

## ZONE ATLAS MAP = H-13-Z

## DRAINAGE PLAN

LEGAL DESCRIPTION: TRACTS 60-A-2, 60-B, & 86-A, MRGCD MAP 35

SITE AREA: 1.06 ACRE

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED JULY 16, 1996 (PANEL NO. 35001C0331 E) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.

## **EXISTING DRAINAGE CONDITIONS:**

THE PROPERTY IS LOCATED ON RIO GRANDE BOULEVARD NEAR ZICKERT ROAD. THE PROPERTY IS CURRENTLY BELOW THE ELEVATION OF RIO GRANDE BOULEVARD AND THEREFORE RUNOFF FROM THE SITE PONDS ONSITE.

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DRAINAGE POLICY WHICH FOLLOWS THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 1. THE 100-YEAR, 6-HOUR STORM IS 2.35 INCHES. UNDER EXISTING CONDITIONS THE LOT ARE LAND TREATMENTS A, C, AND D.

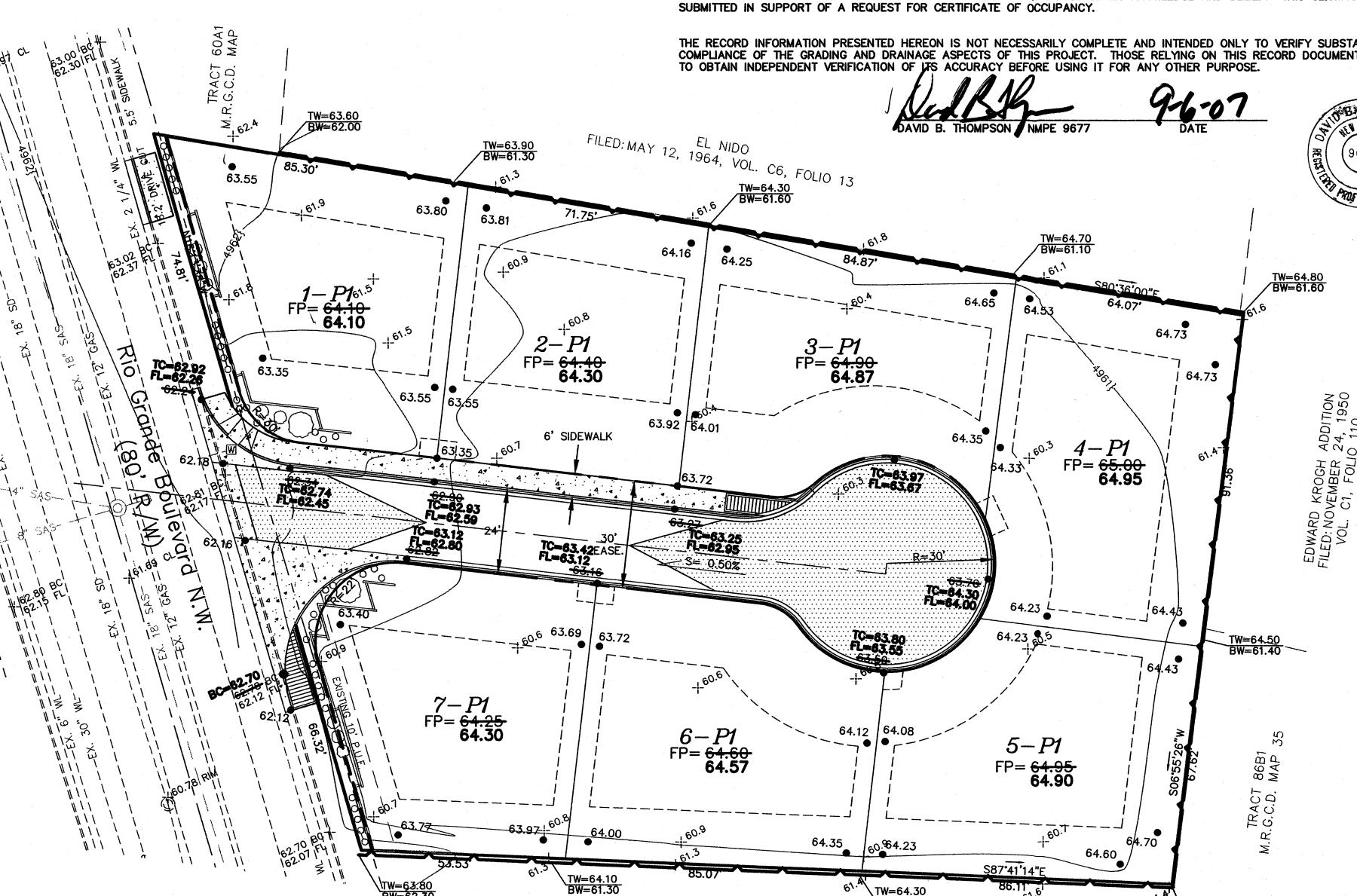
## DEVELOPED DRAINAGE CONDITIONS:

THE PROPERTY WILL BE SUBDIVIDED INTO 7 RESIDENTIAL LOTS. RUNOFF FROM EACH LOT WILL DRAIN TO THE CUL-DE-SAC STREET WHICH WILL IN TURN DRAIN TO RIO GRANDE BOULEVARD. THE RUNOFF FROM THE SUBDIVISION WILL CONTRIBUTE 4.1 CFS TO THE FLOWS IN RIO GRANDE BOULEVARD. THE DEPTH OF FLOW IN THE CUL-DE-SAC STREET, WHICH IS AT A SLOPE OF 0.5%, IS 0.22 FEET WITH A FROUDE NUMBER OF 0.90 (SUBCRITICAL FLOW). THE FLOW IN RIO GRANDE BOULEVARD IS COLLECTED BY AN EXISTING STORM DRAIN SYSTEM THAT DISCHARGES TO THE ALAMEDA DRAIN. AS MUCH AS 4 FEET OF FILL WILL BE BROUGHT ONTO THE SITE SO THAT THE LOTS CAN DRAIN TO THE CUL-DE-SAC STREET AND THEN TO RIO GRANDE BOULEVARD. A RETAINING WALL WITH A MAXIMUM OF 3.6 FEET WILL BE CONSTRUCTED ALONG THE BOUNDARY OF THE SUBDIVISION.

## DRAINAGE CERTIFICATION

I, DAVID B. THOMPSON, NMPE 9677, OF THE FIRM THOMPSON ENGINEERING CONSULTANTS, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 04–08–05. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY MITCH REYNOLDS NMPS#11224 AT THE FIRM SURVEY SOUTHWEST, LTD. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 08–14–07 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 CERTIFICATE OF OCCUPANCY.

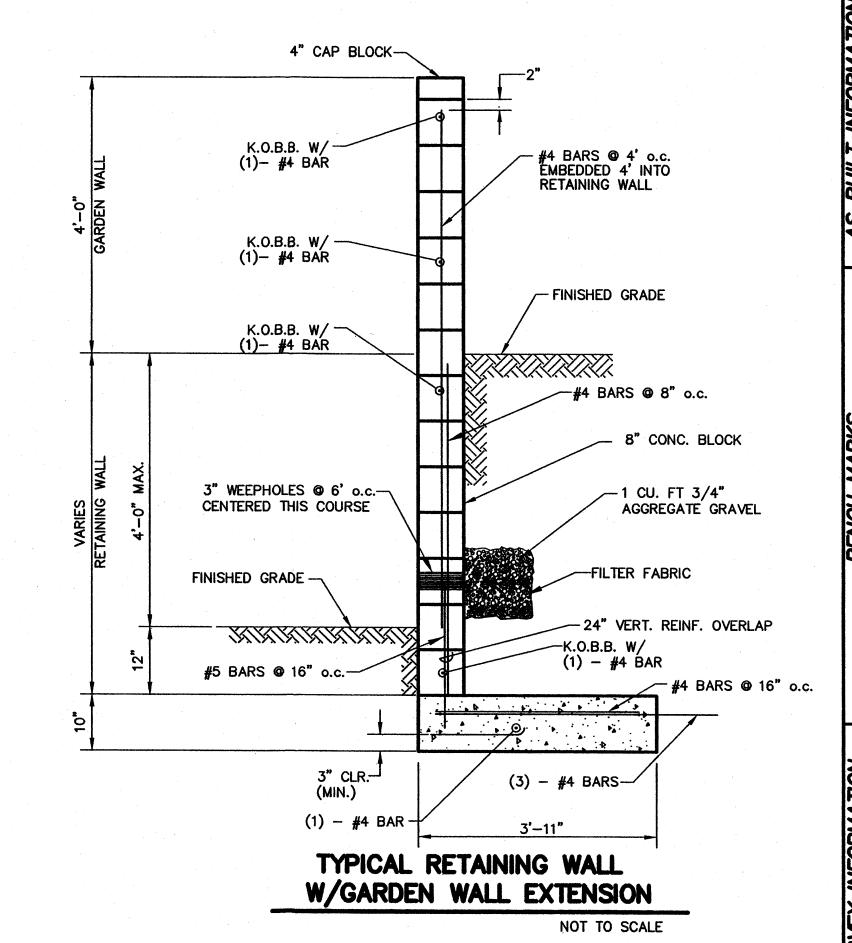
THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF UTS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

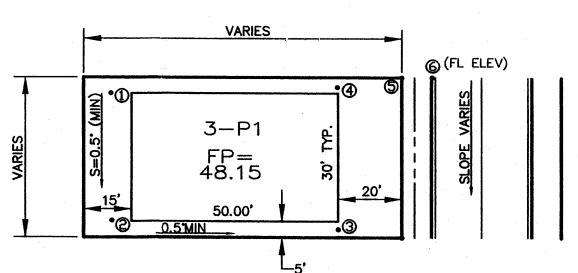


PEAK FLOW RUNOFF LAND TREATMENT **AREA** BASIN 6-HR (ac.) (CFS) (AC-FT) A B C D **EXISTING CONDITIONS** 0.03 4.09 0.144 0.93 0.10 **EXISTING** PROPOSED CONDITIONS

100-YEAR HYDROLOGIC CALCULATIONS

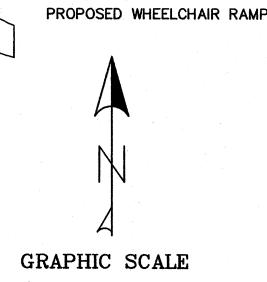
APPROVED FOR ROUGH GRADING SIGNATURE DATE





TYPICAL LOT GRADING PLAN TO SET SPOT ① - SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② - SUBTRACT 0.2' FROM SPOT ①
TO SET SPOTS ③ & ④ - SUBTRACT 0.4' FROM SPOTS ② & ①RESPECTIVELY
TO SET SPOT ⑤ - MULTIPLY D1 BY 2.0%, ADD CURB HEIGHT, AND ADD TO SPOT

**LEGEND** FP=02.00 FINISHED PAD SITE ELEVATION PROPOSED SPOT ELEVATION TOP OF CURB AND FLOWLINE ELEVATIONS EXISTING MAJOR CONTOUR **EXISTING MINOR CONTOUR** PROPOSED RETAINING WALL SEE SHEET 2 FOR DETAIL PROPOSED MOUNTABLE CURB AND GUTTER PROPOSED WHEELCHAIR RAMP



( IN FEET )

1 inch = 20 ft.

HYDROLOGY SECTION **L**hompson Consultants, Inc. tecnm@yahoo.com P.O. BOX 65760 PHONE: (505) 271-2199 ALBUQUERQUE, NM 87 193 FAX: (505) 830-9428 CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT

TRANSPORTATION DEVELOPMENT GRADING AND DRAINAGE PLAN THE BOULEVARD AT RIO GRANDE

MO./DAY/YR. MO./DAY/YR. DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL City Project No. 764981 Zone Map No. Sheet H-13-Z

0.23

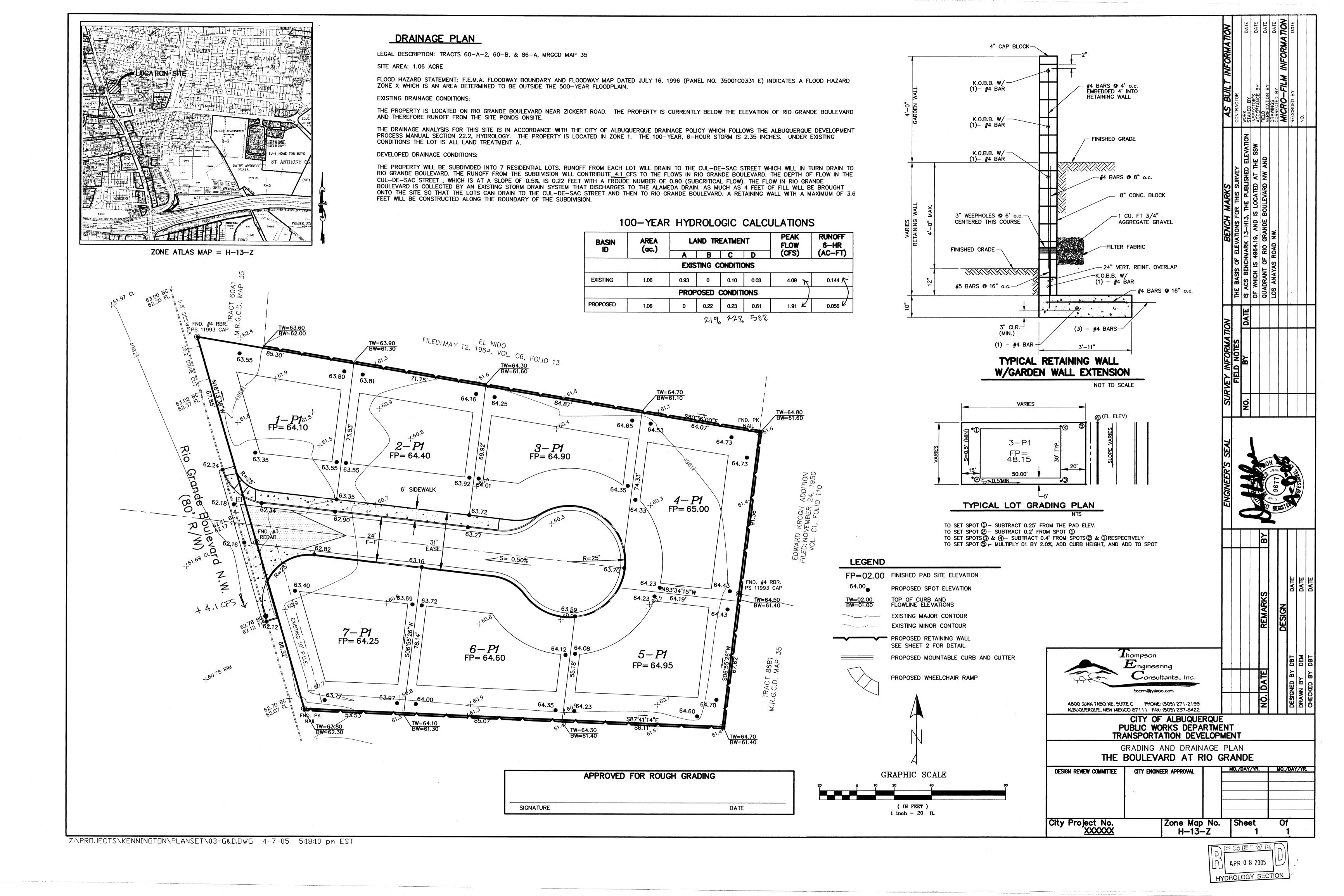
0.22

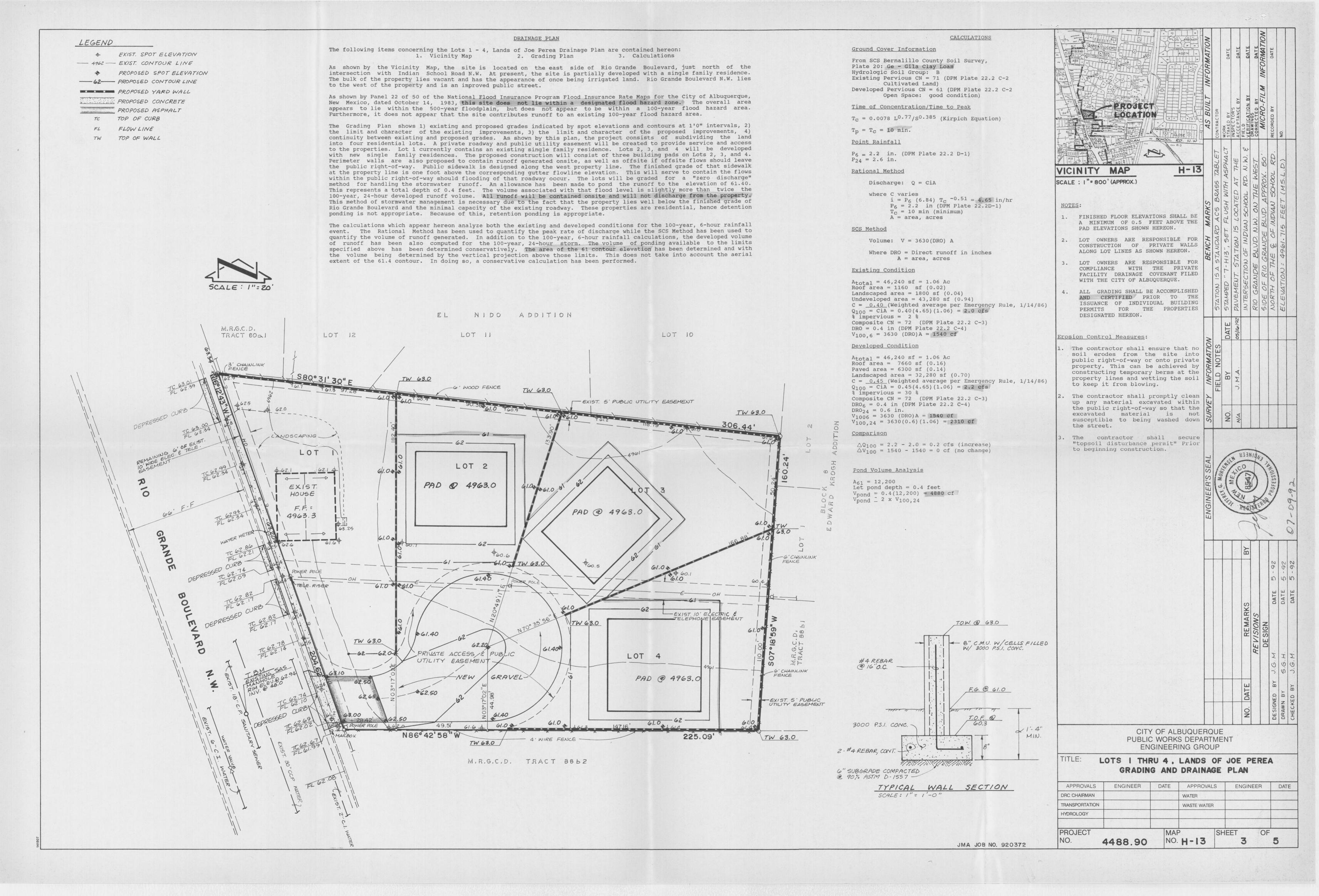
PROPOSED

0.056

1.91

0.61





# • LEGEND • MATERIALS CONCRETE RIP-RAP LINES SUBSIVISION BOUNDARY PROPERTY LINE (PLAN) PROPERTY LINE (SECTION) CENTERLINE EASEMENT LINE MATCH LINE SECTION CUT LINE EARTHWORK CONTOUR LINE SPOT ELEVATION PROJECT / PHASE BOUNDARY FLOWLINE DIRECTION OF RUNOFF MISCELLANEOUS UTILITIES GAS LINE UNDERGROUND TELEPHONE UNDERGROUND ELECTRICAL STORM DRAIN STORM DRAIN MANHOLE STORM DRAIN INLET SANITARY SEWER SANITARY SEWER LINE SANITARY SEWER MANHOLE SAS SERVICE CONNECTIONS SAS CAP OR PLUG \_\_\_\_ ENCASEMENT WATER WATER LINE WATER SERVICE CONNECTIONS GATE VALVE FIRE HYDRANT BUTTERFLY VALVE REDUCER WATER PRESSURE ZONE BOUNDARY ••••• WATER FITTINGS CAPS AND PLUGS ELBOW CROSS TEE MISCELLANEOUS CHAINLINK FENCE FIELD FENCE COMMON YARD WALL RETAINING WALL POWER OR TELEPHONE POLE

 $\boldsymbol{\sigma}$ 

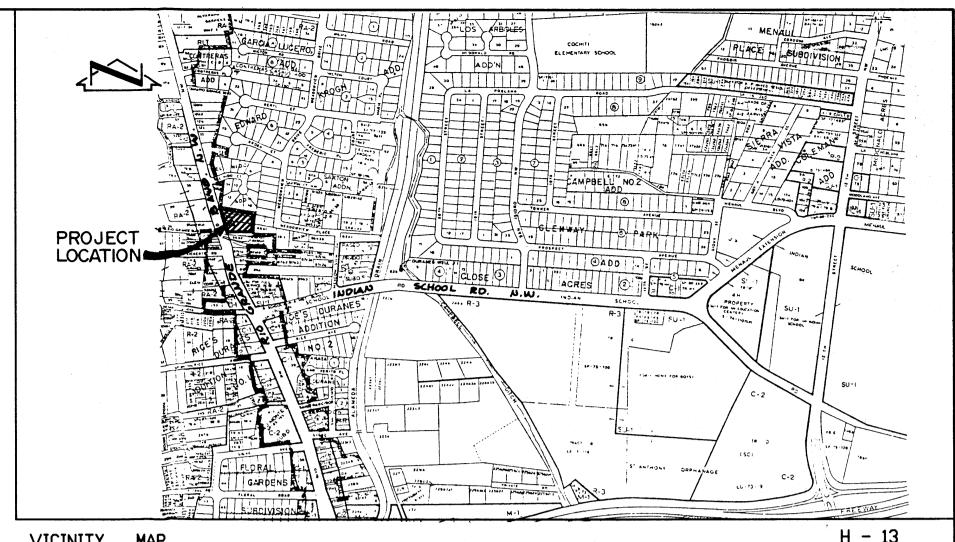
CONSTRUCTION PLANS

ALBUQUERQUE, NEW MEXICO JUNE, 1992

# INDEX OF DRAWINGS

| SHEET | DESCRIPTION   |  |  |  |  |
|-------|---|--|--|--|--|
| 1.    | COVER SHEET, VICINITY MAP, GENERAL NOTES,<br>LEGEND AND INDEX OF DRAWINGS |  |  |  |  |
| 2.    | FINAL PLAT  |  |  |  |  |
| 3.    | GRADING AND DRAINAGE PLAN   |  |  |  |  |
| 4.    | PAVING, WATER AND SANITARY SEWER IMPROVEMENTS                             |  |  |  |  |
| 5.    | TRAFFIC CONTROL DETAILS   |  |  |  |  |

Final Plan Review
7-21-92

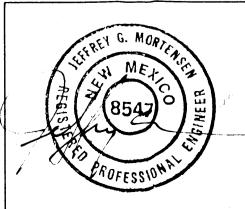


VICINITY MAP SCALE: 1'' = 800' (APPROX.)

GENERAL NOTES:

- 1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS -PUBLIC WORKS CONSTRUCTION - 1986
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND
- 4. SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- 5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- 7. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- 8. BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- 9. TACK COAT REQUIREMENTS SHALL BE DETERMINED DURING CONSTRUCTION BY THE PROJECT ENGINEER.
- 10. SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- 11. IF CURB IS DEPRESSED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
- 12. ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
- 13. CONTRACTOR SHALL COORDINATE WITH THE WATER SYSTEM DIVISION FOR THE EXECUTION OF THE VALVE SHUT OFF PLAN, NOT LESS THAN THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT THE EXISTING PUBLIC WATER UTILITIES. ONLY WATER SYSTEM DIVISION PERSONNEL SHALL OPERATE EXISTING VALVES. REFER TO SECTION 18 OF THE SPECIFICATION.
- 14. CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE
- 15. THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION CO-ORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION CO-ORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION, CONTRACTOR MUST REFER TO SECTION 19 OF THE STANDARD SPECIFICATION FOR TRAFFIC CONTROL.
- 16. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED IN KIND BY CONTRACTOR TO LOCATION AND IN KIND AS EXISTING OR AS INDICATED BY THIS PLAN SET.
- 17. CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

|      |        | T    |          | T      |       | <del></del> |      |      |            |      |
|------|--------|------|----------|--------|-------|-------------|------|------|------------|------|
|      |        |      |          |        |       |             |      |      |            |      |
|      |        |      |          |        |       |             |      |      |            |      |
|      |        |      |          |        |       |             |      |      |            |      |
| REV. | SHEETS | CITY | ENGINEER | DATE   | USER  | DEPARTMENT  | DATE | USER | DEPARTMENT | DATE |
|      |        |      |          | APPROV | AL OF | REVISIONS   | -    |      |            |      |



JEFF MORTENSEN & ASSOCIATES, INC.

| 6010-B MIDWAY PARK BLVD. N.E.

| ALBUQUERQUE | NEW MEXICO 87109

| ENGINEERS | SURVEYORS (505) 345-4250 PROJECT NO:

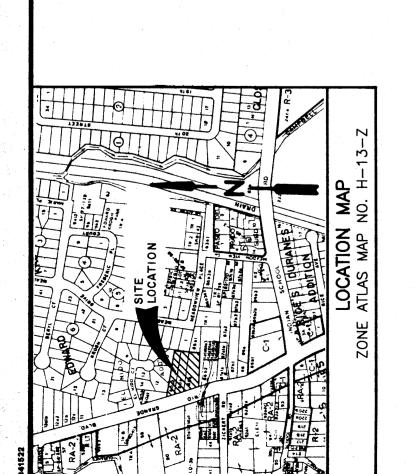
JMA JOB NO. 920372

07-09-92

4488.90

SHEET 1 DF 5

APPROVED FOR CONSTRUCTION



CASE NO.: DRB—ZONE ATLAS INDES INDES

JOSEPH LEO PERE 4926 Rio Grande Albuquerque, New

STATE OF New Menus Ses. COUNTY OF DETNO 11/0 Ses.

OF



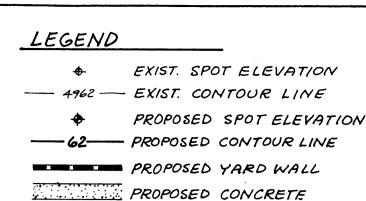
11-1-DATE

/0 · 3 DATE

ALBUQUERQUE SURVEYING CO. INC., 2119 Menaul Blvd. N.E., Albuquerque, New Mexico 87107 Ph. (505) 884-2036

PROJECT NO.

4488.90



PROPOSED ASPHALT

TOP OF CURB

FLOW LINE

TOP OF WALL

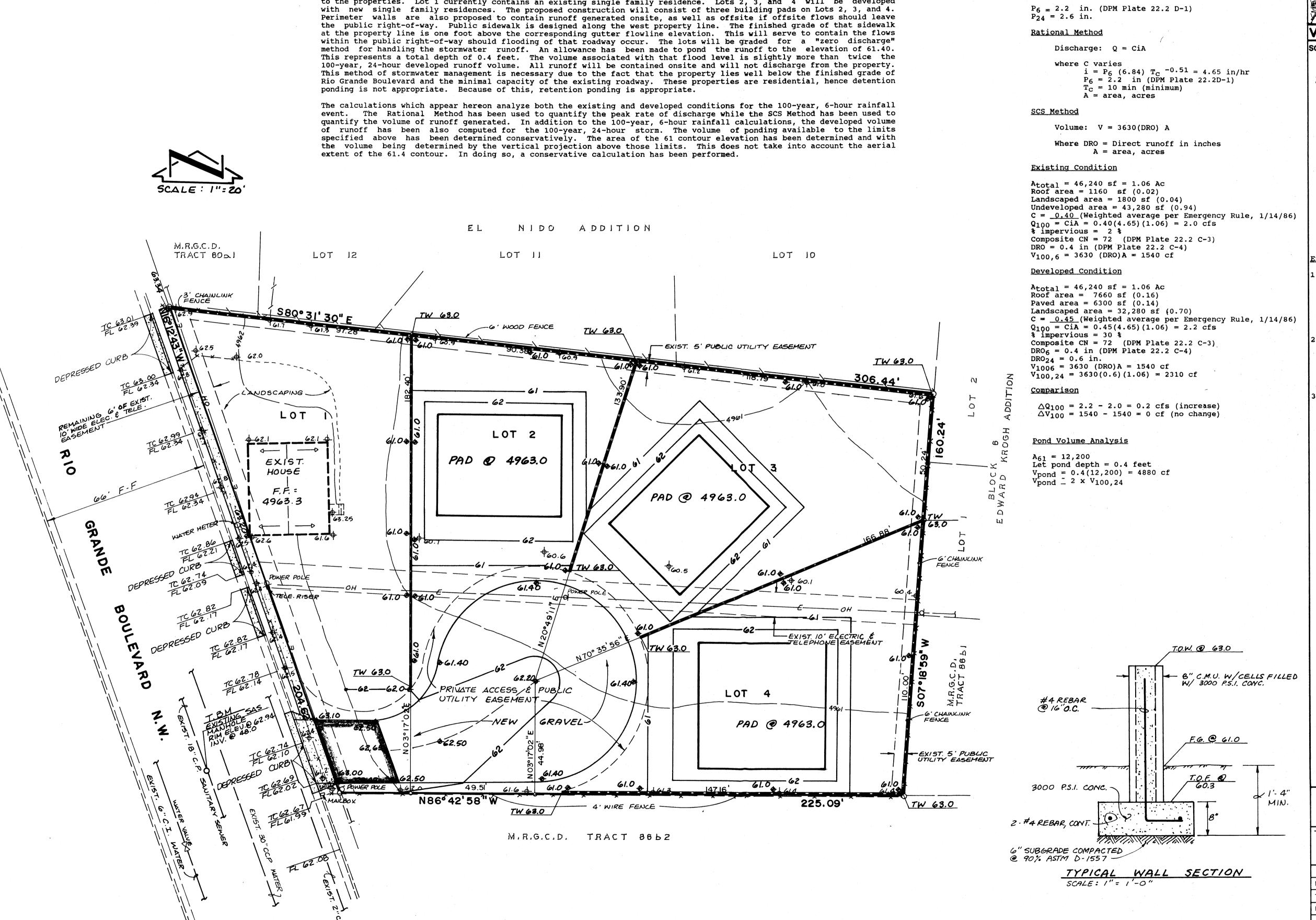
The following items concerning the Lots 1 - 4, Lands of Joe Perea Drainage Plan are contained hereon: 1. Vicinity Map 2. Grading Plan 3. Calculations

As shown by the Vicinity Map, the site is located on the east side of Rio Grande Boulevard, just north of the intersection with Indian School Road N.W. At present, the site is partially developed with a single family residence. The bulk of the property lies vacant and has the appearance of once being irrigated land. Rio Grande Boulevard N.W. lies to the west of the property and is an improved public street.

DRAINAGE PLAN

As shown by Panel 22 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps for the City of Albuquerque, New Mexico, dated October 14, 1983, this site does not lie within a designated flood hazard zone. The overall area appears to lie within the 500-year floodplain, but does not appear to be within a 100-year flood hazard area. Furthermore, it does not appear that the site contributes runoff to an existing 100-year flood hazard area.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, 4) continuity between existing and proposed grades. As shown by this plan, the project consists of subdividing the land into four residential lots. A private roadway and public utility easement will be created to provide service and access to the properties. Lot 1 currently contains an existing single family residence. Lots 2, 3, and 4 will be developed



# VICINITY MAP H-13 SCALE: I"= 800' (APPROX.) NOTES: 1. FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM OF 0.5 FEET ABOVE THE PAD ELEVATIONS SHOWN HEREON. LOT OWNERS ARE RESPONSIBLE FOR CONSTRUCTION OF PRIVATE WALLS ALONG LOT LINES AS SHOWN HEREON. LOT OWNERS ARE RESPONSIBLE FOR COMPLIANCE WITH THE PRIVATE FACILITY DRAINAGE COVENANT FILED WITH THE CITY OF ALBUQUERQUE. ALL GRADING SHALL BE ACCOMPLISHED AND CERTIFIED PRIOR TO THE ISSUANCE OF INDIVIDUAL BUILDING PERMITS FOR THE PROPERTIES DESIGNATED HEREON. **Erosion Control Measures:** The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property. This can be achieved by constructing temporary berms at the property lines and wetting the soil \$9 m 5 to keep it from blowing. The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street. The contractor shall secure "topsoil disturbance permit" Prior to beginning construction.

CALCULATIONS

JMA JOB NO. 920372

Ground Cover Information

Hydrologic Soil Group: B

 $T_D = T_C = 10 \text{ min.}$ 

Point Rainfall

Plate 20: Ge - Gila Clay Loam

Cultivated Land)

Time of Concentration/Time to Peak

From SCS Bernalillo County Soil Survey,

Existing Pervious CN = 71 (DPM Plate 22.2 C-2

Developed Pervious CN = 61 (DPM Plate 22.2 C-2

Open Space: good condition)

 $T_C = 0.0078 L^{0.77}/S^{0.385}$  (Kirpich Equation)

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT **ENGINEERING GROUP** 

LOTS I THRU 4, LANDS OF JOE PEREA GRADING AND DRAINAGE PLAN

| APPROVALS     | ENGINEER | DATE | APPROVAL    | S EN  | IGINEER | DATE |
|---------------|----------|------|-------------|-------|---------|------|
| RC CHAIRMAN   |          |      | WATER       |       |         |      |
| RANSPORTATION |          |      | WASTE WATER | 3     |         | *    |
| YDROLOGY      |          |      |             |       |         |      |
|               |          |      |             |       |         |      |
| ROJECT        |          | MAF  |             | SHEET | OF      |      |
| IO.           | 4488.90  | NO.  | H-13        |       | 3       | 5    |

