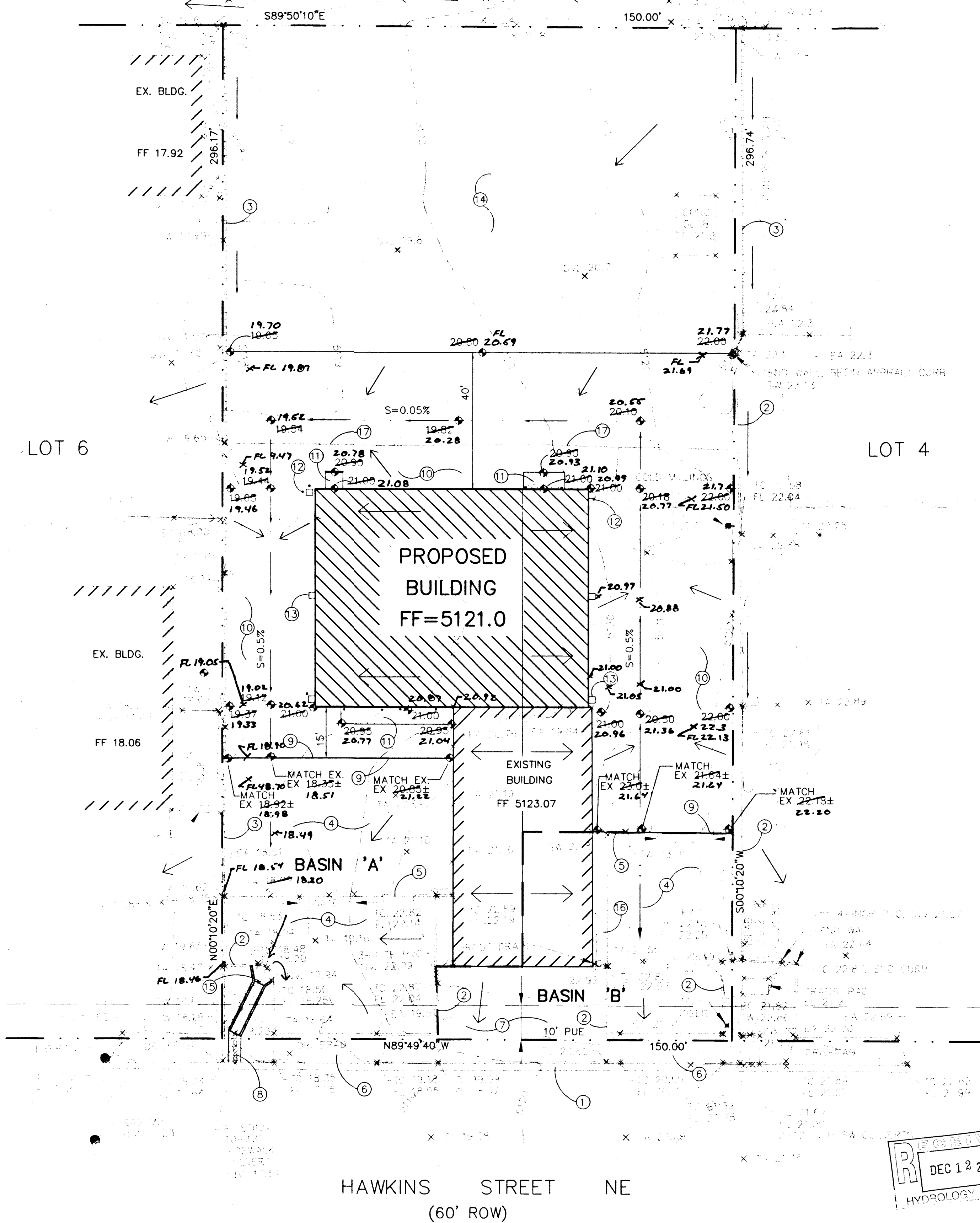
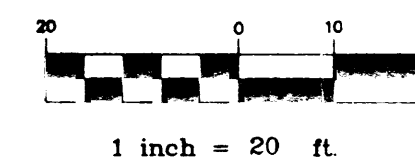


LANDS OF JOURNAL CENTER



FIRM PANEL 35001C0136D

1"=500'

D-17

LOCATION MAP

1"=800'

DRAINAGE PLAN NOTES

- BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
- This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
- Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
- This Plan is prepared to establish on-site drainage and grading criteria only. BLI assumes no responsibility for subsurface analysis, foundation/structural design.
- Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes BLI to prepare the Certification, we must be notified PRIOR to placement of the fill.
- BLI recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
- The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.

ENGINEER'S CERTIFICATION

I, the undersigned, being a Professional Engineer in the State of New Mexico, do hereby certify that the as-built information shown hereon is based on actual field measurements and visual inspections performed by Brasher & Lorenz, Inc. I further certify that the as-built condition of the site as of December 8, 2000 is in substantial compliance with the approved Grading and Drainage Plan prepared by Brasher & Lorenz, Inc. dated February 10, 1999, with the following exception:

- The existing 10-inch sidewalk culvert was not replaced with a new 24-inch culvert as recommended by the plan. The 10-inch culvert will function well for small storms. Overflow from larger storms will backup and flow out of the adjacent driveway. No property damage is anticipated as a result of this condition.

This certification is limited to on-site grading and drainage improvements and does not extend to the structural integrity of the materials used nor the workmanship of the contractor. Any future modifications to the site improvements shall render this certification null and void.

Dennis A. Lorenz, NMPE 8847 Date 12/8/00

LEGEND

- EXISTING CONTOUR ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR ELEVATION
- PROPERTY LINE
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- DRAINAGE SWALE
- EXISTING RETAINING WALL
- DRAINAGE BASIN DIVIDE

KEYED NOTES

- EXISTING 8" CONC. C&G
- EXISTING 6" CONC. C&G TO REMAIN
- EXISTING RETAINING WALL TO REMAIN
- EXISTING ASPHALT PAVING TO REMAIN
- EXISTING 6" CHAIN LINK FENCE TO REMAIN
- EXISTING CONCRETE DRIVEPAD TO REMAIN
- EXISTING LANDSCAPING
- REMOVE EX. 10" SW CULVERT. CONSTRUCT NEW 24" SW CULVERT PER COA DWG. 2236
- APPROX. LIMIT OF ASPHALT REMOVAL. SAWCUT TO NEAT EDGE & TACK AS NECESSARY.
- REMOVE AND DISPOSE EXISTING ASPHALT PAVEMENT. REPLACE TO LIMITS SHOWN.
- CONCRETE SLAB
- 6" STATIONARY BOLLARD, TYP.
- DOWNSPOUT, TYP.
- AREA TO REMAIN UNIMPROVED
- REMOVE AND DISPOSE EXISTING 4" PVC PIPE. CONSTRUCT CONC. CHANNEL PER DETAILS SHEET C-2
- EXISTING SIDEWALK TO REMAIN
- EDGE OF EXISTING ASPHALT

PROPERTY ADDRESS

4211 Hawkins Street NE

LEGAL DESCRIPTION

Lot 5, Interstate Industrial Tract, Unit 4

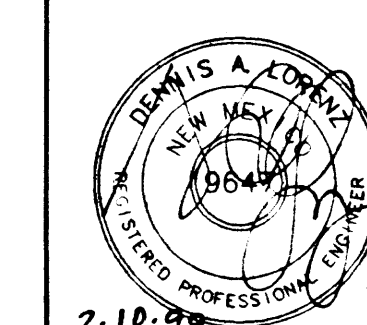
PROJECT BENCHMARK

A standard ACS brass tablet, stamped "8-D17A", set in top of a concrete post projecting 0.2' above ground. Elevation: 5145.55 feet

SURVEY

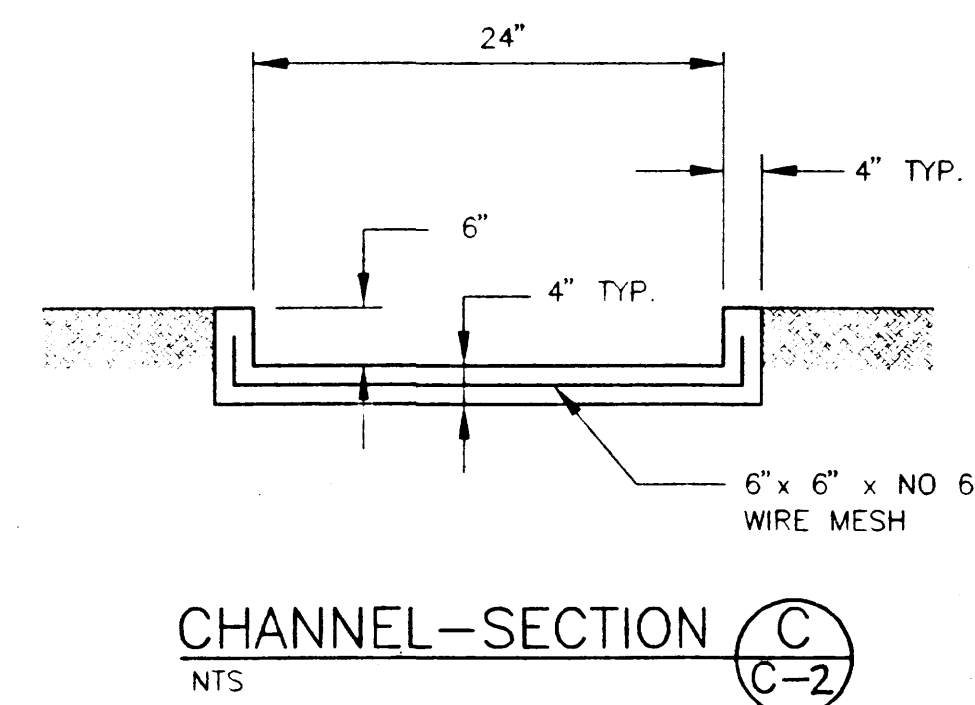
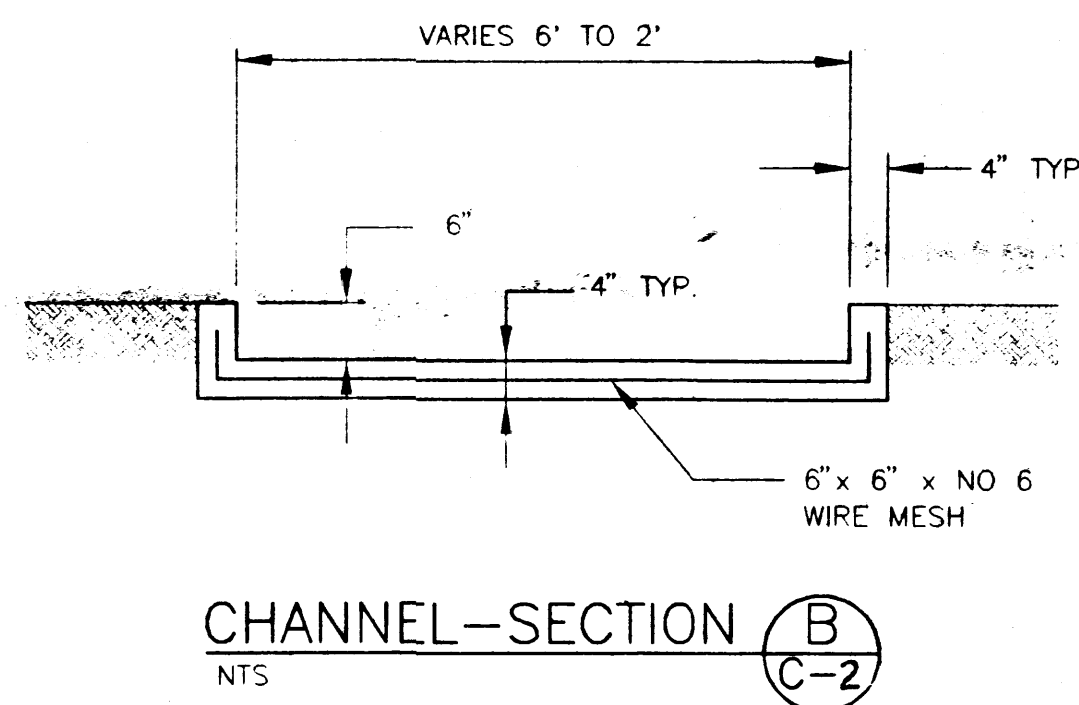
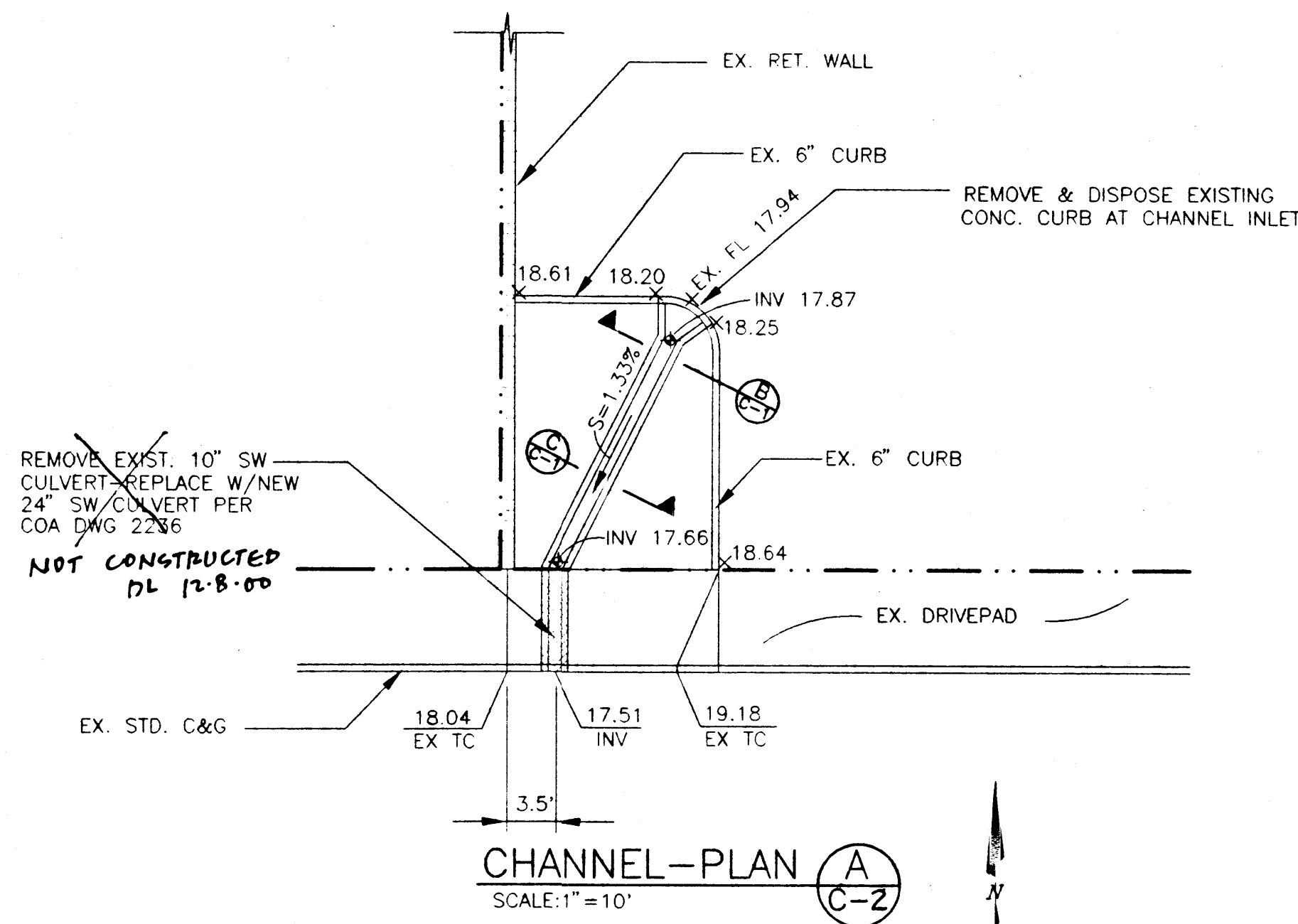
Topographic and Field Measurement by Brasher & Lorenz Inc. Dated January, 1999

YUKON & ASSOCIATES GRADING & DRAINAGE PLAN



BLI BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE Building 1 Suite 210
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

DRAWN BY: T.P.H. DATE: FEBRUARY, 1999
CHECKED BY: D.A.L.
FILE: 99502GD1.DWG SHEET C-1



CHECK WEIR CAPACITY
 $Q = CLH^{3/2}$ $C = 2.50$
 $H = 0.5 \text{ FT}$
 $L = 4.3 \text{ FT}$
 6.0 FT PROVIDED
 $Q = 3.91 \text{ CFS}$

CHECK CHANNEL CAPACITY
 $Q = 1.49 \frac{AR^{2/3} S^{1/2}}{n}$ $Q = 3.81 \text{ CFS}$
 $A = 2 \text{ SF}$
 $R = 2Y/2Y+2 \text{ FT}$
 $Y = 0.39 \text{ FT}$
 0.5 FT PROVIDED
 $n = 0.013$

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with the "City of Albuquerque Standard Specifications, Public Works Construction", 1986 Edition, with Update No. 6, and amendments through September 8, 1994.
3. Two working days prior to any excavation, the contractor must contact Line Locating Service, 260-1990, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to arterial street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.

APPROVALS	NAME	DATE
HYDROLOGY		
INSPECTOR		
ACE FIELD		

GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of an existing office warehouse building which is to be further improved by a building 5,120 sf addition. The scope of this plan is to define the grading and drainage criteria, and to provide construction detail as required to support a building permit request.

EXISTING CONDITIONS

The project site is approximately 1.02 acres in size and is located at 4211 Hawkins NE. The site is bounded by Hawkins Street NE on the south, and developed office/warehouse properties on the west, north and south. Presently the site is partially developed. Yukon Associates occupies a 3,000 sf office/warehouse building, which is supported by on-site paving, utility, landscaping and drainage improvements. The northern 0.4 acres of the site is undeveloped.

On-site drainage flows drain around the existing building to outfall points along Hawkins Street. Basin "A" drains through an existing sidewalk culvert. Basin "B" drains as sheet flow through an existing driveway. No flows enter the property from off-site.

As shown by the attached Floodway Panel, this site does not lie within a designated flood hazard zone.

EXISTING DRAINAGE MASTERPLANS

Two approved Masterplans exist for the property: 1) Drainage Report for Academy Park, Unit 4, Gordon Herkenhoff & Assoc, 1975, and 2) Grading and Drainage Plan for Tex-Pak Express Warehouse, Chris Weiss, March 1984. Each report confirms that free discharge from this property is acceptable. Excess runoff from the site is conveyed by street improvements to the west Hawkins Street. At the terminus of Hawkins, flows enter a public concrete channel which conveys flows west to the AMAFCA North Diversion Channel.

DEVELOPED CONDITIONS

As shown by the Plan, the project consists of the expansion the existing Yukon Associates building. The Plan shows the elevations required to properly grade and construct the recommended improvements. The direction of drainage flows are given by flow arrows and the project hydrology is tabulated for both existing and developed conditions.

All drainage flows will be managed on-site by roof drains, paved swales and drainage improvements recommended by the Plan. The parking lot surrounding the addition will be expanded and reconstructed. Paved swales within Basin "A" will convey runoff to the southwest corner of the property. The existing drainage system of PVC pipes will be replaced with a concrete channel. The existing 10 inch sidewalk culvert will be upgraded to 24 inches. Basin "B" will remain unchanged. The northern 0.33 acres of the site will remain undeveloped.

Due to the addition of 4,125 sf of asphalt pavement, the site will discharge 0.15 cfs (362 cf) of additional runoff into Hawkins Street.

EROSION CONTROL

Since minimal topsoil disturbance will result from construction of the recommended improvements, no temporary erosion control will be required.

CALCULATIONS:

The calculations shown hereon define the 100 year/6 hour design storm falling with the project and under existing and developed conditions. The Hydrology is per "Section 22, Part A, DPM, Vol 2" Dated July 1997. Calculations are also provided to demonstrate capacities of the recommended drainage improvements.

ENGINEER'S CERTIFICATION

I, the undersigned, being a Professional Engineer in the State of New Mexico, do hereby certify that the as-built information shown hereon is based on actual field measurements and visual inspections performed by Brasher & Lorenz, Inc. I further certify that the as-built condition of the site as of December 8, 2000 is in substantial compliance with the approved Grading and Drainage Plan prepared by Brasher & Lorenz, Inc. dated February 10, 1999, with the following exception:

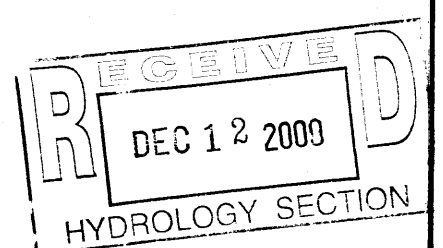
1. The existing 10-inch sidewalk culvert was not replaced with a new 24-inch culvert as recommended by the plan. The 10-inch culvert will function well for small storms. Overflow from larger storms will backup and flow out of the adjacent driveway. No property damage is anticipated as a result of this condition.

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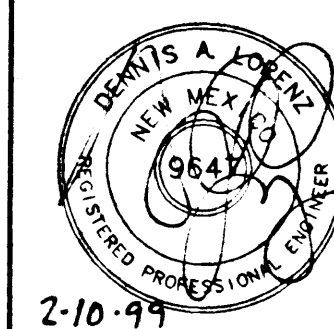
[Signature]
 Dennis A. Lorenz, NMPE-9647 Date 12-8-00

HYDROLOGY

Precipitation Zone 2		P360 = 2.35 in						
Basin	Basin	Land Treatment (acre)				Ew	V100	Q100
	area(Ac)	A	B	C	D	(in)	(of)	(cfs)
Existing Conditions								
SITE	1.02	0	0.03	0.42	0.57	1.67	0.1422	4.07
Developed Conditions								
SITE	1.02	0	0.03	0.32	0.67	1.77	0.1505	4.22
A	0.92	0	0.02	0.29	0.61	1.77	0.1357	3.81
B	0.10	0	0.01	0.03	0.06	1.77	0.0148	0.41



YUKON & ASSOCIATES GRADING & DRAINAGE PLAN DETAILS



BRASHER & LORENZ, INC.
 Consulting Engineers
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 Ph: 505-888-6088 Fax: 505-888-6188

DRAWN BY: T.P.H. DATE: FEBRUARY, 1999
 CHECKED BY: D.A.L.
 FILE: 99502DET.DWG SHEET C-2