HYDROLOGY

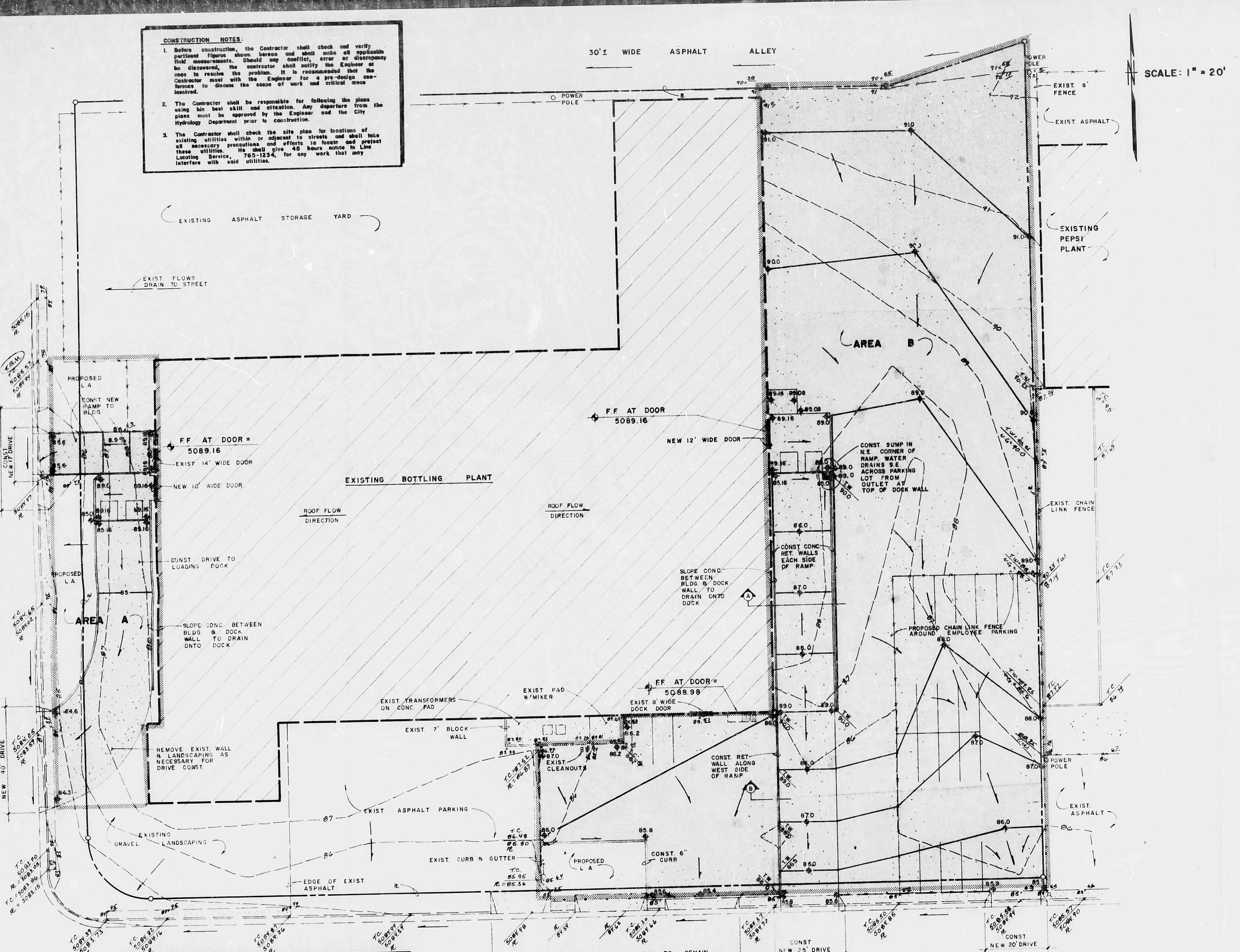
H16/D22
3 PLANS

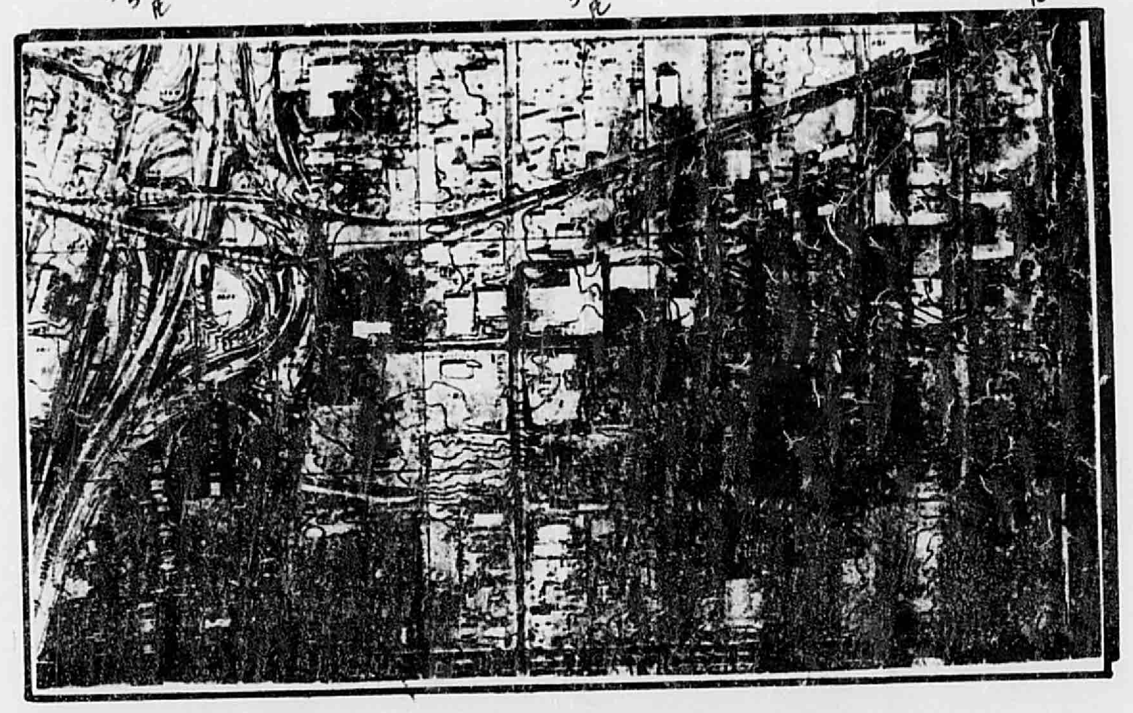
H16/D22

3 Plans

CONSTRUCTION NOTES:

1. Before construction, the Contractor shall check and verify pertinent figures shown hereon and shall make all applicable field measurements. Should any conflict, error or discrepancy be discovered, the contractor shall notify the Engineer at once to resolve the problem. It is recommended that the Contractor meet with the Engineer for a pre-design conference to discuss the scope of work and critical areas involved.
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 may interfere with said utilities.

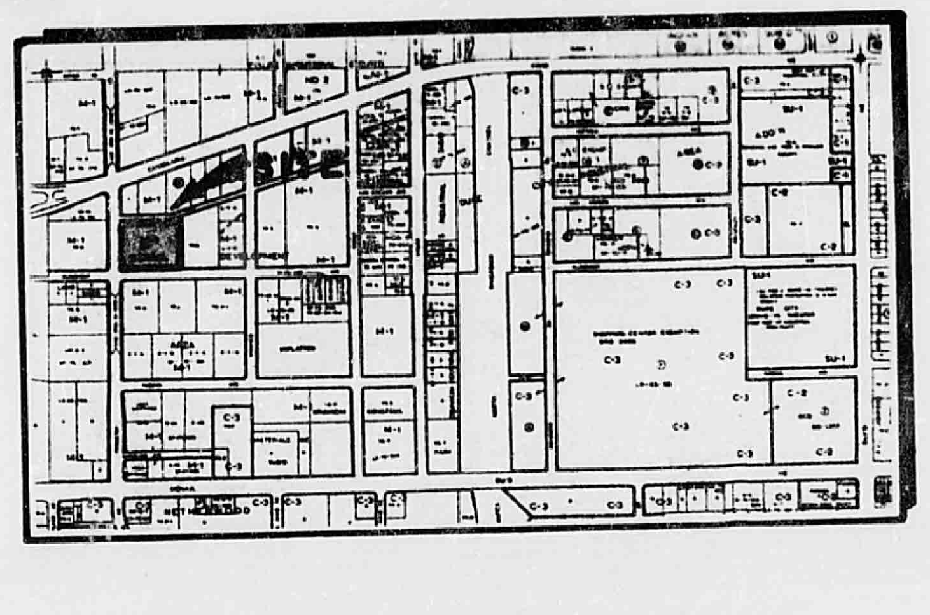




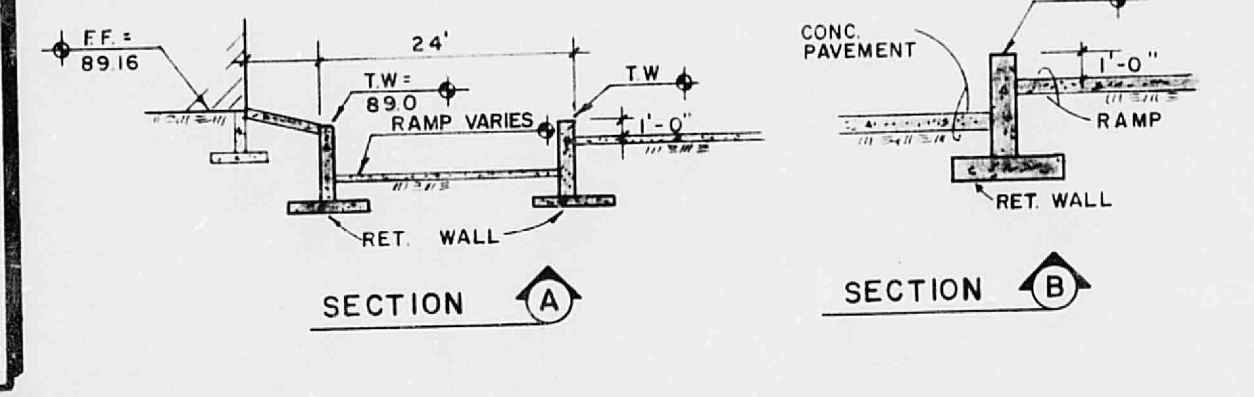
FLOOD HAZARD BOUNDARY MAP

LEGEND

▨	PROPOSED CONCRETE
▨	DRAINAGE AREA BNDRY.
→	DIRECTION OF FLOW
⊕ 85.8	PROPOSED FINISHED ELEV.



VICINITY MAP H-16



SCOPE:

The proposed improvements consist of two loading docks with driveways and an employee parking area on the east and west sides of the 7-UP building. Area west of the building has an existing drive which will be replaced with a loading dock and new driveway. The area east of the building will be paved with concrete to provide a loading area in conjunction with a loading ramp/dock. Associated employee parking and customer parking will also be completed on the east and south sides of the 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: Tract 'N' of Menaul Development Area, Albuquerque, NM.

SURVEYOR: Topo by Clausen & Associates, October, 1985. Boundary was provided by client from 7-UP As-built Drawings by Stanley & Wright Architects.

B.M.: ASC Brass Cap 12-H16 at the SE corner of Candelaria and Princeton. Elevation = 5088.32.

T.B.M.: Top of curb at projection of NW corner of existing building. (Marked with 'X' painted on top of curb) Elevation = 5085.57

SOILS: SCS Map #21. Soil is type 'Cu', Hydrologic Soil Group 'A'.

FLOOD HAZARD: FEMA Map #23. This site lies between Menaul and Candelaria and between I-25 and the North Diversion Channel. There are no flood hazard areas located within this area.

OFF-SITE DRAINAGE: Flows from the Pepsi Plant drain to Claremont Avenue and do not run across this site. Flows from off-site to the east are contained within the U-shaped asphalt alley and do not affect this site.

EROSION CONTROL: Contractor shall be responsible for containing any sediment which might run off the site during construction.

CALCULATIONS:
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 'A'

Area of site: 7740 sq.ft.= 0.18 Ac. (West side of building)

Run-off Coefficient:

Existing site:	Developed Site:
A imp. = 0.03 Ac	A imp. = 0.11 Ac
% imp. = 14%	% imp. = 61%
"C" = 0.23 (DPM 22.2 C-1)	"C" = 0.49 (DPM 22.2 C-1)

Rainfall Intensity:

$I = P_6 (6.84) T_c^{-0.51} = 4.65"$ per hour

where $P_6 = 2.2"$(DPM 22.2 D-1)

$T_c = 10$ minutes

Existing Condition:	Developed Condition:
$Q_{100} = (0.23)(4.65)(0.18) = 0.19$ cfs	$Q_{100} = (0.49)(4.65)(0.18) = 0.41$ cfs
$V_{100} = (0.19)(50T_c)(60 \text{ sec/min})/2 = 285$ cu. ft.	$V_{100} = (0.41)(50)(60)/2 = 615$ cu. ft.

SUMMARY:

$Q_{100} = (0.41)-(0.19) = 0.22$ cfs (increase)

$V_{100} = (615)-(285) = 330$ cu. ft. (increase)

AREA 'B'

Area of site: 43650 sq.ft.= 1.0 Ac. (East side of building)

Run-off Coefficient:

Existing site:	Developed Site:
A imp. = 0.15 Ac	A imp. = 0.98 Ac
% imp. = 15%	% imp. = 98%
"C" = 0.23 (DPM 22.2 C-1)	"C" = 0.92(DPM 22.2 C-1)

Rainfall Intensity:

$I = P_6 (6.84) T_c^{-0.51} = 4.65"$ per hour

where $P_6 = 2.2"$(DPM 22.2 D-1)

$T_c = 10$ minutes

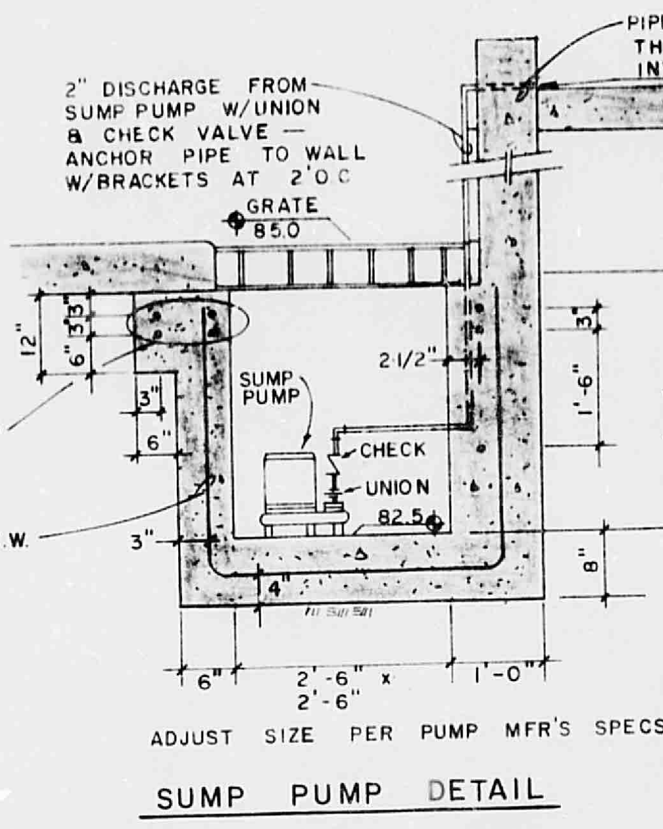
Existing Condition:	Developed Condition:
$Q_{100} = (0.23)(4.65)(1.0) = 1.07$ cfs	$Q_{100} = (0.92)(4.65)(1.0) = 4.28$ cfs
$V_{100} = (1.07)(50T_c)(60 \text{ sec/min})/2 = 1605$ cu. ft.	$V_{100} = (4.28)(50)(60)/2 = 6420$ cu. ft.

SUMMARY:

$Q_{100} = (4.28)-(1.07) = 3.21$ cfs (increase)

$V_{100} = (6420)-(1605) = 4815$ cu. ft. (increase)

Conclusion: The city has analyzed the downstream storm sewer at the outlet for this area and has found it has the capacity for further development. Therefore, free discharge is recommended for this site. (Ref. Drainage Plans submitted for Zuni Rental Site, File #H16-D30, February 6, 1985.)


PIPE OUTLET THRU RET WALL INV = 89.0
2" DISCHARGE FROM SUMP PUMP W/UNION & CHECK VALVE — ANCHOR PIPE TO WALL W/BRACKETS AT 2' O.C.
GRATE 85.0
SUMP PUMP
CHECK
UNION
82.5
4-#5 (24" LAPS AT CORNERS)
#4 AT 12" O.C E.W AT ℄ (CONT. AROUND BOX W/24" LAPS)
2 1/2"
1'-6"
2'-6"
6"
3"
2'-6" x 2'-6"
1'-0"
ADJUST SIZE PER PUMP MFR'S SPECS

SUMP PUMP DETAIL

RECEIVED
NOV 27 1985
HYDROLOGY SECTION

WEISS-HINES ENGINEERING INC.
1100 ALVARADO N.E. SUITE B
ALBUQUERQUE, NEW MEXICO 87110
(505) 266-3444

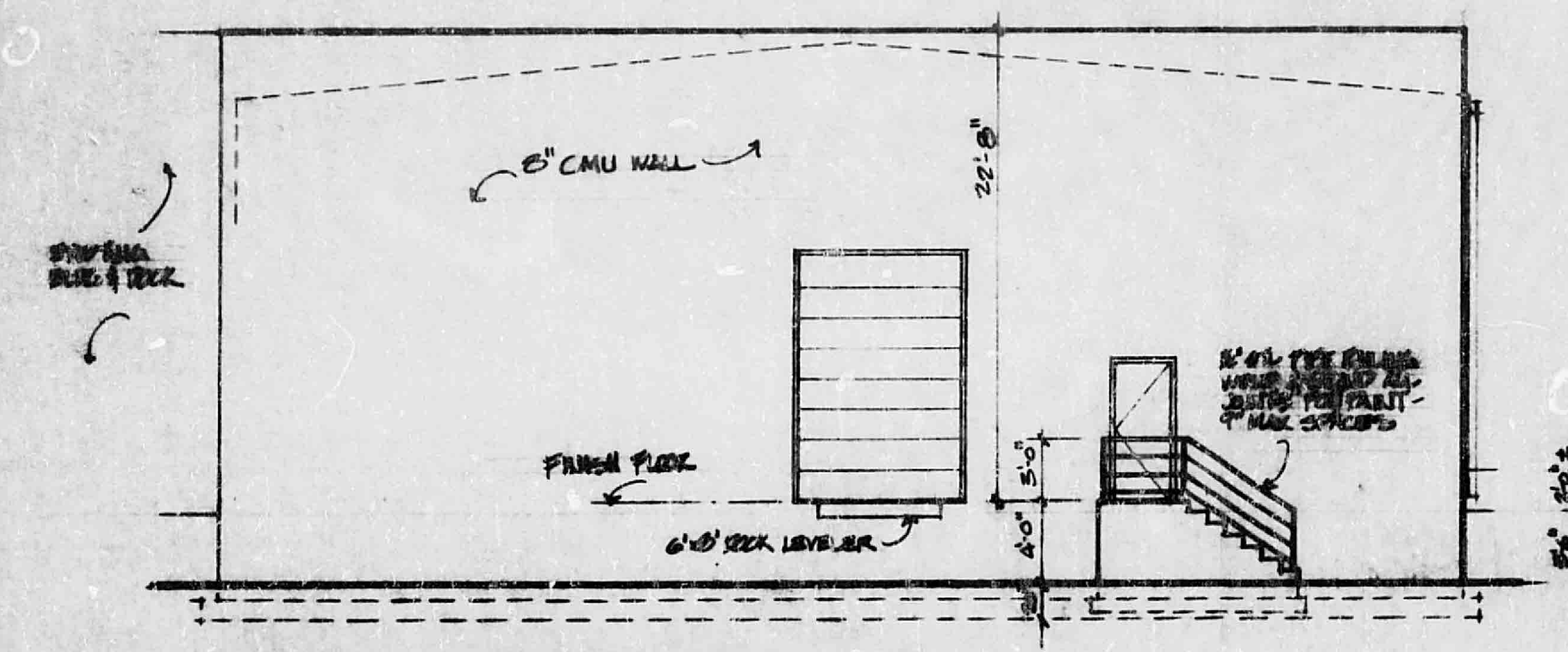
REVISIONS	DATE
DESIGNED Mw/cw	11-85
DRAWN Mw	"
CHECKED cw	"

DRAINAGE / GRADING PLAN
7-UP LOADING DOCK
2101 CLAREMONT N.E.

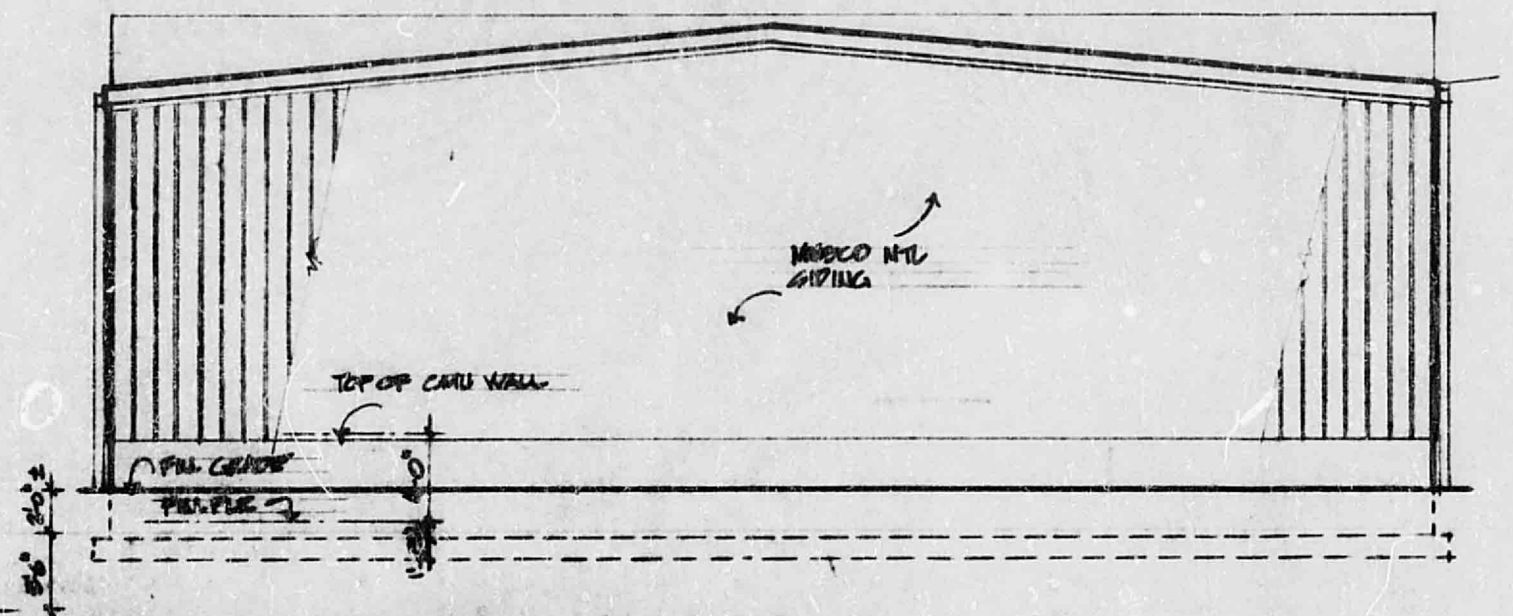
WH ENGINEERING

CHRISTOPHER L. WEISS
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

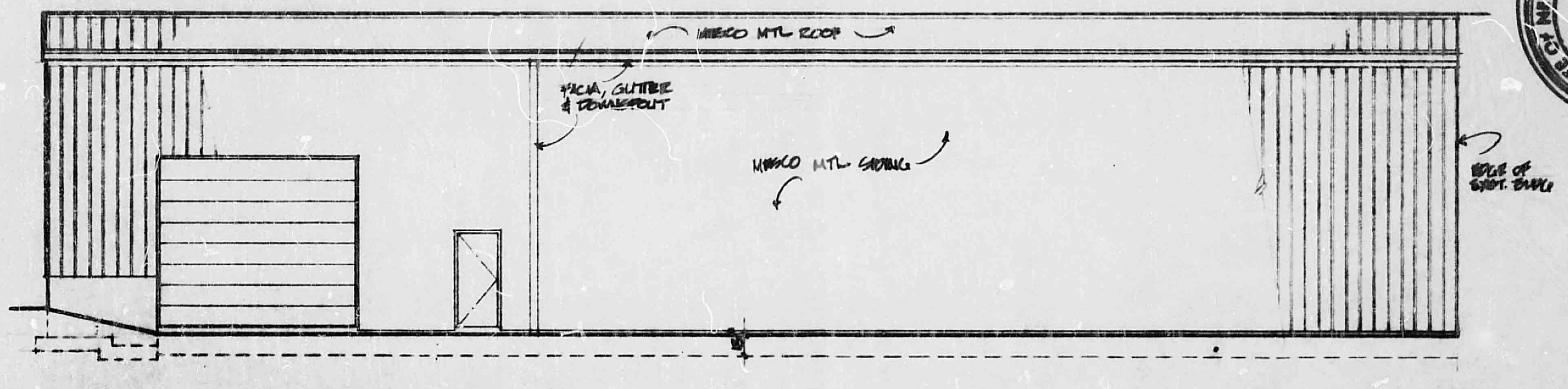
SHEET 1 OF 1



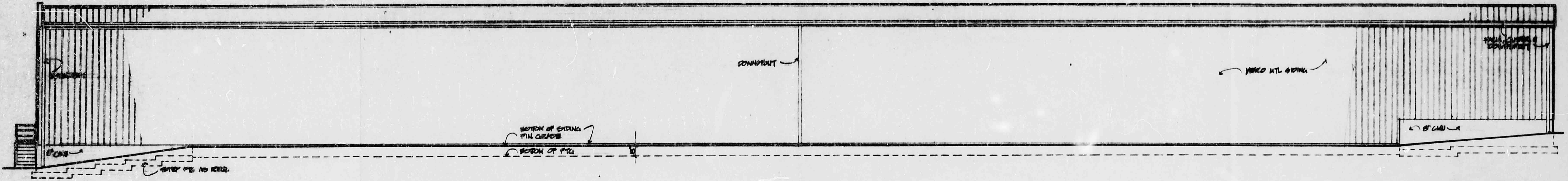
SOUTH ELEVATION 1/8" = 1'-0"



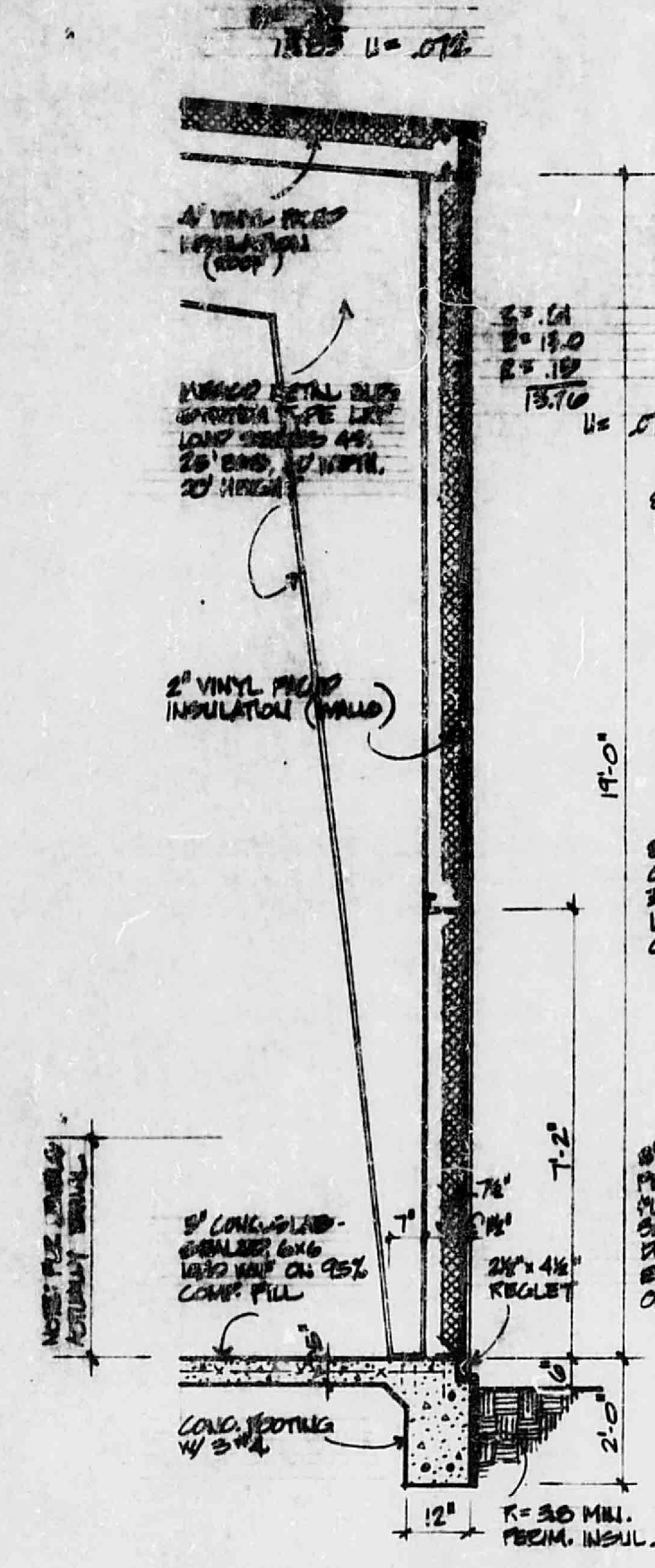
NORTH ELEVATION 1/8" = 1'-0"



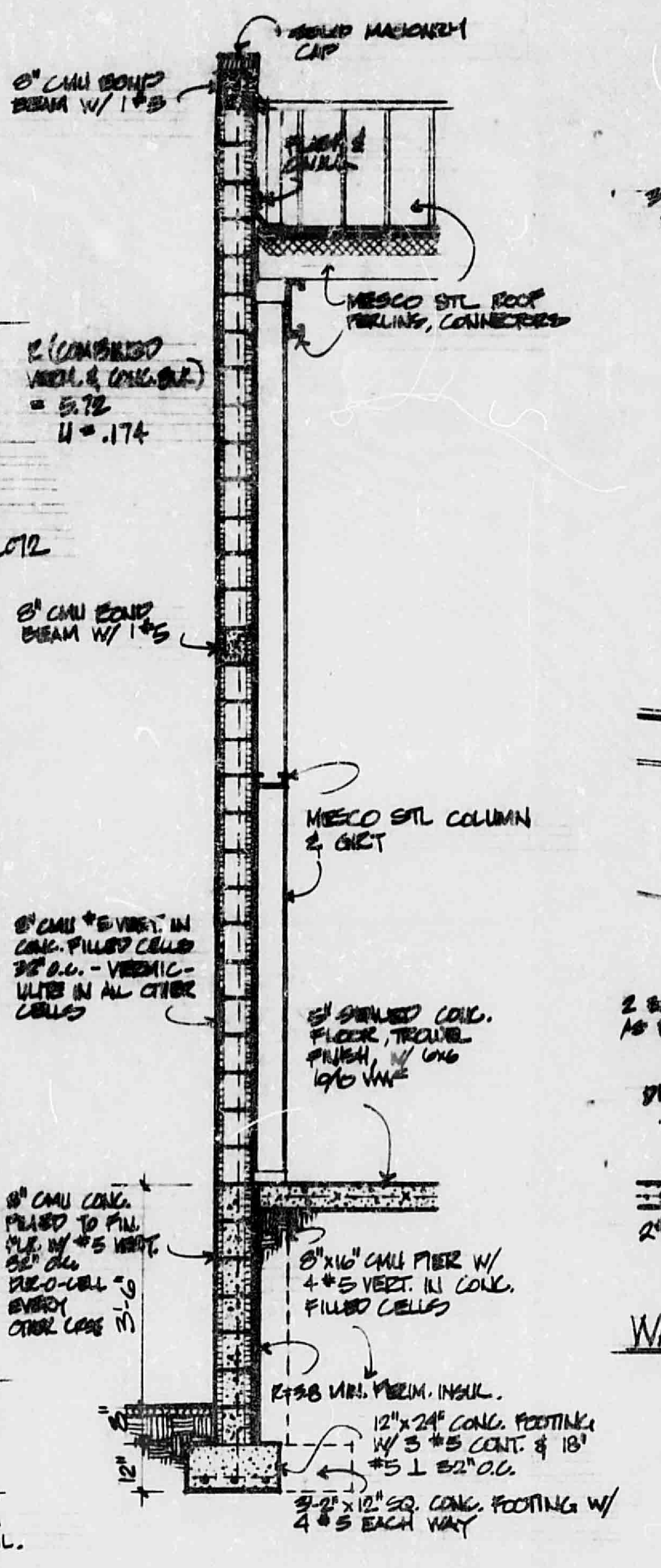
WEST ELEVATION 1/8" = 1'-0"



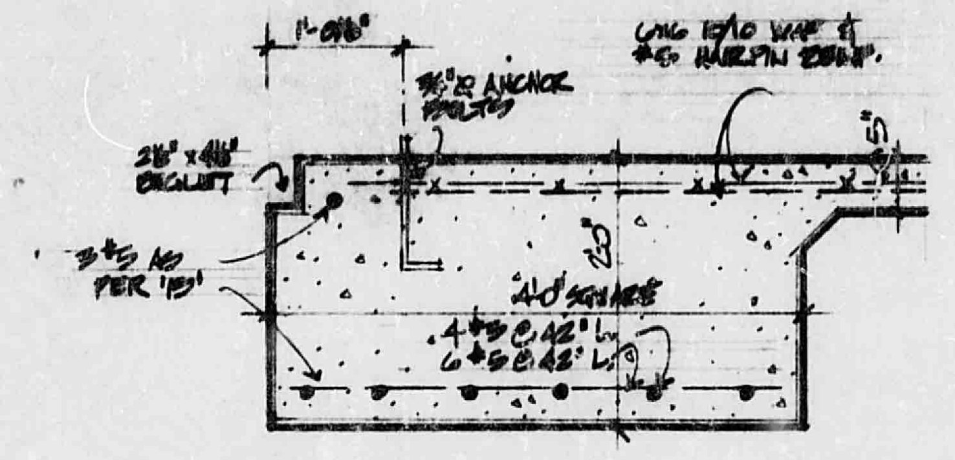
EAST ELEVATION 1/8" = 1'-0"


U = .072
4" VINYL FACED INSULATION (ROOF)
R = 5.61
R = 13.0
R = .15
13.76
U = .072
MESCO METAL BLDG.
2" VINYL FACED INSULATION (WALLS)
5" CONC. SLAB SEALED, 6x6 10/10 WWF ON 95% COMP. FILL
7'-2"
2½" x 4½" REGLET
CONC. FOOTING W/ 3 #4
12"
2'-0"
R = 3.8 MIN. PERIM. INSUL.

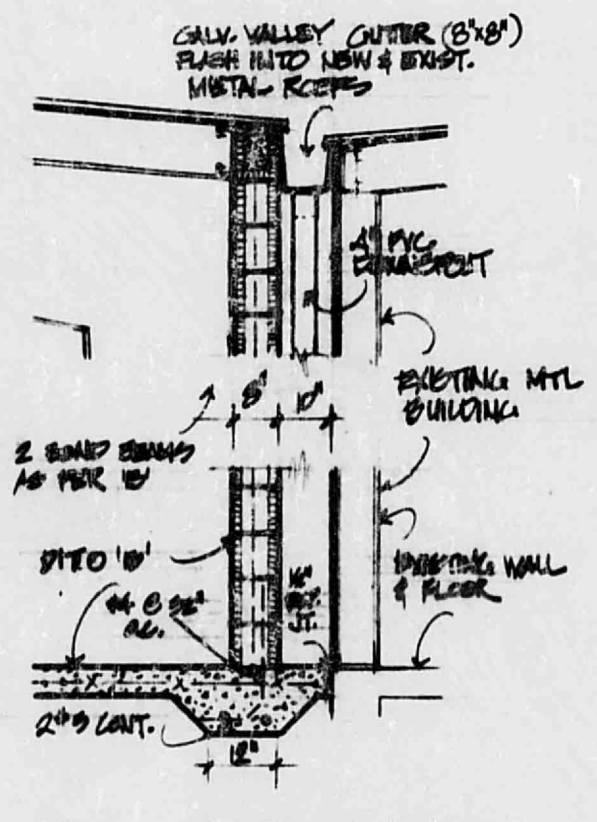
WALL SECTION 'A' 3/8"


SOLID MASONRY CAP
8" CMU BOND BEAM W/ 1 #5
MESCO STL. ROOF PURLINS, CONNECTORS
R (COMBINED VERM. & CONC. BLK.) = 5.72
U = .174
19'-0"
8" CMU BOND BEAM W/ 1 #5
MESCO STL. COLUMN & GIRT
8" CMU #5 VERT. IN CONC. FILLED CELLS 32" O.C. - VERMICULITE IN ALL OTHER CELLS
5" SEALED CONC. FLOOR, TROWEL FINISH, W/ 6x6 10/10 WWF
8" CMU CONC. FILLED TO FIN. FLR. W/ #5 VERT. 32" O.C. DUR-O-WALL EVERY OTHER CRSE
3'-6"
8"x16" CMU PIER W/ 4 #5 VERT. IN CONC. FILLED CELLS
R=3.8 MIN. PERIM. INSUL.
12"x24" CONC. FOOTING W/ 3 #5 CONT. & 18" #5 ⊥ 32" O.C.
3'-2" x 12" SQ. CONC. FOOTING W/ 4 #5 EACH WAY

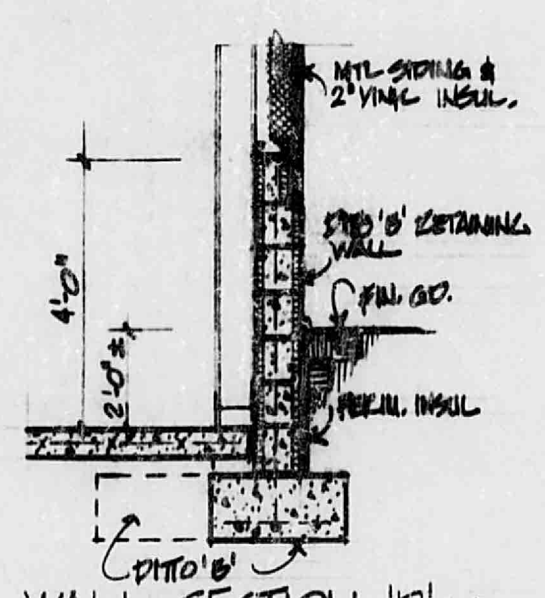
WALL SECTION 'B' 3/8"



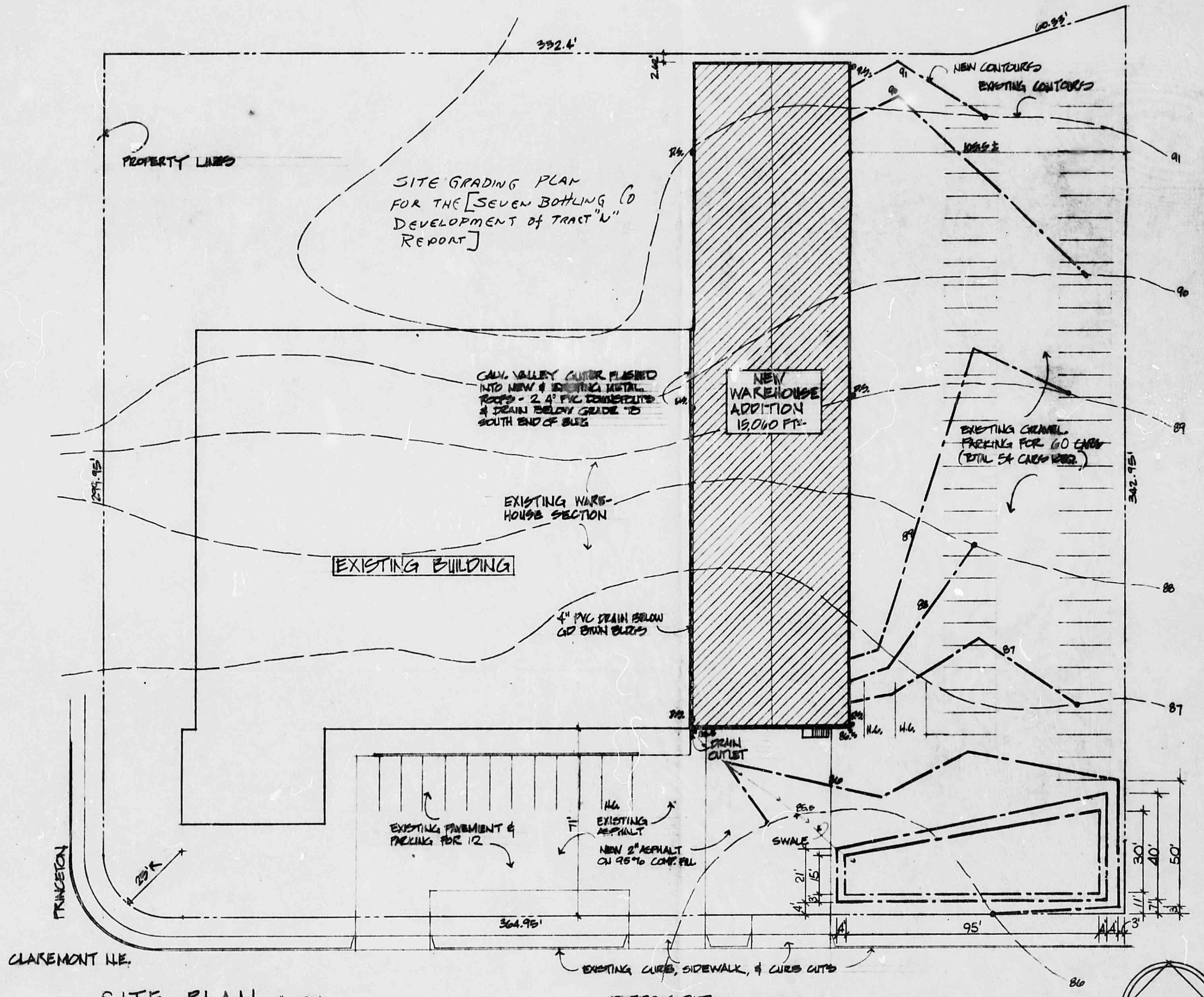
DETAIL 'D' 3/4"



WALL SECTION 'C' 3/8"



WALL SECTION 'D' 3/8"


332.4'
60.33'
PROPERTY LINES
SITE GRADING PLAN FOR THE [SEVEN BOTTLING CO DEVELOPMENT of TRACT "N" REPORT]
NEW CONTOURS
EXISTING CONTOURS
91
90
89
88
87
86
GALV. VALLEY GUTTER FLASHED INTO NEW & EXISTING METAL ROOFS - 2 4" PVC DOWNSPOUTS & DRAIN BELOW GRADE TO SOUTH END OF BLDG.
NEW WAREHOUSE ADDITION 15,060 FT²
EXISTING GRAVEL PARKING FOR 60 CARS (TOTAL 54 CARS REQ.)
279.95'
342.95'
EXISTING WAREHOUSE SECTION
EXISTING BUILDING
4" PVC DRAIN BELOW GD BTWN BLDGS
DRAIN OUTLET
H.C.
EXISTING PAVEMENT & PARKING FOR 12
EXISTING ASPHALT
NEW 2" ASPHALT ON 95% COMP. FILL
SWALE
85.5
PRINCETON
25'R
364.95'
95'
30'
40'
50'
CLAREMONT N.E.
EXISTING CURB, SIDEWALK, & CURB CUTS
EXISTING FIRE HYDRANT

SITE PLAN 1" = 30'

TRACT N MENAUL DEVELOPMENT AREA

M-1 ZONE	3 FIRE ZONE	25 PSF WIND LOAD
B2 OCCUPANCY	2 SEISMIC ZONE	1500 PSF SOIL PRESSURE
II-1R TYPE OF CONST.	20 PSF LIVE ROOF LOAD	3000 PSI ST. of CONC. @ 28 DAYS

ENERGY DATA:

WALLS: VINYL INSUL. & MTL SIDING 11,310 FT²; OVERHEAD DOORS 408 FT²; MAN DOORS 62 FT² — U = 1200(.174) + 10110(.072) + 408(1.17) + 62(1.69) / 11780 = .126 < .32 OK

ROOFS: VINYL INSUL. & MTL ROOF 15060 FT² — U = .072 < .09 OK

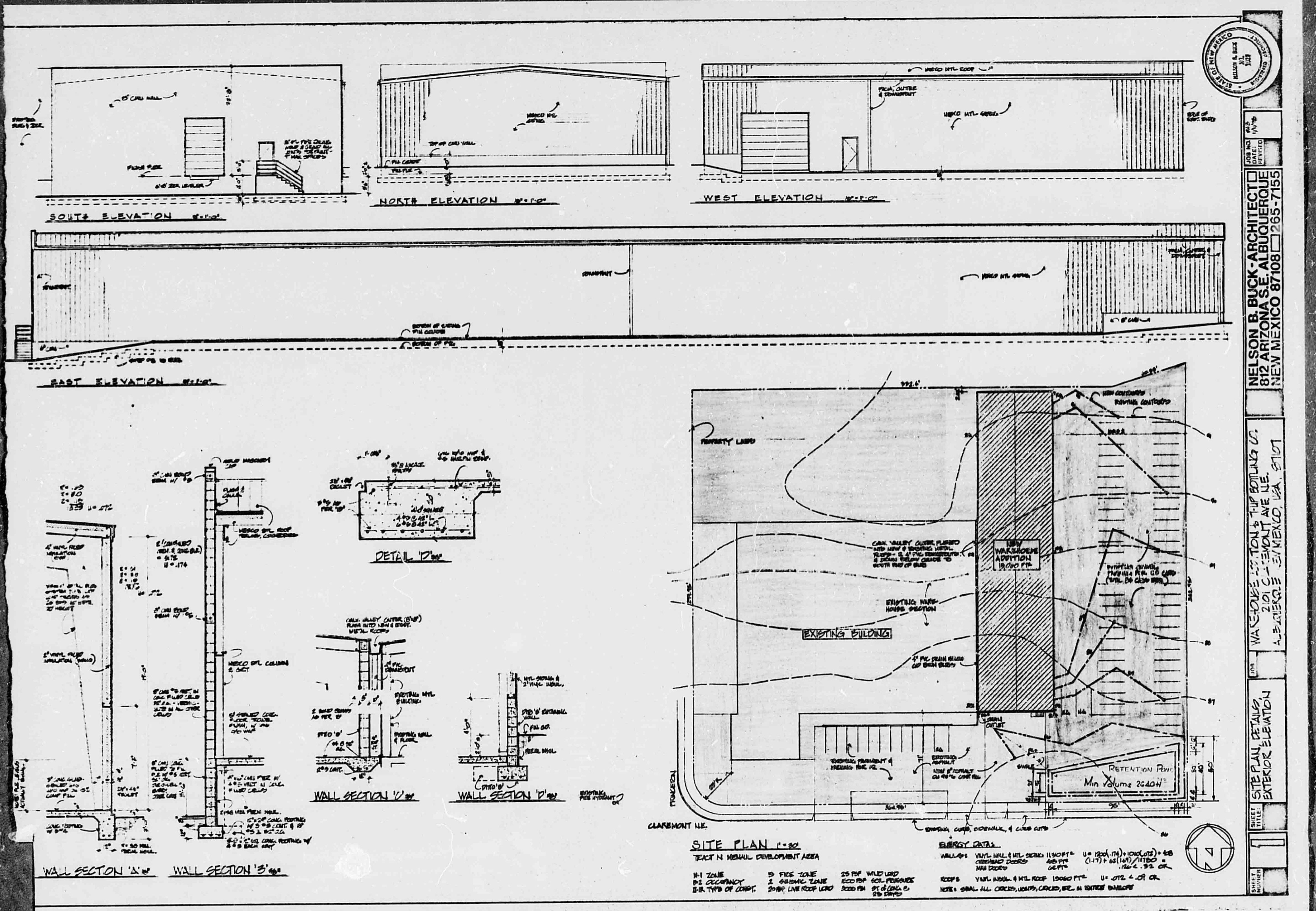
NOTE: SEAL ALL CRACKS, JOINTS, CRACKS, ETC. IN ENTIRE ENVELOPE

NELSON B. BUCK

NELSON B. BUCK · ARCH
512 ARIZONA NE
NEW MEXICO

WAREHOUSE ADDITION
2101 CLAREMONT NE
ALBUQUERQUE, NEW MEXICO

SHEET TITLE: SITE PLAN, DETAILS, EXTERIOR ELEVATION


SOUTH ELEVATION
NORTH ELEVATION
WEST ELEVATION
EAST ELEVATION
WALL SECTION 'A'
WALL SECTION 'B'
WALL SECTION 'C'
WALL SECTION 'D'
DETAIL 'E'
EXISTING BUILDING
RETENTION POND
Min Volume 2640ft³
CLAREMONT N.E.
SITE PLAN 1"=30'
DEVELOPMENT AREA
3 FIRE ZONE
2 SEISMIC ZONE
20 PSF LIVE ROOF LOAD
25 PSF WIND LOAD
1500 PSF SOIL PRESSURE
3000 PSI ST. of CONC. @ 28 DAYS
ENERGY DATA:
WALLS: VINYL INSUL & MTL SIDING 11310 FT²
OVERHEAD DOORS 408 FT²
MAN DOORS 62 FT²
U= 1200(.174)+10160(.072)+408(1.17)+62(169)/11780 = .126<.32 OK
ROOFS VINYL INSUL & MTL ROOF 15060 FT² U=.072<.09 OK
NOTE: SEAL ALL CRACKS, JOINTS, CRACKS, ETC. IN WATERS ENVELOPE
EXISTING CURB, SIDEWALK, & CURB CUTS
STATE OF NEW MEXICO NELSON B. BUCK NO. 1023 REGISTERED ARCHITECT
NELSON B. BUCK-ARCHITECT
812 ARIZONA S.E. ALBUQUERQUE
NEW MEXICO 87108 265-7155
JOB NO.
DATE:
REVISED
SHEET TITLE: SITE PLAN, DETAILS, EXTERIOR ELEVATION
SHEET NUMBER 1

	Area ft²
Building	45,204
Asphalt Parking & Conc.	36,845
Gravel Parking	31,792
Bare Soil & Pond	9,016
Southwest Landscape	4,281