HYDROLOGY

B15/D2
2 PLANS

B15/D2

2 Plans

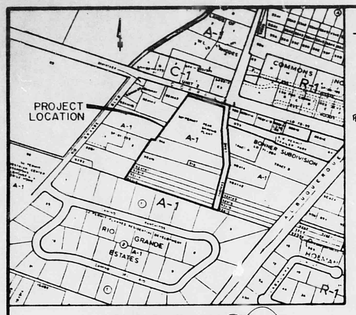
DRAINAGE AND GRADING PLAN

FOR TRACTS: 81, 91-A
91-B, 90-A-1-B AND WESTERLY PORTION OF TRACTS:
92-A, 92-B, 92-C AND 92-D ON THE M.R.G.C.D. MAP 22

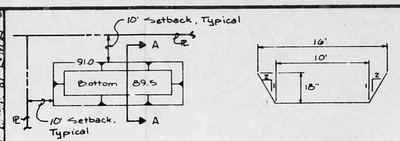
NORTH RIO GRANDE ESTATES

BERNALILLO COUNTY, NEW MEXICO

NET ACREAGE = ± 8.7 Ac. FOR 20 R-1 LOTS PROPOSED



VICINITY MAP
ZONE ATLAS NO. B-12

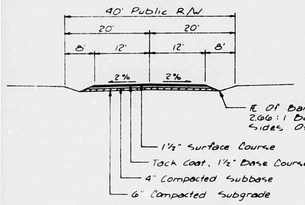


PLAN

SECTION A-A

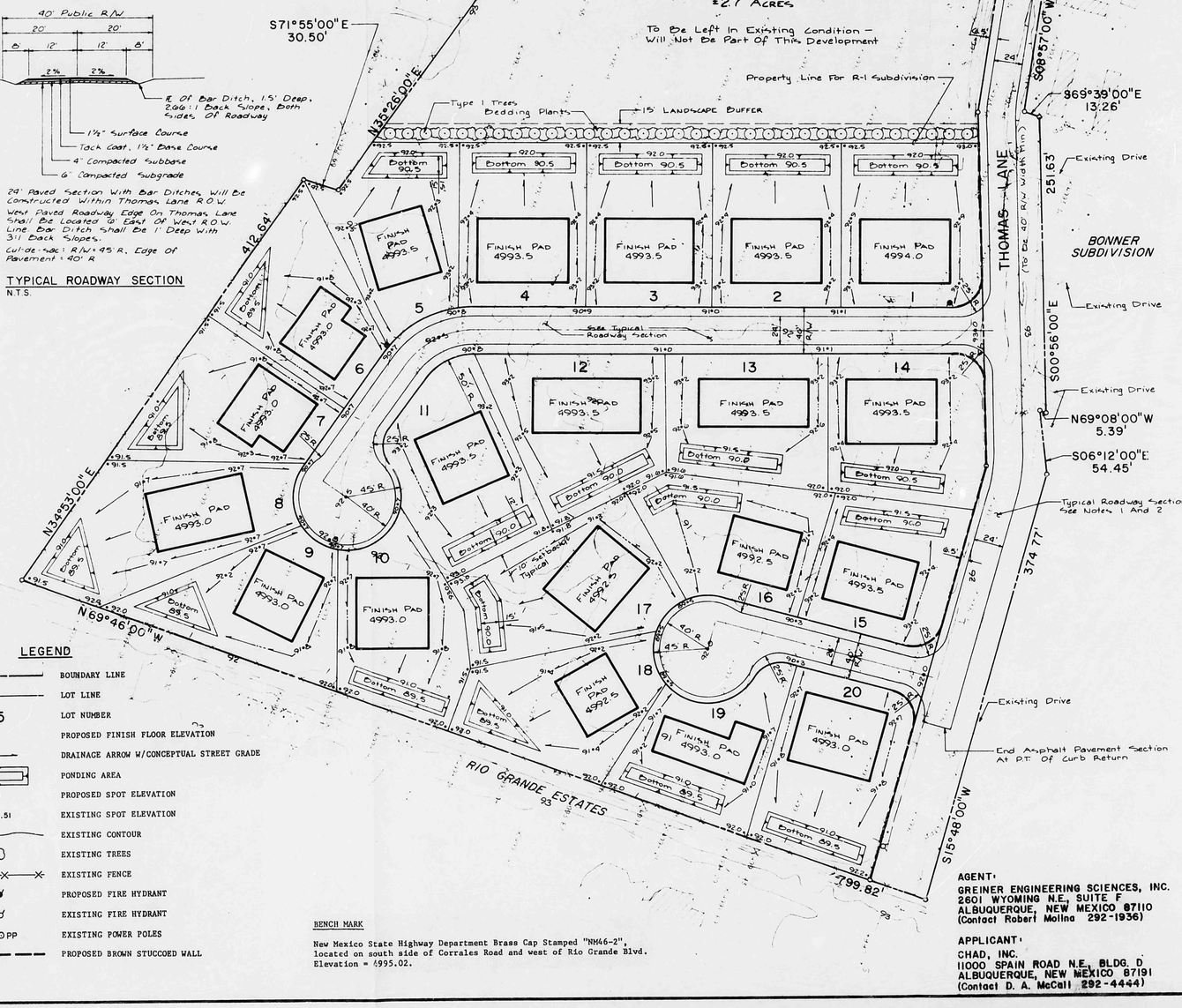
Notes:
1. Site Can Be Found In FIRM Panel #350002-0036.
2. Site As Shown In FIRM Is Located In Zone B And Is Not Within A One-Hundred year Flood Plain Limit.
3. Ponds Shall Be Designed To A Minimum Of 1,071 CF Volumetric Capacity.

POND DETAIL & NOTES
N.T.S.



Note: 1. 24' Paved Section With Bar Ditches Will Be Constructed Within Thomas Lane R.O.W.
2. West Paved Roadway Edge On Thomas Lane Shall Be Located 10' East Of West R.O.W. Line Bar Ditch Shall Be 1' Deep With 3:1 Back Slopes.
3. Cul-de-sac: R/W = 45 R, Edge Of Pavement = 40' R

TYPICAL ROADWAY SECTION
N.T.S.



LEGEND

	BOUNDARY LINE
	LOT LINE
15	LOT NUMBER
93	PROPOSED FINISH FLOOR ELEVATION
	DRAINAGE ARROW W/CONCEPTUAL STREET GRADE
	PONDING AREA
•	PROPOSED SPOT ELEVATION
× 4991.51	EXISTING SPOT ELEVATION
92	EXISTING CONTOUR
	EXISTING TREES
	EXISTING FENCE
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
⊙ PP	EXISTING POWER POLES
	PROPOSED BROWN STUCCOED WALL

BENCH MARK

New Mexico State Highway Department Brass Cap Stamped "NM46-2", located on south side of Corrales Road and west of Rio Grande Blvd. Elevation = 4995.02.

AGENT:
GREINER ENGINEERING SCIENCES, INC.
2601 WYOMING N.E., SUITE F
ALBUQUERQUE, NEW MEXICO 87110
(Contact Robert Molina 292-1936)

APPLICANT:
CHAD, INC.
11000 SPAIN ROAD N.E., BLDG. D
ALBUQUERQUE, NEW MEXICO 87191
(Contact D. A. McCall 292-4444)

DRAINAGE CALCULATIONS AND NOTES

Lot Size = .33 acre or 14,374.80 sq. ft. minimum.

Rainfall, Q_{100} - 6 Hour Storm = 2.2" per plate 22.2 D-1 [City of Albuquerque, Development Process Manual (D.P.M.)]

Intensity, Used 10 minutes minimum - I = (6 hr Rain) 6.84 $tc^{-0.51}$ ∴2.2" x 2.114 = 4.65" Per Plate 22.2 D-2 (City of Albuquerque, D.P.M.)

Hydrologic Soils Group = Type 'B' (Soils Survey of Bernalillo County)

Determination of 'C' Factor, House Floor Area varies 1,600 sf to 4,000 sf, used 4,000 sf (worst case) therefore 28% of proposed site is impervious. C = .48 per plate 22.2 C-1 (City of Albuquerque, D.P.M.)

Rational Formula, Q = CiA

Historic Runoff for .33 acre lot unimproved, Q = .34 x 4.65 x .33 = 0.52 cfs

Developed Runoff for .33 acre lot improved, Q = .48 x 4.65 x .33 = 0.74 cfs

Developed Runoff Ponding Requirements

Building Pad set back from street R/W = 20.0' minimum. Therefore lots shall be graded with a water block 20' from R/W line. The front yards shall be graded to drain into the bar ditches located within the street R/W and the remainder of the lot graded to drain into designed backyard ponds. The roof drains shall be directed to drain into the back yard ponds.

Pond Volume and Bar Ditch Volume Calculations

Average lot size draining into back yard pond = 12,275 sq. ft.

Average lot size and street R/W draining into bar ditch = 4,400 sq. ft. total of which 1,320 sq. ft. is impervious (30%)

Back Yard Pond Requirements

$\forall = \frac{2.2}{12} \times 12{,}175 \times .48 = 1{,}071$ Cubic Feet Ponding Capacity Required

Note: Ponding Areas as delineated are capable of containing ± 110 Cubic Feet above the ~~required~~ 1,080 cf required.

All Ponding areas shall be 18" deep min. unless otherwise denoted.

Bar Ditch Requirements

C = .48 Per Plate 22.2 C-1

$\forall = \frac{2.2}{12} \times 4{,}400 \times .48 = 387$ Cubic Feet Ponding Capacity Required

Capacity of Bar Ditch = 1.5' x 4' x 110' average length = 660 Cubic Feet available

1 - 18" x 24' CMP Shall be installed in bar ditch where residential driveways are to be located.

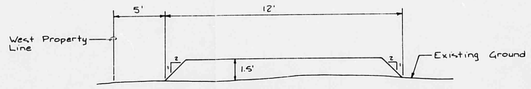
EROSION CONTROL

A berm shall be constructed on the west property line of clean earth material. The berm shall be constructed after the initial clearing and grubbing of the site and maintained throughout construction of proposed site improvements. The berm shall be removed prior to final grading. See berm detail this sheet.

DRAINAGE REPORT SUMMARY

The existing topography dictates that developed runoff will be retained on each lot and street R/W. All lots will be graded with a water block on each side of the proposed house pad. All house pads shall be built ± 18" above the existing ground. House pads shall be built with a 20' setback from the street right-of-way line. By the use of waterblocks the front yards will drain into bar ditches located in the street right-of-way (see Typical Roadway Section this sheet) and the remainder of the lot, including the roof drainage flows, will be directed into the designed sideyard drainage swales and backyard ponding areas.

The subdivision covenants as to be provided by the developer will require the homeowner to build and maintain the required backyard ponds and sideyard drainage swales. The ponding areas as shown are to scale and should be built as delineated. See pond notes and detail this sheet.



BERM DETAIL
N.T.S.

11/26/85
FOR REVIEW ONLY

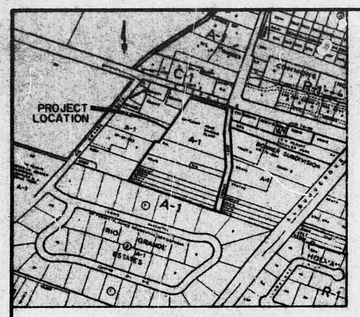
DATE OF PRINT
11 /26/1985

SITE DEVELOPMENT PLAN FOR TRACTS: 81, 91-A 91-B, 90-A-1-B AND WESTERLY PORTION OF TRACTS: 92-A, 92-B, 92-C AND 92-D ON THE M.R.G.C.D. MAP 22

NORTH RIO GRANDE ESTATES

BERNALILLO COUNTY, NEW MEXICO

TOTAL SITE ACREAGE = 11.7 Ac. (Including "R.O.W. Grant")
NET ACREAGE = ± 8.7 Ac. FOR 20 R-1 LOTS PROPOSED



VICINITY MAP
ZONE ATLAS NO. B-12

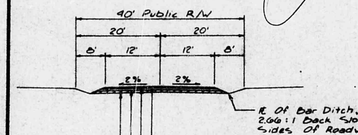
PLAN

SECTION A-A

Notes:

1. Site Can Be Found In FIRM Panel #350002-003C.
2. Site As Shown In FIRM Is Located In Zone B And Is Not Within A One Hundred year Flood Plain Limit.
3. Ponds Shall Be Designed To A Minimum Of 1,071 CF Volumetric Capacity.

POND DETAIL & NOTES
N.T.S.

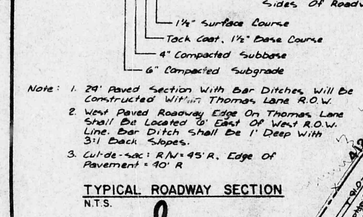


Note: 1. 24' Paved Section With Bar Ditches Will Be Constructed Within Thomas Lane R.O.W.
2. Were Paved Roadway Edge On Thomas Lane Shall Be Located 12' East Of West R.O.W. Line. Bar Ditch Shall Be 1' Deep With 3:1 Back Slopes.
3. Cul-de-sac: R/W = 45' R. Edge Of Pavement = 40' R

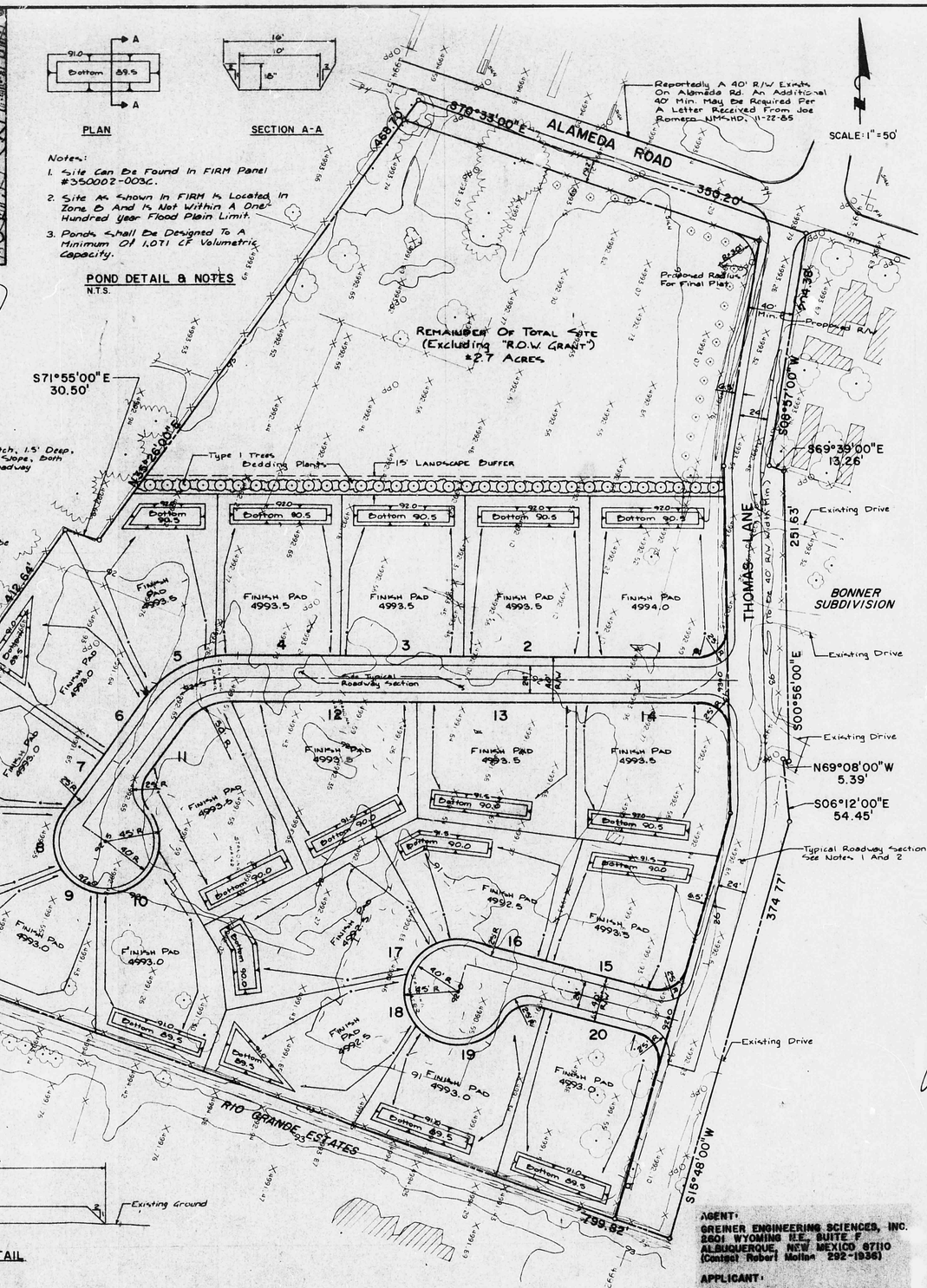
TYPICAL ROADWAY SECTION
N.T.S.

Revised Typical Roadway Section

Waive for Pavement Section



BERM DETAIL
N.T.S.



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PREVIOUS ACTION

1. CO-85-7 and CSU-85-8 - Last heard by the County Commission May 21, 1985.
2. Second Judicial District Court, County of Bernalillo, State of New Mexico, Case No. CV 85-04690 Judgement dated Sept 27, 1985 .

ZONING

Previous zoning - A-1 with a SU permit for a Gas Company Shaving Plant.
Current zoning (per Judgements CO-85-7 & CSU-85-8) - Special Use Permit for Planned Development
South ± 8.7 Ac - Use R-1 restrictions.
North ± 2.7 Ac - CN use indefinitely deferred.

INTENT OF DEVELOPMENT (R-1 Portion Only)

House floor area will vary from 1,600 sq. ft. to 4,000 sq. ft. The maximum building height will not exceed 26 feet.

A 4' to 6' high block wall, stuccoed adobe brown, will be constructed on the west R/W line of Thomas Lane starting at the northeast corner of Lot 1 and terminating at the southeast corner of Lot 20. The existing pipe railing fence along the south and west property line is to remain. The existing pipe railing fence on the west R/W line of Thomas Lane shall be removed and relocated to the north property line of Lots 1, 2, 3, 4 and 5.

If desired, privacy fence between lots will be the responsibility of the lot owners.

REFUSE

Shall be the responsibility of the individual lot owners.

WATER AVAILABILITY LETTER

Availability of services was established on September 23, 1985. Due to lot layout and street configuration revisions an amendment letter for Availability request has been submitted.

LIQUID WASTE

Percolation tests were performed by Sergent, Hauskins & Beckwith on November 16, 1984. Four test holes yielded percolation rates of 6.7, 13.2, 13.3 and 8 minutes per inch; and a seasonal high water table depth of 7'. Absorbition Fields: minimum of 450 sq. ft. for each residential lot (based on 375 gpd and 2-1/2 bedrooms per household).

EROSION CONTROL

A berm shall be constructed on the west property line of clean earth material. The berm shall be constructed after the initial clearing and grubbing of the site and maintained throughout construction of proposed site improvements. The berm shall be removed prior to final grading. See berm detail this sheet.

This Site Development Plan conforms to the judgement by the Second Judicial District Court, County of Bernalillo, as agreed upon by Mr. D. A. McCall and the County Commissioners, County of Bernalillo.

CPZC Case No. _____

Approved: _____

COUNTY PLANNER — DATE

John Romero — 11/4/86
COUNTY ROAD SUPERINTENDENT — DATE

COUNTY COMMISSION CHAIRMAN — DATE

PRIOR TO FINAL PLAT APPROVAL

1. Developer will provide centerline monumentation agreements, or block control staking, per ordinance.
2. Subdivision survey shall be tied to the New Mexico State Plane Coordinate System.
3. Subdivision boundary and corners shall be properly monumented, and a traverse run from ACS monument "9-B15" through the boundary tieing to NM monument "46-2".

APPROVED:

CITY SURVEYOR — DATE

DRAINAGE REPORT

The flat existing topography dictates that developed runoff will be retained on each Lot. The proposed road surfaces shall be constructed with a 2% crown allowing runoff to flow into bar ditches. A Drainage Plan will be submitted for review by County staff. Finish floor elev. will be a minimum of 12" above the surrounding lot. Drainage is not in 100-year Flood Plain.

SOILS REPORT

A Geotechnical Investigation Report has been prepared by: Sergent, Hauskins & Beckwith. Job Number E84-1169.

LOT AREA

The minimum lot area as shown is .33 acres or 14,375 sq. ft.

BENCH MARK

New Mexico State Highway Department Brass Cap Stamped "NM46-2", located on south side of Corrales Road and west of Rio Grande Blvd. Elevation = 4995.02.

LANDSCAPING

The developer is to provide one (1) tree for each lot. The remainder of the landscaping will be the responsibility of the individual lot owners.

The developer will also provide a 15' landscaped buffer on the north side of Lots 1, 2, 3, 4 and 5. The developer shall provide 3 years of maintenance and replace dead or dying shrubbery within 45 days. Maintenance as provided by the developer will only be within the 15' landscaping buffer.

LANDSCAPING PLAN

The following schedule of landscaping materials will be employed:

Trees - Type 1: Honey Locust, (Gleditsia Triacanthos Emerusta)
Sycamore (Platanus Occidentalis)
Mountain Ash (Sorbus Acuparia or Scopulina)

Type 1 trees shall be no less than 3" caliper. Trees shall be tightly burlapped or boxed. In the case of the former, ball diameter shall be no less than 10 times trunk caliper measured at point closest to ball. Care shall be taken to maintain clear sight triangles and all trees shall be planted so as not to interfere with existing utility lines.

The following native plant materials are acceptable for use in beddings, planters, and other similar applications:

Bedding Plants: Rubber Rabbitbush (Chrysothamnus Nauseosus)
Chamisa (Cripothamnus Nauseasus)
Big Sagebrush (Artemisia Tridentata)
Santolina (Santolina Chamaecyparissus)

All native plant materials references above shall be minimum of 3 gallon container size.

LEGEND

———	BOUNDARY LINE
———	LOT LINE
15	LOT NUMBER
	PROPOSED FINISH FLOOR ELEVATION
	DRAINAGE ARROW
	PONDING AREA
92•5	PROPOSED SPOT ELEVATION
X 4991.81	EXISTING SPOT ELEVATION
—92—	EXISTING CONTOUR
	EXISTING TREES
—x—x—x—	EXISTING FENCE
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
OPP	EXISTING POWER POLES
— — —	PROPOSED BROWN STUCCOED WALL

RECEIVED DEC 02 1985 HYDROLOGY SECTION

DATE OF PRINT 11/12/1985

Amended 11-15-85 Per Rex King Discussion 11-12-85 & DRD 11-12-85