

PLANS FOR CONSTRUCTION OF

HANOVER PARK WATERLINE EXTENSION

ALBUQUERQUE, NEW MEXICO

DECEMBER, 2004

INDEX TO DRAWINGS

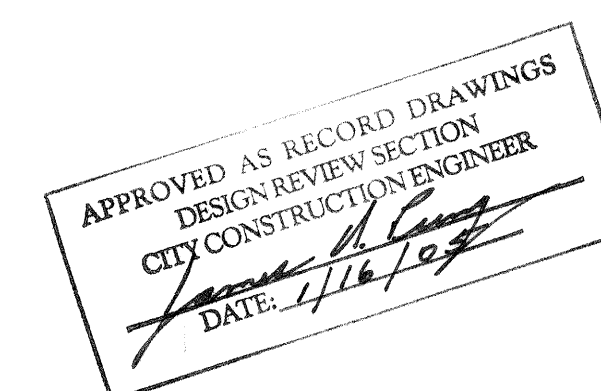
SHEET	TITLE
1.	TITLE SHEET
2.	RECORD PLAT
3.	GRADING & DRAINAGE PLAN
4.	OVERALL PAVING AND UTILITIES
5.	PAVING PLAN AND PROFILE
6.	WATERLINE PLAN AND PROFILE

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

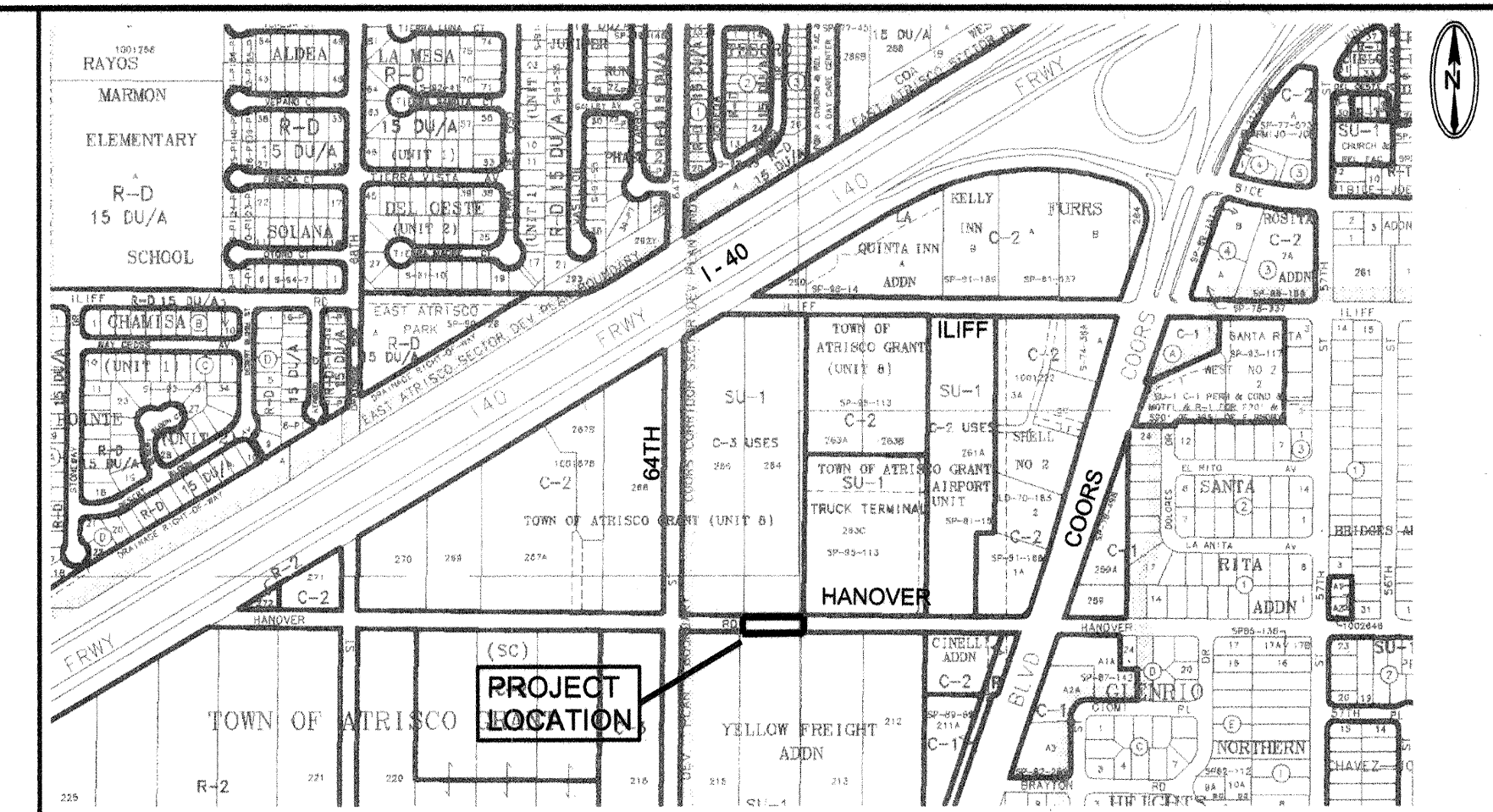
I, Steven K. Morrow, of the firm Brasher and Lorenz, Inc., a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction and survey information provided by Precision Surveys, NMPS number 11993.


Steven K. Morrow, NMPE 13679

5-26-05
Date



DRB # 1003239



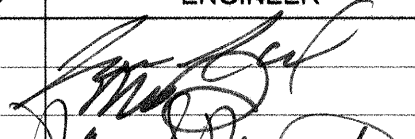
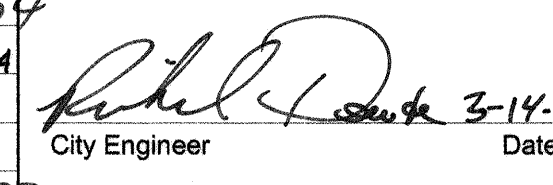
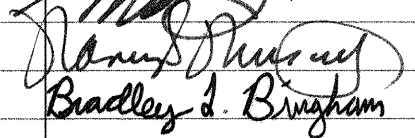
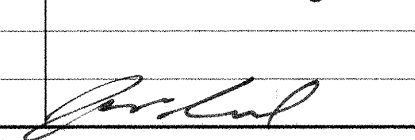
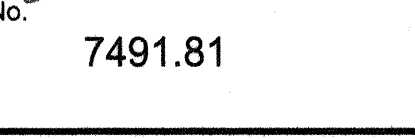
H/J-10/11

LOCATION MAP

NTS

GENERAL NOTES:

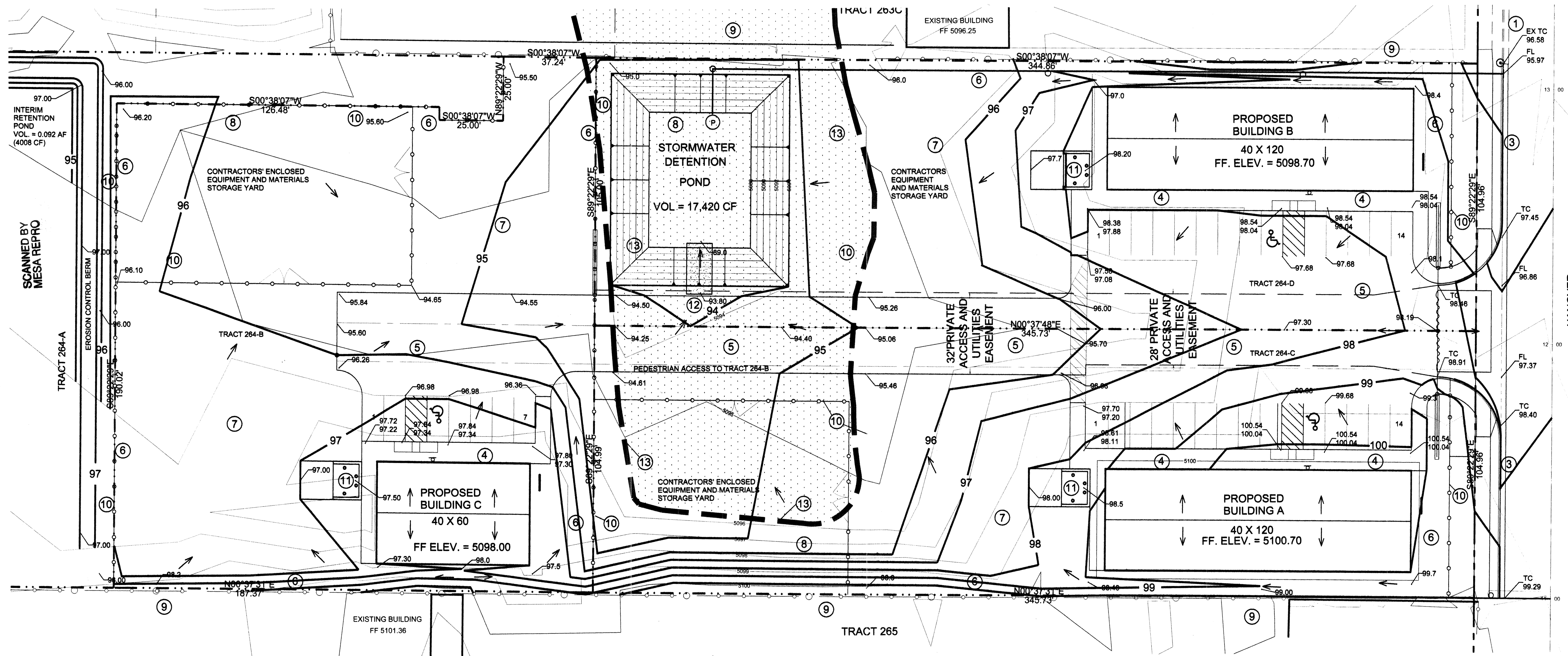
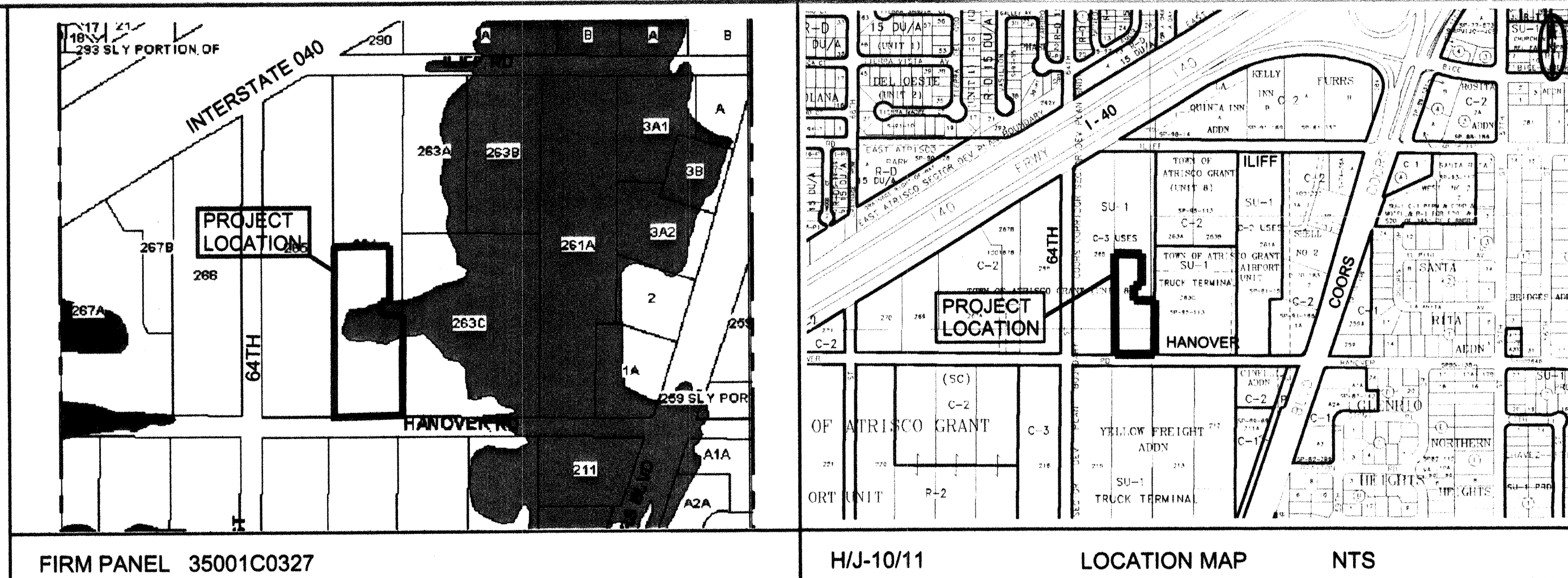
1. CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS AMENDED THROUGH UPDATE 7, WILL BE REFERRED TO HEREIN AS THE "STANDARD SPECIFICATIONS." ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS
2. THREE WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) AND DETERMINE LOCATION OF EXISTING UTILITIES.
3. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.
4. ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC., WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED AND RE-SET BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) WORKING DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. THE CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MARKER 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 GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
6. FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE STANDARD SPECIFICATIONS.
7. ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES 24 HOUR CONSTRUCTION.
8. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
9. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED BY THE CONTRACTOR WITH HOT THERMOPLASTIC REFLECTORIZED PAVEMENT MARKING. ALL NEW STRIPING SHALL BE HOT THERMOPLASTIC REFLECTORIZED PAVEMENT MARKING.
10. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT MARKINGS, CURB AND GUTTER, DRIVEPADS, WHEELCHAIR RAMPS AND SIDEWALKS DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED ON THE PLANS AND SHALL REPAIR OR REPLACE PER THE STANDARD SPECIFICATIONS AT HIS OWN EXPENSE.
11. EXISTING UTILITY LINES AND PIPELINES SHOWN ON THESE DRAWINGS ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. UTILITIES MAY EXIST WHERE NONE ARE SHOWN. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE OR TYPE OF EXISTING UTILITY LINES AND PIPELINES. THE CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGE CAUSED BY FAILURE TO LOCATE AND PRESERVE EXISTING UTILITY LINES AND PIPELINES.
12. THE CONTRACTOR SHALL SECURE A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.
13. THE CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE OWNERS FOR THE PREPARATION OF "RECORD DRAWINGS." THE CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
14. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS FROM THE CITY AND PREPARED BY BRASHER AND LORENZ, INC.
15. THE CONTRACTOR SHALL DETERMINE IN ADVANCE OF HIS CONSTRUCTION IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC. ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION TO CONSTRUCTION OPERATIONS IS EVIDENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
16. THE CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST THE OWNER. CABLE IS TO BE SUPPORTED EVERY 15 FEET (MINIMUM). CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEER'S STAMP & SIGNATURE		APPROVALS		ENGINEER	DATE	APPROVED FOR CONSTRUCTION	
		DRC Chair			01-12-05	 City Engineer Date 3-14-05	
		Transportation			12/17/04		
		Water/Wastewater			12/16/04		
		Hydrology			12/16/04		
		CIP			01-12-05		
Constr. Mgmt.							
Constr. Coord.							
City Project No.		7491.81		Zone Map No.		Sheet of	
				J-10		1 6	

LEGEND					
ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
WATERLINE	--- 6"W ---	--- 6"W ---	CHAIN LINK FENCE	--- X ---	--- X ---
SANITARY SEWER	--- 8"SAS ---	--- 8"SAS ---	RETAINING WALL	-----	-----
STORM SEWER	--- 36"SD ---	--- 24"SD ---	FLOOD HAZARD ZONE	-----	-----
FIRE HYDRANT	⊙	⊙	ZONE	-----	-----
VALVE	⊕	⊕	TOP OF ASPHALT ELEV.	TA 16.2	TA 16.2
WATER SERVICE (SINGLE)	⊕	⊕	SPOT ELEV.	× 16.7	× 87.26
WATER SERVICE (DOUBLE)	⊕	⊕	CURB	=====	=====
MANHOLE	⊕	⊕	FLOWLINE ELEV.	FL 0.14	FL 0.14
SEWER SERVICE	⊕	⊕	TOP OF CURB ELEV.	TC 99.3	TC 99.31
POWER POLE (GUYED)	PP	PP	CONTOUR	--- 5166 ---	--- 66 ---
DROP INLET	⊕	⊕	SWALE	-----	-----
OVERHEAD ELEC.	--- OHE ---	--- OHE ---	DIRECTION OF FLOW	----->	----->
UNDERGROUND ELEC.	--- UGT ---	--- UGT ---	WATER BLOCK	-----	-----
GAS, TEL, TV	⊕	⊕			
TEL. PEDESTAL	⊕	⊕			
RIGHT OF WAY	-----	-----			
EASEMENT LINE	-----	-----			
PROPERTY LINE	-----	-----			
CENTERLINE	-----	-----			

- KEYED NOTES**
- EXISTING STANDARD CURB & GUTTER
 - EXISTING ASPHALT PAVING
 - NEW CONC. CURB AND GUTTER
 - NEW CONC. TURNDOWN SIDEWALK
 - NEW ASPHALT PAVEMENT
 - NEW LANDSCAPING
 - GRAVEL YARD
 - NATIVE TREATMENT
 - EXIST. CHAIN LINK FENCE
 - NEW 8" CHAIN LINK FENCE
 - NEW REFUSE ENCLOSURE
 - POND INLET
 - MAPPED 100 YR. FLOODPLAIN (APPROX.)

PROJECT HYDROLOGY										
TRACT 264, UNIT 8, ATRISCO BUSINESS PARK										
ZONE:	1									
P ₂ HOUR	2.20									
P ₁₀ DAY	3.67									
UNDEVELOPED:										
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL 360 (ac ft)	VOL 10 DAY(ac ft)	
TRACTS 264-B, C, D	2.50	2.50	0.00	0.00	0.00	0.44	3.23	0.092	0.092	
DEVELOPED (PROPOSED):										
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL 360 (ac ft)	VOL 10 DAY (ac ft)	
TRACTS 264-B, C, D	2.50	0.00	0.12	1.42	0.96	1.35	8.51	0.281	0.405	



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 the development of Tracts 264-B, 264-C, and 264-D, Unit 8, Town of Atrisco Grant. Each of these tracts will be developed as contractors' yards with small office buildings to provide some materials and equipment storage. Proposed site improvements include paving, landscaping, utility, grading, and drainage improvements. This plan is presented to establish grading and drainage criteria consistent with the site plan approved by the Environmental Planning Commission.

EXISTING CONDITIONS

The project site is approximately 2.50 acres in size and is located on the north side of Hanover Road, just east of 64th Street NW. The project site is presently undeveloped. Site topography slopes from west to east, to a natural depression located at the midpoint of the site. The site is bounded by developed properties on the east and west, undeveloped property to the north, and by Hanover Road on the south. No off-site flows enter the site, since all neighboring developed properties utilize detention ponding for drainage management.

As shown by the attached FIRM Panel, a mapped floodplain projects in the mid-section of the site, at the location of the natural depression described above. Due to the construction of large community detention ponds on Tracts 263A, 263B and 263C located to the east, the mapped floodplain may have been revised.

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the development of Tracts 264-B, 264-C, and 264-D as office-warehouses. The Plan shows the elevations and detail necessary to demonstrate the grading and drainage criteria for development of the property. Flow arrows give the direction of drainage flows and the project hydrology is tabulated for both existing and proposed conditions. Development of the property is to be phased. Tracts 264B and 264C will develop first, followed by 264D, per the detail illustrated on the Plan.

Due to existing site topography, Tracts 264-B, C, and D will drain to an internal detention pond located at the natural low point of the site. Since no gravity outfall exists, a sump pump will be provided to drain the pond to Hanover Road within 96 hours. The pond volume is established at 17,842 cubic feet, which represents the 10-day, 100 year volume for the site. As shown by the Plan, a mapped flood hazard zone encroaches into the interior of the site. Due to the construction of large community detention ponds on Tracts 263A, 263B and 263C located to the east, the mapped floodplain may not be accurately delineated. The proposed site improvements will not encroach into the floodplain or significantly alter the topography.

At the time Tract 264 was divided into A, B, C, and D, the approved Site Plan for Subdivision supporting that plat, and the approved Site Plan for Building Permit for Tracts 264B, 264C, and 264D specified the construction of the temporary earthen berm on Tract 264A as shown on this plan. The future development of Tract 264A to the north of the project site will consist of construction of an on-site detention pond with a drain line connecting to the existing public storm drain located in Lillif Road. The Lillif road storm drain connects to the recently constructed West Mesa Diversion, located in 64th Street and crossing Interstate 40. In the interim, the berm shown is intended to limit the discharge of undeveloped runoff and sediment onto adjacent properties. The undeveloped runoff volume is calculated at 4008 cubic feet. Development of Tract 264A will be controlled by a site specific Site Development Plan and Grading and Drainage plan to be review by the Environmental Planning Commission.

EROSION CONTROL

Since the disturbed area is determined to be more than 1.0-acre a Storm Water Pollution Prevention Plan and Notice of Intent are required prior to construction. A complete Storm Water Pollution Prevention Plan will be prepared in advance of construction outlining the short term and long term erosion, sediment and pollution control aspects of the project.

CALCULATIONS

Calculations are provided which define the 100-year/6 hour design storm falling with the project area under existing and proposed condition. Hydrology is per "Section 22.2, Part A, DPM, Vol 2" updated July 1997.

NOTE:

The subdivision plat for this project shows a surface drainage easement over Tracts 264-B, 264-C, and 264-D. Maintenance of the easement and facilities contained therein will be the responsibility of the property owners.

New curb and gutter on the Hanover frontage of this project will be constructed under City Project # 7491.81.

PROJECT DATA

LEGAL DESCRIPTION:

TRACTS 264-B, 264-C, AND 264-D
UNIT 8, TOWN OF ATRISCO GRANT

PROPERTY ADDRESS:

HANOVER RD. NW, EAST OF 64TH ST

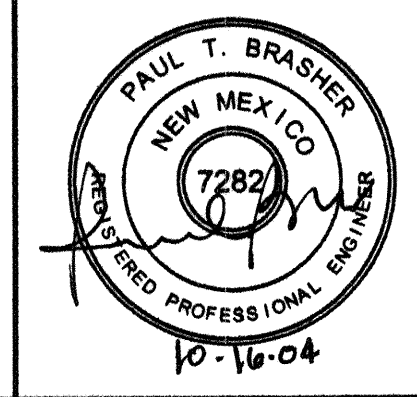
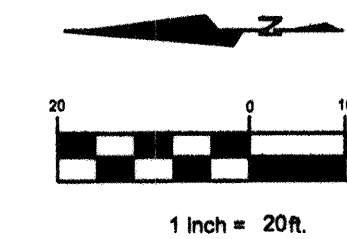
BENCHMARK:

TBM - TOP OF CONC. CURB & GUTTER
ON HANOVER AT SE CORNER OF SITE
ELEVATION = 5096.58' MSL

MAPPING:

TOPOGRAPHIC AND FIELD MEASUREMENTS
BY BRASHER & LORENZ, INC.

DATED FEBRUARY 4, 2004



BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro NE Building 1 Suite 1200
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

HYDROSYSTEMS
GRADING AND DRAINAGE PLAN

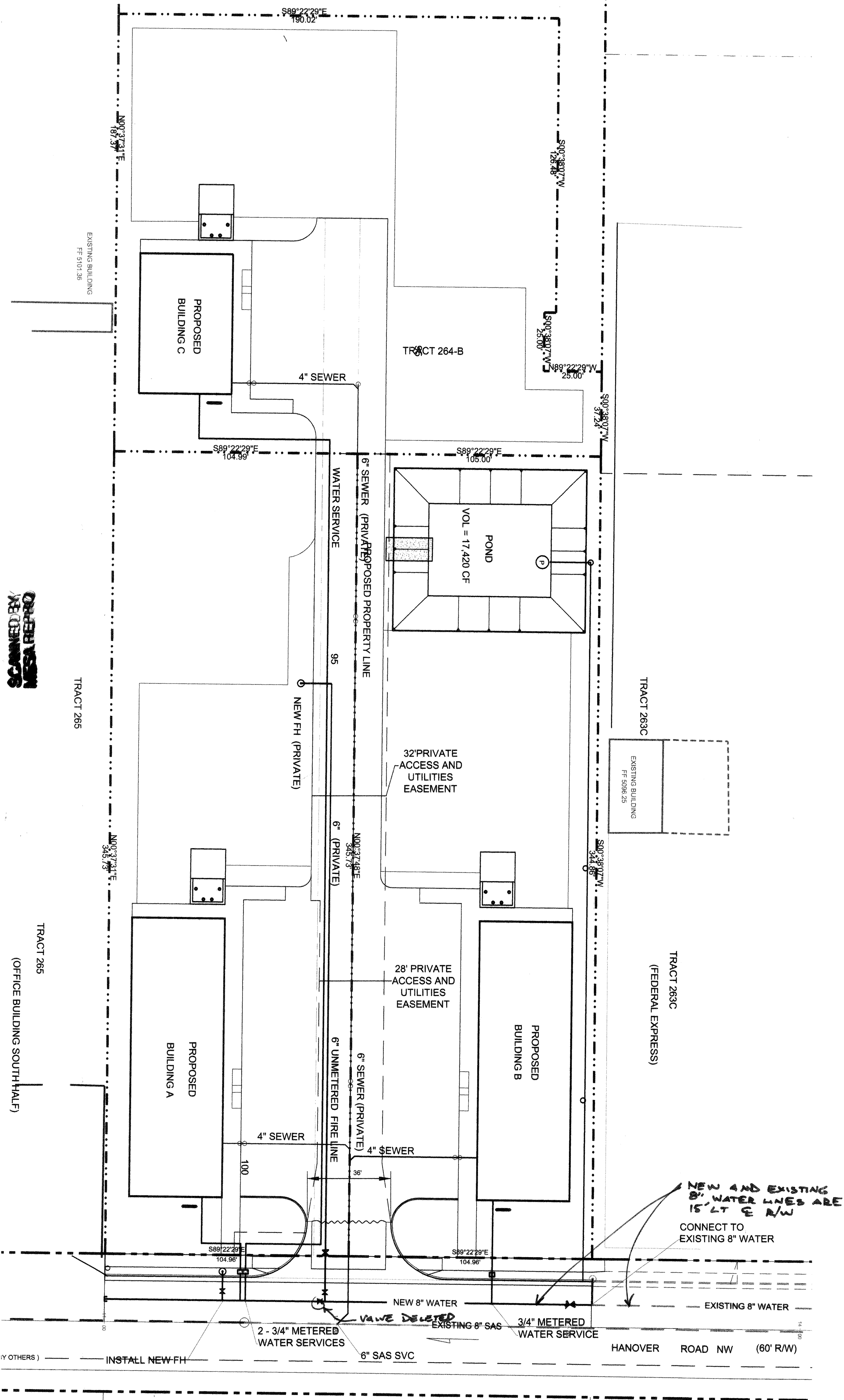
SHT. 3 OF 6

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749181

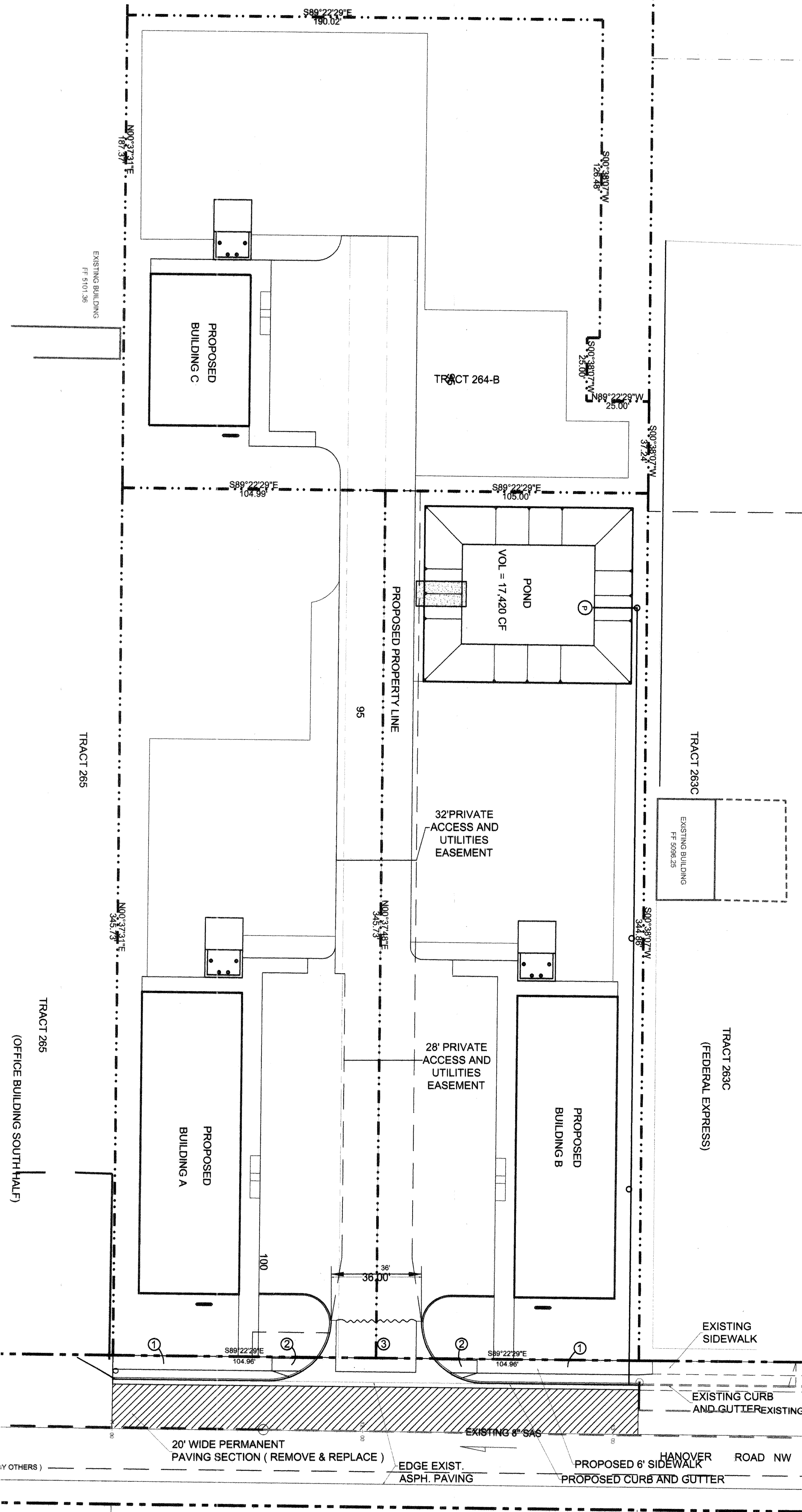
SCANNED BY
MESA REMO

TRACT 265
(OFFICE BUILDING SOUTH HALF)



OVERALL WATER AND SEWER

TRACT 265
(OFFICE BUILDING SOUTH HALF)

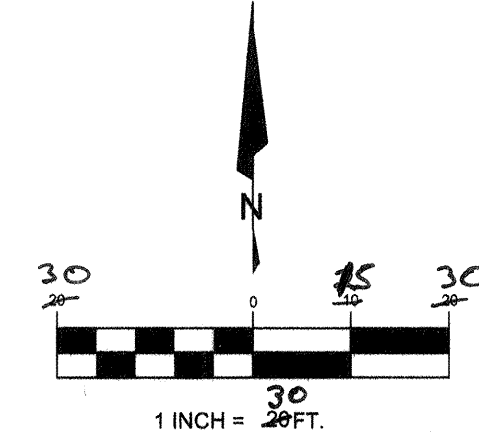


OVERALL PAVING

LEGEND

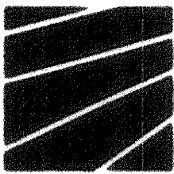
ITEM	EXISTING	PROPOSED
WATERLINE	8" W	8" W
SANITARY SEWER	8" SAS	8" SAS
STORM SEWER	36" STS	36" STS
FIRE HYDRANT	⊙	⊙
VALVE	+	+
SINGLE METERED WATER SERVICE		⊙
DOUBLE METERED WATER SERVICE		⊙
MANHOLE	⊙	⊙
CURB AND GUTTER	—	—
HEADER CURB	—	—
DROP INLET	—	—
OVERHEAD ELEC WITH POWER POLE	— OHE	— OHE
UNDERGROUND ELEC, GAS, TEL, TV	— UGT	— UGT
CURB ELEVATIONS	—	—
SPOT ELEV.	×	×
SEWER SERVICE	—	—
RIGHT OF WAY	—	—
EASEMENT	—	—
POWER POLE (GUYED)	— PP	— PP
CENTERLINE	—	—
TOP OF ASPHALT ELEV.	— TA 16.2	— TA 16.2
EXISTING PAVEMENT TO BE REMOVED AND REPLACED		

NOTES
1. ALL STATIONING IS BASED ON CENTERLINE OF HANOVER R/W



KEYED NOTES:

- NEW 6-FOOT SIDEWALK PER COA. STD. DWG. 2430.
- NEW UNIDIRECTIONAL WHEELCHAIR ACCESS RAMP PER COA STD DWG 2426.
- NEW ASPHALT PAVING



BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro Blvd. NE, Bldg. 1, Suite 1200
Albuquerque, New Mexico 87110
Phone: (505) 888-6088 Fax: (505) 888-6188

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: **HANOVER PARK**
OVERALL PAVING AND UTILITIES

Design Review Committee
APPROVE
JAN 12 2005
DESIGN REVIEW COMMITTEE

City Engineer Approval

City Project No. 7491.81

Zone Map No. J-10

Sheet 4 of 6

AS-BUILT INFORMATION

CONTRACTOR: **HYDROSYSTEMS**
INSPECTOR: **BRASHER & LORENZ, INC.**
DATE: **3/05**
FIELD: **6/05**
DATE: **5/05**
CORRECTED BY: **5/05**
DATE: **5/05**
MICRO-FILM INFORMATION

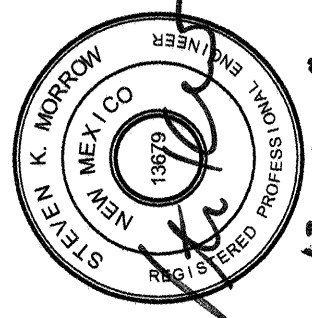
BENCHMARKS

ALBUQUERQUE SURVEY CONTROL MONUMENT 13-111
ACS 1-3/4" ALUMINUM DISK, STAMPED "ACS BM 13-111"
EPOXY TOP OF CONC. BASE OF STLT. STATION, ON
AT CENTERLINE 140.025 MI WEST OF CENTERLINE
S. BD. COORS. 2.77 N. OF WIRE FENCE
2ND ORDER, 1ST CLASS ELEV. = 5089.557, NGVD 29

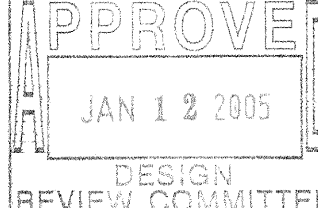
SURVEY INFORMATION

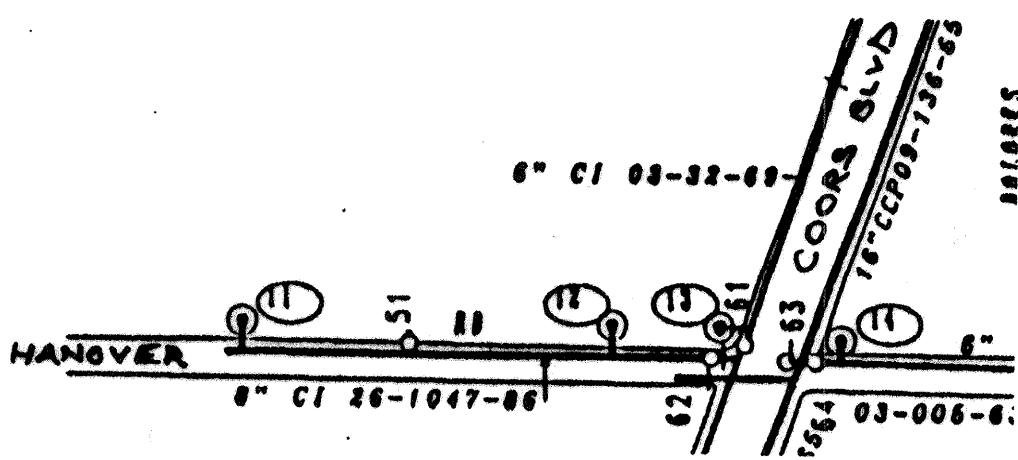
FIELD NOTES
DATE: **12-17-04**
BY: **SM**
NO. **1**

ENGINEER'S SEAL



REMARKS
DESIGN
NO. DATE
BY
DESIGNED BY: SM
DRAWN BY: R. M.
CHECKED BY: SM
DATE 12-2004
DATE 12-2004
DATE 12-2004

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP															
TITLE: HANOVER PARK HANOVER PAVING PLAN AND PROFILE															
Design Review Committee 	City Engineer Approval	Last Design Update	<table border="1"> <thead> <tr> <th>Mo./Day/Yr.</th> <th>Mo./Day/Yr.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Mo./Day/Yr.	Mo./Day/Yr.										
Mo./Day/Yr.	Mo./Day/Yr.														
City Project No. 7491.81	Zone Map No. J-10	Sheet 5	of 6												


$$\begin{aligned} 1'' &= 20' \text{ (H)} \\ 1'' &= 5' \text{ (V)} \end{aligned}$$

NOTE:
EXISTING SEWER MANHOLE
SHOWN ACCORDING TO
RECORD DRAWINGS -
NOT FOUND IN SURVEY

DATUM ELEV
5070.00

City Project No.	7491.81	Zone Map No.	J-10	Sheet	6
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