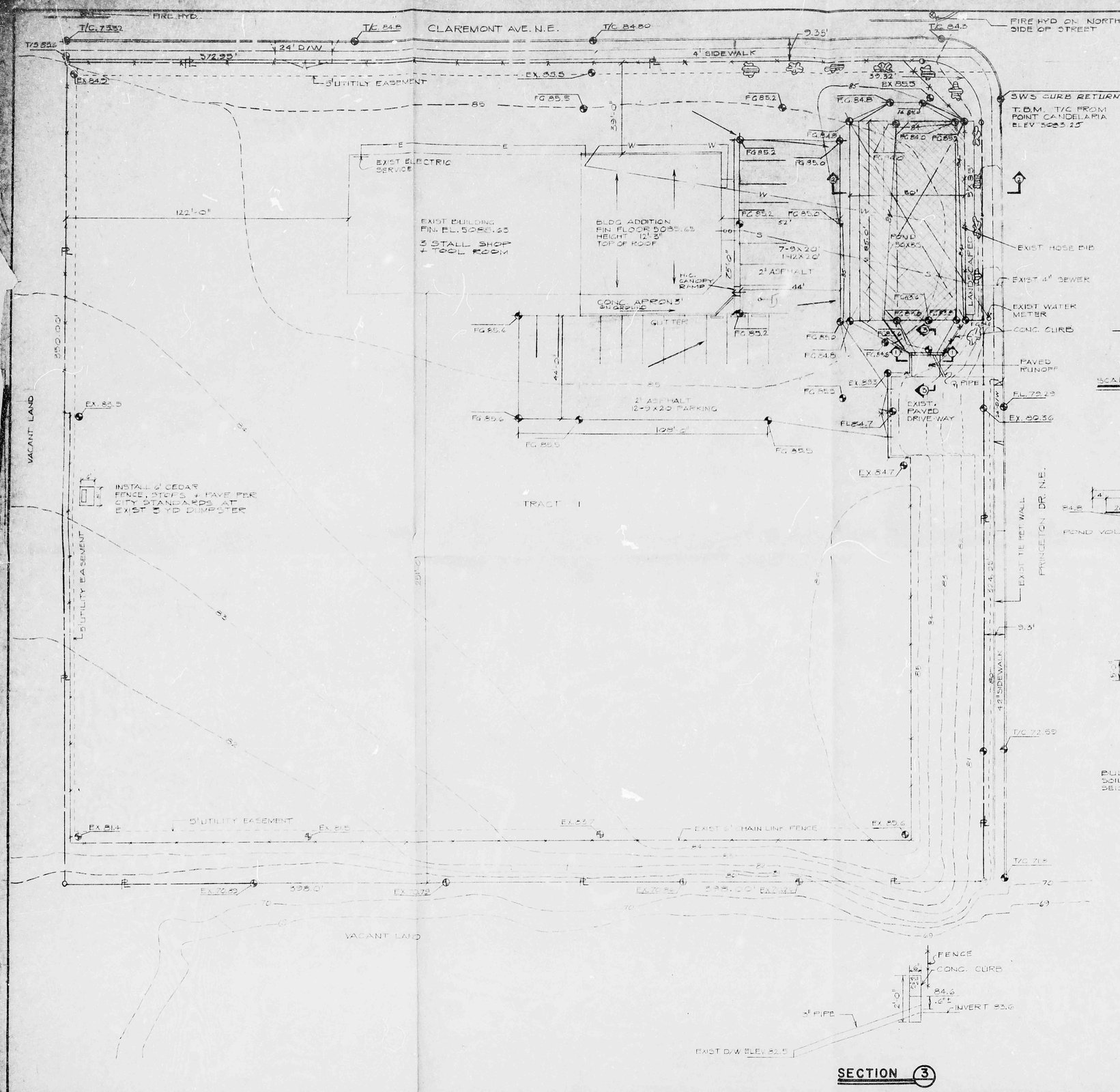
HYDROLOGY

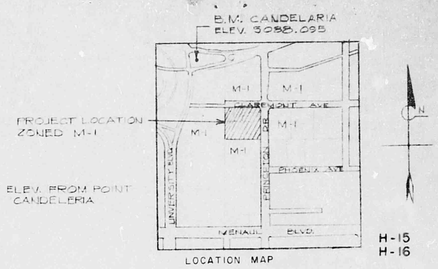
H16/D30
2 PLANS

H16/D30

2 Plans



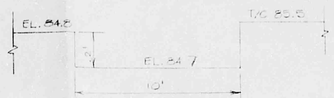
SCALE: 1"=20'



LOCATION MAP

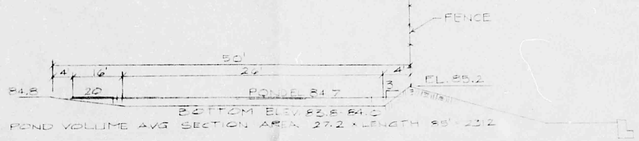
H-15
H-16

SHEET NO.	DRAWING
1	DRAINAGE + PLOT PLAN
2	FLOOR PLAN + SECTIONS
3	ELEVATIONS
4	MECHANICAL PLAN + DETAILS
5	ELECTRICAL PLAN + DETAILS
6	FOUNDATION PLAN + DETAILS

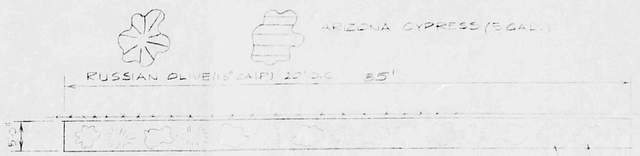


SECTION 1

OVER FLOW DETAIL



SECTION 2



LANDSCAPE DETAILS

BUILDING TYPE 5N
SOIL PRESSURE 2,000 PSF
SEISMIC ZONE 2

USBE EQUIPMENT RENTAL SALES DISPLAY AND REPAIR

EXIST. BLDG.	920 SQ. FT.
REPAIR GARAGE	OCCUPANCY H-2
ADDITION	3,000 SQ. FT.
OFFICE	1,970 SQ. FT.
DISPLAY	1,430 SQ. FT.
SERVICE	150 SQ. FT.
OCCUPANCY	B-2
BLDG. TYPE	5N
PARKING	7 STD. 1 HC. 8,200 SQ. FT.
LANDSCAPING	575'

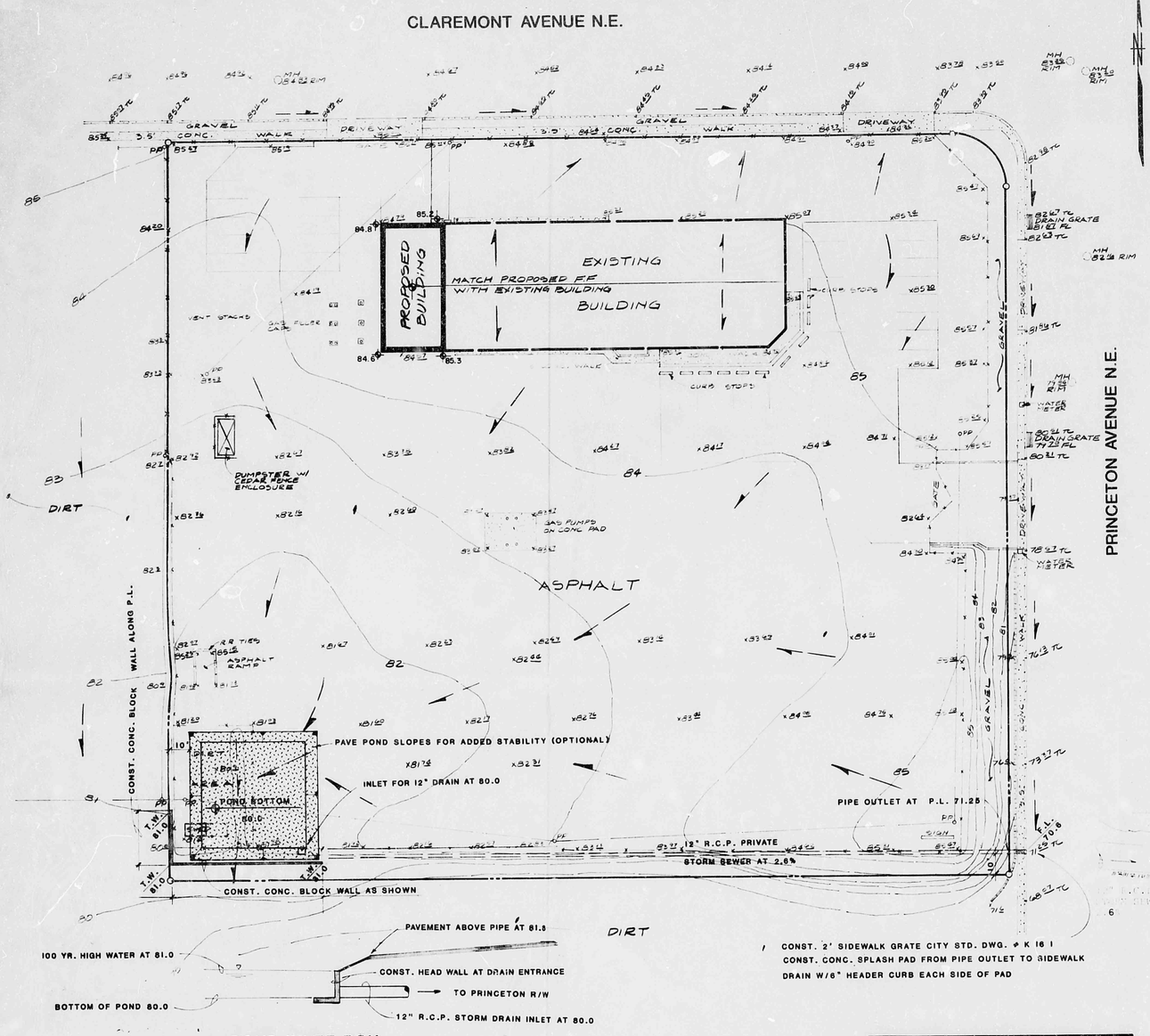
APPROVED FOR DRAINAGE
11-2-81
DATE
TITLE
SIGNATURE
ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED
engineer to certify

RECEIVED
OCT 2 1981

LEGAL:
LOTS 1-5 LAIR SUBDIVISION
AND TRACT 1
MITCHAUL DEVELOPMENT
VACATED WEST 8' OF
PRINCETON DRIVE N.E.
2005 PRINCETON DRIVE N.E.
(REPLAT TO UNFLICT IN PROCESS)

LEGEND:
EXIST. CONTOUR
FINISH CONTOUR
PAVING
SEWER
WATER
ELECTRIC
TOP OF POND
BOTTOM OF POND
EXISTING GRADE
FINISH GRADE

DRAWN BY: PDZ	ZUNI RENTALS DRAINAGE & PLOT PLAN
CHECKED BY: RLH	
REVISIONS: TENTATIVE (Mar 9, 1981) (Feb 4, 1981) REV. 10/27/81	SUPERIOR CONSTRUCTION CO.
RAY HARRISON & ASSOCIATES	SHEET 1 OF 6

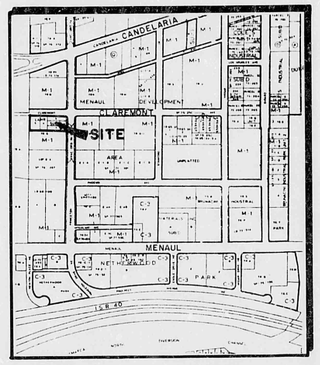


CONST. 2' SIDEWALK GRATE CITY STD. DWG. # K 16 1
CONST. CONC. SPLASH PAD FROM PIPE OUTLET TO SIDEWALK DRAIN W/6" HEADER CURB EACH SIDE OF PAD

POND INLET BOX

LEGEND

- SIDEWALK, CURB & GUTTER (EXISTING, PROPOSED)
- PROPOSED ASPHALT
- BUILDING (EXISTING, PROPOSED)
- PROPERTY LINE
- X12.7 — EXISTING SPOT ELEVATION
- 10 — EXISTING CONTOUR
- 12.5 — PROPOSED SPOT ELEVATION
- 10 — PROPOSED CONTOUR
- SURFACE FLOW DIRECTION (EXISTING, PROPOSED)

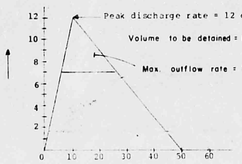


VICINITY MAP H 16

RESUBMITTAL 1-24-85: REVISED POND TO FREE DISCHARGE.

Christopher L. Weiss 1-25-85
CHRIS WEISS DATE

Max discharge rate for 12"R.C.P. at 2.91% slope = 7 c.f.s.
Peak rate to S.W. Corner of site = 12 c.f.s.
Max. vol. to be detained = 3000 cu. ft. for the 100yr. event. - Full free discharge from site limited by pipe slope and size. Property owner is willing to construct shallow pond at S.W. corner of site to serve as detention collection area for runoff rather than increase pipe size to a larger diameter.

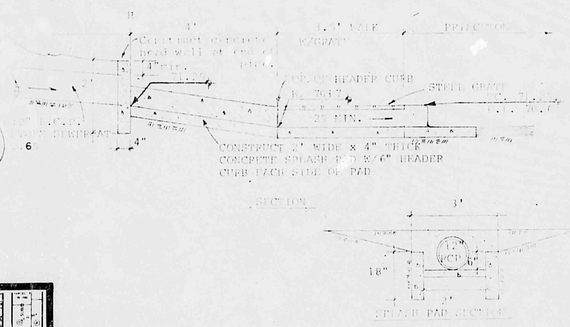


Pond area (top dimensions) = 60' x 40'
S.S. = 3:1 (Max.) Depth = 1.0', in pond,
Vol. available = 3100
Outlet under head of 1.0'
Pipe Capacity = 7cfs at 2.6% slope

POND VOLUME

	CONTOUR	AREA	AVERAGE	INTERVAL	VOLUME
60x60 Pond	80.0	2601	3100	1.0	3100
	81.0	3600			

TOTAL: 3100 cu. ft.
VOLUME REQUIRED: 3000 cu. ft.



City of Albuquerque
Mr. Christopher Weiss
CTS, Inc.
1100 A Alvarado SE
Albuquerque, NM 87110
January 31, 1985
REF: ZUNI RENTAL ADDITION LOTS 1-5, LAHR SUBDIVISION SOUTH 200' OF TRACT G (DRAINAGE) RECEIVED JANUARY 10, 1985
Dear Chris:
Based on your information as presented to our office, free discharge of the above referenced drainage is acceptable. We have contacted your clients and advise them of the new requirements. Our office will work as quickly as possible on their decision. Also, review of the residential will be handled as priority.
If you have any questions or comments, please feel free to contact me at 766-6482.
Sincerely yours,
Hydrology Section
Civil Engineer/Hydrology

SCOPE:

The proposed improvements, comprised of landscaping, dumpster enclosure and a building addition to an existing structure, are located at the SW corner of Claremont Ave. and Princeton Ave. NE.

The present site is known as Zuni Rentals. The entire site is presently covered by asphalt pavement around the sales building..

The intent of this plan is to show:

a) Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.

b) The extent of proposed site improvements, including buildings, walks and pavement.

c) The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City requirements for drainage management.

d) The relationship of onsite improvements with existing neighboring property to insure an orderly transition between proposed and surrounding grades.

GENERAL NOTES:

LEGAL:
Lots 1-5, Lahr Subdivision, South 200' Tract G, Menaul Development vacated west 8' of Princeton Dr. N.E.

SURVEYOR:
Ron Forstbauer Surveying Company, November 1984.

B.M.:
"Candelaria" A standard USC & GS Brass Tablet, Elevation 5085.16.

T.B.M.:
T.C. @ NW corner of site, west PL projected to street. Elevation 5085.17.

SOILS:
SCS Soils Map #21, Soil Type "Cu", Hydrologic Group "A".

FLOOD HAZARD:
Site is not located in or adjacent to a flood hazard area. (AMDB H-15, H-16).

OFF-SITE DRAINAGE:
Site is bordered on the north and east by Claremont and Princeton Ave., respectively, which intercepts flows from the east. Area to west and south of site is undeveloped and does not contribute flows to site.

EROSION CONTROL:
Site is completely covered by pavement and proposed building addition will not cause any situation which would allow sediment to leave the site.

CALCULATIONS:
Based on a pre-design meeting with City of Albuquerque Hydrology, on 10-16-84, the following criteria was established:

a. Where the proposed addition is to be placed on an area covered by pavement, no change to the drainage peak rate or flow patterns will result.

Calculations are based on the City of Albuquerque D.P.M. Manual, Vol. II for the 100 year-6 hour storm, using the Rational Formula to compare the existing and proposed runoff rates.

RATIONAL METHOD Q = CIA

Area of site: 139,300 sq.ft.= 3.2 Ac.

Run-off Coefficient:

Existing site:	Developed Site:
A imp. = 3.05 Ac	A imp. = 3.00 Ac.(Increased
% imp. = 95 %	% imp. = 94 % landscaping)
"C" = 0.85 (DPM 22.2 C-1)	"C" = 0.83 (DPM 22.2 C-1)

Rainfall Intensity:

$I = P_6 (6.84)\ Tc^{-0.6} = 4.65"$ per hour
where $P_6 = 2.2$ (DPM 22.2 D-1)
Tc = 10 minutes

Existing Condition:	Developed Condition:
Q100 = (0.85)(4.65)(3.2) = 13 cfs	Q100 = (0.83)(4.65)(3.2) = 12 cfs
V100 = (Q100)(5 Tc)(60 sec/in)/2 = 18,972 cu. ft.	V100 = (12.35)(50)(60)/2 = 18,525 cu. ft.

SUMMARY:

Δ Q100 = (13)-(12) = 1 cfs (decrease)
Δ V100 = (18,972)-(18,525)= 447cu. ft. (decrease)

CONSTRUCTION NOTES:

1. Before beginning construction, the Contractor shall check and verify pertinent figures shown here on and all applicable field measurements. Should any conflict, error or discrepancy be discovered, the Contractor shall notify the Engineer at once to resolve the problem.

2. The Contractor shall be responsible for following the plans using his best skill and attention. Any departure from the plans must be approved by the Engineer and the City Hydrology Department prior to construction.

3. The Contractor shall check the site plan for locations of existing utilities within or adjacent to streets and shall take all necessary precautions and efforts to locate and protect these utilities. He shall give 48 hours notice to Line Locating Service, 765-1234, for any work that he contemplates would interfere with said utilities.

RECEIVED JAN 29 1985 HYDROLOGY SECTION

RESUBMITTED 1-10-85

Chris Weiss 1-10-85
CHRIS WEISS DATE

POND ADDED IN S.W. CORNER W/ 12" OUTLET PIPE TO PRINCETON, & APPROPRIATE DETAILS.

CTS INC.
ENGINEERING
1100 ALVARADO N.E. SUITE A
ALBUQUERQUE, NEW MEXICO 87110
(505) 266 - 3444

REVISIONS DATE

DESIGNED
DRAWN
CHECKED

DRAINAGE / GRADING PLAN
ZUNI RENTAL ADDITION
2705 PRINCETON N.E.

Chris Weiss 11-6-84

SHEET 1 OF 1