents indicating all changes to the documents during the project construction phase to the Architect. Changes to the electrical system shall be documented on a set of "Record Drawings" on a daily basis.

END OF SECTION

SECTION 16110

RACEWAYS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.

PART 2 - PRODUCTS

2.01 CONDUITS:

- A. Rigid Steel Conduit: Rigid, threaded, thick-walled with zinc-coated on the inside and either zinc-coated or coated with an approved corrosion-resistant coating on the outside.
- B. Rigid Aluminum Conduit: Rigid, threaded, thick-wall type, approved for the application.
- C. Intermediate Metal Conduit (IMC): Rigid, threaded, lightweight steel, zinc-coated or coated on the outside and either zinc-coated or coated with an approved corrosion-resistant coating on the inside.
- D. Rigid Non-Metallic Conduit: Schedule 40, high impact PVC with 7,000 psi tensile strength at 73.4 degrees fahrenheit, 11,000 psi flexural strength, 8,600 psi compression strength, approved 90 degree conductors. Carlon, Triangle, or approved equal.
- E. Electrical Metallic Tubing (EMT): Mild steel, zinc coated on the outside and either zinc-coated or coated with an approved corrosion-resistant coating on the inside.
- F. Flexible Conduit: Commercial Greenfield, galvanized steel, with a separate grounding bond wire installed in the conduit in addition to other wires.

- G. Liquid-Tight Flexible Conduit: Flexible galvanized steel tubing with extruded liquid-tight PVC outer jacket and a continuous copper bonding conductor wound spirally between the convolutions. Where a separate grounding conductor is installed in the conduit, bonding conductor in the convolutions may be omitted.
 - H. Conduit Size: Minimum conduit size 1/2 inch except where specifically approved for equipment connections. Sizes not noted on the drawings shall be as required by the NEC.
- 2.02 CONDUIT FITTINGS:
- A. Rigid Steel Conduit, IMC and EMT Fittings: Iron or steel only.
 - B. Rigid Aluminum Conduit Fittings: Malleable iron, steel or aluminum alloy. Ferrous fittings zinc-coated or cadmium plated. Aluminum alloy fittings shall conform with the characteristics defined by UL for rigid aluminum metallic conduit and shall not contain more than 0.04 percent copper.
 - C. Rigid Non-Metallic Conduit Fittings: Approved for the purpose and as recommended by the manufacturer.
 - D. Flexible Conduit Fittings (Commercial Greenfield): Either steel or malleable iron only with insulated throats and shall be of one of the following types:
 - 1. Squeeze or clamp type with bearing surface contoured to wrap around the conduit and clamped by one or more screws.
 - 2. Steel, multiple point type, for threading into internal wall of the conduit convolutions.
 - 3. Wedge and screw type with angular in edge fitting between the convolutions of the conduit.
 - E. Liquid-Tight Flexible Conduit Fittings: With threaded grounding cone, a steel, nylon or equal plastic compression ring and a gland for tightening. Either steel or malleable iron only with insulated throats and male thread and locknut or male bushing with or without "O" ring seal.

- F. Connectors and Couplings: Compression type threadless fittings for rigid steel conduit or IMC not permitted. Set screw type fittings for rigid aluminum conduit not permitted. EMT couplings and connectors either steel or malleable iron only, "Concrete-tight" or "Raintight", and either the gland and ring compression type or the stainless steel multiple point locking type. Connectors to have insulated throats. EMT fittings using set screws or indentations as a means of attachment are not permitted.
 - G. Bushings: Insulated type, designed to prevent abrasion of the wires without impairing the continuity of the conduit grounding system, for rigid steel conduit, IMC, and rigid aluminum conduit.
 - H. Expansion Fittings: Each conduit that is buried in or rigidly secured to the building construction on opposite sides of a building expansion joint and each long run of exposed conduit that may be subject to excessive stresses shall be provided with an expansion fitting. Expansion fittings shall be hot dipped galvanized malleable iron with factory installed packing and a grounding ring.
 - I. Sealing Fittings: Threaded, zinc or cadmium coated, cast or malleable iron type for steel conduits and threaded cast aluminum type for aluminum conduits. Fittings used to prevent passage of water vapor shall be of the continuous drain type.
- 2.03 WIREWAYS: Square D Company square duct lay in type without knockouts with lengths and fittings hinged to provide an unobstructed wireway to "lay-in" conductors, use standard lengths. Field cuts permitted where absolutely necessary. Rust-inhibiting phosphatizing coating on sheet metal parts. Blue-gray baked enamel finish. Hardware plated to prevent cross fittings, transposition sections, gusset brackets, nipples, pull boxes, reducer fittings, wall flanges, panel or cabinet flanges, elbows, ceiling and wall support brackets and supporting hardware, etc.

PART 3 - EXECUTION

3.01 CONDUIT INSTALLATION:

- A. Conduit Systems: Rigid steel conduit, IMC, rigid non-metallic conduit or EMT unless otherwise specified.
- B. Aluminum Conduit: Aluminum conduit may be used only in dry locations above ground in sizes two inch or larger for power and communications systems.
- C. Rigid Non-Metallic Conduit: Install in accordance with manufacturer's recommendations. Joints shall be solvent welded. Field bends shall utilize approved bending equipment. Provide rigid steel elbows and rigid steel conduit risers on underground runs or runs in concrete. Provide a suitable bond wire in each run except low voltage communications runs. Underground runs under concrete slabs may be direct buried without concrete encasement if of approved type. Rigid non-metallic conduit may be installed outside the perimeter of the building only when encased in concrete. Concrete encasement shall be a minimum of three inches around outside of conduit. For circuits over 600 volts, conduits shall be encased in not less than three inches of concrete around outside of conduit. Rigid non-metallic conduit is not permitted surface mounted in ducts, plenums or other air handling spaces. All 90 degree bends shall be rigid steel conduit.
- D. EMT: Not permitted underground or embedded in concrete.
- E. Flexible Conduits: Use flexible conduit only for motor or equipment connections and then only to the extent of minimum lengths required for connections. Install flexible conduit connections at all resilient-mounted equipment. Provide liquid-tight flexible conduit in exterior, wet or damp locations and for connections to wet pipe mechanical systems.
- F. Conduit in Concrete: Rigid steel conduit or rigid non-metallic conduit may be embedded in concrete providing the outside diameter does not exceed one-third the thickness of the concrete slab, wall or beam, is located entirely within the center third of the member, and lateral spacing of conduits is not less than three diameter unless otherwise prohibited by Architect.

- G. Steel Conduit in Ground: Rigid steel conduit that is not completely encased in concrete but is in contact with ground or on a vapor barrier shall be wrapped with Scotchwrap 51 half-lapped, or shall have an additional outside factory coating of polyvinyl chloride with a minimum coat thickness of 20 miles. Other PVC or Phenolic-resin epoxy coating material which is equally flexible and chemically resistant may be used providing approval by the Architect is obtained prior to the installation.
- H. Exposed Conduits: Install exposed conduit systems parallel to or at right angles to the lines of the building. Right angle bends in exposed runs shall be made with standard elbows, screw jointed conduit fittings or conduit bent to radii not less than those of standard elbows.
- I. Concealed Conduits: Install conduit systems concealed where possible unless otherwise noted. Conduit systems may be exposed in unfinished utility areas, ceiling cavities, and where specifically approved by the Architect. Install concealed conduit systems in as direct lines as possible.
- J. Conduit Openings: Protect all vertical runs of conduits or EMT terminating in the bottoms of boxes or cabinets, etc., from the entrance of foreign material prior to installation of conductors.
- K. Sealing Fittings: Install where required by the NEC, where conduits pass from warm to cold locations and where otherwise indicated.
- L. Sleeves for Conduit: Install sleeves for conduit where shown or as required. Conduit sleeves not used shall be plugged with recessed type plugs. Sleeve all conduit passing through walls. Sleeves that are used shall be caulked right with lead yarn.

3.02 CONDUIT SUPPORTS:

- A. Supports: Provide supports for horizontal steel conduits and EMT not more than eight feet apart with one support near each elbow or bend, including runs above suspended ceilings.

- B. Straps: Install one-hole pipe straps on conduits 1-1/2 inch or smaller. Install individual pipe hangers for conduits larger than 1-1/2 inch. Spring steel fasteners with hanger rods may be used in dry locations in lieu of pipe straps.
 - C. Trapezes: Install multiple (trapeze) pipe hangers where two or more horizontal conduits or EMT run parallel and at the same elevation. Secure each conduit or EMT to the horizontal hanger member by a U-bolt, one hole strap or other specifically designed and approved fastener.
 - D. Hanger Rods: Install 3/16 inch diameter or larger steel rods for trapezes, spring steel fasteners, clips and clamps. Wire or perforated strapping shall not be used for the support of any conduit or EMT.
 - E. Fastening: Fasten pipe straps and hanger rods to concrete by means of inserts or expansion bolts, to brickwork by means of expansion bolts, and to hollow masonry by means of toggle bolts. Wooden plugs and shields shall not be used. Power-driven fasteners may be used to attach pipe straps and hanger rods to concrete where approved by the Architect. All conduits not embedded in concrete shall be firmly secured by means of pipe clamps, hangers, etc., equal to Caddy Fasteners of ERICO Products, Inc. or approved equal. Wire wrapped around conduits and supporting members will not be accepted.
- 3.03 CLOSING OF OPENINGS: Wherever slots, sleeves or other openings are provided in concrete slabs for the passage of conduits. Such openings, if unused, or the spaces left in such openings, shall be closed in a manner approved by the Architect.

END OF SECTION

SECTION 16120

WIRES AND CABLES

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.

PART 2 - PRODUCTS

2.01 WIRES AND CABLES (600 VOLTS):

A. Type:

1. Conform to the applicable UL and IPCEA Standard for the use intended. Copper conductors with 600 volt insulation unless otherwise specified or noted on the drawings. Stranded conductors for No. 6 and larger and where elsewhere specified or noted on the drawings.
2. All conductors shall be copper. Aluminum conductors will be permitted only on systems above 600 volts.

- B. Insulations: Type TW insulation unless otherwise specified or noted on the drawings. Type THW minimum or type XHHW filled cross-linked polyethylene 90 degree C. thermosetting insulation for conductors larger than No. 6 and elsewhere as required by NEC. 90 degrees C. minimum insulation within fixture wireways of fluorescent fixtures.

- C. Size: No. 12 minimum unless otherwise specified or noted on the drawings. Not less than NEC requirements for the system to be installed.

- D. Color Coding: Phase, neutral and ground conductors color-coded in accordance with NEC. Connect all conductors of the same color to the same phase conductors.

	<u>Phase A</u>	<u>Phase B</u>	<u>Phase C</u>	<u>Neutral</u>
120/240V/Phase 1	Red	Black	---	White
208Y/120V/Phase 3	Red	Blue	Black	White
277/480V/Phase 3	Yellow	Orange	Brown	Grey

Ground shall be green for all systems.

- E. Conductors No. 12 and 10 shall be solid color compound for the entire length and each like color shall be connected only to the particular phase throughout the project. Conductor sizes larger than No. 10 may be color coded at each termination and in each box or enclosure with six inches of half-lapped 3/4 inch pressure sensitive, plastic tape of respective colors in lieu of solid color compound.
- 2.02 VERTICAL CABLE SUPPORTS: Split wedge type supports which clamp each individual conductor and tightens due to weight of the cable shall be used without metallic sheath.
- 2.03 CONNECTORS AND LUGS:
- A. For Copper Conductors No. 6 and Smaller: 3M Scotch-Lok or T & B Sta-Kon, or equal compression or indent type connectors with integral or separate insulating caps.
- B. For Copper Conductors Larger Than No. 6: Solderless, indent, hex screw, or bolt-type pressure connectors, properly taped or insulated.
- 2.04 TAPE: Plastic tape, 8.5 mils minimum thickness, 1,000,000 megohms minimum insulation resistance, oil resistance vinyl backing, oil resistant acrylic adhesive, incapable of supporting combustion per ASTM D-568 Test Method B.
- 2.05 FEEDER CIRCUITS: Single conductor feeder cables shall be of the size and type as indicated on the drawings. Sizes shown are for copper conductors unless otherwise noted on drawings.

2.06 BRANCH CIRCUITS:

- A. Branch circuits shall be No. 12 AWG copper minimum and shall be larger AWG size where indicated on drawings. Where branch circuits exceed 100 ft. in length, the AWG size shall be increased to accommodate voltage drop.
- B. Branch circuits to all equipment, fixtures and outlets shall include a white neutral and green wire equipment ground.

PART 3 - EXECUTION

- 3.01 WIRE AND CABLE TESTS (600 VOLTS): Measure the insulating resistance of service entrance conductors, feeder circuit conductors and service ground. Measurements shall be taken between conductors and between conductors and ground. Resistance shall be 1,000,000 ohms or more when tested at 500 volts by megger without branch circuit loads. Tests and procedures shall meet the approval of the Architect, and shall be in accordance with the applicable IPCEA standards for the wires and cables to be installed. Furnish all instruments, equipment and personnel required for testing, and conduct tests in the presence of the Architect. Submit written reports of the tests and results when requested by the Architect.
- 3.02 SPLICES (480 VOLTS AND UNDER): Permitted only at outlets or accessible enclosures. Conductor lengths shall be continuous from termination to termination without splices unless approved by the Architect.
- 3.03 PULL WIRES: In each empty conduit, except underground conduits, install a No. 14 galvanized steel pull wire or a plastic line having tensile strength of not less than 200 pounds. In each empty underground conduit, install a No. 10 AWG bare, hard-drawn copper or copper clad pull wire or a plastic line having a tensile strength of not less than 200 pounds.
- 3.04 IN RACEWAYS: Install in rigid conduit, EMT, or flexible metallic conduit, unless otherwise specified or noted on the drawings.
- 3.05 CABLE BENDS: Radius of bends not less than ten times the outer diameter of the cable.

- 3.06 CONDUCTOR PULL: Conductors shall not be pulled into conduits until after all plastering or concrete work is completed and all conduits in which moisture has collected have been swabbed out.
- 3.07 FEEDER IDENTIFICATION: Tag feeder circuits in each enclosure with wrap-around circuit designation labels where more than one feeder passes through or terminates in the enclosure.
- 3.08 CONNECTORS AND LUGS: Install with manufacturer's recommended tools and with the type and quantity of deformations recommended by manufacturer.
- 3.09 BUNDLING: Conductors No. 10 and smaller shall be neatly and securely bundled and conductors larger than No. 10 shall be neatly and securely cabled in individual circuits, utilizing marlin twine, two-ply lacing or nylon straps.
- 3.10 PULL WIRES: In each empty conduit, except underground conduits, install a No. 14 galvanized steel pull wire or a plastic line having tensile strength of not less than 200 pounds. In each empty underground conduit, install a No. 10 AWG bare, hard-drawn copper or copper clad pull wire or a plastic line having a tensile strength of not less than 200 pounds.

END OF SECTION

SECTION 16130

OUTLET BOXES

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.

PART 2 - PRODUCTS

2.01 OUTLET BOXES:

- A. Construction: Zinc-coated or cadmium plated sheet steel boxes of a class to satisfy the conditions at each outlet except where unilet or conduit bodies are required. Knockout type with knockouts removed only where necessary to accommodate the conduit entering. Square cornered, straight sided gang boxes, 4 inch octagon concrete rings and 4 inch octagon hung ceiling boxes with bars may be folded type; one-piece deep-drawn for all other boxes.
- B. Size: To accommodate the required number and sizes of conduits, wires and splices in accordance with NEC requirements, but not smaller than size shown or specified. Standard concrete type boxes not to exceed six inches deep except where necessary to permit entrance of conduits into sides of boxes without interference with reinforcing bars. Special purpose boxes shall be sized for the device or application indicated.
- C. Exposed: Screw-joint type with gasketed weatherproof covers in locations exposed to the weather.
- D. Wall-Mounted Switch, Receptacle and Signal Boxes: Unless otherwise noted or specified not less than 4 inches square by 1-1/2 inches deep for two devices and multi-gang boxes for more than two devices. Boxes for switches and receptacles on unfinished walls may be screw-joint type with covers to fit the devices.

- E. Grounding Terminal: Provide a grounding terminal in each box containing a green equipment ground conductor, or serving motors, lighting fixtures or receptacles. Grounding terminal shall be green colored washer-in-head machine screw or grounding bushing.

- 2.02 PULLBOXES: Minimum NEC requirements unless larger box is noted. As specified for outlet boxes with blank cover for pullboxes with internal volume not more than 150 cubic inches. As specified for cabinets or pullboxes with internal volume over 150 cubic inches, except covers to have same thickness as box with corrosion-resistant screw or bolt attachment.

PART 3 - EXECUTION

3.01 OUTLET BOXES:

- A. Installation: Unless otherwise specified or shown on the drawings, outlet boxes shall be flush mounted and the front edges of the boxes or plaster covers shall be flush with the finished wall. Mount boxes with the long axes of devices vertical, unless otherwise specified. Boxes in plastered walls shall be provided with plaster covers. A multiple of box extensions and/or covers will not be permitted. Install in a rigid and satisfactory manner with suitable metal bar hangers, box cleats, adjustable box hangers, etc. Use wood screws on wood, expansion shields on masonry and machine screws on steel work.
- B. Mounting Heights: The mounting height of a wall-mounted outlet box shall be construed to mean the height from the finished floor to the horizontal center line of the cover plate. On exposed tile, block or brick construction, mount outlet boxes at the nearest bed joint to the mounting height indicated. The height of all outlets shall be at the same height when there is a secondary type wall construction along with the masonry construction. The height in the masonry construction shall be the governing factor. Verify exact height of all boxes with Architect.

- 3.02 PULLBOXES: Provide additional pullboxes wherever necessary to meet requirements for maximum lengths of conduit runs and maximum numbers of bends as specified under "Conduit and Fittings".

3.03 IDENTIFICATION: Identify all exposed junction and pullboxes according to the system carried by means of painted-on stencils or labels with legible letters and contrasting colors without abbreviations. In general, use yellow color. Painting shall be in accordance with DIVISION - FINISHES.

END OF SECTION

SECTION 16133

CABINETS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.

PART 2 - PRODUCTS

2.01 GENERAL:

- A. Sheet steel except those exposed to wet or rain conditions which shall be raintight unless otherwise noted. Cabinets without through feeder wiring shall be arranged to provide a wiring gutter not less than 4 inches wide for branch circuit panelboards served by feeders up to 4/0. Panelboards served by feeders in excess of 4/0, up to and including 750 MCM, shall be provided with top, bottom and side gutters 8 inches wide. Panelboard cabinets in all cases shall meet or exceed the minimum requirements of Article 373-6 of the National Electrical Code. Cabinets shall be of standard make and shall be equal in all respects to those bearing the Underwriters Laboratories label. Cabinets, including boxes shall be made of galvanized steel. All outside surfaces of trim and doors shall be given a factory finish coat of No. 61 ANSI gray paint, or approved manufacturer's standard. Cabinet for telephone and communications systems shall have 5/8 inch exterior grade, one-face B-grade or equal plywood backboard inside with maximum height and width.

- 2.02 FEED THROUGH GUTTERS: Where feeders go through panelboard cabinets to serve panelboards above or beyond, the wiring gutters in panelboard cabinets shall be a minimum of 8 inches on sides, top and bottom.

- 2.03 FRONTS: One piece sheet steel frame and a hinged door with catch and lock for flush cabinets. Telephone and signal cabinets for surface mounting shall be equipped with a door hinged directly to cabinet. One piece sheet steel with 3/4 inch flange with all edges shaped to cover edge of box. Fronts may be secured to box by means of flathead screws with captive nuts or clamps.
- 2.04 DOORS: Doors shall close against a rabbet placed all around the inside edge of the frame with a close fitting joint between door and frame. The doors shall be fitted with substantial flush hinges placed not over 24 inches apart, nor more than six inches from ends of doors, and fastened permanently to the door and frame with flat headed rivets or spot welds, or with concealed flush piano hinges. Fastening screws of fronts shall be set not over 24" apart. Doors over 48 inches in height shall be equipped with a vault hinge and a three point catch.
- 2.05 DOOR IN DOOR: Both surface and flush cabinets shall be door in door. The door over the interior of the cabinet shall be provided with hinges and combined lock and latch. The outside door over the cabinet gutters shall have a hinge on one side, and machine screws into threaded holes in the cabinets on the other three sides. In order to insure the rigidity of the outside door, surface type cabinets shall have a 1/2 inch deep lip bent over all around, with the corners welded and grounded; or in the case of flush cabinets, a steel angle frame, equivalent in strength to the bent over lip, shall be welded to the inside of the door. The outside door shall be of such size as to allow a minimum of 2-3/4 inches opening to all four sides of the wiring gutter. All locks shall be keyed alike.
- 2.06 LOCKS: Furnish each cabinet with a combination catch and flat key lock. The telephone, electrical and signal cabinet locks shall be fitted to separate keying for each system. Furnish two keys for each cabinet.
- 2.07 GROUND BAR: Each cabinet for a panelboard shall be provided with a copper interior ground bar suitably braced or bolted to the cabinet wall. The equipment ground bar shall be equivalent in current carrying pressure connector terminations for the associated feeders, branch circuits, etc.

PART 3 - EXECUTION

- 3.01 CABINETS: Cables installed in the wiring gutters of cabinets shall be neatly bundled, routed and supported. Minimum bending radii as recommended by the cable manufacturer shall not be reduced. Lighting and power cabinets shall be installed with tops 6'-6" above floor and bottoms not less than 12 inches above floor. The height above floor of the highest overcurrent device handle shall not exceed 6'-6".

END OF SECTION

SECTION 16140

WIRING DEVICES

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.

PART 2 - PRODUCTS

2.01 RECEPTACLES:

- A. General: Configuration and requirements for all connector or outlet receptacles shall be in accordance with NEMA Publication WD1-1965, Part 3 and Part 10. Single or duplex as shown or noted on drawings. Ivory color unless otherwise noted on the drawings. Double grip contacts for each prong.
- B. Grounding Type: All receptacles shall be grounding type with a green colored hexagonal equipment ground screw of adequate size to accommodate an insulated grounding jumper (based on Table 250-95 of the NEC with minimum size No. 14 AWG). Grounding terminals of all receptacles shall be internally connected to the receptacle mounting yoke. Unless otherwise noted, receptacles shall be as follows:

2.02 DEVICE PLATES:

- A. General: Provide device plates for each receptacle outlet. Do not use sectional gang plates. Provide multi-gang outlet plates for multi-gang boxes. Plates shall be 0.040" stainless steel with brushed satin finish, as manufactured by Sierra Manufacturing Company unless otherwise noted.

B. Exposed: Plates for exposed joint fittings shall match the fittings with edges of plates flush with edges of fittings. Heavy cadmium steel plates with gasket. Plates for cast type boxes at locations subject to wet or rain conditions shall be of cast, vapor tight type. Provide hinged lift covers for devices.

2.03 REMOTELY CONTROLLED SWITCHES OR RELAYS: Electro magnetically operated, mechanically held unless otherwise required. Rugged construction, substantially made, conforming to NEMA and IEEE test standards for industrial type power relays and the requirements of UL 508, Standards for Safety Lighting Control Equipment. Ratings as indicated on the drawings, suitable for the application. Contacts shall be double break, renewable, solid wiping type, silver to silver or silver Tungsten alloy, self aligning, quick make, quick break, with a minimum inductive load rating of 20 amps. Relays shall be as manufactured by Allen-Bradley, ASCO, Cutler-Hammer, General Electric, Square D, or Westinghouse, equal to ASCO mounting and enclosure.

PART 3 - EXECUTION

3.01 DEVICE PLATES: Install with alignment tolerance of 1/16" and all edges in continuous contact with wall surfaces.

END OF SECTION

SECTION 16150

MOTORS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.

PART 2 - PRODUCTS

- 2.01 GENERAL: Motors will be furnished with the equipment they are intended to operate and therefore generally will be furnished under other sections of these specifications. Furnish nameplates indicating manufacturer, horsepower, phase, cycle, voltage, RPM, type of motor windings, NEMA design and type of enclosure.
- 2.02 SIZE: Adequate for the duty to be performed without exceeding their full rated load or safe operating temperature when the driven equipment is operating at specified capacities with ambient temperatures and altitude compensation simulating actual job conditions.
- 2.03 TYPE: Suitable for the application but not less than Class A insulation and continuous duty classification, based on 40 degree C. ambient temperature with drip proof frames and totally enclosed for exterior use. Conform to design, construction and performance requirements of NEMA and the Rotating Electrical Machinery Standards of ANSI.
- 2.04 VOLTAGE RATING: NEMA Standard to correspond to circuit voltage serving the motor. Motors operating on 208 volt systems shall be rated 200 volts or shall be specifically wound, for the voltage. Rated and covered by the plus or minus 10% rated voltage warranty for 208 volts.

PART 3 - EXECUTION

3.01 INSTALLATION: In accordance with related work specified in other sections of these specifications and standard industry practice.

END OF SECTION

SECTION 16160

PANELBOARDS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16133, Cabinets.
- C. Section 16170, Motor and Circuit Disconnects.
- D. Section 16181, Fuses.
- E. Section 16450, Grounding.

- 1.03 SUBMITTALS: Submit complete shop drawings with outline dimensions, descriptive literature and complete description of the frame size, trip setting, class and interrupting rating of all overcurrent devices. Identify available space.

PART 2 - PRODUCTS

- 2.01 GENERAL: Dead front, safety type with voltage ratings as scheduled. Panelboards shall be of the type required for the short circuit and duty ratings indicated on the drawings. Panelboards shall be as manufactured by General Electric, Cutler-Hammer, ITE, Square D, or Westinghouse and shall be circuit breaker or fusible type as scheduled.

- 2.02 CABINETS: Each panelboard shall be enclosed in a single sheet metal cabinet with front doors, catches, locks, etc., as specified in Section 16133, Cabinets.

- 2.03 DOOR-IN-DOOR: Both surface and flush panels shall be door-in-door. The door over the interior of the panel shall be provided with hinge and combined lock and latch. The outside door over the panel gutters shall have a hinge on one side and machine screws into threaded holes in the panelboard cabinet on the other three sides. In order to insure the rigidity of the outside door, surface type panels shall have a 1/2 inch deep lip bent over all around with the corners welded and ground; or, in the case of flush panels a steel angle frame, equivalent in strength to the bent over lip shall be welded to the inside of the door. The outside door shall be of such size as to allow a minimum of 2-3/4 inches opening to all four sides of the wiring gutter or as required by N.E.C. All locks shall be keyed alike.
- 2.04 BREAKERS: Molded-Case or combination molded-case and current limiting fuses as scheduled or required. Provide quick make and quick break toggle mechanism, inverse time trip characteristics and trip free operation on overload or short circuit. Automatic tripping shall be indicated by a handle position between the manual OFF and ON position. Provide a trip element for each pole, a common trip bar for all poles and a single molded insulating material handle. Handle ties will not be accepted. Adjustable magnetic trip devices shall be set at the factory to the low trip setting. Provide breaker frame sizes as required for the continuous rating or the interrupting capacity, whichever is larger.
- 2.05 BOLTED TYPE: Circuit breaker current carrying connections to the bus shall be of the bolted type, factory assembled. Stab in type not permitted. Provide bus bars for three phase panelboards of the sequence phased type connection and arranged for three-phase, four wire mains, unless otherwise indicated on the drawings.
- 2.06 SPACE ONLY: Where "Space Only" is noted on the drawings, provide necessary connectors, mounting brackets, etc., for the future insertion of an overcurrent device.
- 2.07 DIRECTORIES: Provide circuit directories on the inside face of the door of each panel.
- 2.08 LABELS: Labels for identifying the breakers shall be engraved laminated plastic strips attached by screws or phenolic buttons or small window frame type. Adhesive stick on labels alone will not be acceptable unless specifically approved.

PART 3 - EXECUTION

- 3.01 DIRECTORIES: Provide typewritten circuit descriptions referencing permanent room numbering assigned in lieu of the room numbering shown on the drawings.
- 3.02 CIRCUIT NUMBERING: Circuit numbering shown on the drawings is based on pole position in the panelboard and not consecutive numbering.
- 3.03 PHASE ROTATION: Phase A, left bus; phase B, center bus; phase C, right bus (front viewing).

END OF SECTION

SECTION 16190

RELAYS AND CONTACTORS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.
- C. Section 16900, Controls and Instrumentations.

PART 2 - PRODUCTS

- 2.01 GENERAL: Electromagnetically operated, mechanically held unless otherwise required. Rugged construction substantially made conforming to NEMA and IEEE test standards for industrial type power relays and the requirements of UL 508, Standards for Safety Industrial Control Equipment.
- 2.02 RATINGS: As indicated on the drawings or required, suitable for the application.
- 2.03 CONTACTS: Double break, renewable, solid wiping type, silver to silver or silver tungsten alloy, self aligning, quick make, quick break, with a minimum inductive load rating adequate for the load controlled, but not less than 25 amps.
- 2.04 ENCLOSURES: NEMA 1 for surface mounting in dry locations. Flush mounted with hinged door and flush latch where indicated. Sound-absorbing enclosures where located in or adjacent to occupied areas.

PART 3 - EXECUTION

3.01 INSTALLATION: Install and connect in accordance with related work specified in other sections of these specifications.

END OF SECTION

SECTION 16450

GROUNDING

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16110, Raceways.
- C. Section 16120, Wires and Cables.
- D. Section 16130, Outlet Boxes.
- E. Section 16133, Cabinets.
- F. Section 16140, Wiring Devices.
- G. Section 16160, Panelboards.

PART 2 - PRODUCTS

- 2.01 GENERAL: Materials, equipment and devices related to the grounding system are specified under other sections of these specifications.

PART 3 - EXECUTION

- 3.01 INSTALLATION: Install two separate grounding systems, a service groundingsystem and an equipment grounding system. The service equipment, conduit system, supports, cabinets, equipment, and neutral conductor shall be grounded in accordance with the minimum code requirements and as further indicated on the drawings or as specified. Connect the two grounding systems together only at the main service equipment and at the secondary terminals of transformers creating separately derived distribution systems such as dry-type transformers.

3.02 SERVICE GROUNDING SYSTEM:

- A. General: The service grounding system is provided for the AC service neutral ground. Current return conductors, such as neutrals of the service entrance, feeder circuits and branch circuits, shall not be used for equipment grounding. Care must be exercised to insure that neutral bars are not bonded to the enclosures of panelboards, etc., which are not part of the main service equipment. Except for separately derived systems, the neutral conductors shall be grounded only in the main service equipment.
- B. Common Ground Point: Establish one common ground point in the main service equipment by interconnecting the insulated neutral bus (or bar), the uninsulated equipment ground bus (or bar), and service grounding electrode conductor.
- C. Neutral Disconnecting Means: Install a neutral disconnecting means in the main service equipment for disconnecting and isolating the neutral bus from the common ground. The disconnecting means may be disconnecting links in the interconnection between the insulated neutral and uninsulated equipment ground.
- D. Neutral Bars: Provide an insulated neutral bar, separate from the uninsulated equipment ground bar, in all panelboards, transformers, starters, disconnect switches, cabinets, etc. which have neutral connections.

3.03 EQUIPMENT GROUNDING SYSTEM:

- A. General: Provide a complete equipment grounding system in accordance with the minimum code requirements and as further indicated on the drawings or specified. The equipment ground (green conductor) consists of metallic connections to ground of non-current-carrying metal parts of the wiring system or apparatus connected to the system. The primary purpose of equipment grounding is to provide greater safety by limiting the electrical potential between non-current-carrying parts of the system and to provide a low impedance path to ground for possible ground fault currents.
- B. Common Ground Point: Establish one common ground point as specified elsewhere in this section of the specifications for interconnection of the equipment grounding system and the service grounding electrode conductor.

- C. Service Equipment Enclosure: Bond the enclosure of the main service equipment to the uninsulated equipment ground box (or bar) with a conductor or bar sized for 50% of the largest service overcurrent device.
- D. Ground Bar: Provide an uninsulated equipment ground bar, separate from any insulated neutral bar, in all panelboards, starters, disconnect switches, cabinets, etc. for grounding the enclosure and for connecting other equipment ground conductors. the ground bar shall be an integrally mounted and braced bus bar in panelboards or a separately mounted bar adequately braced or bolted to the enclosure of other types of equipment. The ground bar shall be adequately braced or bolted to the enclosure after thoroughly cleaning both surfaces to assure good contact. Provide solderless pressure connectors for all conductor terminations. Number and size of pressure connectors on equipment grounding bars as required for the termination of equipment grounding conductors. In addition to the active circuits, provide pressure connectors for all three-phase spares and spaces.
- E. Conduits: Where metallic conduits terminate without mechanical connection to a metallic housing of electrical equipment by means of lock nut and bushings, provide ground bushing connected with a bare copper conductor to the ground bar in the electrical equipment. Metallic conduits containing ground wiring only shall be bonded to the ground wire at both conduit entrance and exit. Install grounding conductor in each nonmetallic conduit or duct except those used for telephone, sound, or low voltage signals and in all flexible conduit that does not have a built-in ground conductor. Bond the conductor at both ends to the equipment grounding system.
- F. Feeders and Branch Circuits: Provide a separate green insulated equipment grounding conductor for each single or three phase feeder and each branch circuit with a three phase protective device. Provide a separate green insulated equipment grounding conductor for single phase branch circuits where indicated on the drawings. Install the required grounding conductor in the common conduit or raceway with the related phase and/or neutral conductors and connect to the box or cabinet grounding terminal. Where there are parallel feeders installed in more than one raceway each raceway shall have a green insulated equipment ground conductor installed.

- G. Devices: Install a minimum No. 12 green insulated equipment bonding conductor from a grounding terminal in the respective outlet or junction box to the green ground terminal of all receptacles and through flexible conduit to all light fixture housings.
- H. Motors: Install a separate green insulated equipment grounding conductor from the equipment ground bar in the motor control center or separate starter through the conduit and flexible conduit to the ground terminal in the connection box mounted on the motor. Install the grounding conductor in the common conduit or raceway with the related motor circuit conductors.
- 3.04 SEPARATELY DERIVED SYSTEMS: Transformers creating separately derived distribution systems, such as dry type transformers, shall utilize the equipment ground bars in the transformer enclosure for both secondary equipment ground and secondary neutral ground with separate grounding conductor extended to an approved ground electrode.
- 3.05 GROUNDING ELECTRODES: Two service ground electrodes shall be utilized. One shall be the main cold water metallic water piping system and the other shall be a made electrode consisting of not less than twenty feet of bare copper conductor encased along the bottom of a concrete foundation footing which is in direct contact with the earth (NEC 250-H). Make the connections to the cold water pipe inside the building at the point of entrance. The grounding electrode for separately derived systems shall be approved for the application.
- 3.06 GROUNDING CONDUCTORS: The grounding conductors for both service ground electrodes shall be insulated or bare copper, sized in accordance with NEC 250-94, including the conductor for the made electrode. The conductors shall be continuous without joint or splice and shall be installed in conduit with the conduit bonded to the conductor at each end. Install the conductor to permit the shortest and most direct path and terminate in the main service equipment on the common ground point.

Equipment grounding conductors shall be green insulated conductors equivalent to the insulation on the associated phase conductor, but not less than Type TW. The equipment grounding conductor or straps shall be sized in accordance with NEC. Where one feeder serves a series of panelboards of transformers the equipment grounding conductor shall be continuous without splices. Grounding conductors shall not be installed through metal sheathed holes. All connections shall be available for inspection and maintenance.

3.07 GROUND CONNECTIONS: Clean surfaces thoroughly before applying ground lugs or clamps. If surface is coated the coating must be removed down to the bare metal. After the coating has been removed apply a non-corrosive approved compound to cleaned surface and install lugs or clamps. Where galvanizing is removed from metal it shall be painted or touched up with "Galvanox", or equal.

3.08 TESTS: Test the complete grounding system with a megger at the service ground bar and submit a written report to the Architect for approval. The service shall not be energized if the test shows more than 5 ohms, unless approved by the Architect.

END OF SECTION

SECTION 16500

LIGHTING EQUIPMENT

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16010, General Provisions.
- B. Section 16450, Grounding.
- C. Section 16501, Lamps.
- D. Section 16502, Ballasts and Accessories.
- E. Section 16511, Fluorescent Fixtures.

1.03 SUBMITTALS:

- A. Submit for approval complete shop drawings, catalog cuts, special installation instruction, photometric data, descriptive literature, and actual fixture when requested by Architect.
- B. Each fixture submittal shall be inclusive of lamp manufacturer's data for lamp to be furnished for each particular fixture. Review of fixture will not be commenced until this provision has been met.

1.04 PRIOR APPROVAL: All proposed substitutions to the specified fixtures shall be submitted for approval a minimum of 10 working days prior to bid opening. The submittal for approval shall include all data called for in submittals along with an actual fixture proposed to be substituted. When a substitution is accepted as an equal and the substituted fixture is awarded for this contract as the fixture to be furnished, then the substituted fixture may be retained by the contractor and shall be the last fixture of that type to be installed on this project. All of the same type fixtures shall be equal to or better than that fixture retained.

PART 2 - PRODUCTS

- 2.01 GENERAL: Furnish all lighting fixtures throughout of the type indicated on the drawings, complete with lamps, sockets, wiring, fitters, etc., as required.

PART 3 - EXECUTION

- 3.01 CLEAN UP: At final inspection the fixtures and lighting equipment shall be in first class operating order, in perfect condition as to finish, free from defects, completely lamped, clean and free from dust, plaster or paint spots, and complete with the required glassware, reflectors, side panels, louvers or other components necessary to complete the fixtures.

END OF SECTION

SECTION 16501

LAMPS

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16500, Lighting Equipment.
- B. Section 16502, Ballasts and Accessories.
- C. Section 16450, Grounding.

PART 2 - PRODUCTS

- 2.01 HIGH PRESSURE SODIUM LAMPS: High pressure sodium lamps shall be clear, mogul base with an apparent color temperature of 2100 degree K, or as indicated. Lamps shall be furnished for proper lamp burning position as determined by fixture installed within.

- 2.02 MANUFACTURERS: General Electric, Sylvania, Westinghouse, or an approved equal. Where a specific manufacturer's product is mentioned, then it shall be so furnished.

PART 3 - EXECUTION

- 3.01 INSTALLATION: The Contractor shall install new lamps in all lighting fixtures. Installation of the new lamps shall be made seven (7) days before final inspection, unless otherwise approved by the Architect.

END OF SECTION

SECTION 16502

BALLASTS AND ACCESSORIES

PART 1 - GENERAL

1.01 CONDITIONS:

- A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

1.02 RELATED WORK IN OTHER SECTIONS:

- A. Section 16500, Lighting Equipment.
- B. Section 16450, Grounding.
- C. Section 16501, Lamps.

PART 2 - PRODUCTS

- 2.01 GENERAL: Ballast shall be supplied for the voltage that the fixture is connected to. All ballast shall be high power factor and UL listed.

2.02 BALLASTS:

- A. High-pressure sodium ballasts shall be manufactured with the following features:
 - 1. .125 minimum thickness extruded aluminum housing with heat dissipating fins.
 - 2. Die cast aluminum end cap closure.
 - 3. Thermally isolated capacitor enclosed in a diecast compartment with easy access for serviceability.
 - 4. Constant auto-stablized, high power factor.
 - 5. Core coil encapsulated in a thermally conductive Class F (155 degree C.), insulation material which isolates sound attenuating vibration.

- 2.03 MANUFACTURERS: Advance, General Electric, Jefferson, Universal, Halo, Prescolite, or approved equal for function specified.

PART 3 - EXECUTION

- 3.01 INSTALLATION: All ballasts shall be installed within specific features in a manner so as to assure a completely silent operation with attainment of maximum ballast life.

END OF SECTION

CITY OF ALBUQUERQUE



May 31, 2006

Scott McGee, PE
Isaacson & Arfman
128 Monroe St NE
Albuquerque, NM 87108

Re: Phil Chacon Park Phase 8 Grading and Drainage Plan
Engineer's Stamp dated 5-12-06 (L19/D45)

Dear Mr. McGee,

P.O. Box 1293

Based upon the information provided in your submittal dated 5-11-06, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3986.

New Mexico 87103

www.cabq.gov

C: file

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 01/06 - KDM)

05/06 Phase 8

PROJECT TITLE: PHIL CHACON - NM VETERANS MEMORIAL PARK ZONE MAP: L-19/D45
 DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: A PORTION OF THE FEDERAL AID LOOP
 CITY ADDRESS: _____

ENGINEERING FIRM: ISAACSON & ARFMAN CONTACT: SCOTT MCGEE
 ADDRESS: 128 MONROE NE PHONE: 268-8828
 CITY, STATE: ABQ NM ZIP CODE: 87108

OWNER: COA CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: CHERRY SEE ARCHITECTS CONTACT: TINA REAMES
 ADDRESS: 220 GOLD SW PHONE: 842-1278
 CITY, STATE: ABQ NM ZIP CODE: 87102

SURVEYING FIRM: SURVEYING CONTROL INC. CONTACT: STEVE TOLER
 LICENSED SURVEYOR: STEVE TOLER LS no. 11599
 Date Survey was performed 10/20/05 NMPS
 ADDRESS: 131 MADISON NE PHONE: 266-6670
 CITY, STATE: ABQ NM ZIP CODE: 87108

CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

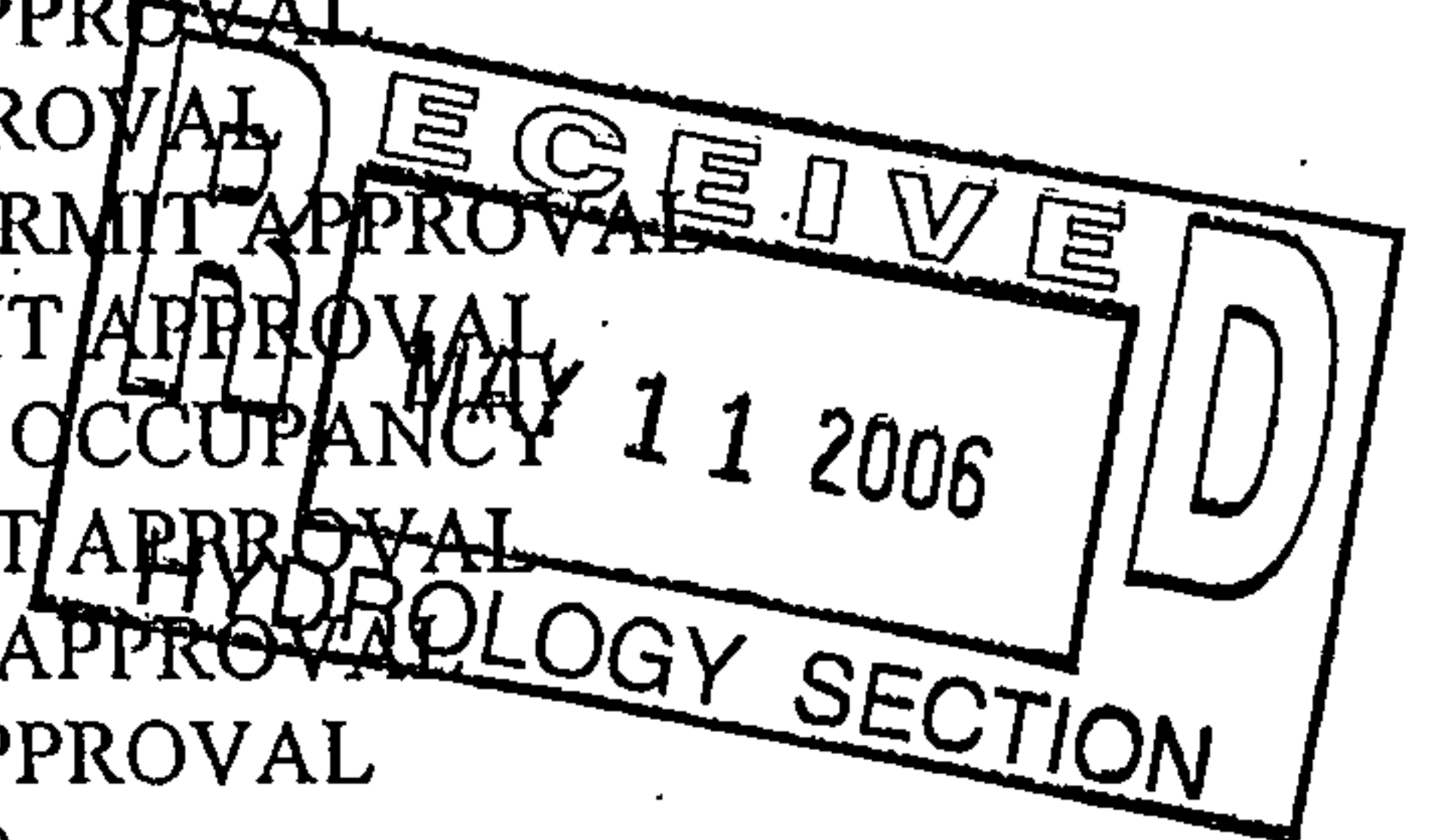
TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ OTHER (SPECIFY)

Need fee CTP/NO Fee

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D APPROVAL
- ☐ S. DEV. FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)



WAS A PRE-DESIGN CONFERENCE ATTENDED:

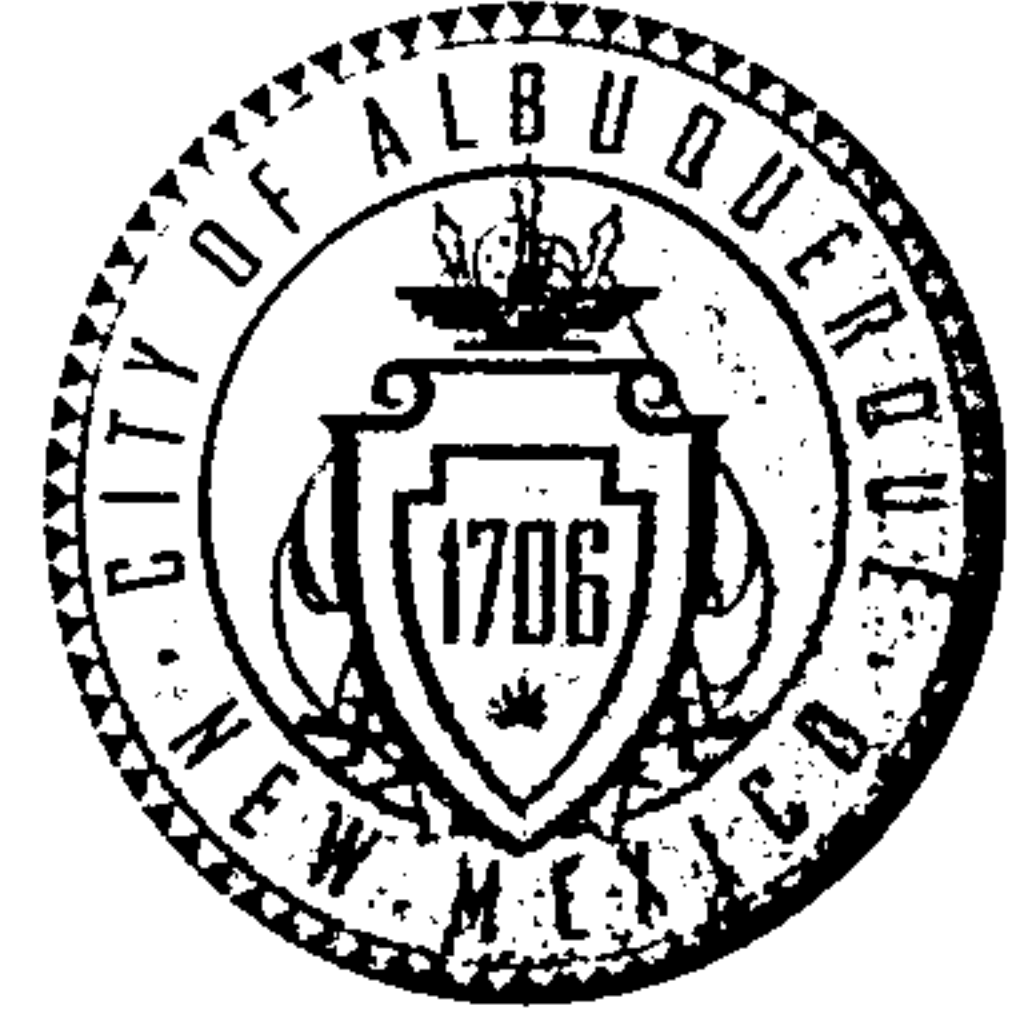
- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 5-11-06 BY: SCOTT MCGEE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. Drainage Report: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



May 8, 2009

Tina Reames, R.A.
Cherry / See / Reames Architects
220-A Gold Ave. SW
Albuquerque, NM 87102

**Re: Phil Chacon / NM Veterans Memorial Park Maintenance Yard / Storage
Building Addition Phase 8, 1100 Louisiana Blvd SE,
Certificate of Occupancy – Transportation Development
Architect's Stamp dated 07-17-06 (L19-D045)
Certification dated 05-08-09**

Dear Ms. Reames,

PO Box 1293

Based upon the information provided in your submittal received 05-08-09, the
above referenced certification is approved for release of permanent Certificate of
Occupancy by Transportation Development.

Albuquerque

If you have any questions, you can contact me at 924-3991.

NM 87103

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

www.cabq.gov

C: CO Clerk
File

L-19/D045

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 12/2005)

PROJECT TITLE: Phil Chacon - NM VM - Ph VIII ZONE MAP: L-19-2
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Federal Aid Loop deeded to CMA for Park Use
CITY ADDRESS: 1100 Louisiana Blvd SE ABQ, NM 87108

ENGINEERING FIRM: Bacchus Consulting CONTACT: _____
ADDRESS: 630 Manzano St NE Suite D PHONE: 262-2471
CITY, STATE: ABQ NM 87110 ZIP CODE: 87110

OWNER: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: Cherry See Reames CONTACT: Tina
ADDRESS: 220 A Gold SW PHONE: 842-1278
CITY, STATE: ABQ NM ZIP CODE: 87102

SURVEYOR: Isaacson & Artman / Surveying Control Inc CONTACT: _____
ADDRESS: 128 Monroe St NE PHONE: 268-8828
CITY, STATE: ABQ NM ZIP CODE: 87108

CONTRACTOR: Vigil Contracting SI CONTACT: Juan / Loren
ADDRESS: 1514 Coors SW PHONE: 877-6325
CITY, STATE: ABQ NM ZIP CODE: 87121

TYPE OF SUBMITTAL:
____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ OTHER (SPECIFY) _____

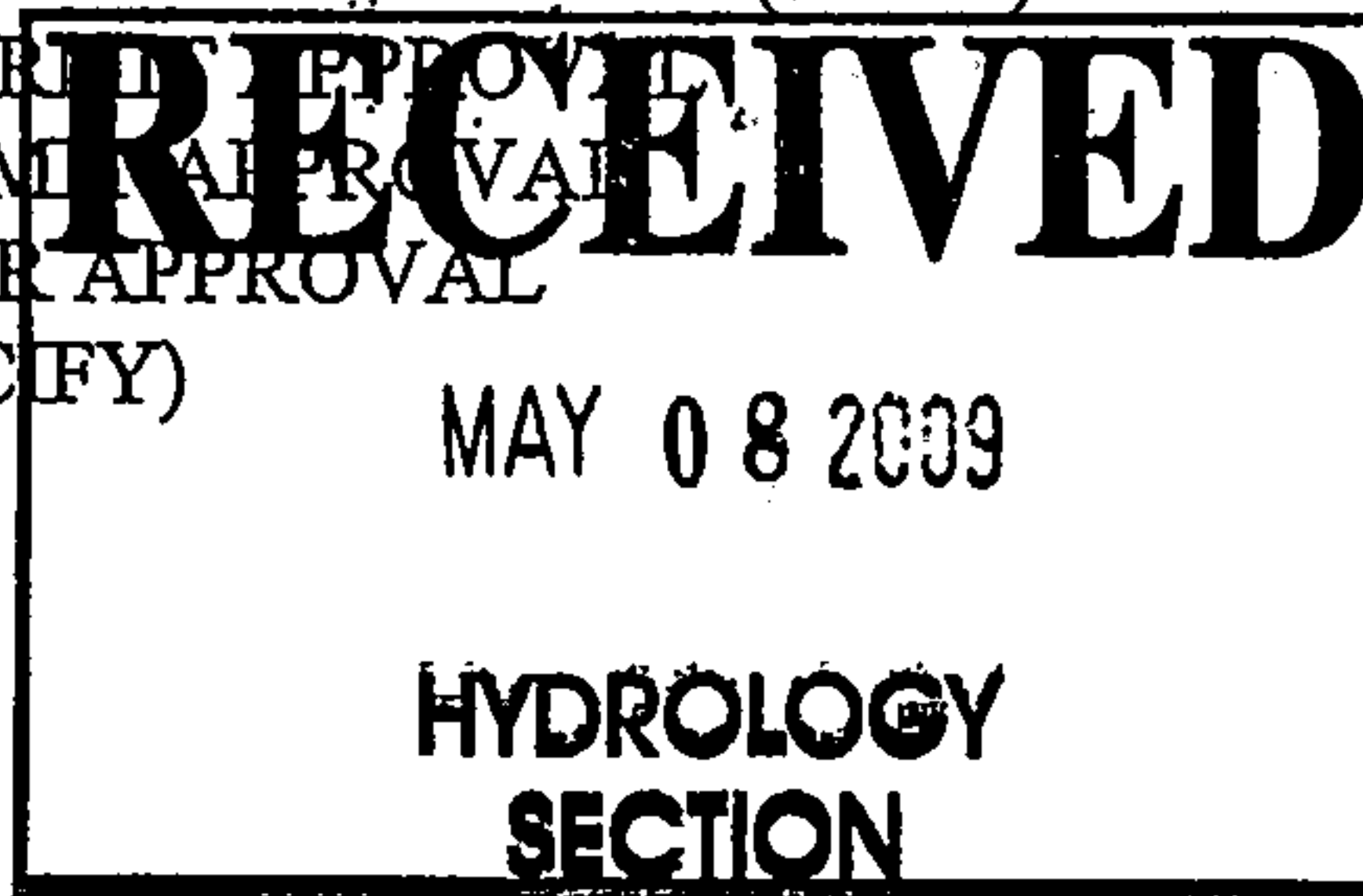
CHECK TYPE OF APPROVAL SOUGHT:
____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
____ ☒ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TEMP)
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:
____ YES
____ NO
____ COPY PROVIDED

DATE SUBMITTED: 5/7/09 BY: Juan Vigil

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. Drainage Report: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.



c h e r r y / s e e / r e a m e s a r c h i t e c t s L L P

TRAFFIC CERTIFICATION

for

Phil Chacon - NMVM – Phase VIII Maintenance Yard Storage Building
City of Albuquerque Project No. 6380.99

I, Tina Reames, AIA, of the firm Cherry/See/Reames Architects, LLP, hereby certify that this project is in substantial compliance with and in accordance with the design intent of the TCL Approved plan dated July 18, 2006. The record information edited onto the original design document has been obtained by Tina Reames of the firm Cherry/See/Reames Architects, LLP. I further certify that I have personally visited the project site on May 6, 2009 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for a Certificate of Occupancy.

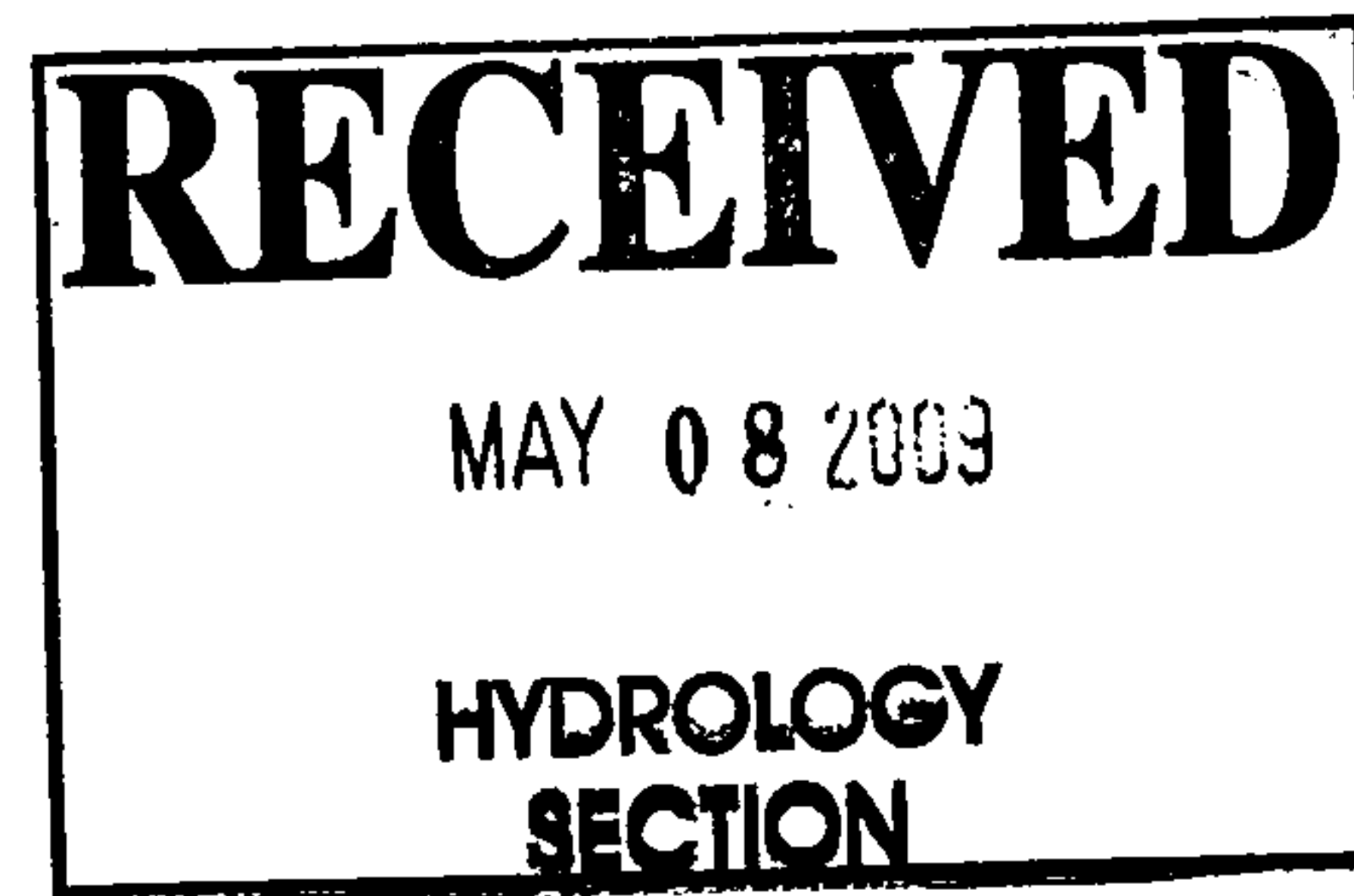
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.



Tina M. Reames, AIA, LEED AP
Partner

5/8/09

Date



FACSIMILE

DATE: 5/8/09

COMPANY: COA Transportation Richard Dougherty

FAX NUMBER: 924-3930

NUMBER OF SHEETS TO FOLLOW: 1

FROM: Tina Reames

Cherry/See/Reames Architects, LLP
220 Gold Avenue SW
Albuquerque, NM 87102
505-842-1278 Fax 505-766-9269

Kristal-
Pls create
a letter
for file
for perm.
CO. Rich

If you did not receive the full copy, or transmittal was not clear, please call.

Remarks:

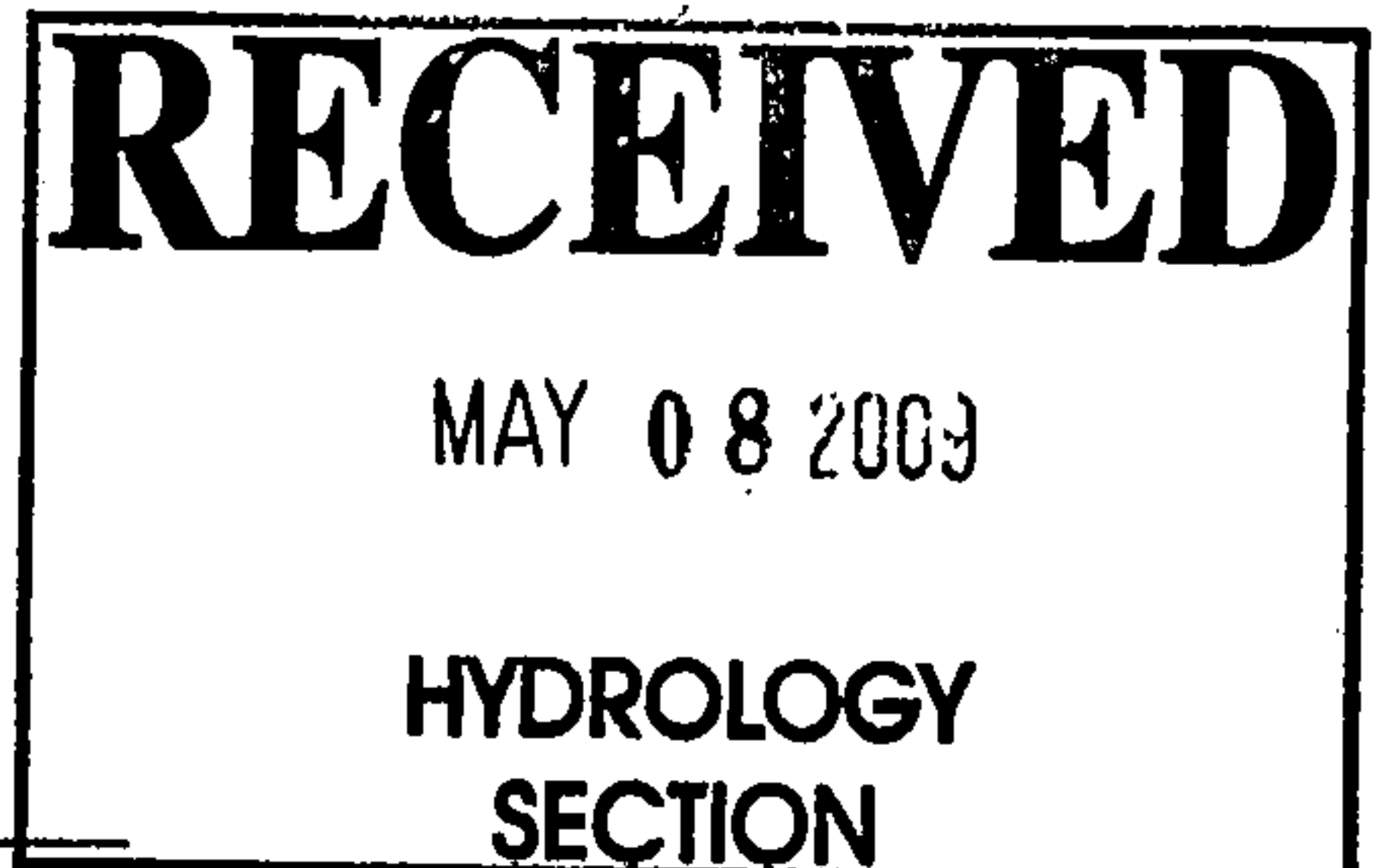
Hi Richard,
Thank you for letting me fax you.
Please let me know if I need to change
anything else or if it's good to go.
I can have the original delivered.

Thank you,

Tina

Signed: Tina

Cherry/See/Reames Architects, LLP



CITY OF ALBUQUERQUE



July 18, 2006

D. James See, R.A.
Edith Cherry / D. James See Architects
220-A Gold Ave. SW
Albuquerque, NM 87102

Re: Phil Chacon / NM Vetrans Memorial Park Maintenance Yard / Storage Building
Addition Phase 8, Traffic Circulation Layout
Architect's Stamp dated 7-17-06 (L19-D45)

Dear Mr. See,

The TCL submittal received 7-17-06 is approved for Building Permit. The plan is stamped and signed as approved. A copy of this plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation. **Public infrastructure or work done within City Right-of-Way shown on these plans is for information only and is not part of approval. A separate DRC and/or other appropriate permits are required to construct these items.**

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

If a temporary CO is needed, a copy of the original TCL that was stamped as approved by the City will be needed. This plan must include a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance," as well as the signed and dated stamp of a NM registered architect or engineer. Submit this TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

When the site is completed and a final C.O. is requested, use the original City stamped approved TCL for certification. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

cc: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 12/2005)

PROJECT TITLE: Phil Chacon Park NM Veterans Memorial Maintenance Yard Storage Building ZONE MAP: L-19-445
 DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: _____

CITY ADDRESS: 1100 Louisiana Blvd. SE

ENGINEERING FIRM: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

OWNER: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

ARCHITECT: Cherry/See/Reames Architects

ADDRESS: 250 Gold Ave. SW

CITY, STATE: Albany, NM

CONTACT: Tina or Jennifer

PHONE: 842-1278

ZIP CODE: 87102

SURVEYOR: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

CONTRACTOR: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☒ TRAFFIC CIRCULATION LAYOUT
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D APPROVAL
- ☐ S. DEV. FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☒ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 7/14/06

BY: Tina Reames
Cherry/See/Reames

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

Mr. D. James See, R.A. (#959)
Cherry/See Architects
220-A Gold Ave SW
Alb, NM 87102

List radii for all curves shown

Define width of all sidewalks

What is the width of the ~~proposed~~ turnoff?

Show a detail of the wheelchair ramps located
at the proposed driveway, or refer to
the appropriate City Standard

Clarify what is proposed vs existing

Is there a median break at the site?

List the aisle widths

What are your dimensions for the
handicapped spaces?

CITY OF ALBUQUERQUE



July 24, 2006

Scott McGee, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: Phil Chacon - New Mexico Veterans Memorial Park, Grading and
Drainage Master Plan**

Engineer's Stamp dated 6-13-06 (L19-D45)

Dear Mr. McGee,

Based upon the information provided in your submittal received 6-19-06, the
above referenced plan cannot be approved for Revised Master Plan or Grading Permit
until the following comments are addressed:

- Your revised master grading and drainage plan does not provide any
elevation data. The previously approved master plan provides contours,
spot elevations, and the location of all drainage infrastructure. Please add
these items to your plan prior to the next submittal.

If you have any questions, you can contact me at 924-3981.

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: File

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 01/06 - KDM)
05/06

PROJECT TITLE: PHIL CHACON - NM VETERANS MEMORIAL PARK ZONE MAP: L-19/D45
 DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: A PORTION OF THE FEDERAL AID LOOP
 CITY ADDRESS: _____

ENGINEERING FIRM: ISAACSON & ARFMAN CONTACT: SCOTT MCGEE
 ADDRESS: 128 MONROE NE PHONE: 268-8828
 CITY, STATE: ABQ NM ZIP CODE: 87108

OWNER: COA CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: CHERRY SEE ARCHITECTS CONTACT: TINA REAMES
 ADDRESS: 220 GOLD SW PHONE: 842-1278
 CITY, STATE: ABQ NM ZIP CODE: 87102

SURVEYING FIRM: SURVEYING CONTROL INC. CONTACT: STEVE TOLER
 LICENSED SURVEYOR: STEVE TOLER ES no. 11599
 Date Survey was performed 10/20/05 NMPS
 ADDRESS: 131 MADISON NE PHONE: 266-6670
 CITY, STATE: ABQ NM ZIP CODE: 87108

CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☒ OTHER (SPECIFY)

REVISED DRAINAGE MASTERPLAN

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D APPROVAL
- ☐ S. DEV. FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ GRADING PERMIT APPROVAL
- ☒ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☒ OTHER (SPECIFY)

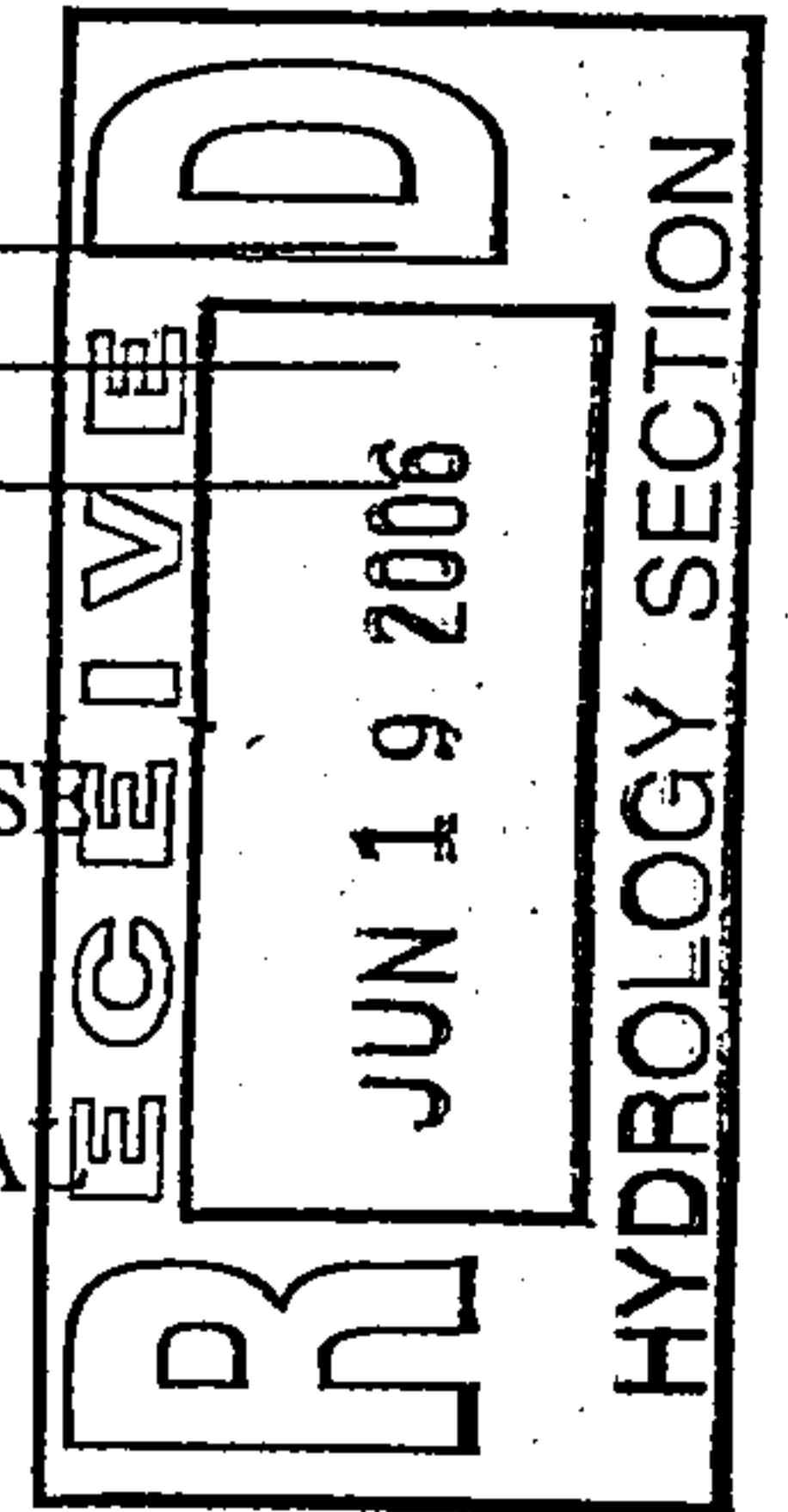
DRAINAGE MASTERPLAN

No fees / CIP

DATE SUBMITTED: 6-19-06 BY: SCOTT MCGEE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.



PAVE, MP

Master Plan -
no elevations shown on new submittal



X

X

by [illegible] [illegible]

by [illegible] [illegible]

do-pi-el



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 22, 2003

Scott McGee, PE
Isaacson & Arfman
128 Monroe St NE
Albuquerque, NM 87108

**Re: Phil Chacon Park Revised Master Grading and Drainage Plan
Engineer's Stamp dated 4-24-03 (L19/D45)**

Dear Mr. McGee,

Based upon the information provided in your submittal dated 4-25-03, the above referenced plan is approved for Site Development for Building Permit action by the DRB.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, Planning Dept.
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

L-19/D45

PROJECT TITLE: PHIL CHACON PARK PHASE 7 ZONE MAP/DRG. FILE #: L-19
 DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: FEDERAL AID LOOP
 CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
 ADDRESS: 128 Monroe Street NE
 CITY, STATE: Albuquerque, NM

CONTACT: SCOTT MCGEE
 PHONE: (505) 268-8828
 ZIP CODE: 87108

OWNER: COA PARKS DEPT
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

ARCHITECT: CHERRY SEE
 ADDRESS: 220 GOLD AVE SW
 CITY, STATE: _____

CONTACT: TINA REAMES
 PHONE: 842-1278
 ZIP CODE: _____

SURVEYOR: ALS
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: TIM ALDRICH
 PHONE: 884-1990
 ZIP CODE: _____

CONTRACTOR: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

- CHECK TYPE OF SUBMITTAL:**
- _____ DRAINAGE REPORT
 - _____ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
 - _____ DRAINAGE PLAN RESUBMITTAL
 - ☒ **CONCEPTUAL GRADING & DRAINAGE PLAN ***
 - _____ GRADING PLAN
 - _____ EROSION CONTROL PLAN
 - _____ ENGINEER'S CERTIFICATION (HYDROLOGY)
 - _____ CLOMR/LOMR
 - _____ TRAFFIC CIRCULATION LAYOUT (TCL)
 - _____ ENGINEERS CERTIFICATION (TCL)
 - _____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
 - _____ OTHER

- CHECK TYPE OF APPROVAL SOUGHT:**
- _____ SIA / FINANCIAL GUARANTEE RELEASE
 - _____ PRELIMINARY PLAT APPROVAL
 - _____ S. DEV. PLAN FOR SUB'D. APPROVAL
 - ☒ **S. DEV. PLAN FOR BLDG. PERMIT APPROVAL**
 - _____ SECTOR PLAN APPROVAL
 - _____ FINAL PLAT APPROVAL
 - _____ FOUNDATION PERMIT APPROVAL
 - _____ BUILDING PERMIT APPROVAL
 - _____ CERTIFICATE OF OCCUPANCY (PERM.)
 - _____ CERTIFICATE OF OCCUPANCY (TEMP.)
 - _____ GRADING PERMIT APPROVAL
 - _____ PAVING PERMIT APPROVAL
 - _____ WORK ORDER APPROVAL
 - _____ OTHER (SPECIFY)

RECEIVED
 APR 25 2003
 HYDROLOGY SECTION

*** REVISED - PREVIOUSLY APPROVED**

WAS A PRE-DESIGN CONFERENCE ATTENDED:
 _____ YES
 _____ NO
 _____ COPY PROVIDED

DATE SUBMITTED: 4/25/03 BY: Scott McGee

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



August 25, 2006

Scott McGee, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: Phil Chacon - New Mexico Veterans Memorial Park, Grading and
Drainage Plan**

Engineer's Stamp dated 6-13-06 (L19-D45)

Dear Mr. McGee,

Based upon the information provided in your submittal received 6-19-06, the above referenced plan is approved for Paving Permit and Grading Permit. Upon completion of the project, please provide an Engineer Certification for our files.

P.O. Box 1293

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions regarding this permit please feel free to call the DMD Storm Drainage Design section at 768-3654 (Charles Caruso).

Albuquerque

If you have any questions, you can contact me at 924-3981.

New Mexico 87103

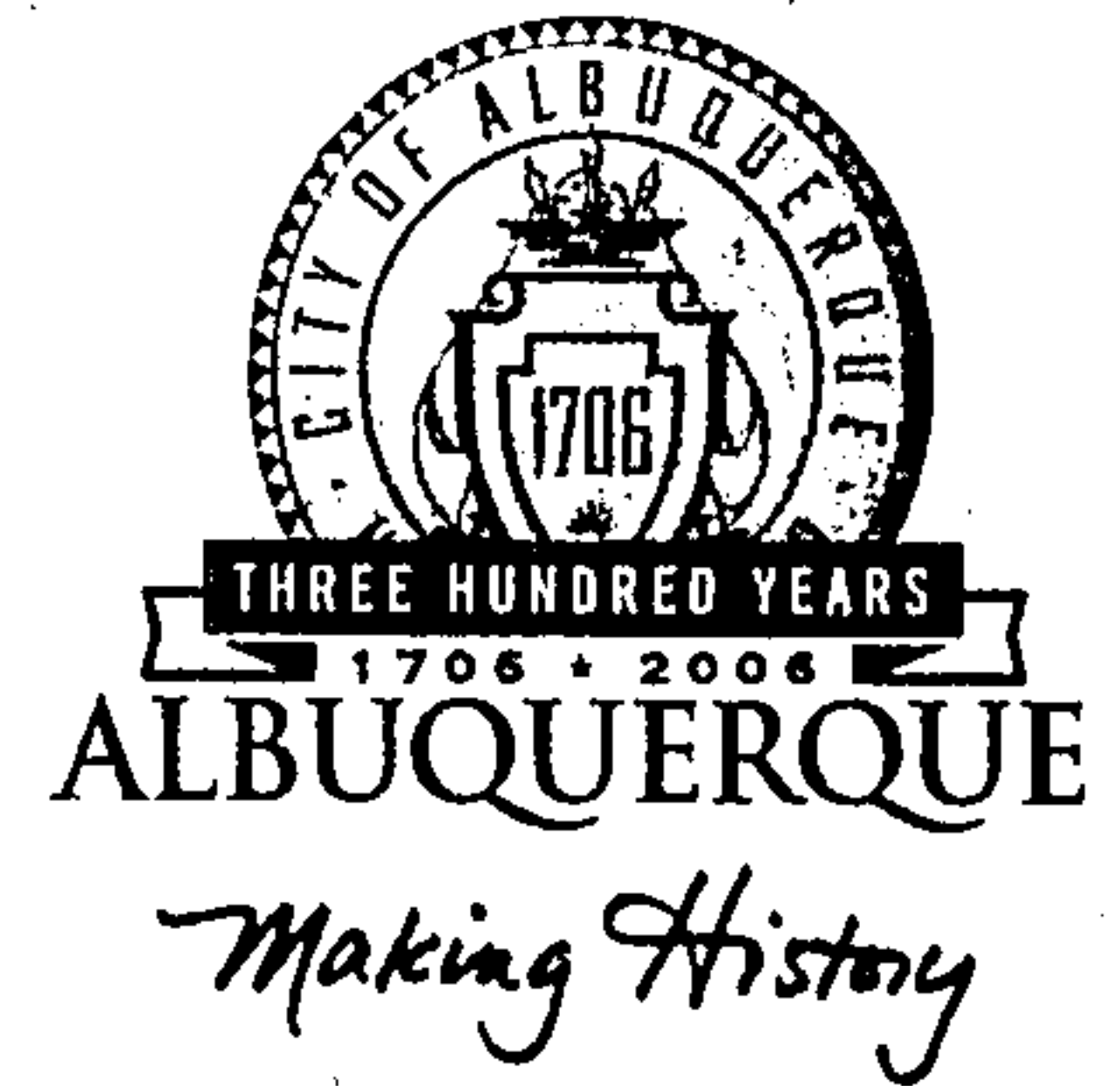
Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

www.cabq.gov

C: Charles Caruso, DMD Storm Drainage Design
file

CITY OF ALBUQUERQUE



September 9, 2005

Mr. Scott McGee, P.E.
ISAACSON & ARFMAN, PA
120 Monroe St. NE
Albuquerque, NM 87108

Re: PHIL CHACON PARK, PHASE 7
Louisiana Blvd. and Gibson Blvd. SE
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 08/29/2003 (L-19/D45)
Certification dated 09/09/2005

Dear Scott:

Based upon the information provided in your submittal received 09/09/2005, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept. - Hydrology
Development and Building Services

C: Phyllis Villanueva
File

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: PHIL CHACON PARK PHASE 7 ZONE MAP/DRG. FILE #: L-19 / D45
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: FEDERAL AID LOOP
CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe Street NE
CITY, STATE: Albuquerque, NM

CONTACT: SCOTT MCGEE
PHONE: (505) 268-8828
ZIP CODE: 87108

OWNER: COA PARKS DEPT
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

ARCHITECT: CHERRY SEE
ADDRESS: 220 GOLD AVE SW
CITY, STATE: _____

CONTACT: TINA REAMES
PHONE: 842-1278
ZIP CODE: _____

SURVEYOR: ALS
ADDRESS: _____
CITY, STATE: _____

CONTACT: TIM ALDRICH
PHONE: 884-1990
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

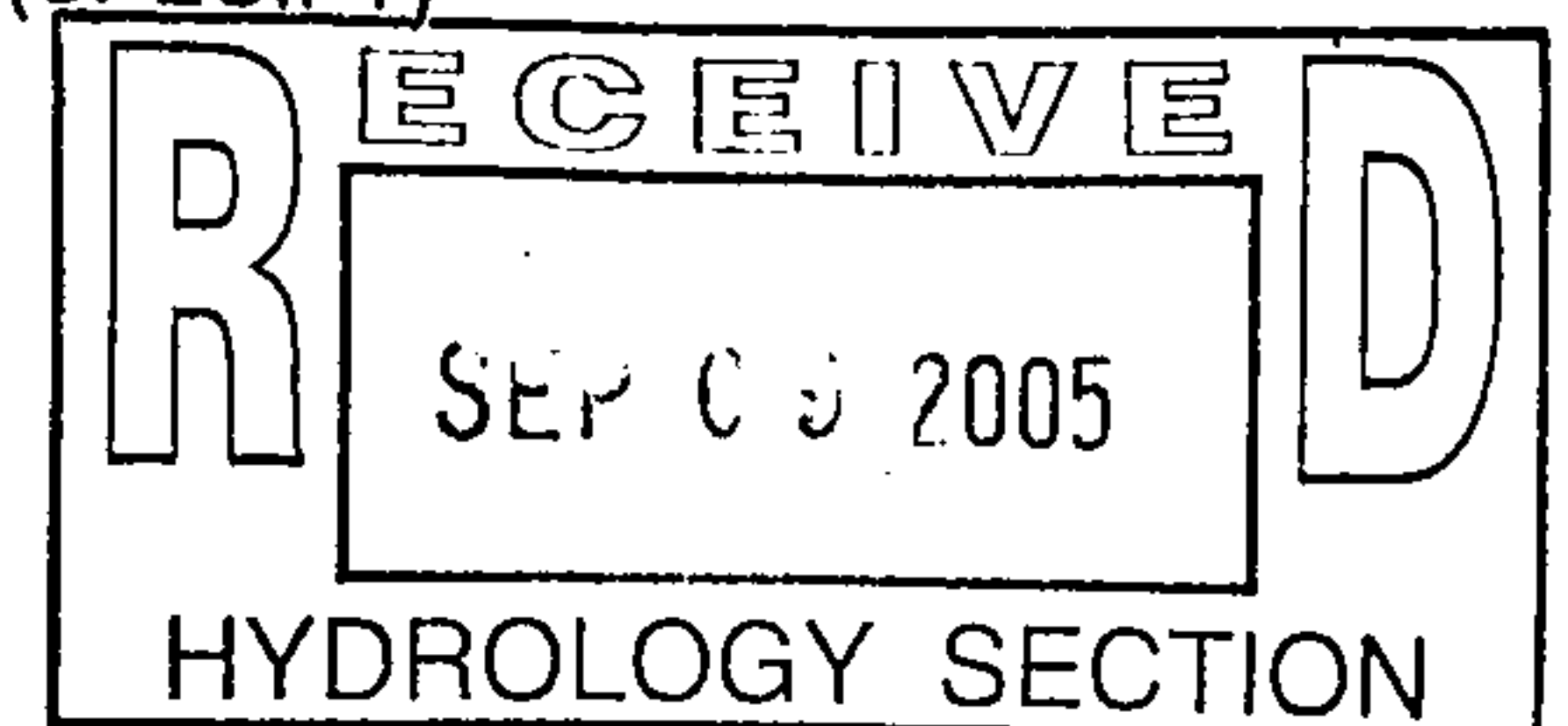
*** REVISED - PREVIOUSLY APPROVED**

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: 9/9/05 BY: Scott McGee

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 19, 2003

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe St NE
Albuquerque, NM 87108

**Re: Phil Chacon Park Phase 7, Federal Aid Loop (Louisiana / Gibson SE),
Grading and Drainage Plan
Engineer's Stamp dated 8-29-03 (L19/D45)**

Dear Mr. McGee,

Based upon the information provided in your submittal dated 8-29-03, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Public Works Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Brian Wolfe).

Sincerely,

Kristal D. Metro
Engineering Associate, Planning Dept.
Development and Building Services
BLS

C: Charles Caruso, Public Works Hydrology
file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: PHIL CHACON PARK PHASE 7 ZONE MAP/DRG. FILE #: L-19 / D45
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: FEDERAL AID LOOP
CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe Street NE
CITY, STATE: Albuquerque, NM

CONTACT: SCOTT MCGEE
PHONE: (505) 268-8828
ZIP CODE: 87108

OWNER: COA PARKS DEPT
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

ARCHITECT: CHERRY SEE
ADDRESS: 220 GOLD AVE SW
CITY, STATE: _____

CONTACT: TINA REAMES
PHONE: 842-1278
ZIP CODE: _____

SURVEYOR: ALS
ADDRESS: _____
CITY, STATE: _____

CONTACT: TIM ALDRICH
PHONE: 884-1990
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☒ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN *
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

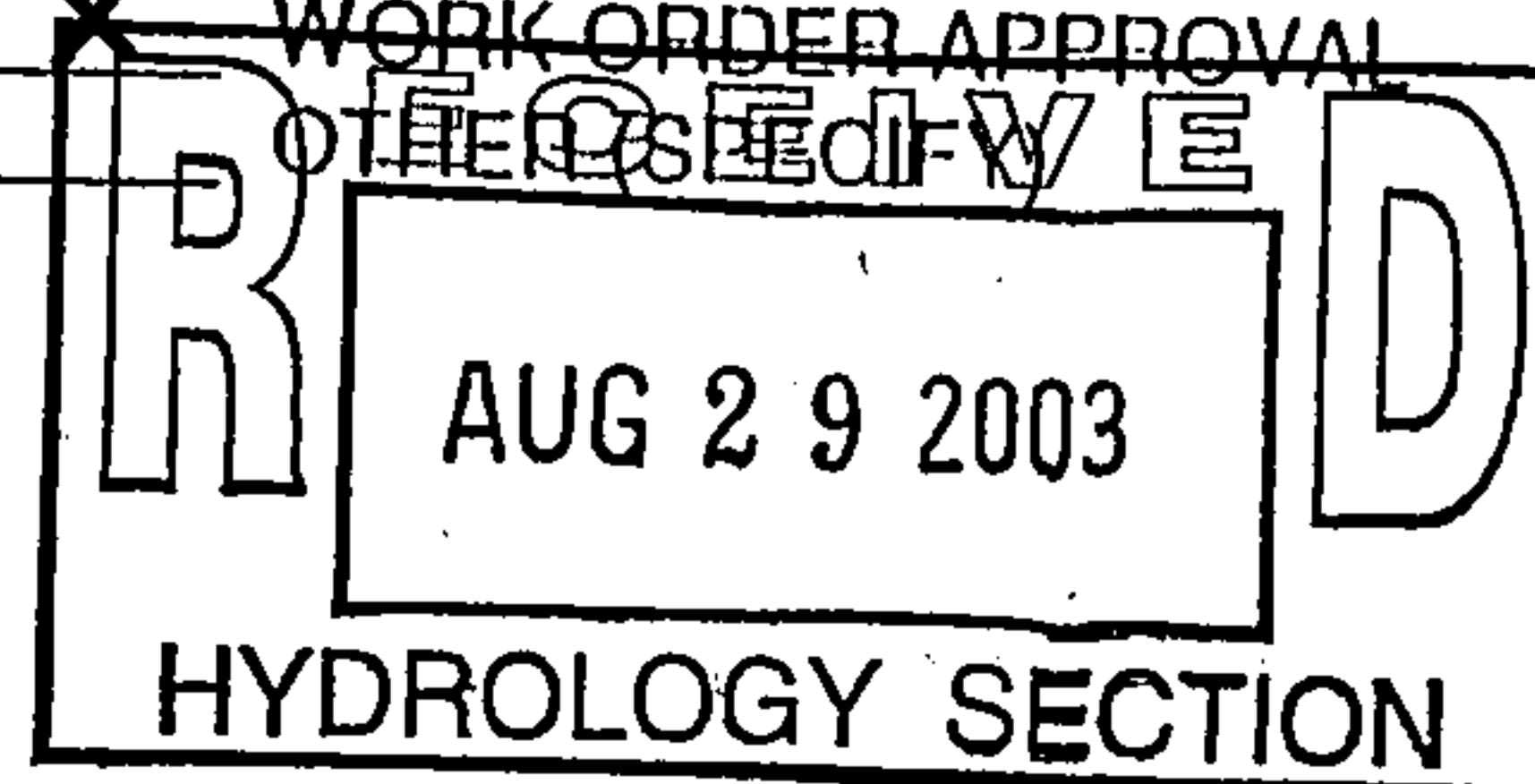
* REVISED ~ PREVIOUSLY APPROVED

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☒ WORK ORDER APPROVAL
- ☐ OTHER SPECIFY _____



DATE SUBMITTED: 8/29/03 BY: Scott McGee

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 24, 2001

Scott McGee, P.E.
Issacson & Arfman
128 Monroe NE
Albuquerque, New Mexico 87108

RE: PHIL CHACON PARK- PHASE 5 (VISITORS CENTER) (L-19/D45)
(Louisiana & Gibson Blvd SE)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 5/1/2000
ENGINEERS CERTIFICATION DATED 5/24/2001

Dear Mr. McGee:

Based upon the information provided in your Engineers Certification submittal dated 5/24/2001, the above referenced site is approved for Permanent Certificate of Occupancy.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Public Works Department

C: Vickie Chavez, COA
approval file
- drainage file



David L. Cates

To: Teresa A. Martin/PWD/CABQ@COA

05/24/01 10:51 AM

cc:

Subject: Phil Chacon Visitors' Center

Terry,

The City has a grand opening planned for the Phil Chacon Visitors' Center in conjunction with the Memorial Day festivities. It is critical that we have a temporary certificate of occupancy for the facility by tomorrow. I have inspected the site grading and drainage and find that the site will properly drain. I appreciate your help in this matter. If you need any more information, please feel free to give me a call at 768-2519. Thanks.

Iressa,

This is the engineers

Certification for

Phil Chacon Water Center

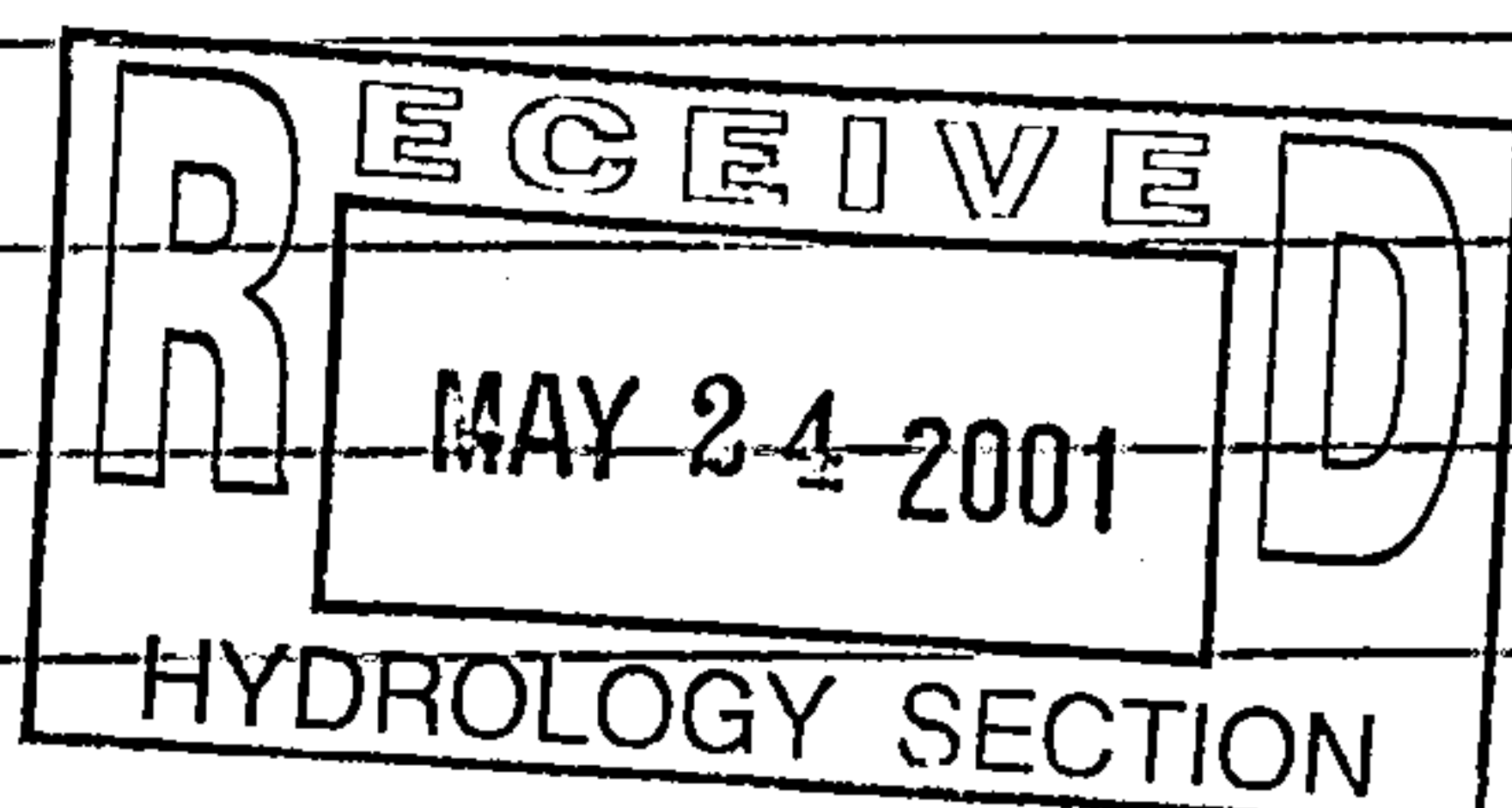
Please call ASAP

Thank you

April

Enterprise Builders

857-0050



A.M.)

@ 10:50



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 3, 2000

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

***RE: PHIL CHACON PARK, PHASE V (L19-D45). GRADING AND DRAINAGE PLAN
FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED MAY 1,
2000.***

Dear Mr. McGee:

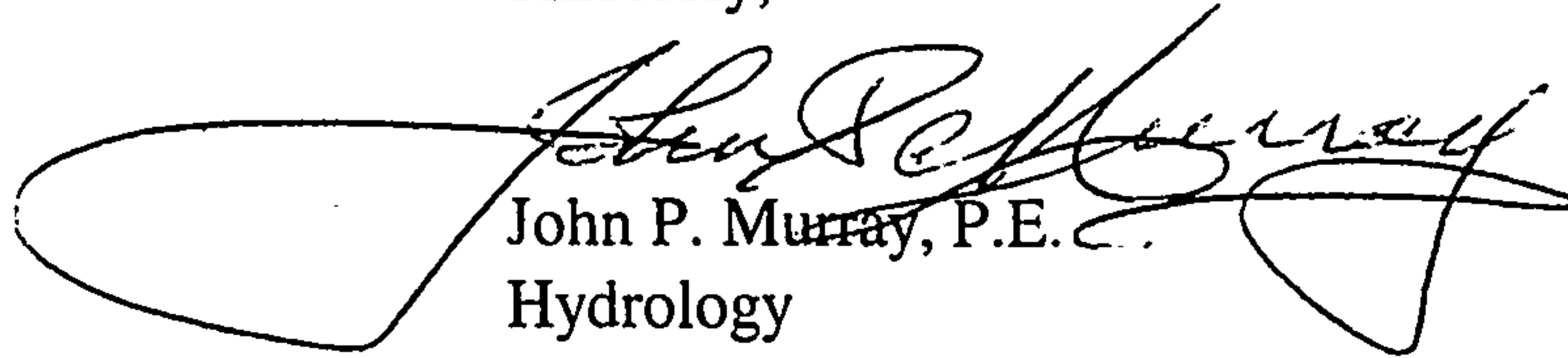
Based on the information provided on your May 1, 2000 submittal, the above referenced project is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,


John P. Murray, P.E.
Hydrology

c: Whitney Reiersen
✓ File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: PHIL CHACON PARK ZONE ATLAS/DRAINAGE FILE # L-19/D45

LEGAL DESCRIPTION: PHASE V FEDERAL AID LOOP

CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: I & A CONTACT: SCOTT MCGEE

ADDRESS: 128 MONROE NE PHONE: 268-8828

OWNER: COA - PARKS & GENERAL SERVICES CONTACT: COLLEEN FRENZ

ADDRESS: _____ PHONE: 857-8640

ARCHITECT: CHERRY SEE CONTACT: EDIE CHERRY

ADDRESS: 220 A GOLD AVE SW PHONE: 842-1278

SURVEYOR: ALS CONTACT: TIM ALDRICH

ADDRESS: _____ PHONE: 884-1990

CONTRACTOR: UNKN

ADDRESS: _____

PRE-DESIGN MEETING:

____ YES

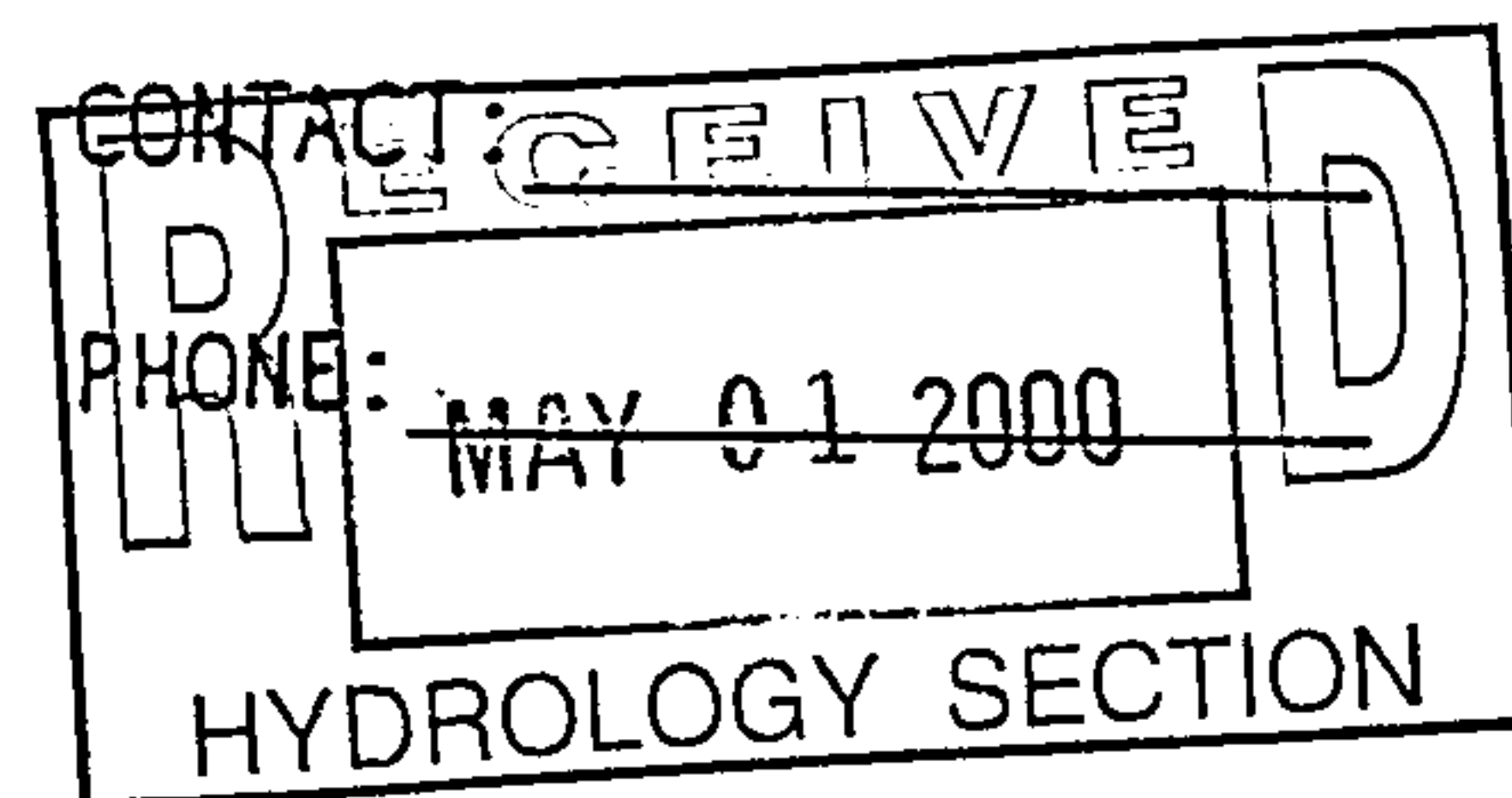
X NO

____ COPY OF CONFERENCE
RECAP SHEET PROVIDED

DRB NO. _____

EPC NO. Z-94-114

PROJECT NO. 6780.91



TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAIN PLAN

X GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SECTOR PLAN APPROVAL

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APPROVAL

____ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

____ FOUNDATION PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 5-1-00

BY: Scott McGee



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 13, 2000

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

PHASE 4

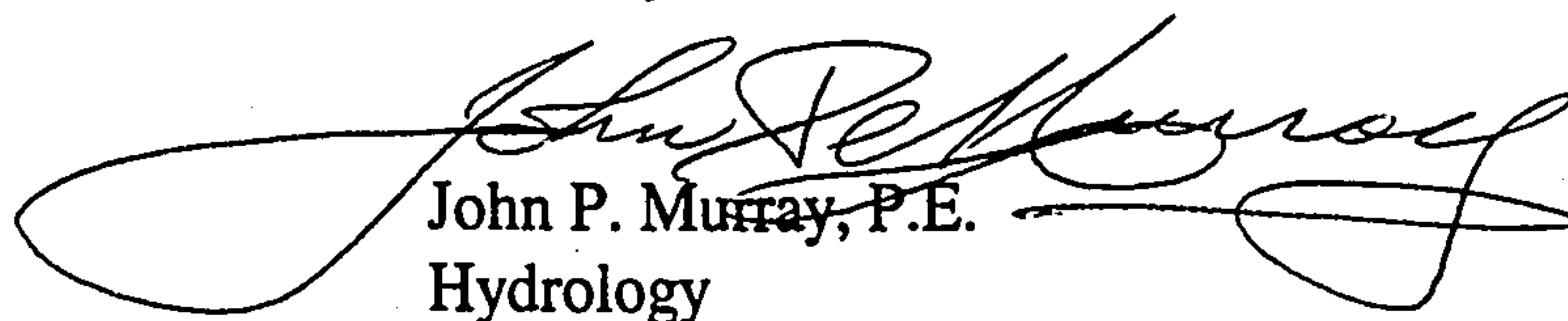
**RE: PHIL CHACON PARK (L19-D45). ENGINEER'S CERTIFICATION OF GRADING
AND DRAINAGE PLAN FOR CERTIFICATION OF OCCUPANCY APPROVAL.
ENGINEER'S STAMP DATED NOVEMBER 17, 1999.**

Dear Mr. McGee:

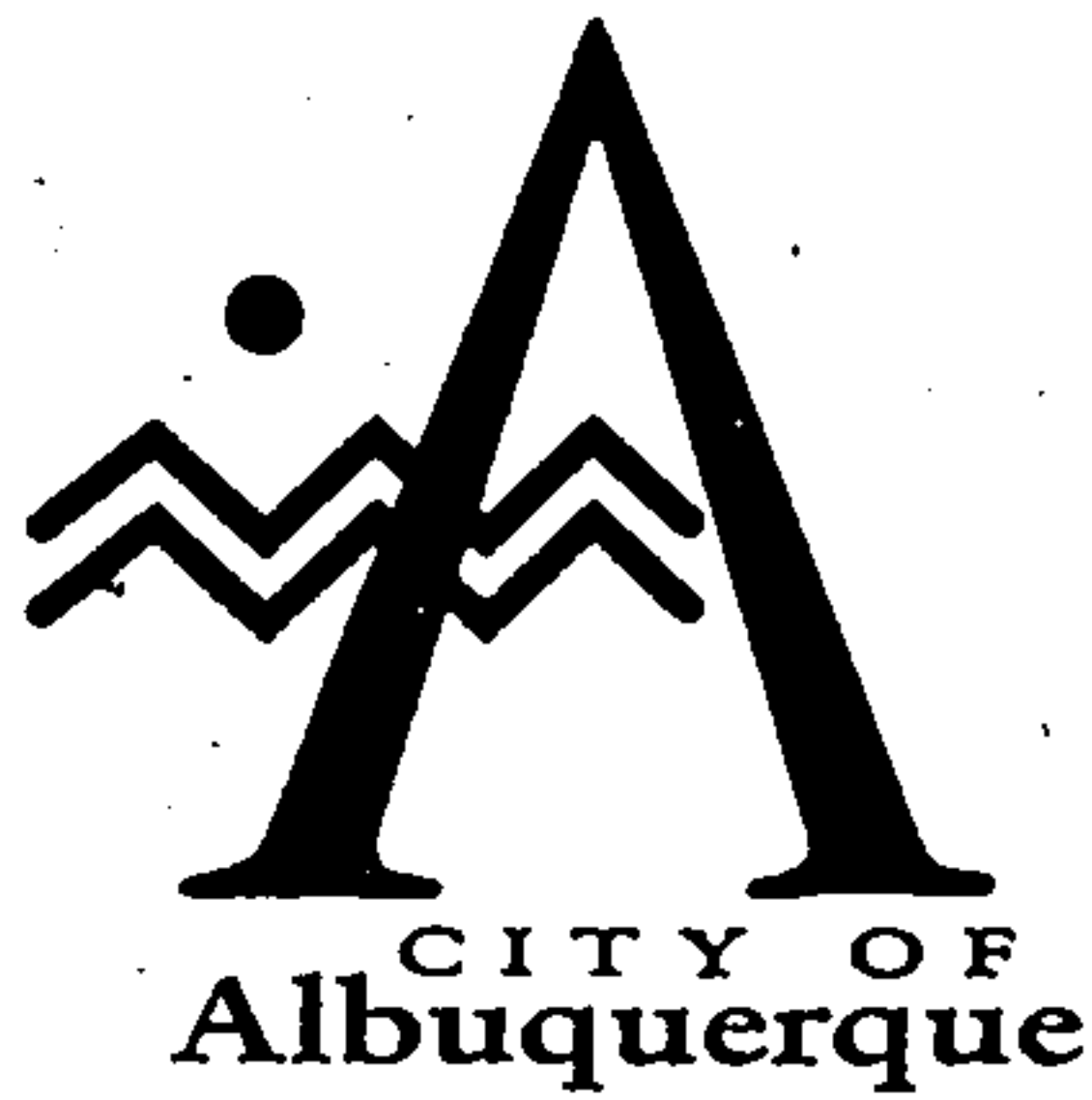
Based on the information provided on your November 17, 1999 submittal, the above referenced project is approved for Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,


John P. Murray, P.E.
Hydrology

c: ☒ WR
☒ File



July 24, 1998

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, New Mexico 87109

RE: ENGINEER CERTIFICATION FOR CESAR E. CHAVEZ COMMUNITY CENTER
(L19-D45) CERTIFICATION STATEMENT DATED 7/8/98

Dear Mr. Mortensen:

Based on the information provided on your July 9, 1998 submittal, Engineer Certification for the above referenced site is acceptable.

Please be advised that the permanent Certificate of Occupancy release will not be granted until the copy of letter of acceptance for Work Order 4876.94 has been submitted.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia

File ✓

Sincerely

Bernie J. Montoya
Bernie J. Montoya CE
Associate Engineer

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

980411

PROJECT TITLE: PHIL CHACON COMM. CTR. ZONE ATLAS/DRNG. FILE #: L-17-D-15

DRB #: _____ EPC #: _____ WORK ORDER #: 4876.92

LEGAL DESCRIPTION: PHIL CHACON PARK

CITY ADDRESS: KATHRYN AVE. SE

ENGINEERING FIRM: Jeff Mortensen & Assoc., Inc. CONTACT: Gary Bittner

ADDRESS: 6010-B Midway Park Blvd. N.E. PHONE: 345-4250

OWNER: COA CONTACT: ARCHITECT

ADDRESS: _____ PHONE: _____

ARCHITECT: KEUS & CRAIG CONTACT: TED GREEN

ADDRESS: 201 COAL SE PHONE: 243-2724

SURVEYOR: JMA CONTACT: CHUCK CARA

ADDRESS: 6010-B MIDWAY PARK N.E. PHONE: 345-4250

CONTRACTOR: TELSTAR CONTACT: ARCHITECT

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION
- ☐ OTHER

PRE-DESIGN MEETING:

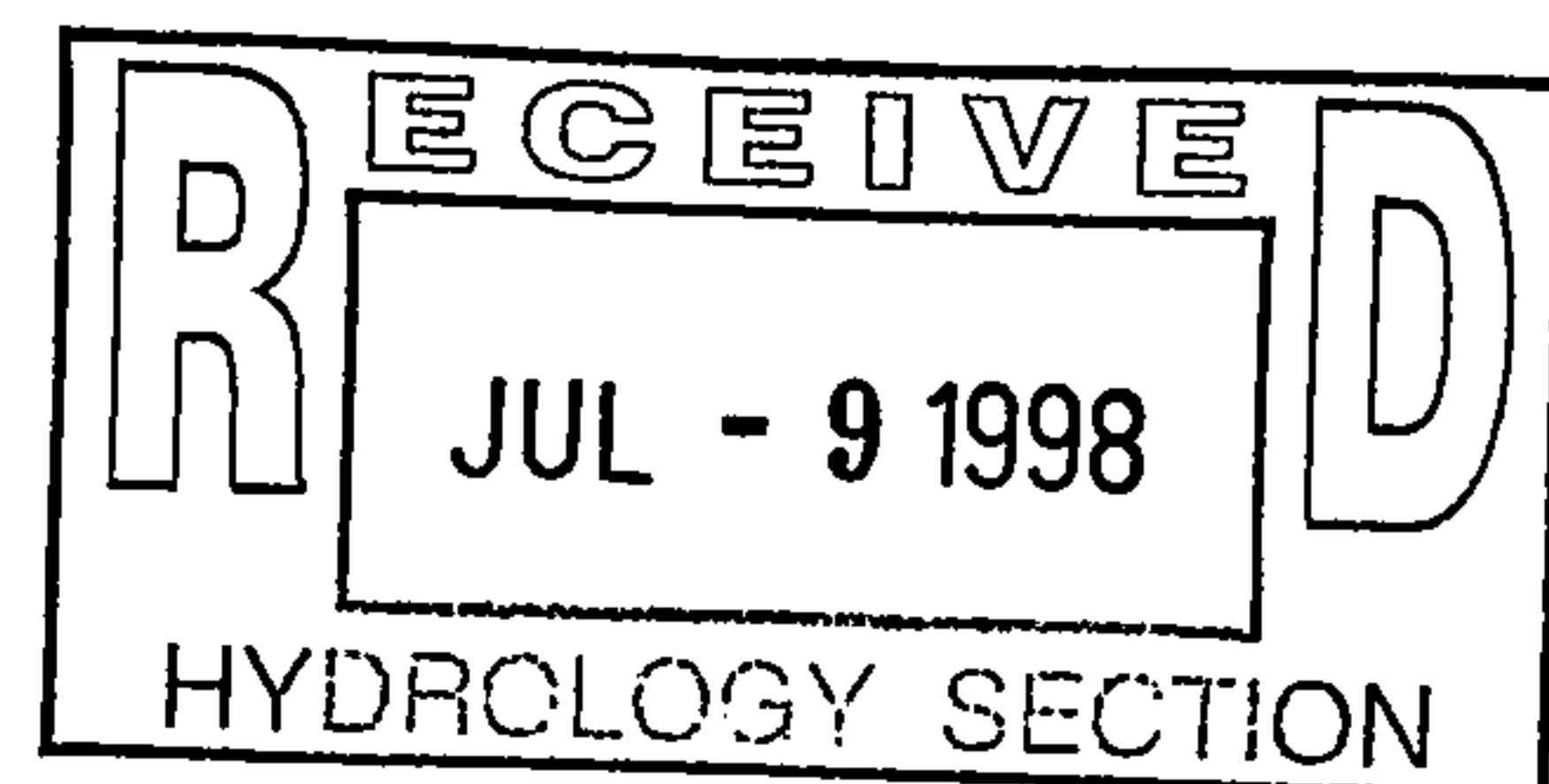
- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

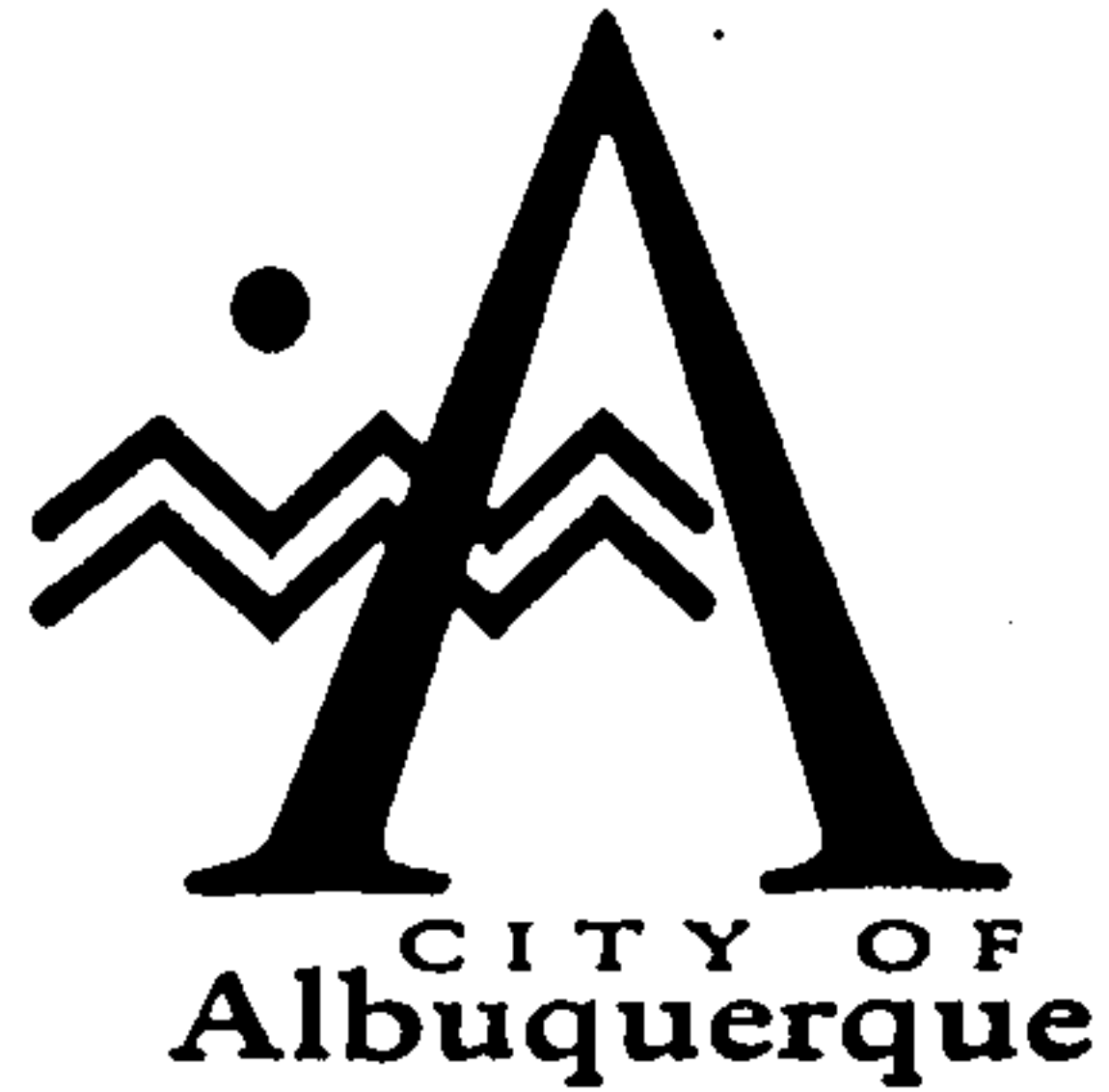
CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ S.A.D. DRAINAGE REPORT
- ☐ DRAINAGE REQUIREMENTS
- ☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 7/8/98

BY: _____

Gary R. Bittner GRB



May 22, 1998

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

PHASE 4

**RE: PHIL CHACON PARK (L19-D45). GRADING AND DRAINAGE PLAN FOR
BUILDING, GRADING/PAVING, AND WORK ORDER PERMIT APPROVALS.
ENGINEER'S STAMP DATED MAY 21, 1998.**

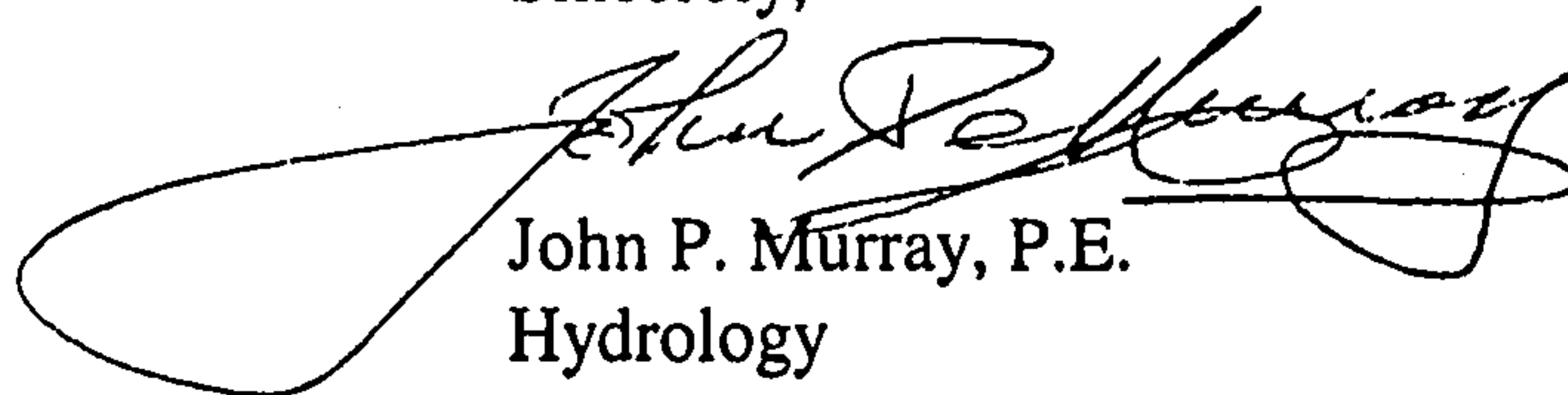
Dear Mr. McGee:

Based on the information provided on your May 21, 1998 submittal, the above referenced project is approved for Building, Grading/Paving, and Work Order Permits.

Prior to Certificate of Occupancy approval, an Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



John P. Murray, P.E.
Hydrology

c: ~~Andrew Garcia~~
✓ File

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

PROJECT TITLE: PHIL CHACON PARK ZONE ATLAS/DRAINAGE FILE # L-19/D45

LEGAL DESCRIPTION: FEDERAL AID LOOP

CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: I & A CONTACT: SCOTT MCGEE

ADDRESS: 128 MONROE NE PHONE: 268-8828

OWNER: COA - PARKS & GENERAL SERVICES CONTACT: COLLEEN FRENZ

ADDRESS: _____ PHONE: 857-8640

ARCHITECT: CHERRY SEE CONTACT: EDIE CHERRY

ADDRESS: 220 A GOLD AVE SW PHONE: 842-1278

SURVEYOR: ALS CONTACT: TIM ALDRICH

ADDRESS: _____ PHONE: 884-1990

CONTRACTOR: UNKN CONTACT: _____

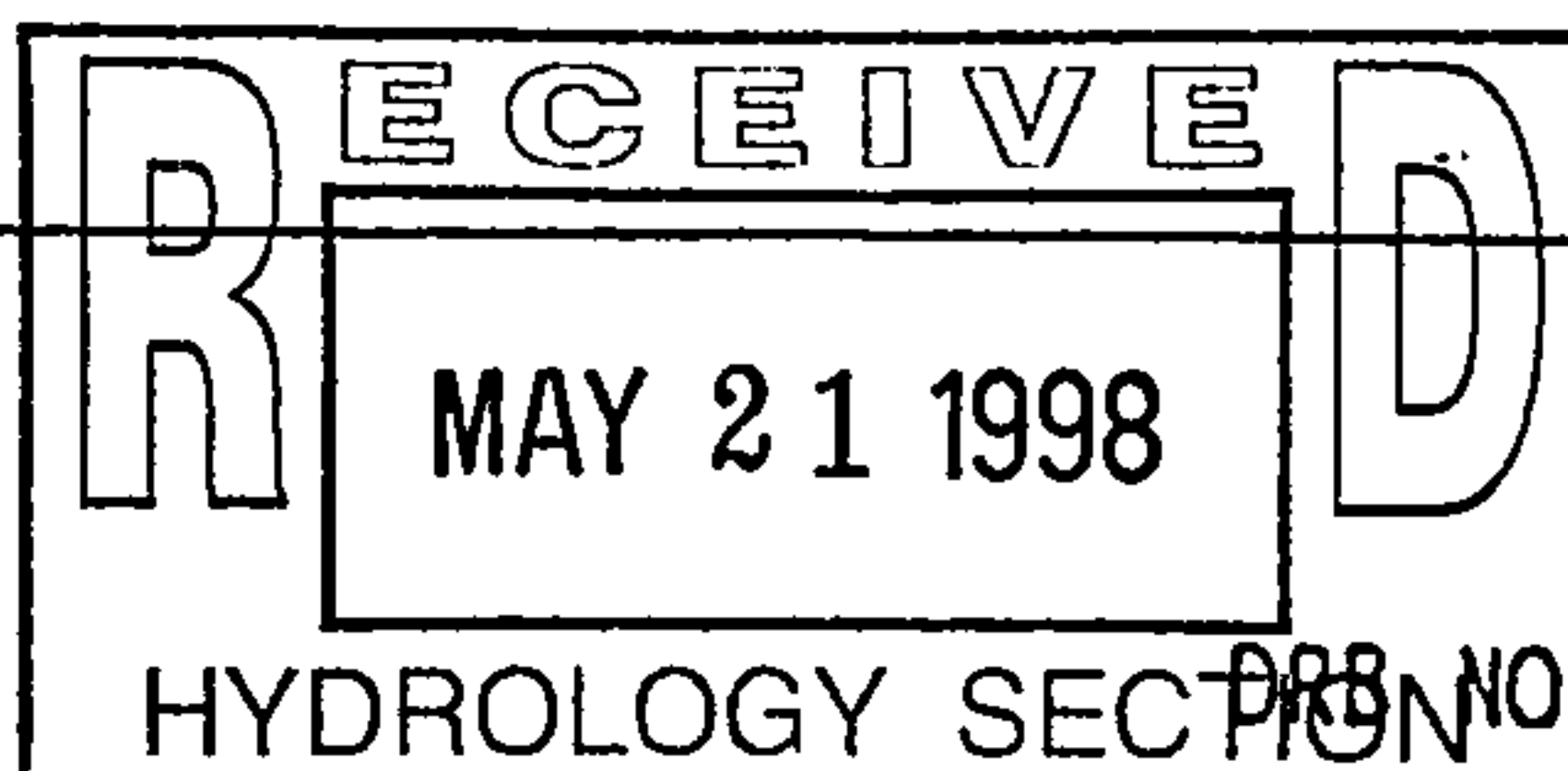
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

☐ YES

☒ NO

☐ COPY OF CONFERENCE
RECAP SHEET PROVIDED



EPC NO. Z-94-114

PROJECT NO. 4723.92

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☒ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAIN PLAN

☒ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SECTOR PLAN APPROVAL

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☒ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☒ GRADING/PAVING PERMIT APPROVAL

☒ OTHER WORK ORDER (SPECIFY)

DATE SUBMITTED: 5-21-98

BY: Scott McGee



January 20, 1998

Martin J. Chávez, Mayor

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK (L19-D45). GRADING PLAN FOR BUILDING, PAVING,
AND WORK ORDER PERMIT APPROVALS. ENGINEER'S STAMP DATED
DECEMBER 19, 1997.**

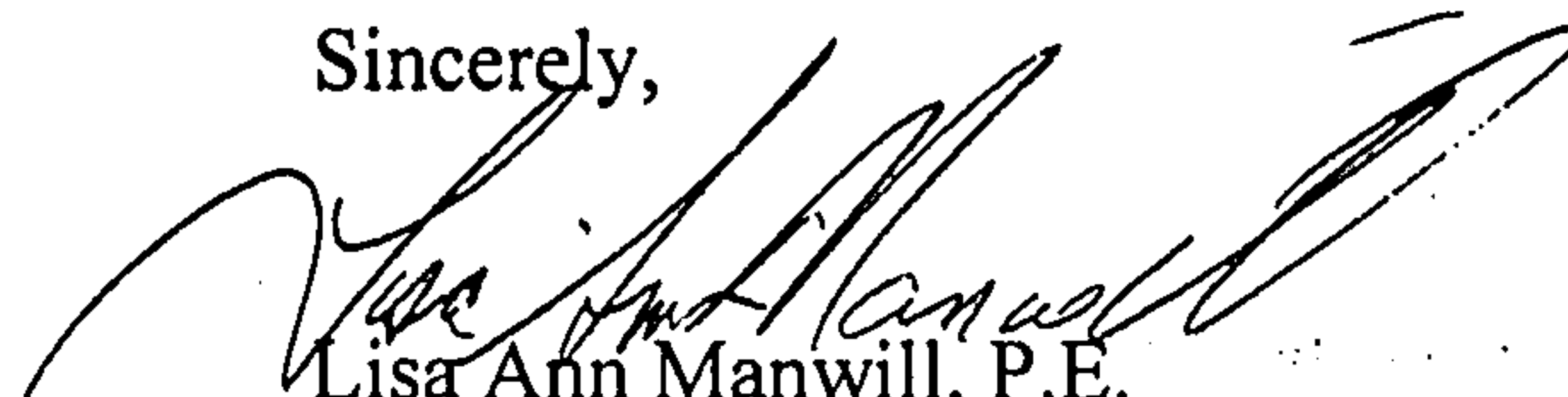
Dear Mr. McGee:

Based on the information provided on your December 22, 1997 submittal, City Hydrology has the following comments:

1. What are you building? Why do you need a Building Permit? What work do you proposed in the City right-of-way. A brief narrative would be helpful.
2. According to the City Drainage Ordinance, retention ponds are not allowed. Your water harvesting ponds can not accept developed flow. The storm water that falls in the water harvesting pond can be retained, but street and building flow may not be routed to the water harvesting ponds.
3. A Preliminary/Conceptual grading and drainage plan is not adequate for any of the approvals you are requesting. More spot elevation will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,


Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File

Good for You, Albuquerque!





July 3, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK SOCCER FIELD (L19-D45). UPDATED GRADING
PLAN FOR GRADING PERMIT APPROVAL. ENGINEER'S STAMP DATED
6-17-97.**

Dear Mr. McGee:

Based on the information provided on your submittal dated June 27, 1997, the above referenced project is approved for Grading Permit.

Please provide an Engineer's Certification upon project completion.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lisa Ann Manwill', written over the typed name and title.

Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103



DRAINAGE INFORMATION SHEET

PROJECT TITLE: PHIL CHACON PARK ZONE ATLAS/DRAINAGE FILE # L-19/D45

LEGAL DESCRIPTION: FEDERAL AID LOOP

CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: I & A

CONTACT: SCOTT MCGEE

ADDRESS: 128 MONROE NE

PHONE: 268-8828

OWNER: COA - PARKS & GENERAL SERVICES

CONTACT: COLLEEN FRENZ

ADDRESS: _____

PHONE: 857-8640

ARCHITECT: CHERRY SEE

CONTACT: EDIE CHERRY

ADDRESS: 220 A GOLD AVE SW

PHONE: 842-1278

SURVEYOR: UNKN

CONTACT: _____

ADDRESS: _____

PHONE: _____

CONTRACTOR: UNKN

CONTACT: _____

ADDRESS: _____

PHONE: _____

PRE-DESIGN MEETING:

☐ YES

☒ NO

☐ COPY OF CONFERENCE
RECAP SHEET PROVIDED

DRB NO. _____

EPC NO. Z-94-114

PROJECT NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

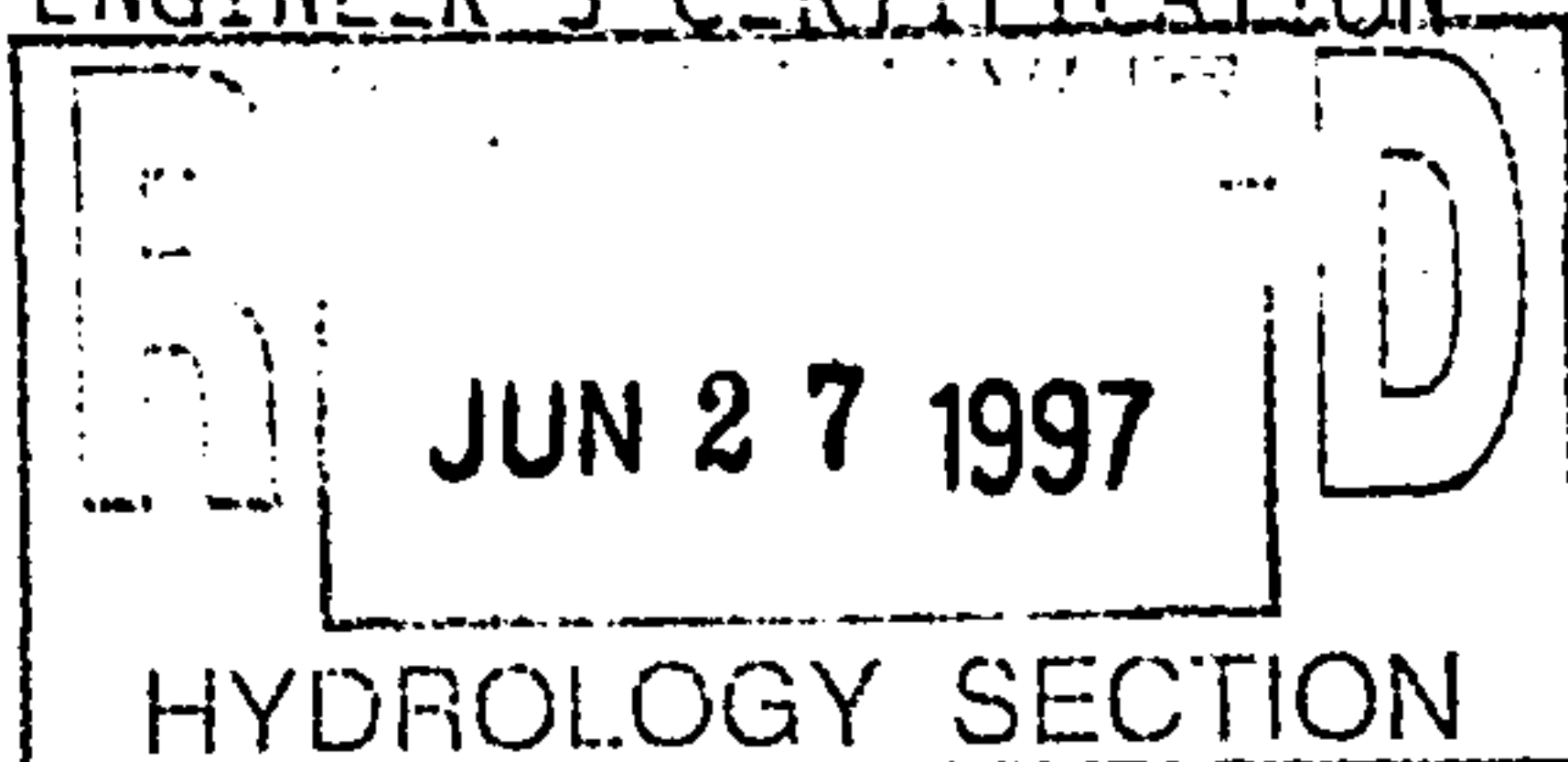
☐ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAIN PLAN

☒ GRADING PLAN

☐ EROSION CONTROL PLAN

ENGINEER'S CERTIFICATION



DATE SUBMITTED: 6-27-97

BY: Scott McGee

CHECK TYPE OF APPROVAL SOUGHT:

☐ SECTOR PLAN APPROVAL

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☐ BUILDING PERMIT APPROVAL

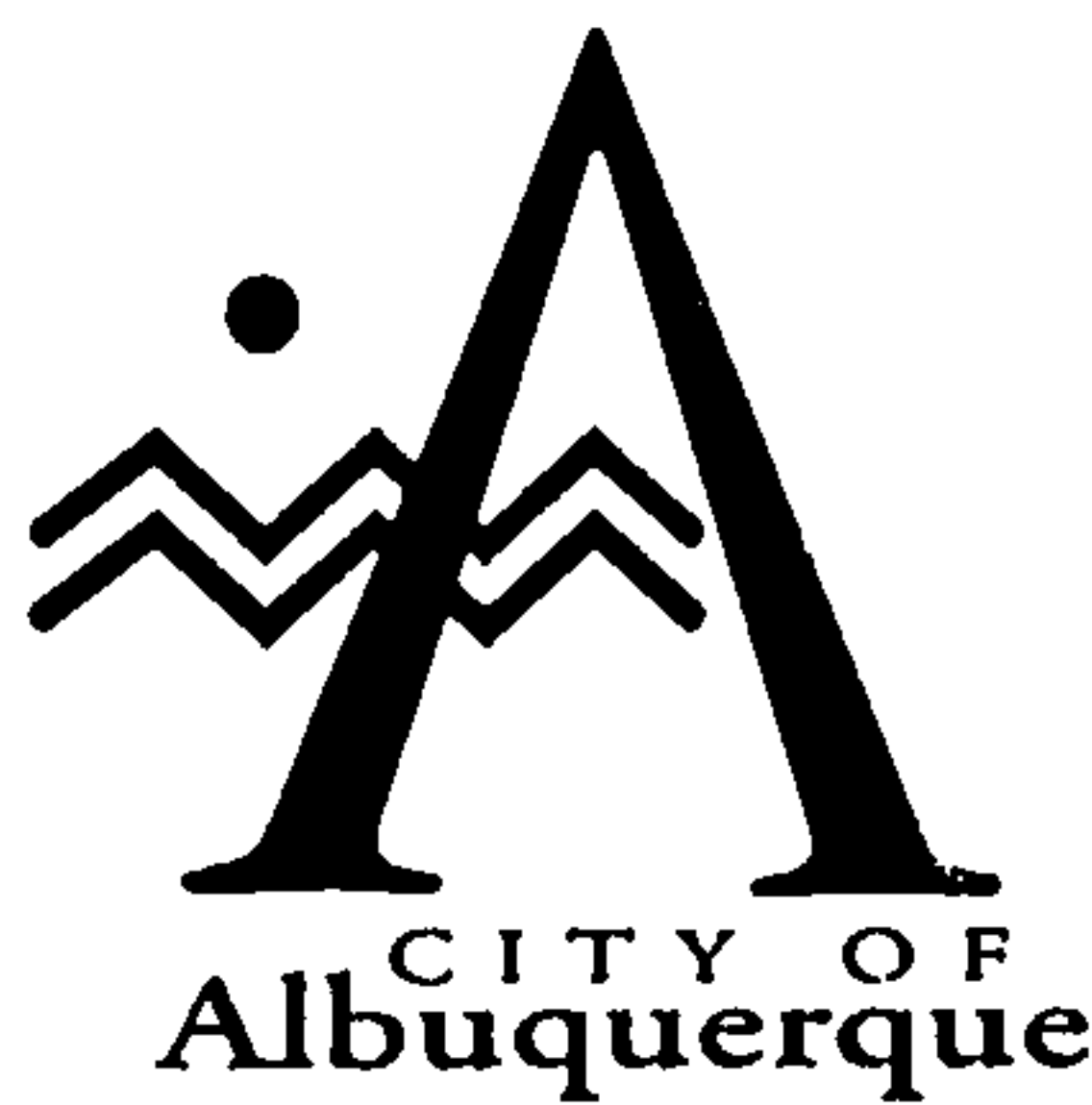
☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☒ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ (SPECIFY)



Public Works Department

April 24, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK (L-19/D45). ENGINEER'S CERTIFICATION FOR
CERTIFICATE OF OCCUPANCY. ENGINEER'S CERTIFICATION DATED
04/16/1997.**

Dear Mr. McGee:

Based on the information provided on your April 17, 1997 submittal, the above referenced project is approved for Certification of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3986.

Sincerely,

Bernie J. Montoya CE
Engineering Associate

c: Andrew Garcia
File

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103





CITY OF
Albuquerque
Public Works Department

February 17, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK SOCCER FIELD (L19-D45). UPDATED GRADING
PLAN FOR GRADING PERMIT APPROVAL. ENGINEER'S STAMP DATED 2-
17-97.**

Dear Mr. McGee:

Based on the information provided on your updated submittal dated
February 17, 1997, the above referenced project is approved for
Grading Permit.

Please provide an Engineer's Certification upon project
completion.

If I can be of further assistance, please feel free to contact me
at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
~~File~~

Good for You, Albuquerque!





*For to
John Repley
2768-2310*

February 14, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK SOCCER FIELD (L19-D45). GRADING PLAN FOR
GRADING PERMIT APPROVAL. ENGINEER'S STAMP DATED 2-13-97.**

Dear Mr. McGee:

Based on the information provided on your submittal dated February 13, 1997, the above referenced project is approved for Grading Permit.

Please provide an Engineer's Certification upon project completion.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103





November 4, 1996

Martin J. Chávez, Mayor

Gary Bittner
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**RE: PHIL CHACON COMMUNITY CENTER (L19-D45). GRADING & DRAINAGE
PLAN SUBMITTAL FOR BUILDING PERMIT APPROVAL. ENGINEER'S
STAMP DATED 10-27-96.**

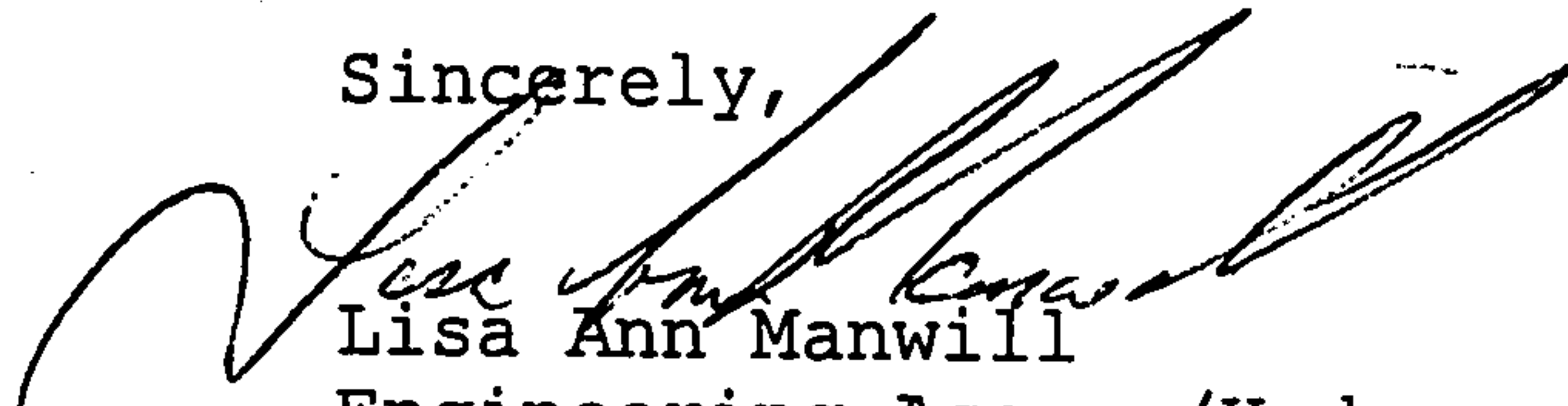
Dear Mr. Bittner:

Based on the information provided on your October 28, 1996
submittal, the above referenced project is approved for
Building Permit.

An Engineer's Certification will be required prior to Certificate
of Occupancy.

If I can be of further assistance, please feel free to contact me
at 768-3622.

Sincerely,



Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!



940656

DRAINAGE INFORMATION SHEET

PROJECT TITLE: CESAR CHAVEZ COMM. CTR. ZONE ATLAS/DRNG. FILE #: L19-D45

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: PHIL CHACON PARK

CITY ADDRESS: _____

ENGINEERING FIRM: Jeff Mortensen & Assoc., Inc. CONTACT: Gary Bittner

ADDRESS: 6010-B Midway Park Blvd. N.E. PHONE: 345-4250

OWNER: CITY OF ALBUQUERQUE - PARKS CONTACT: ARCHITECT

ADDRESS: _____ PHONE: _____

ARCHITECT: KENS & CRAIG CONTACT: JONATHAN CRAIG

ADDRESS: P.O. Box 27324, ABQ, NM 87125 PHONE: 243-2724

SURVEYOR: RONALD FORSTBAUER CONTACT: ARCHITECT

ADDRESS: _____ PHONE: _____

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION
- ☐ OTHER

PRE-DESIGN MEETING:

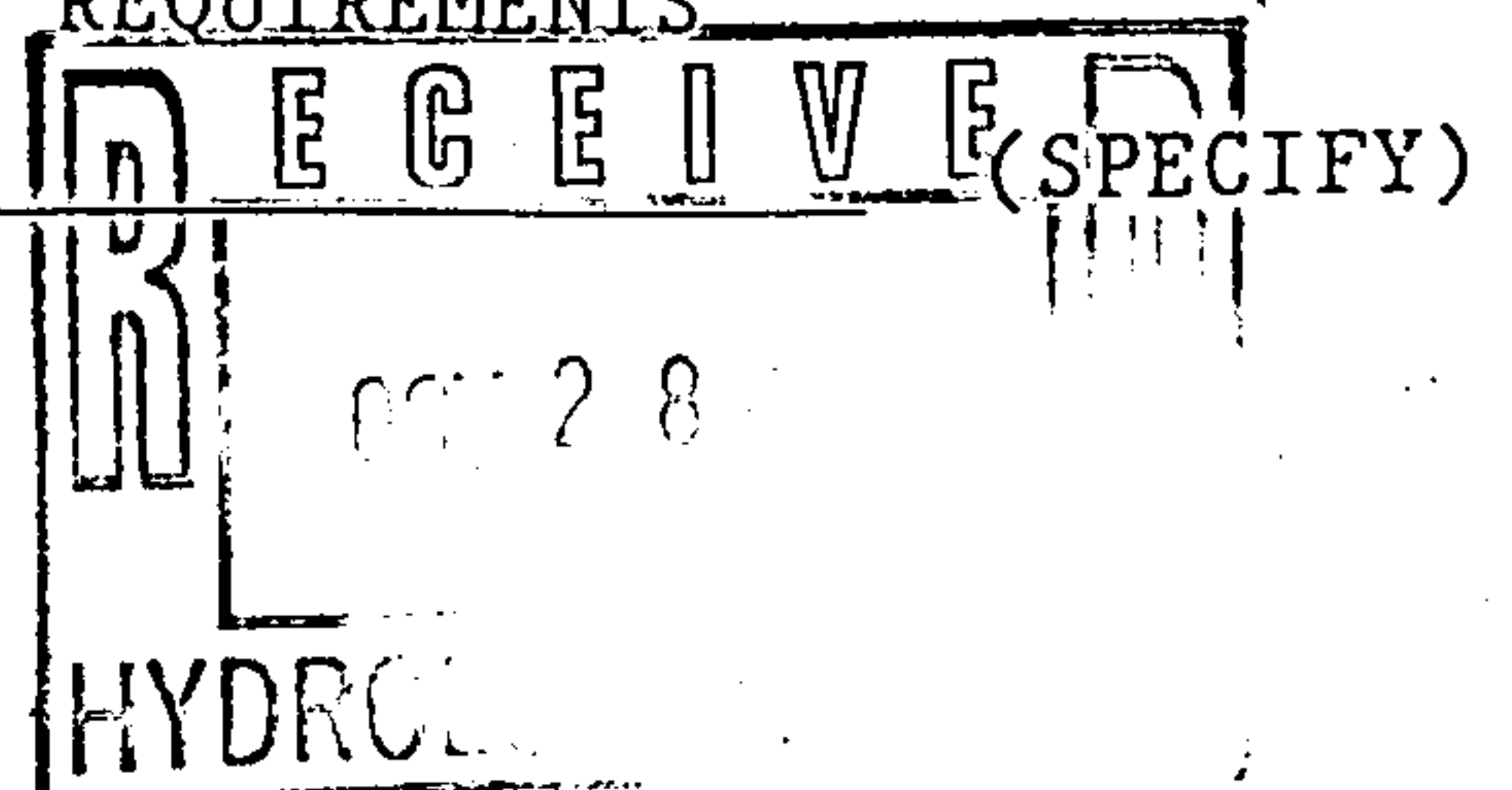
- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

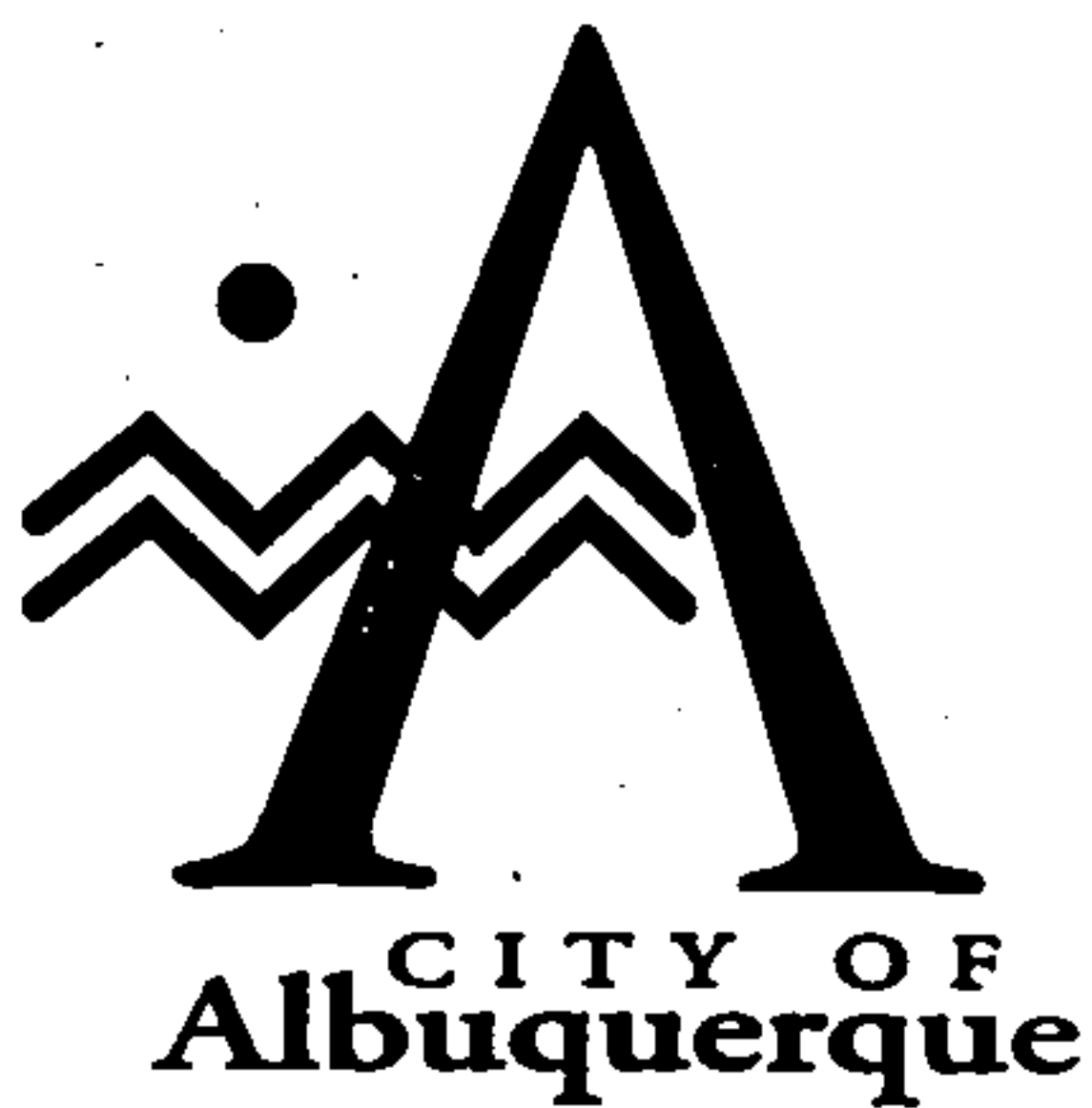
CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ S.A.D. DRAINAGE REPORT
- ☐ DRAINAGE REQUIREMENTS
- ☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 10/28/96

BY: Gary R. Bittner GRB





July 23, 1996

Martin J. Chávez, Mayor
Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK (L19-D45) MASTER GRADING PLAN UPDATES.
ENGINEER'S STAMP DATED 7-8-96.**

Dear Mr. McGee:

The above reference submittal satisfies the request to update the hydrology master plan in the drainage file with the plan approved by the DRB.

Please provide an Engineer's Certification prior to Grading Certification.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: ~~File~~



DRAINAGE INFORMATION SHEET

PROJECT TITLE: PHIL CHACON PARK ZONE ATLAS/DRAINAGE FILE # L-19/D45

LEGAL DESCRIPTION: FEDERAL AID LOOP

CITY ADDRESS: LOUISIANA / GIBSON SE

ENGINEERING FIRM: I & A CONTACT: SCOTT MCGEE

ADDRESS: 128 MONROE NE PHONE: 268-8828

OWNER: COA - PARKS & GENERAL SERVICES CONTACT: COLLEEN FRENZ

ADDRESS: _____ PHONE: 857-8640

ARCHITECT: CHERRY SEE CONTACT: EDIE CHERRY

ADDRESS: 220 A GOLD AV SW PHONE: 842-1278

SURVEYOR: UNKN CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: UNKN CONTACT: _____

ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

____ YES

X NO

____ COPY OF CONFERENCE
RECAP SHEET PROVIDED

DRB NO. 96-214

EPC NO. 2-94-114

PROJECT NO. _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

X DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAIN PLAN

X GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SECTOR PLAN APPROVAL

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APPROVAL

____ FINAL PLAT APPROVAL

____ BUILDING PERMIT APPROVAL

____ FOUNDATION PERMIT APPROVAL

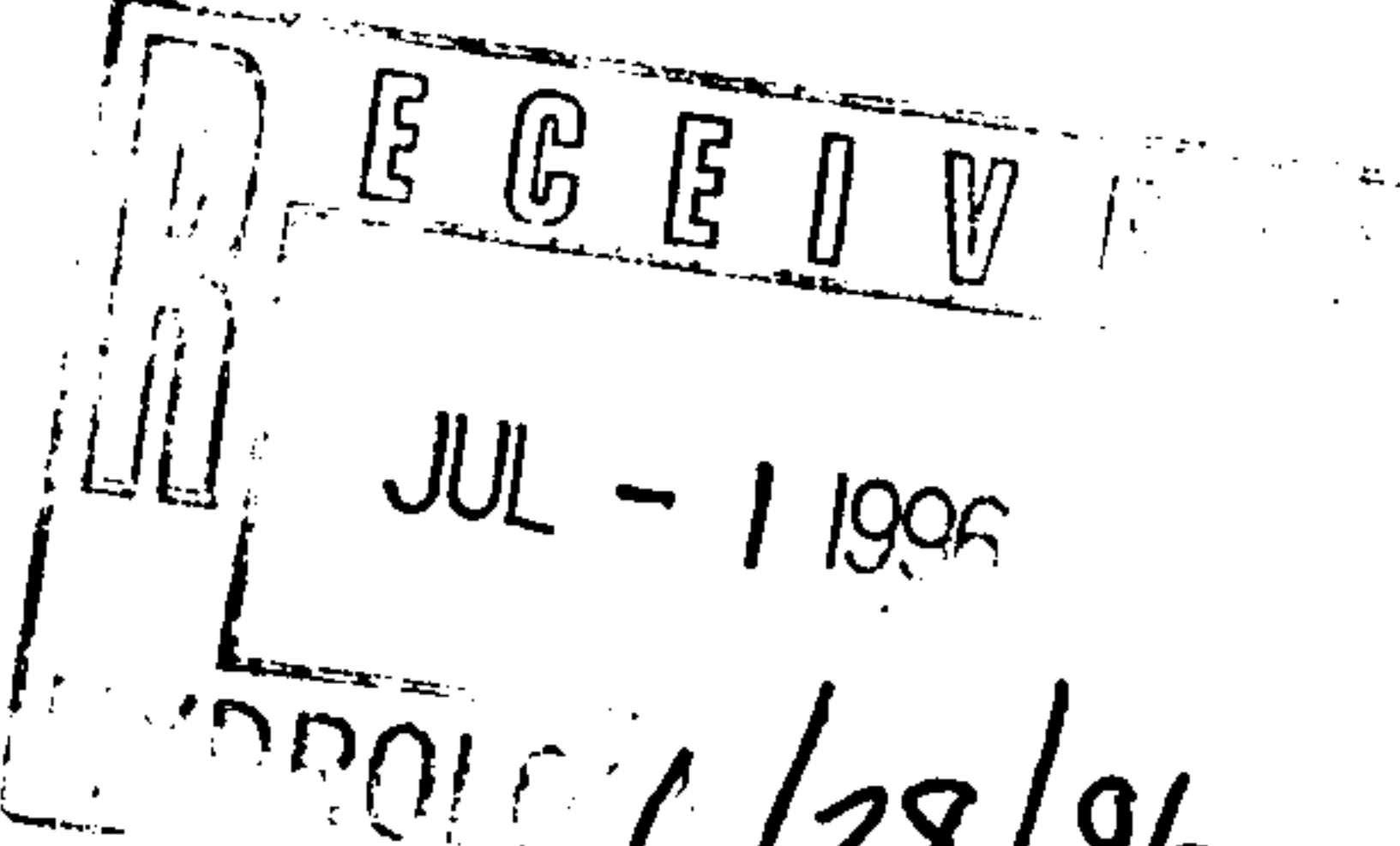
____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

X OTHER MASTER PLAN (SPECIFY)
(FOR EPC / DRB SUBMITTAL)

*Set in field
Master Plan*



DATE SUBMITTED: 6/28/96

BY: Scott McGee



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 13, 1996

Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

RE: PHIL CHACON PARK (L19-D45) GRADING PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED 2-29-95.

Dear Mr. McGee:

Based on the information provided on your submittal dated March 4, 1996, City Hydrology has the following comments:

1. Please put a vicinity map and Legal Description on the plan sheet.
2. How much developed flow is directed to Louisiana Blvd.? How much flow historically goes to Louisiana Blvd.? Please discuss downstream capacity.
3. If you require SO #19 permit approval, or Work Order approval, please check the "OTHER" line on the Drainage information sheet. As a reminder, SO #19 permit approval requires the six standard notes found in the DPM, a sign off block, and two sets of drawings.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 9, 1996

Gary Bittner
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**RE: PHIL CHACON COMMUNITY CENTER (L19-D45) CONCEPTUAL GRADING &
DRAINAGE PLAN SUBMITTAL FOR SITE DEVELOPMENT PLAN FOR
BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED 1-4-96.**

Dear Mr. Bittner:

Based on the information provided on your January 8, 1996
submittal, the above referenced project is approved for Site
Development Plan for Building Permit.

If I can be of further assistance, please feel free to contact me
at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 17, 1995

Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

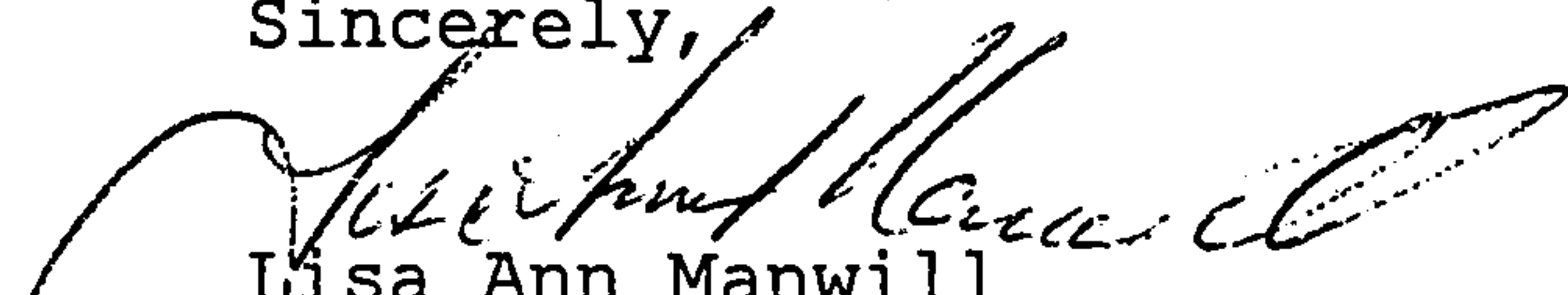
**RE: PHIL CHACON PARK (L19-D45) GRADING PLAN FOR ROUGH GRADING
PERMIT APPROVAL. ENGINEER'S STAMP DATED 9-29-95.**

Dear Mr. McGee:

Based on the information provided on your letter dated October 17, 1995 and our telephone conversation, I am approving the above referenced plan for Rough Grading Permit.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,



Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 6, 1995

Scott McGee
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

**RE: PHIL CHACON PARK (L19-D45) GRADING PLAN FOR ROUGH GRADING
PERMIT APPROVAL. ENGINEER'S STAMP DATED 9-29-95.**

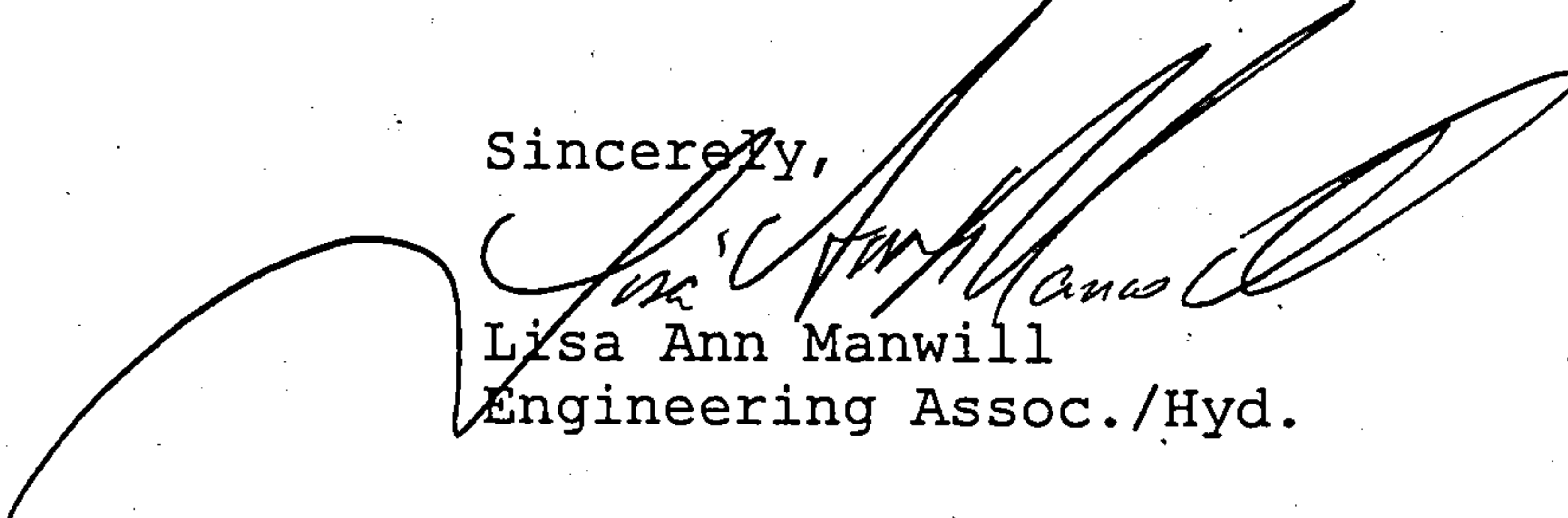
Dear Mr. McGee:

Based on the information provided on your submittal dated October 3, 1995, City Hydrology has the following comments:

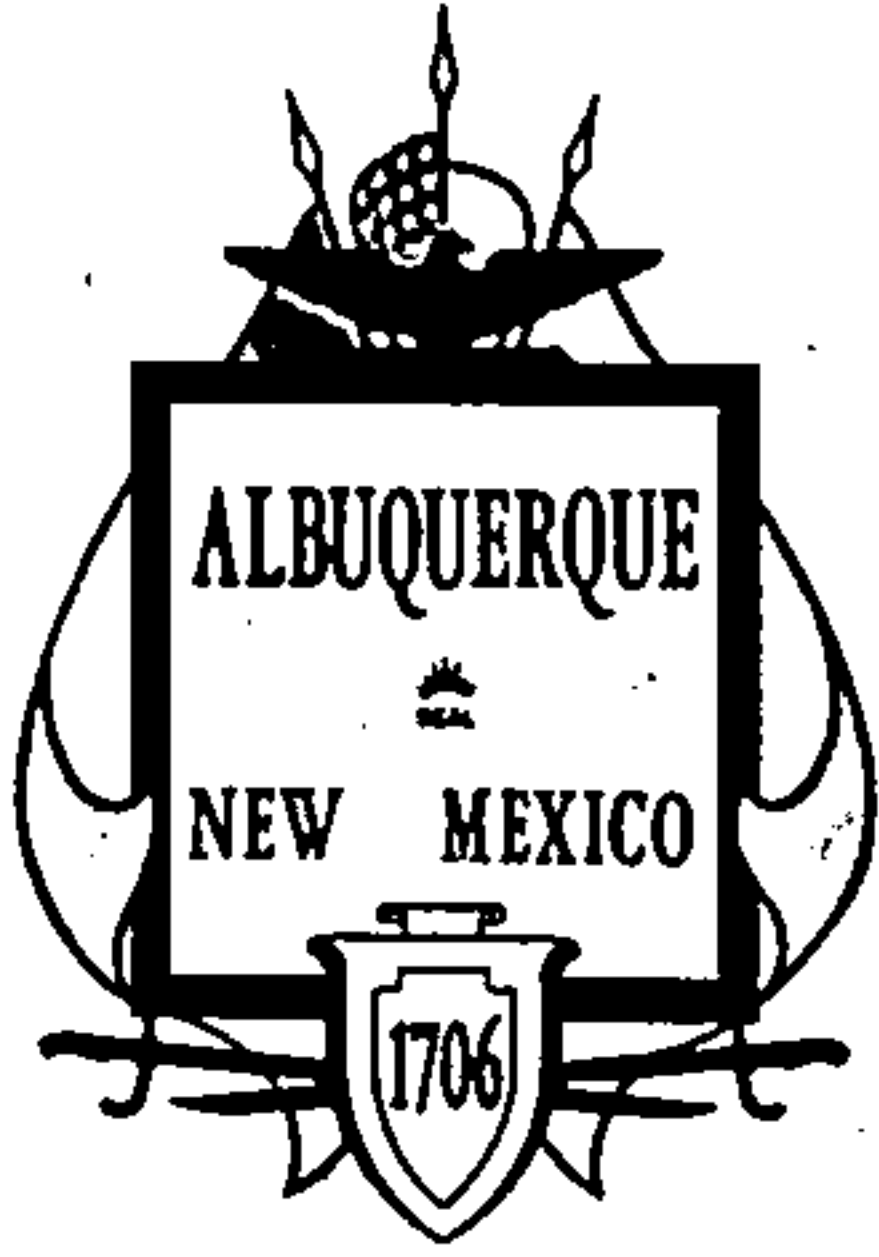
1. Are you constructing an Amphitheater?
2. Does Louisiana have the capacity for additional flows?
Is there a controlled discharge rate for this site?
If so, please supply more information on outlet. What are pond volumes?
3. Retention ponds are not allowed. You are allowed to use landscaping ponds. Nothing can drain to the landscaping pond, it can only retain the rainwater that falls into it.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,


Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 26, 1995

**Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, N.M. 87108**

**RE: GRADING PLAN FOR PHIL CHACON PARK (L-19/D45)
RECEIVED MAY 1, 1995 FOR ROUGH GRADING PERMIT
ENGINEER'S STAMP DATED 4-28-95**

Dear Mr. McGee:

Based on the information included in the submittal referenced above, City Hydrology accepts the Grading Plan and approves a Rough Grading Permit for this site.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

**John P. Curtin, P.E.
Civil Engineer/Hydrology**

**c: Andrew Garcia
Larry Caudill, Environmental Health
Colleen Frenz, Parks & General Services**



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 10, 1995

Scott McGee, P.E.
Isaacson & Arfman
128 Monroe NE
Albuquerque, N.M. 87108

RE: CON. GRADING & DRAINAGE PLAN FOR PHIL CHACON PARK (L-19/D45)
RECEIVED DECEMBER 20, 1994 FOR SITE DEVELOPMENT PLAN APPROVAL
ENGINEER'S STAMP DATED 10-27-94

Dear Mr. McGee:

Based on the information included in the submittal referenced above, City Hydrology accepts the concept for this site and approves this project for Site Development Plan.

Before Foundation Permit approval, the erosion control plan must be included on the Conceptual Grading & Drainage Plan as required by the DPM checklist.

Before Building Permit approval, a detailed Grading Plan must be submitted, the detention ponds must be designed, and Parks must agree to maintain the ponds.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Andrew Garcia
Fred Aguirre, EPC Z-94-114

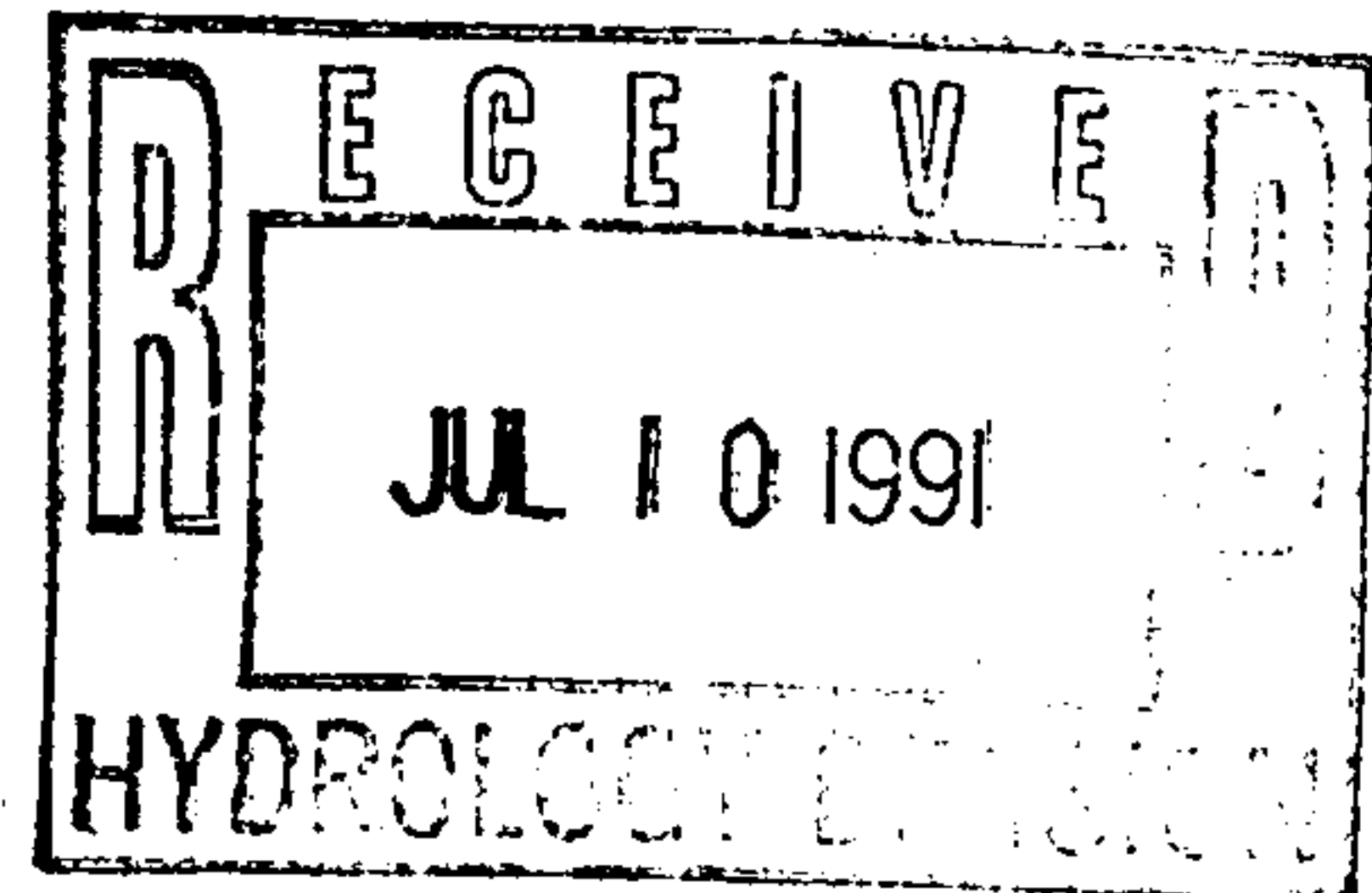


City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

L19/D45

July 9, 1991



PROJECT ACCEPTANCE LETTER

TO FILE

RE: PHIL CHACON POLICE COMMUNITY SUBSTATION, PROJECT NO. 3542

The above referenced project has been completed in substantial compliance with the plans and specifications. The project consisted of the construction of a 9,375 square foot Albuquerque Police Department Southeast Area Substation, a roadway, parking lots, and landscaping on an 1.8 acre site at Phil Chacon Park located near Louisiana and Kathryn S.E.

The City of Albuquerque accepts the referenced project as a whole and the contractual correction period began November 17, 1989. The correction period on this project was for one (1) year.

Sincerely,


Brian L. Speicher, P.E.
Chief Construction Engineer
Design/Construction Division
Engineering Group
Public Works Department

BLS:tp

Letter of Acceptance, 3542

July 8, 1991

Page 2

cc: Jim Hicks, Engineering Group, PWD
Mike Fellman, CIP Office
Denise Wilcox, Engineering Group, PWD
Martin Barker, Engineering Group, PWD
Fred Aguirre, Engineering Group, PWD
Terri Martin, Engineering Group, PWD
Jerry Phillips: Roy Turpen, APD
Steve Gonzales, Special Assessments
Ray Chavez, Engineering Group, PWD
Dave Parks, Engineering Group, PWD
Josie Gutierrez, New Meter Sales, Finance Group, PWD
Claudia Gallegos, Standby Clerk, Finance, PWD
Richard Zamora, Engineering Group, PWD
f/Project No. 3542:Readers
f/Warranty:Contract



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

RECEIVED
JUN 27 1988
DMJM/ALBQ

MAYOR
KEN SCHULTZ

CHIEF
ADMINISTRATIVE OFFICER
GENE ROMO

DEPUTY CAO
DEVELOPMENT & ENTERPRISE SERVICES
LARRY LARRANAGA

DEPUTY CAO
PUBLIC SERVICES
DAN WEAKS

June 22, 1988

Mike Kibbee
DMJM
6501 Americas Parkway, NE Suite 690
Albuquerque, New Mexico 87110

RE: CONCEPTUAL DRAINAGE REPORT FOR PHIL CHACON PARK, PHASE I
RECEIVED JUNE 1, 1988 FOR SITE DEVELOPMENT PLAN APPROVAL
(L-19/D45)

Dear Mr. Kibbee:

I have reviewed the above referenced submittal, dated June 1, 1988, and have the following comments to be satisfied prior to approval of the Drainage Report.

1. Page 4 - Off-site flows must be accepted unless otherwise approved by the off-site landowner. The report states off-site runoff will be prevented from entering the project site.
2. Page 6 & 20 - Provide a map and location information for the storm drain system referred to as a future system to tie into the existing 30" RCP. When will this storm drain be required?
3. Provide the ultimate Q_{100} with both Phase I and II fully developed, with the off-site flows included. Show how much will flow north and south on Louisiana.

If you have any further questions, call me at 768-2650.

Cordially,

Roger A. Green, P.E.

Roger A. Green, P.E.
C.E./Hydrology Section

RAG/bsj

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION/HYDROLOGY SECTION

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: L-19 DATE: 3/16/88 @ 1:30
EPC NO.: _____ DRB NO.: _____ ZONE: _____
SUBJECT: Phil Chacon Park
STREET ADDRESS: South of Southern Ave, North of Gibson, East of Louisiana
LEGAL DESCRIPTION: Federal Aid Loop

APPROVAL REQUESTED: _____ PRELIMINARY PLAT _____ FINAL PLAT
_____ SITE DEVELOPMENT PLAN ☒ BUILDING PERMIT
_____ GRADING/PAVING PERMIT _____ OTHER _____

	WHO	REPRESENTING
ATTENDANCE:	<u>Mike Kibbee</u>	<u>DMJM</u>
	<u>Roger Green</u>	<u>Hydrology Section</u>
	_____	_____

FINDINGS:

- ① An approved Grading & Drainage Plan is required for any required Building Permits, and disturbance of more than 1.0 AC in area.
- ~~② Developed/Discharge rates must be equal to or less than existing rates unless stormwater capacity can be demonstrated in Louisiana to the storm drain in Gibson or north to Southern Ave.~~
- ② Drainage scheme and discharge rates will be in accordance with the restudy of Albuquerque Master Drainage Study Volume II by Bohannon-Huston INC.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED:	<u>Roger Green</u>	SIGNED:	<u>[Signature]</u>
TITLE:	<u>Civil Engineer</u>	TITLE:	<u>CE</u>
DATE:	<u>3/16/88</u>	DATE:	<u>3-16-88</u>

****NOTE**** PLEASE PROVIDE A COPY OF THIS PRE-DESIGN FORM WITH THE DRAINAGE SUBMITTAL.