

## Existing Development

SYMBOLS LEGEND	
○	= POWER POLE
—OH—	= OVERHEAD UTILITY LINE
—GAS—	= UNDERGROUND GAS LINE
—SEWER—	= UNDERGROUND SEWER LINE
—WATER—	= UNDERGROUND WATER LINE
⊙	= SEWER MANHOLE
□	= WATER METER
⊕	= GAS METER
—	= BLOCK WALL
—X—	= FENCE
△	= ELECTRIC METER

SPOT ELEVATION LEGEND	
+00.0	= ELEVATION AT GROUND
+00.00	= ELEVATION AT TOP OF FINISHED SURFACE
+00.00CL	= ELEVATION AT CENTERLINE OF DRIVING LANE
+00.00BC	= ELEVATION AT BACK OF CURB
+00.00FL	= ELEVATION AT FLOWLINE OF CURB
+00.00FF	= ELEVATION AT FINISHED FLOOR
+00.00RM	= ELEVATION AT RIM OF MANHOLE

MONUMENT LEGEND	
□	= FOUND MONUMENT AS NOTED
●	= SET 1/2" REBAR W/YELLOW PLASTIC CAP STAMPED "GRITSKO LS8686" UNLESS OTHERWISE NOTED

PARKING SPACES SCHEDULE						
SPACES REQUIRED			SPACES PROVIDED			
REGULAR	ADA	TOTAL	REGULAR	ADA	TOTAL	
5	1	6	6	1	7	

OPEN SPACE SCHEDULE			
REQUIRED		PROVIDED	
PER UNIT	UNITS	TOTAL	TOTAL
500 SQ FT	4	2000 SQ FT	2263 SQ FT

## KEYED NOTES

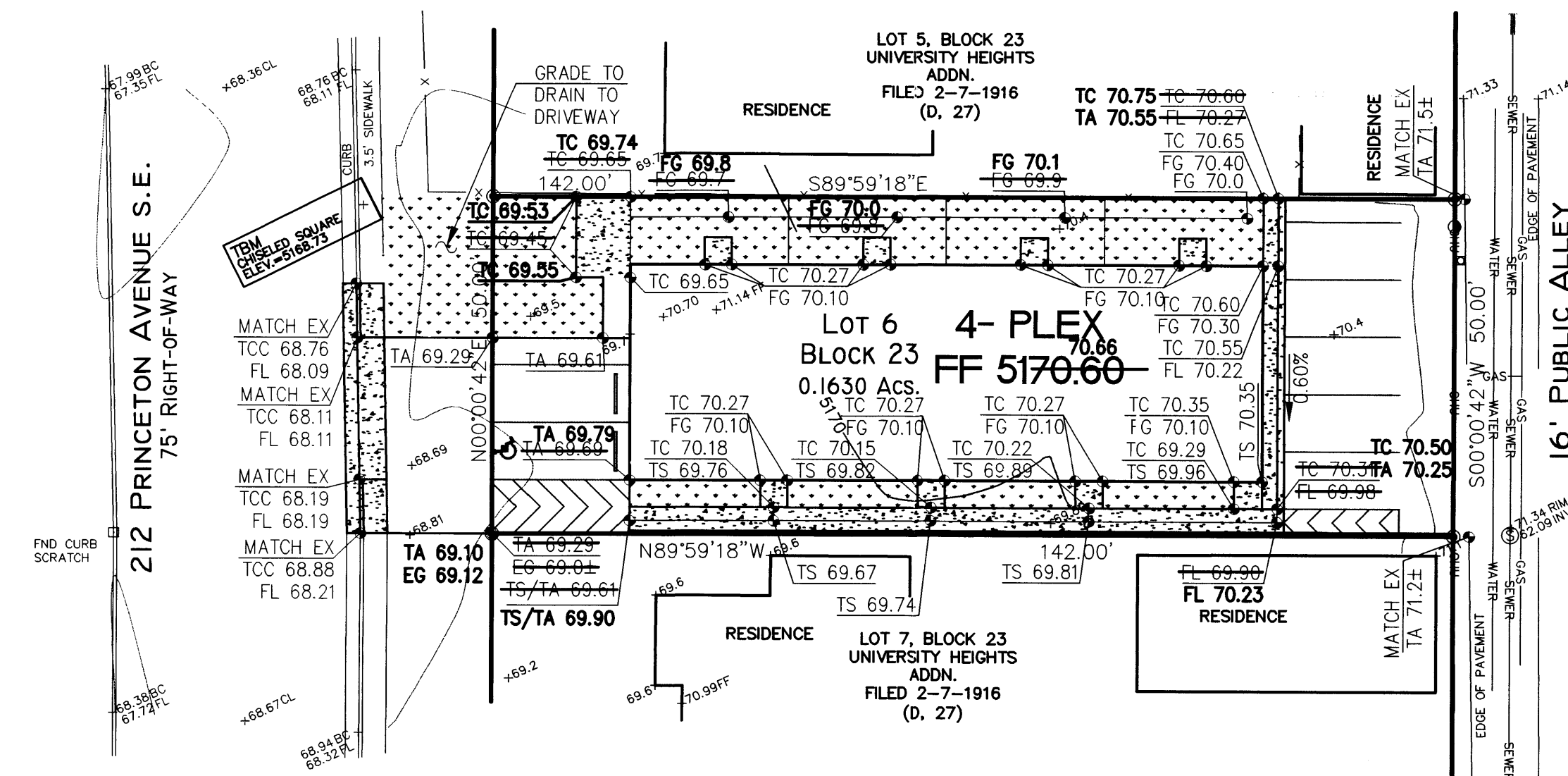
- REFUSE ENCLOSURE PER DETAIL 8/C-1.
- 21.0' DRIVEPAD PER COA DWG 2425 WITH 12:1 SLOPE ON ADA RAMP EACH END.
- 4" WHITE PAINTED STRIPE (TYP).
- 4' SIDEWALK AT 0.30% PER DETAIL 4/C-1.
- SPECIAL CURB AND GUTTER PER DETAIL 5/C-1.
- ASPHALT PAVEMENT PER DETAIL 6/C-1.
- LANDSCAPE AREA. SEE LANDSCAPE PLAN.
- LANDSCAPED SWALE AT 0.4% CONTINUOUS THROUGH OPENINGS IN CEDAR FENCES.
- 25' LF 4" ASPHALT CURB ALONG SOUTH PL

MAXIMUM FLOW IN SIDEWALK ALLEY  
GUTTER AT 0.39%

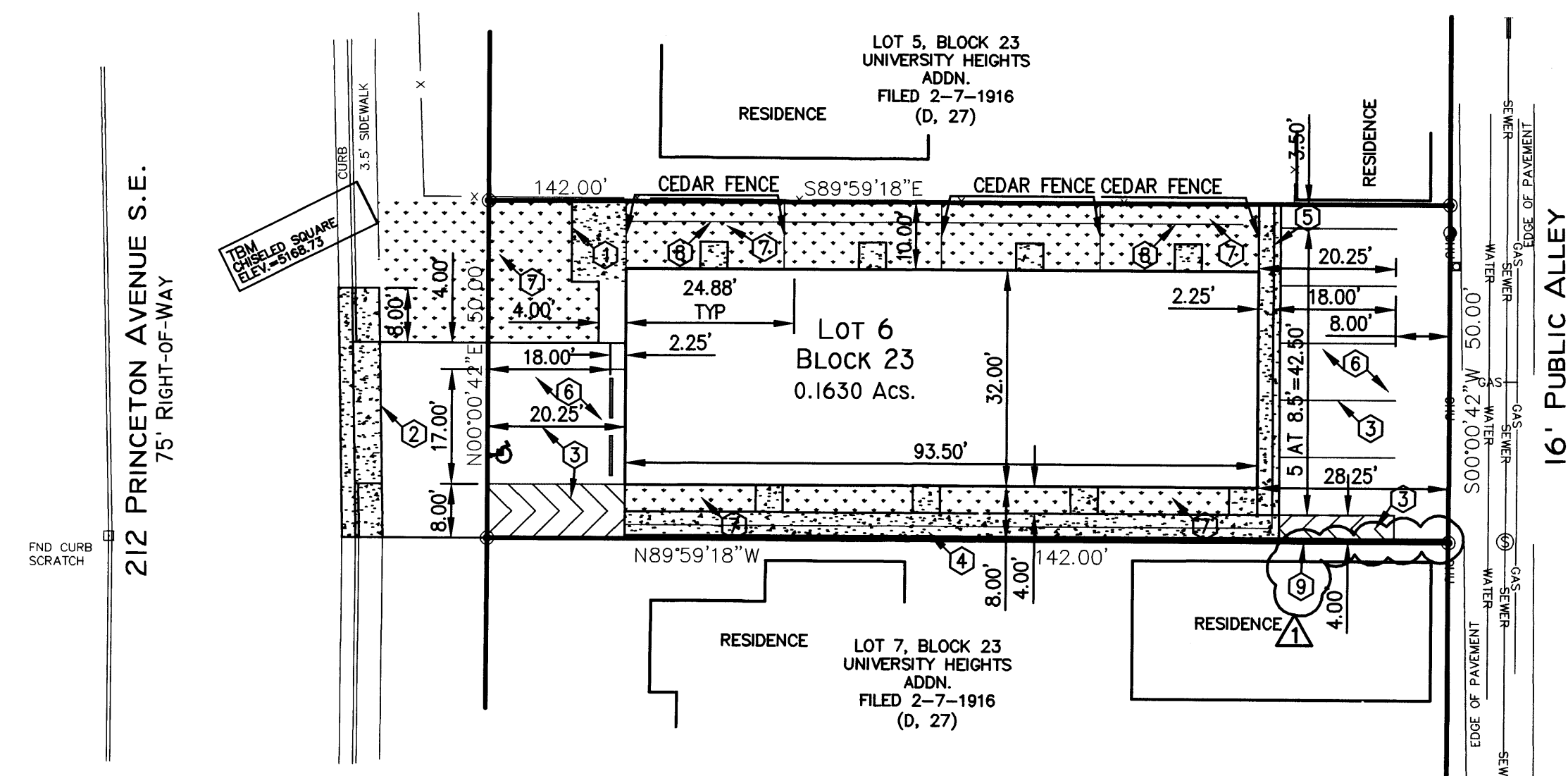
MANNINGS EQUATION FOR UNIFORM FLOW IN  
TRAPEZOIDAL CHANNELS

*INPUT*		
DEPTH (FT)	0.05	
MANNINGS "n" VALUE	0.013	
BED SLOPE (FT/FT)	0.0030	
BOTTOM WIDTH (FT)	4.00	
SIDE SLOPE #1 (HORZ:VERT)	0.00	
SIDE SLOPE #2 (HORZ:VERT)	0.00	
CROWN-NEG FOR INVERTED (FT)	-0.08	
*OUTPUT*		
FLOW RATE (CFS)	0.49	
CROSS SECT. AREA (SF)	0.38	
TOP WIDTH (FT)	4.00	
WETTED PERIMETER (FT)	4.11	
HYDRAULIC RADIUS (FT)	0.09	
VELOCITY (FPS)	1.29	
FROUDE NUMBER	0.73	
ENERGY GRADE	0.08	

## Grading Plan



## Traffic Circulation Layout



## SURVEY NOTES

FIELD SURVEY BY: SURVEYS SOUTHWEST, LTD.  
333 LOMAS BLVD, NE  
ALBUQUERQUE, NM 87102

SURVEY DATE: SEPT., 2004  
PHONE: (505) 98-0303  
FAX: (505) 998-0306

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE SURVEYOR BY THE APPROPRIATE UTILITY COMPANIES. SURVEYOR DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

## ACS BENCHMARK

ACS MONUMENT "15-K16" BEING A 3 1/4" ACS ALUMINUM CAP SET FLUSH IN THE CURB RETURN APPROXIMATELY 33' EAST OF THE GIRARD BLVD. CENTERLINE AND 42.7' SOUTH OF THE CENTRAL AVE CENTERLINE, WITH AN ELEVATION OF 5191.308 (SLD 1929).

## LEGAL DESCRIPTION

LOT NUMBERED SIX (6) IN BLOCK NUMBERED TWENTY-THREE (23) OF THE UNIVERSITY HEIGHTS ADDITION, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT THEREOF FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON FEBRUARY 7, 1916 IN BOOK D, FOLIO 27.

## DRAINAGE INFORMATION

### LOCATION & DESCRIPTION

THE PROPOSED SITE IS 0.183 ACRES LOCATED ON THE EAST SIDE OF PRINCETON DRIVE MIDWAY BETWEEN LEAD AVENUE AND SILVER AVENUE AS SEEN ON THE VICINITY MAP ON THIS SHEET. THE SITE IS DEVELOPED AS A SINGLE FAMILY RESIDENCE WITH A DETACHED GARAGE. THE STRUCTURES ARE IN DISREPAIR. THIS DEVELOPMENT WILL REPLACE THE EXISTING STRUCTURES WITH A 4-PLEX RESIDENTIAL STRUCTURE AND ASSOCIATED PAVED PARKING SPACES.

### FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0353E, DATED NOVEMBER 19, 2003 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN.

### METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

### PRECIPITATION

THE 100-YR, 6-HR AND 100-YR, 10 DAY DURATION STORM EVENTS WERE USED AS THE DESIGN STORMS FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 2AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION WERE USED TO ESTABLISH THE 6-HOUR, 24-HOUR, AND 10-DAY PRECIPITATION VALUES, EXCESS PRECIPITATION, AND PEAK DISCHARGE.

### EXISTING DRAINAGE

THE SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION." THIS AREA IS FLAT WITH STREETS AT APPROXIMATELY A 0.3% GRADE. THE LOTS ARE GRADED TO DRAIN TO THE STREETS WHICH ARE DEVELOPED WITH CURB AND GUTTER AND 3.5' SIDEWALKS. A 16' PAVED ALLEY SEPARATES THE LOTS TO THE EAST FROM THE LOTS ALONG PRINCETON DRIVE. SOLID WALLS HAVE BEEN CONSTRUCTED AROUND THE ADJACENT LOTS. THEREFORE, THE ONLY OFFSITE RUNOFF IS FROM THE ALLEY ADJACENT TO THIS SITE. THIS SHEET SHOWS A SURVEY OF THE EXISTING DEVELOPMENT TO COMPARE EXISTING RUNOFF WITH THE PROPOSED DEVELOPMENT. THE SITE IS APPROXIMATELY 41% IMPERVIOUS AND THE REMAINDER IS EITHER GRAVEL LANDSCAPING OR HARD PACKED DIRT THAT HAS BEEN USED FOR PARKING. THE 100-YEAR HYDRAULIC CALCULATIONS BELOW DEMONSTRATE THAT THE SITE GENERATES 0.69-CFS DURING THE 100-YEAR STORM EVENT.

### DEVELOPED CONDITION

THE PROPOSED DEVELOPMENT WILL REPLACE EXISTING RESIDENCE AND GARAGE WITH A 4-PLEX RESIDENCE AND ASSOCIATED PAVING. THE SITE WILL CONTINUE TO DRAIN WEST TO PRINCETON DRIVE ALONG WITH THE SMALL PORTION OF THE 16' PAVED ALLEY. THIS DEVELOPMENT WILL INCREASE THE RUNOFF BY 0.11-CFS TO 0.80-CFS. THIS IS AN INSIGNIFICANT INCREASE FOR THIS AREA SO DETENTION PONDING IS NOT INCLUDED IN THE DEVELOPMENT. THE DEVELOPMENT WILL GREATLY BENEFIT THE AREA BY PROVIDING ADDITIONAL HOUSING FOR THIS AREA NEAR THE UNIVERSITY AND IMPROVE THE AESTHETICS OF THE AREA. DRAINAGE PATTERNS WILL NOT BE ALTERED BY THIS DEVELOPMENT.

## 100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(10 day) (acre-ft)	V(10 day) (cu-ft)	Q (cfs)
		A (%)	B (%)	C (%)	D (%)						
EXISTING CONDITIONS											
SITE	0.1834	0.00	0.00	59.04	40.96	1.54	0.02	1,023	0.03	1,459	0.89
OFFSITE	0.0184	0.00	0.00	0.00	100.00	2.12	0.00	141	0.01	248	0.09
TOTAL	0.2018						0.03	1,164	0.04	1,707	0.78
PROPOSED CONDITIONS											
SITE	0.1834	0.00	0.00	21.71	78.29	1.91	0.03	1,269	0.05	2,103	0.80
OFFSITE	0.0184	0.00	0.00	0.00	100.00	2.12	0.00	141	0.01	248	0.09
TOTAL	0.2018						0.03	1,410	0.05	2,351	0.89
EXCESS PRECIP. 0.53 0.78 1.13 2.12 E (in)											
PEAK DISCHARGE 1.56 2.28 3.14 4.7 Q <sub>pk</sub> (cfs)											
WEIGHTED E (in) = (E <sub>A</sub> )(%)A + (E <sub>B</sub> )(%)B + (E <sub>C</sub> )(%)C + (E <sub>D</sub> )(%)D											
V <sub>6-hr</sub> (acre-ft) = (WEIGHTED E)(AREA)/12											
V <sub>10day</sub> (acre-ft) = V <sub>6-hr</sub> + (A <sub>o</sub> )(P <sub>10day</sub> - P <sub>6-hr</sub> )/12											
Q (cfs) = (Q <sub>6hr</sub> )(A <sub>o</sub> ) + (Q <sub>10hr</sub> )(A <sub>o</sub> ) + (Q <sub>24hr</sub> )(A <sub>o</sub> ) + (Q <sub>48hr</sub> )(A <sub>o</sub> )											
ZONE = 2											
P <sub>6-hr</sub> (in.) = 2.35											
P <sub>24-hr</sub> (in.) = 2.75											
P <sub>10day</sub> (in.) = 3.95											

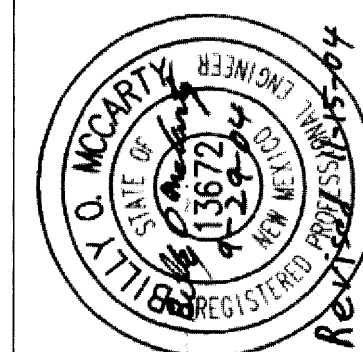
## TRAFFIC CIRCULATION LAYOUT APPROVED

10/3/04  
Signed: [Signature]  
Date: 10/3/04

RECEIVED  
FEB 07 2005  
HYDROLOGY SECTION

REVISION	DATE	DESCRIPTION
1	11/15	ADDED CURB ALONG S. PL

dNb  
DRAWN BY:  
B.O.M.  
CHECKED BY:  
September 20, 2004  
DATE:  
1" = 20'  
SCALE:  
JOB NUM.:  
C-2  
SHEET:



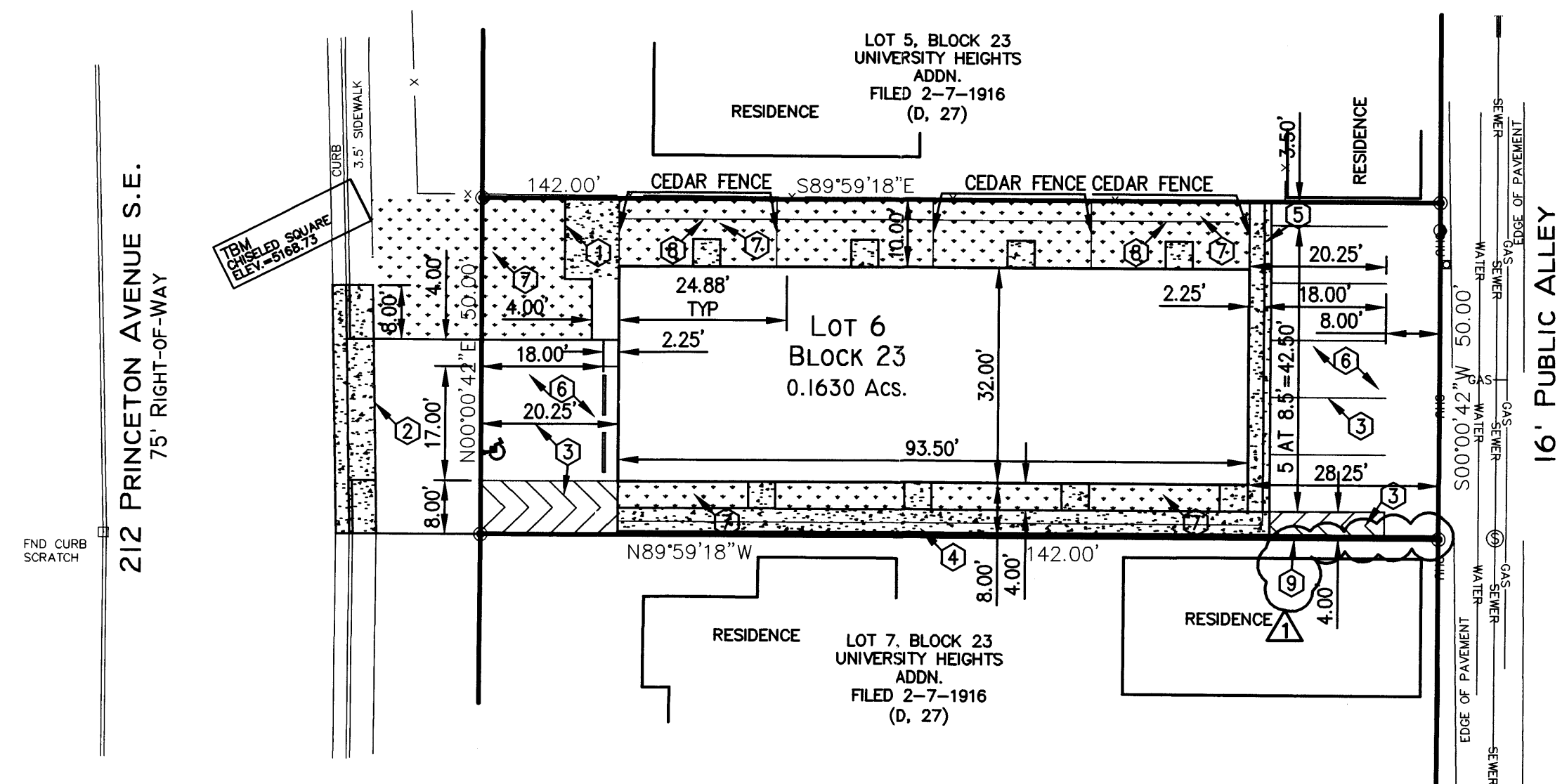
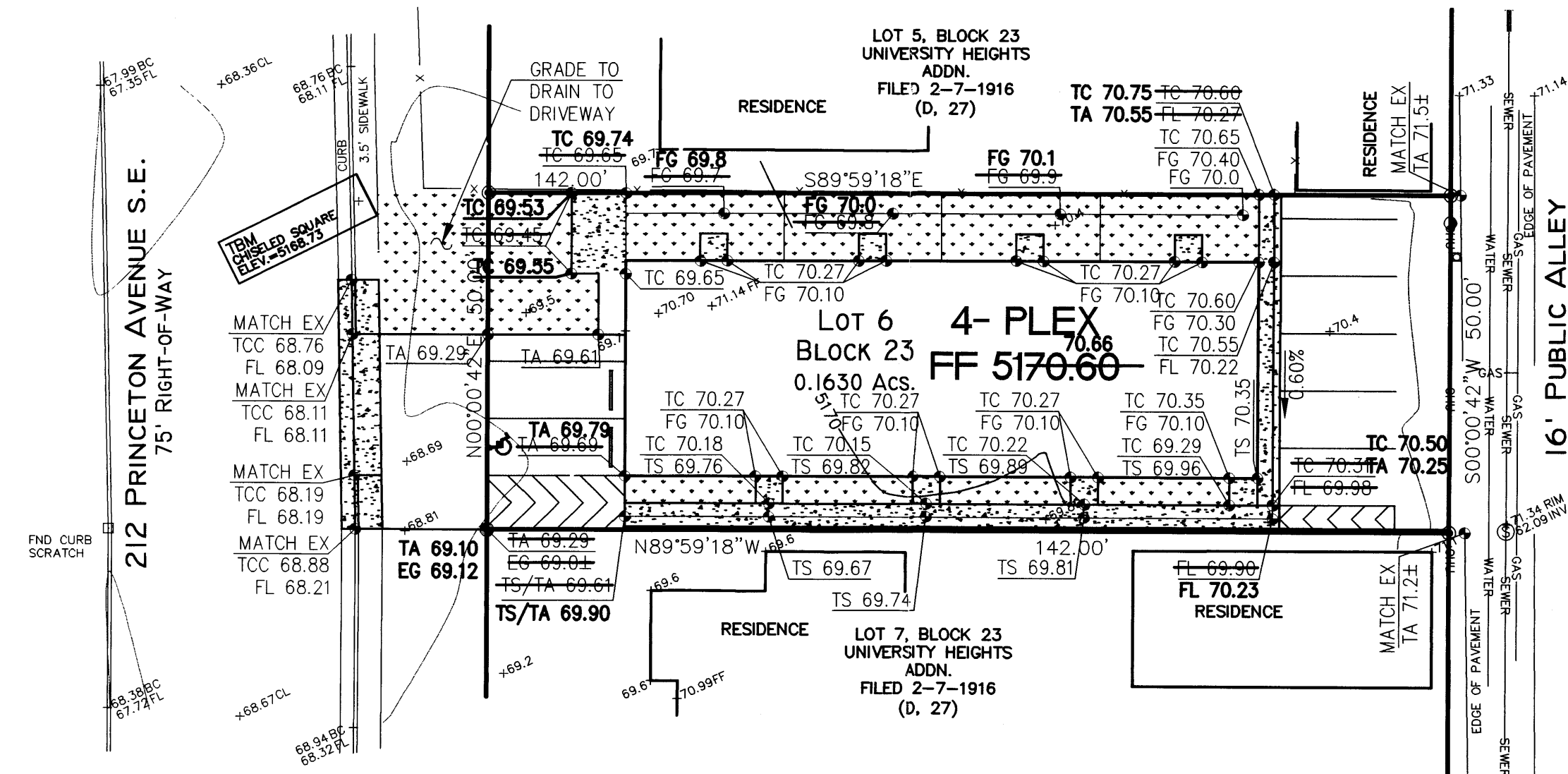
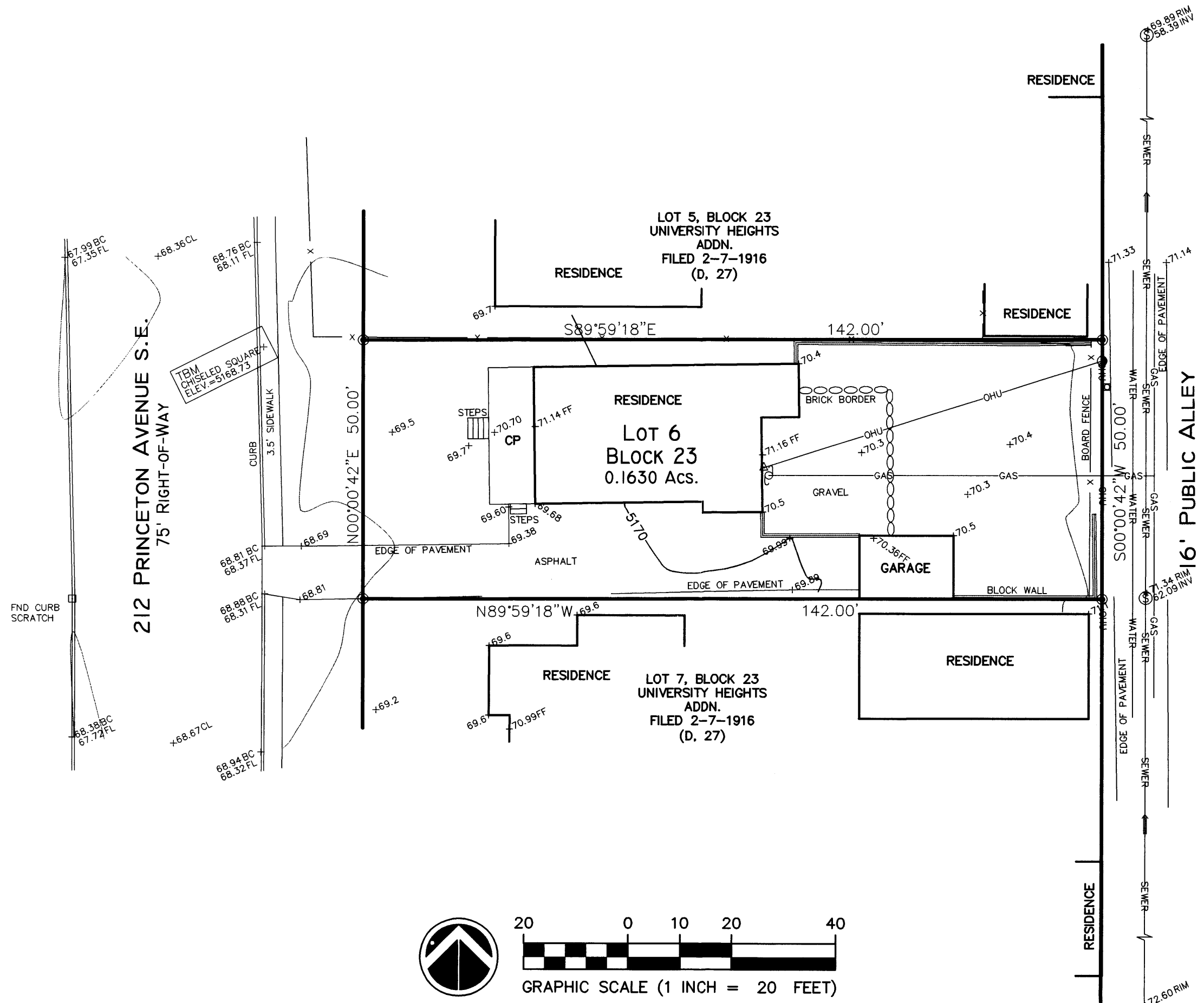
PROJECT:

4-PLEX  
212 PRINCETON DR.

Grading Plan  
and Traffic  
Circulation

Public Infrastructure shown  
on these plans for information  
only and not part of approval.  
Separate DRC/permit approval  
and Work Order required.

C-2



## Existing Development

## Grading Plan

## Traffic Circulation Layout

SYMBOLS LEGEND	
●	= POWER POLE
—OHU—	= OVERHEAD UTILITY LINE
—GAS—	= UNDERGROUND GAS LINE
—SEWER—	= UNDERGROUND SEWER LINE
—WATER—	= UNDERGROUND WATER LINE
⊙	= SEWER MANHOLE
□	= WATER METER
⊙	= GAS METER
—	= BLOCK WALL
—x—	= FENCE
Δ	= ELECTRIC METER

SPOT ELEVATION LEGEND	
+00.0	= ELEVATION AT GROUND
+00.00	= ELEVATION AT TOP OF FINISHED SURFACE
+00.00CL	= ELEVATION AT CENTERLINE OF DRIVING LANE
+00.00BC	= ELEVATION AT BACK OF CURB
+00.00FL	= ELEVATION AT FLOWLINE OF CURB
+00.00FF	= ELEVATION AT FINISHED FLOOR
+00.00RM	= ELEVATION AT RIM OF MANHOLE

MONUMENT LEGEND	
□	= FOUND MONUMENT AS NOTED
●	= SET 1/2" REBAR W/YELLOW PLASTIC CAP STAMPED "GRITSKO LS8686" UNLESS OTHERWISE NOTED

PARKING SPACES SCHEDULE	
SPACES REQUIRED	SPACES PROVIDED
REGULAR ADA TOTAL	REGULAR ADA TOTAL
5 1 6	6 1 7

OPEN SPACE SCHEDULE	
REQUIRED	PROVIDED
PER UNIT UNITS TOTAL	PER UNIT UNITS TOTAL
500 SQ FT 4	2000 SQ FT 2263 SQ FT

- ### KEYED NOTES
- REFUSE ENCLOSURE PER DETAIL 8/C-1.
  - 21.0' DRIVEPAD PER COA DWG 2425 WITH 12:1 SLOPE ON ADA RAMP EACH END.
  - 4" WHITE PAINTED STRIPE (TYP).
  - 4" SIDEWALK AT 0.30% PER DETAIL 4/C-1.
  - SPECIAL CURB AND GUTTER PER DETAIL 5/C-1.
  - ASPHALT PAVEMENT PER DETAIL 6/C-1.
  - LANDSCAPE AREA. SEE LANDSCAPE PLAN.
  - LANDSCAPED SWALE AT 0.4% CONTINUOUS THROUGH OPENINGS IN CEDAR FENCES.
  - 25' LF 4" ASPHALT CURB ALONG SOUTH PL.

MAXIMUM FLOW IN SIDEWALK ALLEY	
GUTTER AT 0.30%	
MANNING'S EQUATION FOR UNIFORM FLOW IN TRAPEZOIDAL CHANNELS	
*INPUT*	DEPTH (FT): 0.05
	MANNING'S "n" VALUE: 0.013
	BED SLOPE (FT/FT): 0.0030
	BOTTOM WIDTH (FT): 4.00
	SIDE SLOPE #1 (HORIZ:VERT): 0.00
	SIDE SLOPE #2 (HORIZ:VERT): 0.00
	CROWN-NEG. FOR INVERTED (FT): -0.08
*OUTPUT*	FLOW RATE (CFS): 0.49
	CROSS SECT. AREA (SQ. FT): 0.38
	TOP WIDTH (FT): 4.00
	WETTED PERIMETER (FT): 4.11
	HYDRAULIC RADIUS (FT): 0.09
	VELOCITY (FPS): 1.29
	FRIC. NUMBER: 0.73
	ENERGY GRADE: 0.08

## SURVEY NOTES

FIELD SURVEY BY: SURVEYS SOUTHWEST, LTD. 333 LOMAS BLVD, NE ALBUQUERQUE, NM 87102

SURVEY DATE: SEPT., 2004  
PHONE: (505) 98-0303  
FAX: (505) 988-0306

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## DRAINAGE INFORMATION

### LOCATION & DESCRIPTION

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### DEVELOPED CONDITION

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## 100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(10 day) (acre-ft)	V(10 day) (cu-ft)	Q (cfs)
		A (%)	B (%)	C (%)	D (%)						
EXISTING CONDITIONS											
SITE	0.1834	0.00	0.00	59.04	40.96	1.54	0.02	1,023	0.03	1,459	0.89
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TOTAL	0.2018						0.03	1,164	0.04	1,707	0.78
PROPOSED CONDITIONS											
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OFFSITE	0.0184	0.00	0.00	0.00	100.00	2.12	0.00	141	0.01	248	0.09
TOTAL	0.2018						0.03	1,410	0.05	2,351	0.89
EXCESS PRECIP.											
EXCESS PRECIP.		0.53	0.78	1.13	2.12	E (in)					
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q <sub>p</sub> (cfs)					
WEIGHTED E (in) = (E <sub>a</sub> )(%A) + (E <sub>b</sub> )(%B) + (E <sub>c</sub> )(%C) + (E <sub>d</sub> )(%D)							ZONE = 2				
V <sub>6-hr</sub> (acre-ft) = (WEIGHTED E)(AREA)/12							P <sub>6-hr</sub> (in.) = 2.35				
V <sub>10day</sub> (acre-ft) = V <sub>6-hr</sub> + (A <sub>p</sub> )(P <sub>10day</sub> - P <sub>6-hr</sub> )/12							P <sub>6-hr</sub> (in.) = 2.75				
Q (cfs) = (Q <sub>a</sub> )(A <sub>a</sub> ) + (Q <sub>b</sub> )(A <sub>b</sub> ) + (Q <sub>c</sub> )(A <sub>c</sub> ) + (Q <sub>d</sub> )(A <sub>d</sub> )							P <sub>10day</sub> (in.) = 3.95				

TRAFFIC CIRCULATION LAYOUT  
APPROVED

Signed: *[Signature]* Date: 10/5/04

RECEIVED  
FEB 07 2005  
HYDROLOGY SECTION

REVISION	DATE	DESCRIPTION
Δ	11/15	ADDED CURB ALONG S. PL.

PROJECT: 4-PLEX 212 PRINCETON DR.

TITLE: Grading Plan and Traffic Circulation

DATE: September 20, 2004

SCALE: 1" = 20'

JOB NUM.:

SHEET: C-2

ROBERT C. PONTO  
architect

PROJECT: 4-PLEX 212 PRINCETON DR.

TITLE: Grading Plan and Traffic Circulation

DATE: September 20, 2004

SCALE: 1" = 20'

JOB NUM.:

SHEET: C-2

855 POLARIS BLVD., SE  
RIO RANCHO, NM 87124  
PHONE (505) 886-0391  
FAX (505) 994-3852  
beamdesigns@earthlink.net

BUILDING  
ENGINEERING  
AND  
MUNICIPAL  
DESIGNS

DESIGN

Public Infrastructure shown  
on these plans for information  
only and not part of approval.  
Separate DRC/Permit approval  
and Work Order required.

dNb  
DRAWN BY:  
B.O.M.  
CHECKED BY:  
September 20, 2004  
DATE:  
1" = 20'  
SCALE:  
JOB NUM.:

GENERAL CONSTRUCTION NOTES

GENERAL

CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS, INCLUDING A TOP SOIL DISTURBANCE PERMIT, PRIOR TO START OF CONSTRUCTION.

ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.

REFERENCES MADE TO STANDARD SPECIFICATIONS AND STANDARD DRAWINGS REFER TO THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION WITH ALL UPDATES.

THE CONTRACTOR SHALL NOT INSTALL ITEMS AS SHOWN ON THESE PLANS WHEN IT IS OBVIOUS THAT FIELD CONDITIONS ARE DIFFERENT THAN SHOWN IN THE PLANS. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER. IN THE EVENT THE CONTRACTOR DOES NOT NOTIFY THE ENGINEER IN A TIMELY MANNER, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY AND EXPENSE FOR ANY REVISIONS NECESSARY, INCLUDING ENGINEERING DESIGN FEES.

EXISTING SITE IMPROVEMENTS WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. REPAIRS SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION OF THE REPAIRS. REPAIRS SHALL BE ACCEPTED BY THE OWNER PRIOR TO FINAL PAYMENT.

EXISTING FENCING THAT IS NOT DESIGNATED FOR REMOVAL SHALL NOT BE DISTURBED. ANY FENCING THAT IS DISTURBED OR ALTERED BY THE CONTRACTOR SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IF THE CONTRACTOR DESIRES TO REMOVE FENCING TO ACCOMMODATE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN PERMISSION BEFORE THE FENCE IS REMOVED. CONTRACTOR SHALL RESTORE THE FENCE TO ITS ORIGINAL CONDITION AT THE EARLIEST OPPORTUNITY. WHILE ANY FENCING IS REMOVED, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURITY OF THE SITE UNTIL THE FENCE IS RESTORED.

WORK WITHIN ADJACENT RIGHT-OF-WAY

PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WITHIN ADJACENT RIGHT-OF-WAYS OR WITHIN PROPERTY NOT OWNED BY THE OWNER OF THE PROJECT SITE, THE CONTRACTOR SHALL ASSURE THAT ALL PERMITS AND PERMISSIONS REQUIRED HAVE BEEN OBTAINED IN WRITING.

SURVEY MONUMENTS, PROPERTY CORNERS, BENCHMARKS

THE CONTRACTOR SHALL NOTIFY THE OWNER AT LEAST SEVEN DAYS BEFORE BEGINNING ANY CONSTRUCTION ACTIVITY THAT COULD DAMAGE OR DISPLACE SURVEY MONUMENTS, PROPERTY CORNERS, OR PROJECT BENCHMARKS SO THESE ITEMS MAY BE RELOCATED.

ANY SURVEY MONUMENTS, PROPERTY CORNERS, OR BENCHMARKS THAT ARE NOT IDENTIFIED FOR RELOCATION ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PRESERVE AND PROTECT. RELOCATION OR REPLACEMENT OF THESE ITEMS SHALL BE DONE BY THE OWNER'S SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

DIMENSIONS

ALL DIMENSIONS TO CURBS ARE TO THE FLOWLINE UNLESS OTHERWISE NOTED.

ALL STATIONING IS TO THE CENTERLINE OF THE RIGHT-OF-WAY UNLESS OTHERWISE NOTED.

ALL SLOPES AND GRADES ARE IN PERCENT UNLESS OTHERWISE NOTED.

CURB ELEVATIONS ARE SHOWN AT THE FLOW LINE UNLESS OTHERWISE NOTED. SEE THE DETAIL SHEET TO DETERMINE THE CURB HEIGHT ABOVE FLOW LINE.

SOILS

UNLESS OTHERWISE SPECIFIED, SUBGRADE, ENGINEERED FILL, AND STRUCTURAL FILL SHALL BE COMPACTED TO THE FOLLOWING SPECIFICATIONS OF THE ASTM D-1557 MAXIMUM DRY DENSITY.

MATERIAL/LOCATION	PERCENT COMPACTION
STRUCTURAL FILL IN THE BUILDING AREA	95%
SUBBASE FOR SLAB SUPPORT	95%
MISCELLANEOUS BACKFILL BELOW STRUCTURAL FILL OR ROADWAY PAVEMENT	95%
MISCELLANEOUS BACKFILL BELOW UNPAVED, NON-BUILDING AREAS	90%
ROADWAY PAVEMENT SUBGRADE	95%
SIDEWALK SUBGRADE	90%
CURB AND GUTTER SUBGRADE	95%

PAVEMENT

WHEN ABUTTING NEW PAVEMENT TO EXISTING PAVEMENT, CUT EXISTING PAVEMENT EDGE TO A NEAT, STRAIGHT LINE AS NECESSARY TO REMOVE ANY BROKEN OR CRACKED PAVEMENT AND MATCH NEW PAVEMENT ELEVATION TO EXISTING.

ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED AND APPROVED PRIOR TO PAVING.

ALL WATER VALVE BOXES AND ELECTRICAL, TELEPHONE, TELEVISION, AND SEWER MANHOLES IN THE CONSTRUCTION AREA SHALL BE ADJUSTED TO FINISHED GRADE BEFORE PAVING.

WHEN SIDEWALK OR CURB AND GUTTER IS REMOVED, IT SHALL BE REMOVED TO EXISTING CONSTRUCTION JOINTS. CUTTING OR BREAKING SHALL NOT BE ALLOWED.

UTILITIES

IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY BASED ON THE INFORMATION PROVIDED TO THE ENGINEER BY OTHERS. THIS INFORMATION MAY BE INACCURATE OR INCOMPLETE. ADDITIONALLY, UNDERGROUND LINES MAY EXIST THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ACCORDANCE WITH CHAPTER 62, ARTICLE 14-1, THROUGH 14-8, NMSA 1978.

THE CONTRACTOR SHALL CONTACT THE STATEWIDE UTILITY LOCATOR SERVICE AT 1-800-321-2537 AT LEAST TWO WORKING DAYS BEFORE BEGINNING CONSTRUCTION. AFTER THE UTILITIES ARE SPOTTED, THE CONTRACTOR SHALL EXPOSE ALL PERTINENT UTILITIES TO VERIFY THEIR VERTICAL AND HORIZONTAL LOCATION. IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMAL DELAY.

THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DISTURBING ANY EXISTING UTILITIES, ABOVE OR BELOW GROUND. UTILITIES THAT ARE DAMAGED BY CARELESS CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

EXISTING VALVES SHALL ONLY BE OPERATED BY THE UTILITY COMPANY. CONTRACTOR SHALL NOTIFY THE UTILITY A MINIMUM OF TWO WORKING DAYS BEFORE ANY VALVE, NEW OR EXISTING, NEEDS TO BE OPERATED.

THE CONTRACTOR SHALL COORDINATE ANY REQUIRED UTILITY INTERRUPTIONS WITH THE OWNER AND AFFECTED UTILITY COMPANY A MINIMUM OF THREE WORKING DAYS BEFORE THE INTERRUPTION.

THE CONTRACTOR SHALL MAINTAIN A RECORD DRAWING SET OF PLANS AND PROMPTLY LOCATE ALL UTILITIES, EXISTING OR NEW, IN THEIR CORRECT LOCATION, HORIZONTAL AND VERTICAL. THIS RECORD SET OF DRAWINGS SHALL BE MAINTAINED ON THE PROJECT SITE AND SHALL BE AVAILABLE TO THE OWNER AND ENGINEER AT ANY TIME DURING CONSTRUCTION.

EROSION CONTROL, ENVIRONMENTAL PROTECTION, AND STORM WATER POLLUTION PREVENTION PLAN

THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST AND EROSION CONTROL REGULATIONS. THE CONTRACTOR SHALL OBTAIN AND PREPARE ANY DUST CONTROL OR EROSION CONTROL PERMITS REQUIRED FROM THE REGULATORY AGENCIES.

THE CONTRACTOR SHALL PROMPTLY REMOVE ANY MATERIAL EXCAVATED WITH THE PUBLIC RIGHT-OF-WAY OR ADJACENT PROPERTY TO KEEP IT FROM WASHING OFF THE PROJECT SITE.

THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY BY CONSTRUCTION OF TEMPORARY EROSION CONTROL BERMS OR INSTALLING SILT FENCES AT THE PROPERTY LINES AND WETTING THE SOIL TO PREVENT IT FROM BLOWING.

WATERING, AS REQUIRED FOR CONSTRUCTION DUST CONTROL, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO MEASUREMENT OR PAYMENT SHALL BE MADE. CONSTRUCTION AREAS SHALL BE WATERED FOR DUST CONTROL IN COMPLIANCE WITH GOVERNMENT ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SUPPLYING WATER AS REQUIRED.

ANY AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY LANDSCAPING OR IMPERVIOUS SURFACES SHALL BE REVEGETATED WITH RECLAMATION SEEDING.

THE CONTRACTOR SHALL PROPERLY HANDLE AND DISPOSE OF ALL ASPHALT REMOVED ON THE PROJECT BY HAULING IT TO AN APPROVED DISPOSAL SITE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW MEXICO SOLID WASTE ACT.

ALL WASTE PRODUCTS FROM THE CONSTRUCTION SITE, INCLUDING ITEMS DESIGNED FOR REMOVAL, CONSTRUCTION WASTE, CONSTRUCTION EQUIPMENT WASTE PRODUCTS (OIL, GAS, TIRES, ETC.), GARBAGE, GRUBBING, EXCESS CUT MATERIAL, VEGETATIVE DEBRIS, ETC., SHALL BE APPROPRIATELY DISPOSED OF OFFSET AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS REQUIRED FOR HAUL OR DISPOSAL OF WASTE PRODUCTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE WASTE DISPOSAL SITE COMPLIES WITH GOVERNMENT REGULATIONS REGARDING THE ENVIRONMENT, ENDANGERED SPECIES, AND ARCHAEOLOGICAL RESOURCES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REPORTING OF SPILLS OF HAZARDOUS MATERIALS ASSOCIATED WITH THE CONSTRUCTION SITE. HAZARDOUS MATERIALS INCLUDE GASOLINE, DIESEL FUEL, MOTOR OIL, SOLVENTS, CHEMICALS, PAINT, ETC. WHICH MAY BE A THREAT TO THE ENVIRONMENT. THE CONTRACTOR SHALL REPORT THE DISCOVERY OF PAST OR PRESENT SPILLS TO THE NEW MEXICO EMERGENCY RESPONSE AT 1-800-219-6157.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING SURFACE AND UNDERGROUND WATER. CONTACT WITH SURFACE WATER BY CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL BE MINIMIZED. EQUIPMENT MAINTENANCE AND REFUELING OPERATIONS SHALL BE PERFORMED IN AN ENVIRONMENTALLY SAFE MANNER IN COMPLIANCE WITH GOVERNMENT REGULATIONS.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING CONSTRUCTION NOISE AND HOURS OF OPERATION.

ACCESSIBLE FACILITIES

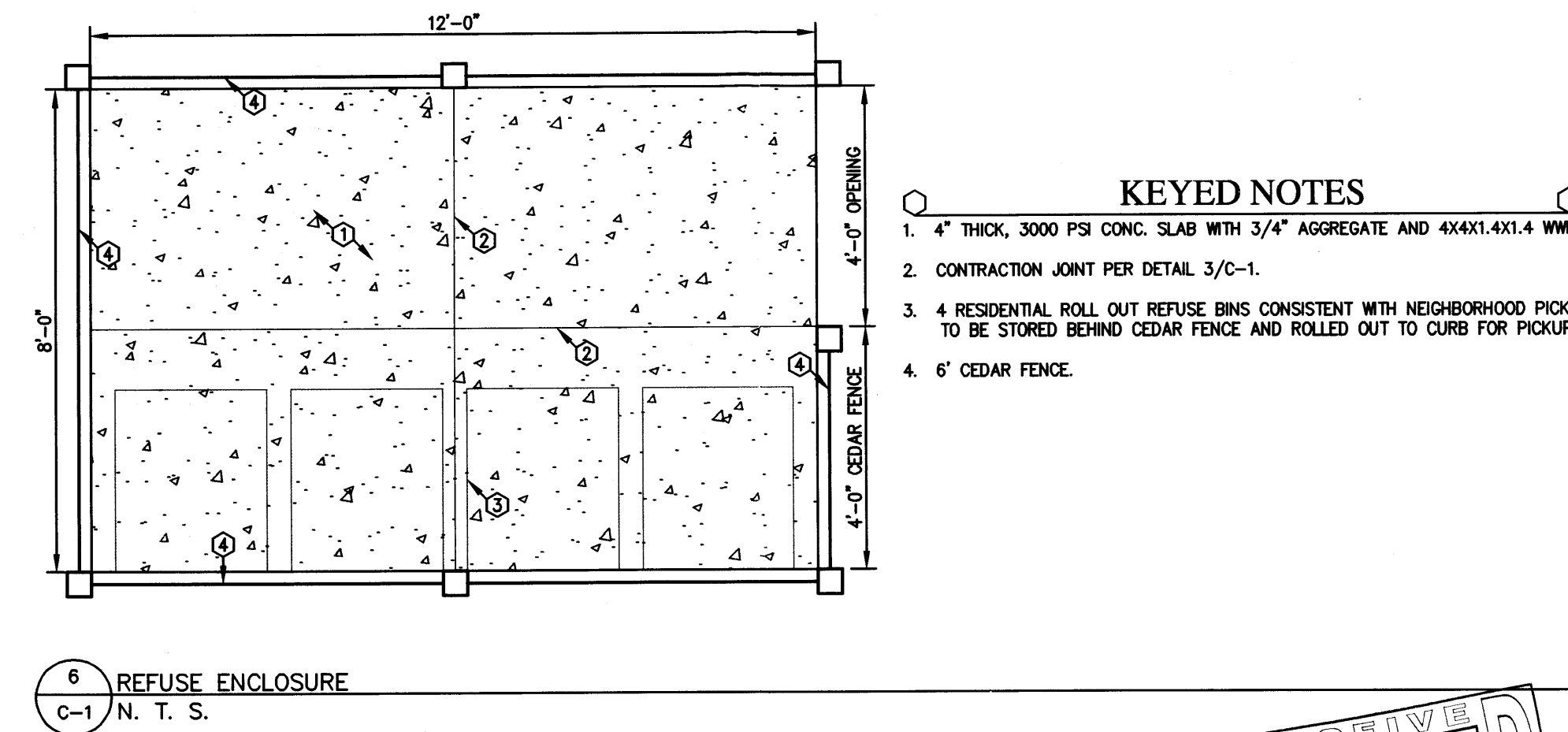
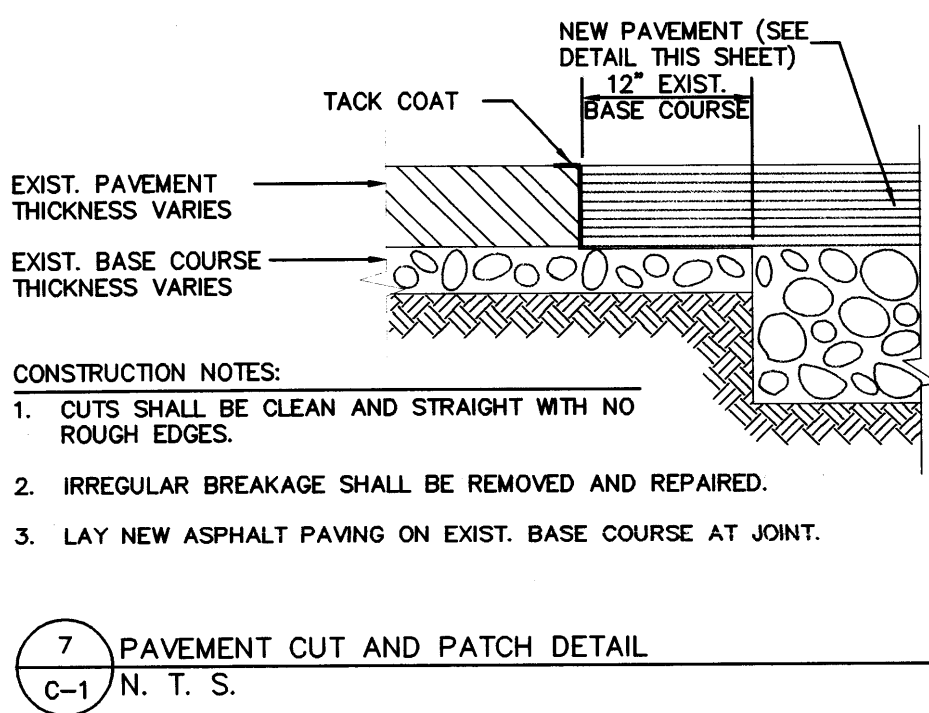
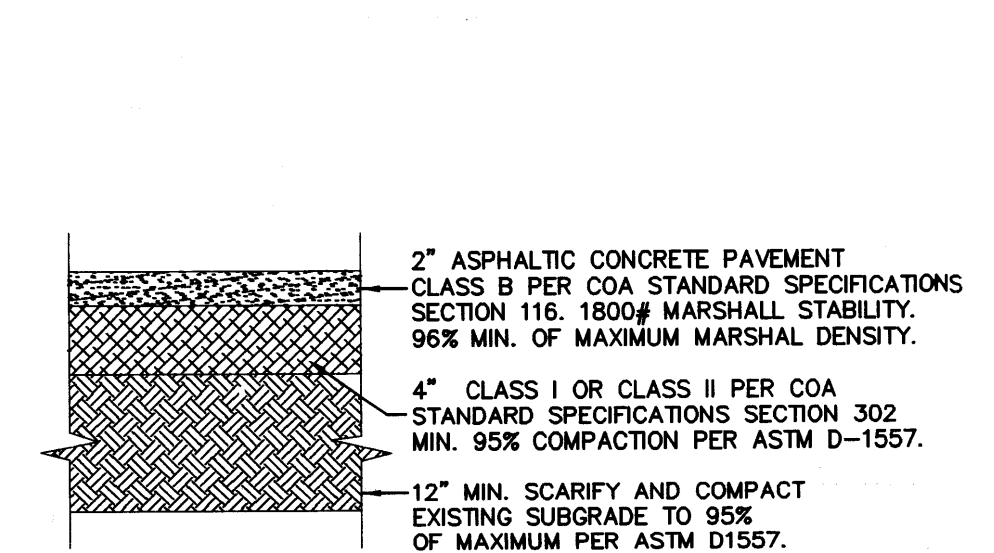
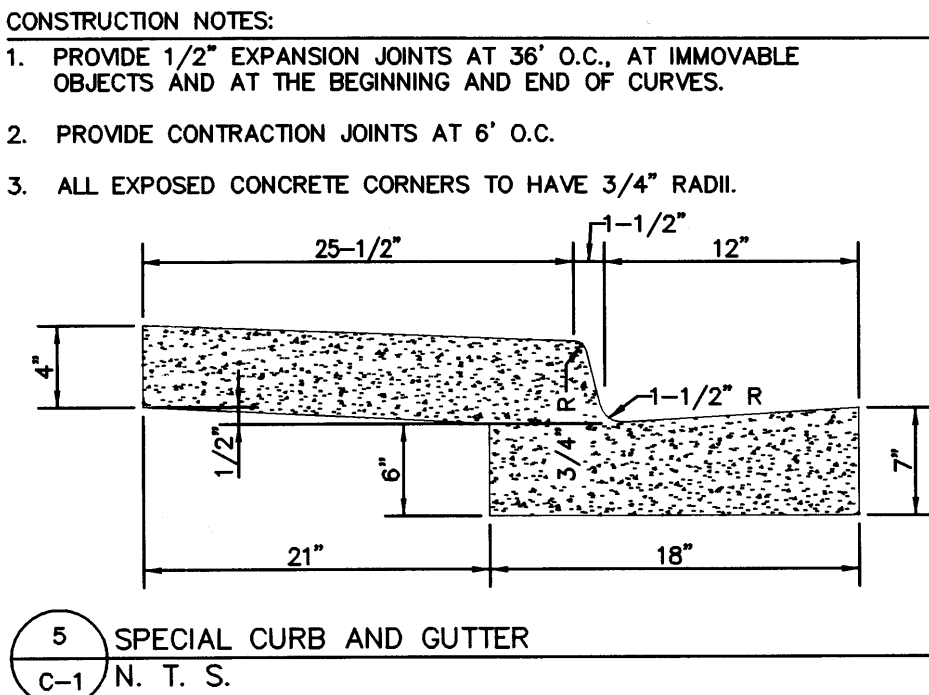
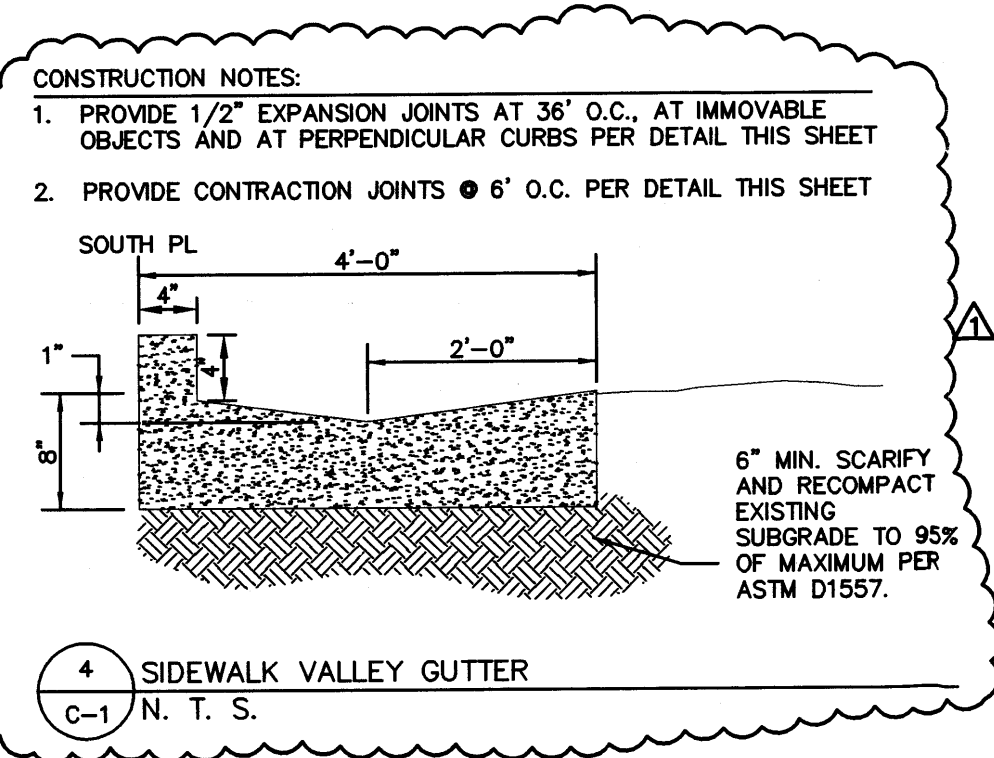
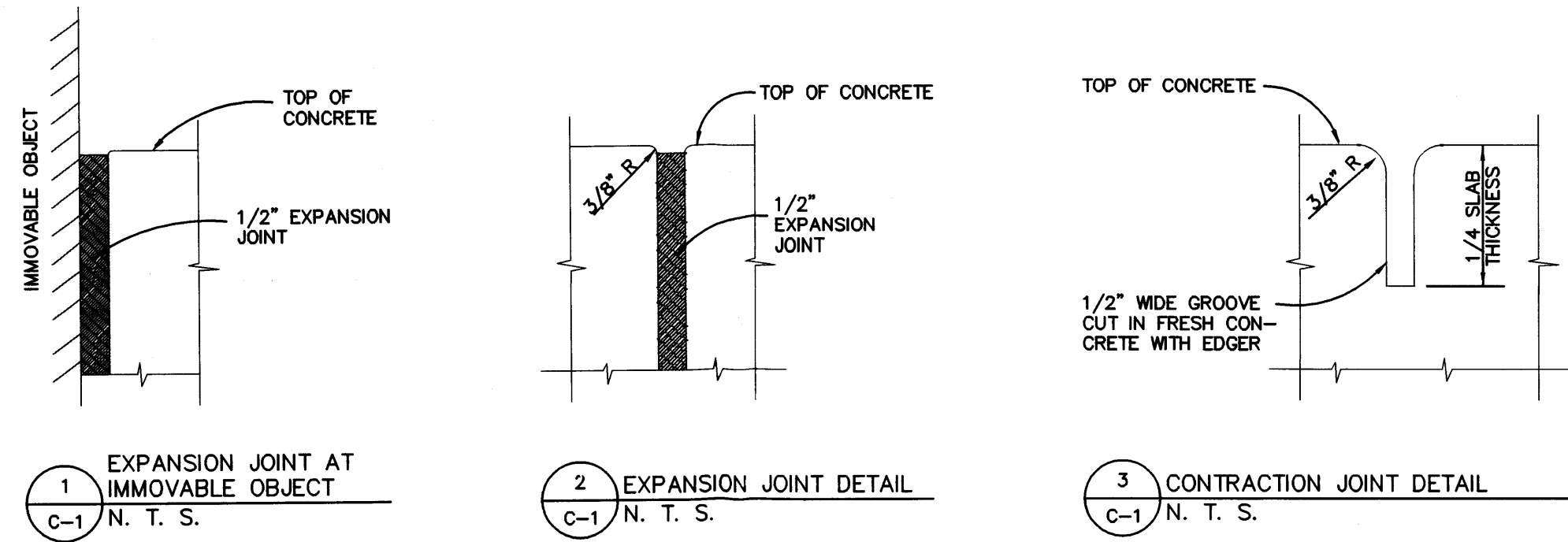
ALL SURFACES ALONG ACCESSIBLE ROUTES AND FOR HANDICAP RAMPS SHALL BE STABLE FIRM, SLIDE RESISTANT AND SHALL COMPLY WITH UNIFORM FEDERAL ACCESSIBILITY STANDARDS, PARAGRAPH 4.5.

LONGITUDINAL SLOPES ALONG ACCESSIBLE ROUTE SIDEWALKS, EXCEPT AT HANDICAP RAMPS, SHALL NOT BE STEEPER THAN 1:20. CROSS SLOPES ALONG ACCESSIBLE ROUTE SIDEWALKS EXCEPT AT HANDICAP RAMPS, SHALL NOT BE STEEPER THAN 1:48. SLOPES IN ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND PASSENGER LOADING ZONES SHALL NOT BE STEEPER THAN 1:48 IN ALL DIRECTIONS.

THE SITE SHALL COMPLY WITH ANSI A117.1-1992, "ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES".

TRAFFIC CONTROL

THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TRAFFIC CONTROL PLANS. ALL SIGNS, BARRICADES, CHANNELIZATION DEVICES, SIGN FRAMES AND ERECTION OF SUCH DEVICES SHALL CONFORM TO THE REQUIREMENTS OF "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" LATEST EDITION. PRIOR TO CONSTRUCTION, TRAFFIC CONTROL PLANS SHALL BE APPROVED BY THE GOVERNING AUTHORITY.

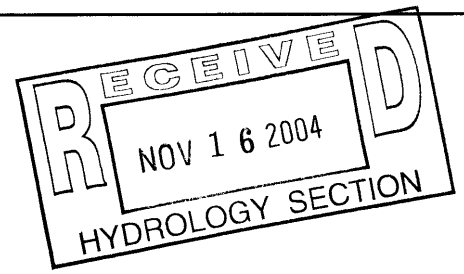


ABBREVIATIONS

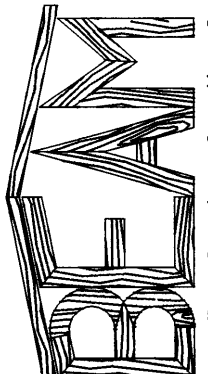
A = AIR LINE	CONC = CONCRETE
AD = AREA DRAIN	CL = CENTERLINE
AIP = ABANDONED IN PLACE	DIA = DIAMETER
BLDG = BUILDING	DIP = DUCTILE IRON PIPE
BM = BENCHMARK	DTL = DETAIL
CATV = CABLE TELEVISION LINE	DWG = DRAWING
CIP = CAST IRON PIPE	E = ELECTRIC LINE
CMP = CORRUGATED METAL PIPE	ELEC. = ELECTRIC
CMPA = CORRUGATED METAL PIPE ARCH	ELEV = ELEVATION
CO = CLEANOUT	EX = EXISTING
COA = CITY OF ALBUQUERQUE	FF = FINISHED FLOOR ELEVATION

FG = FINISHED GRADE	MH = MANHOLE
FH = FIRE HYDRANT	NG = NATURAL GROUND
FL = FLOW LINE	OE = OVERHEAD ELECTRIC LINE
G = GAS PIPE	OT = OVERHEAD TELEPHONE LINE
GM = GAS METER	PB = ELECTRICAL PULL BOX
GV = GATE VALVE	PCC = PORTLAND CEMENT CONCRETE
HI PT = HIGH POINT	PP = POWER POLE
INV = INVERT ELEVATION	PROP = PROPOSED
LF = LINEAL FEET	PVC = POLYVINYL CHLORIDE PIPE
LP = LIGHT POLE	RCP = REINFORCED CONCRETE PIPE
L/S = LANDSCAPING	RD = ROOF DRAIN

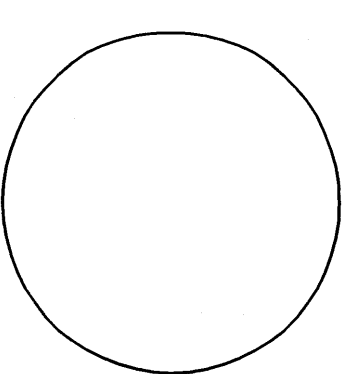
R/W = RIGHT-OF-WAY	TCC = TOP OF CONCRETE CURB
S = SLOPE	TG = TOP OF GRADE
SAS = SANITARY SEWER	TS = TOP OF SIDEWALK
SD = STORM DRAIN	TW = TOP OF WALL
STA = STATION	TYP = TYPICAL
STD = STANDARD	TB = TELEPHONE BOX
SW = SIDEWALK	UE = UNDERGROUND ELECTRIC
T = TELEPHONE	UT = UNDERGROUND TELEPHONE
TA = TOP OF ASPHALT PAVEMENT	W = WATER
TAC = TOP OF ASPHALT CURB	WM = WATER METER
TC = TOP OF CONCRETE SLAB (PAVEMENT)	WV = WATER VALVE



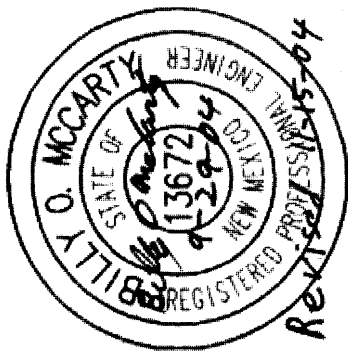
855 POLARIS BLVD., SE  
RIO RANCHO, NM 87124  
PHONE (505) 886-0391  
FAX (505) 994-3952  
beamsdesigns@quest.net



REVISION	DATE	DESCRIPTION
Δ	11/15	ADDED CURB ALONG S. PL



ROBERT C. PONTO  
a r c h i t e c t



PROJECT:

4-PLEX  
212 PRINCETON DR.

Civil General  
Notes and  
Details

dNb

DRAWN BY:

B.O.M.

CHECKED BY:

September 20, 2004

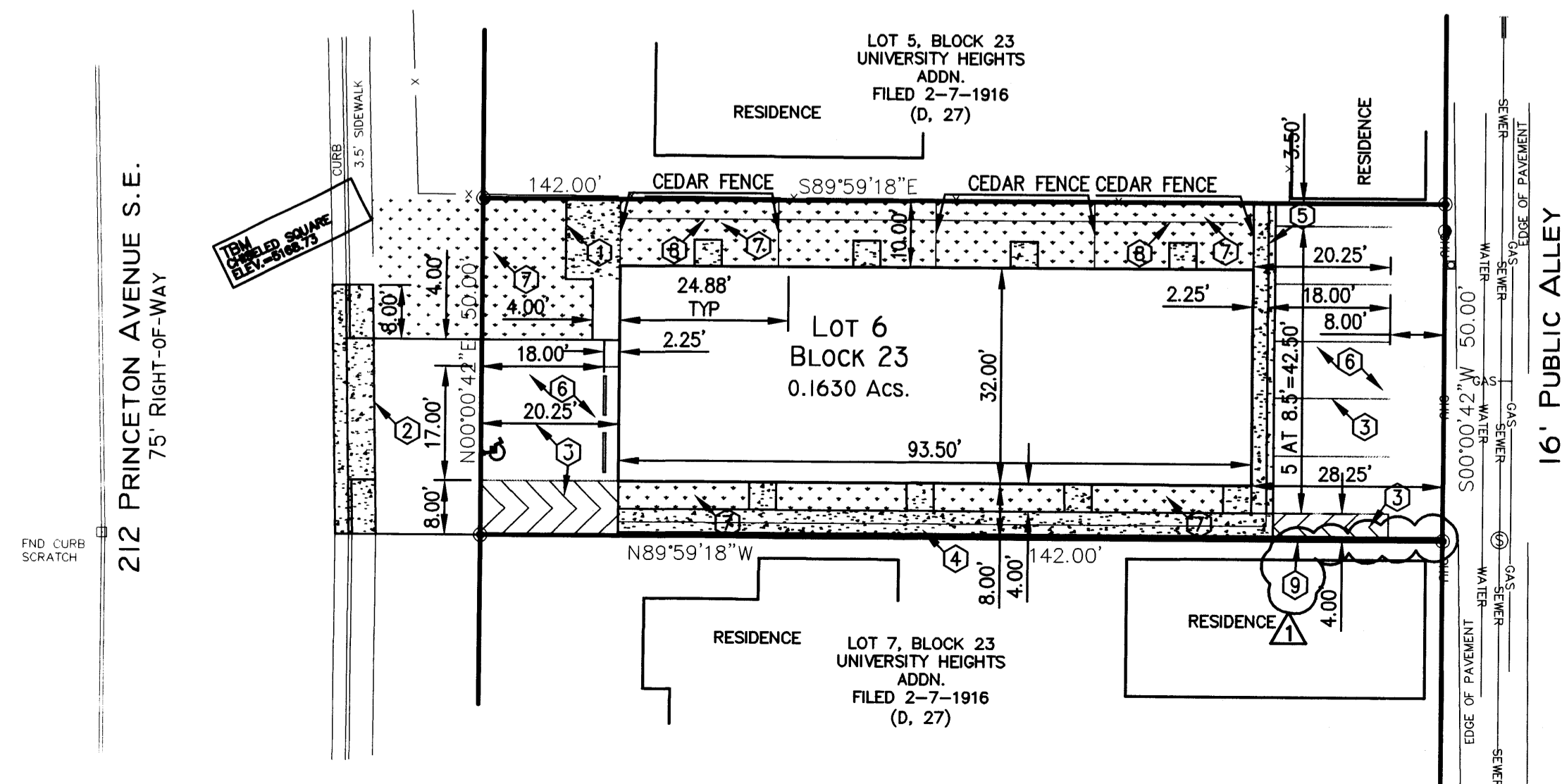
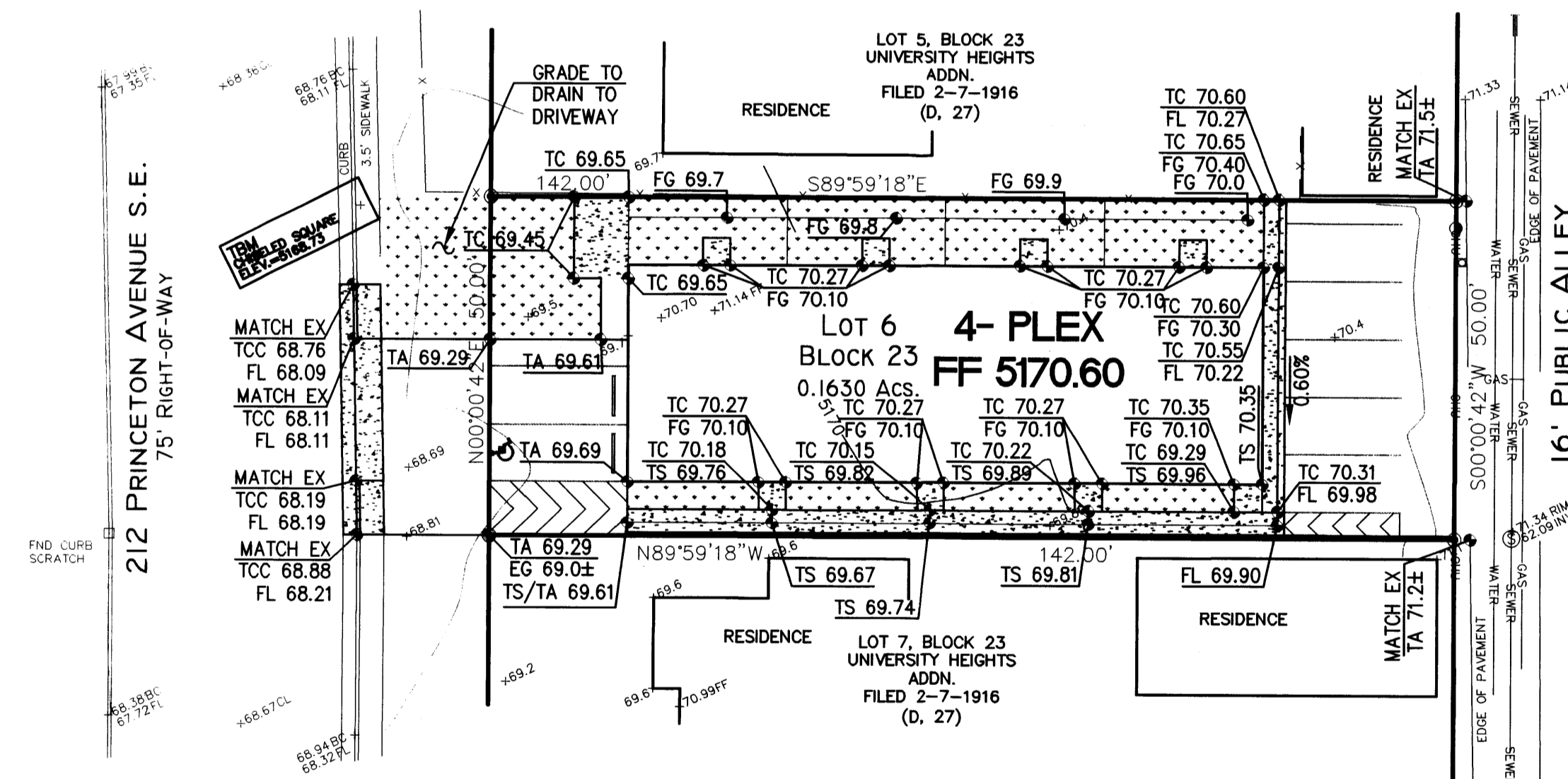
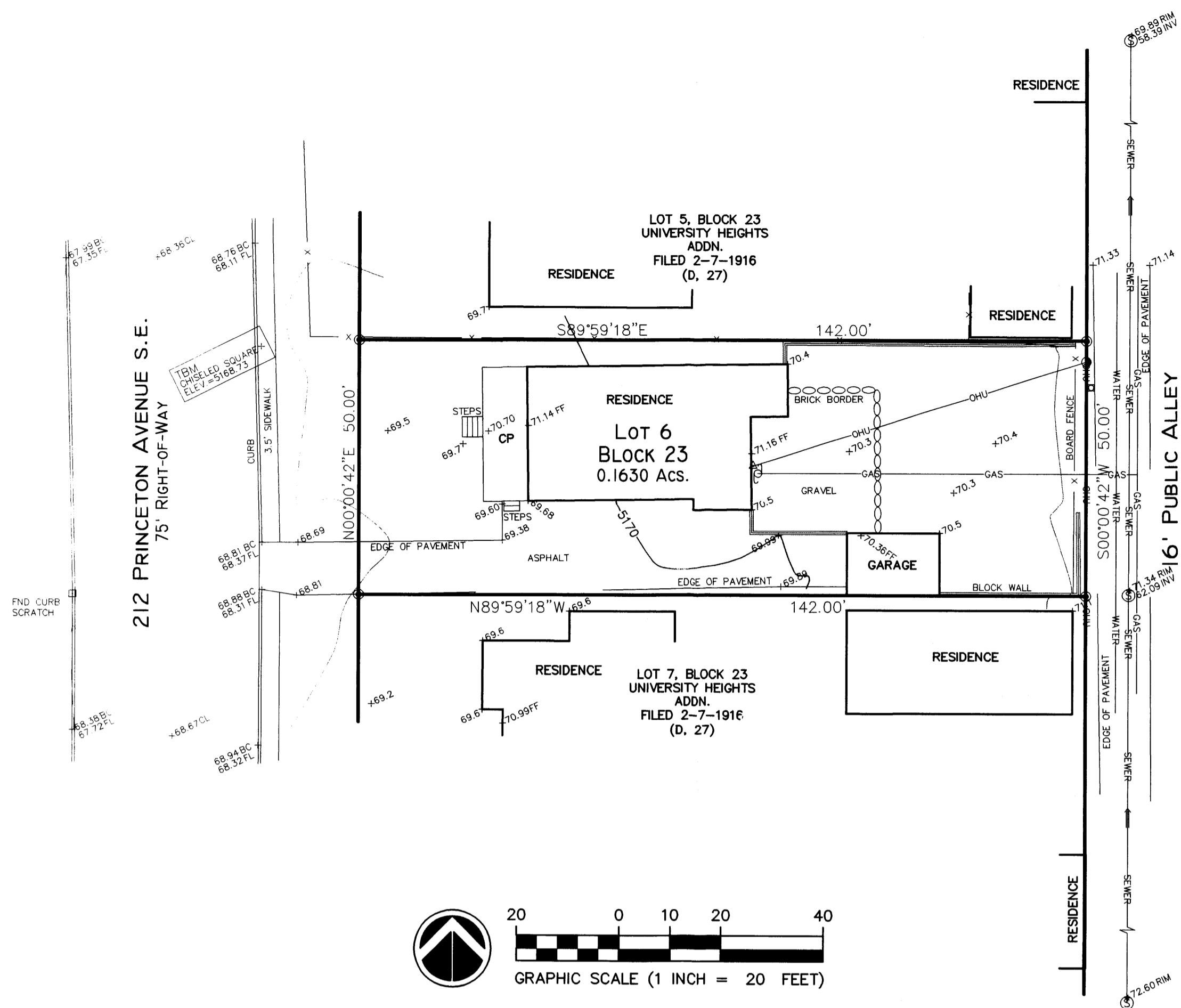
DATE:

1" = 20'

SCALE:

JOB NUM.:

C-1  
SHEET:



## Existing Development

## Grading Plan

## Traffic Circulation Layout

SYMBOLS LEGEND	
●	= POWER POLE
—OHU—	= OVERHEAD UTILITY LINE
—GAS—	= UNDERGROUND GAS LINE
—SEWER—	= UNDERGROUND SEWER LINE
—WATER—	= UNDERGROUND WATER LINE
⊙	= SEWER MANHOLE
□	= WATER METER
⊙	= GAS METER
—	= BLOCK WALL
—X—	= FENCE
△	= ELECTRIC METER

SPOT ELEVATION LEGEND	
+X0.0	= ELEVATION AT GROUND
+X0.00	= ELEVATION AT TOP OF FINISHED SURFACE
+X0.00CL	= ELEVATION AT CENTERLINE OF DRIVING LANE
+X0.00BC	= ELEVATION AT BACK OF CURB
+X0.00FL	= ELEVATION AT FLOWLINE OF CURB
+X0.00FF	= ELEVATION AT FINISHED FLOOR
+X0.00RM	= ELEVATION AT RIM OF MANHOLE

MONUMENT LEGEND	
□	= FOUND MONUMENT AS NOTED
⊙	= SET 1/2" REBAR W/YELLOW PLASTIC CAP STAMPED "GRITSKO LS8686" UNLESS OTHERWISE NOTED

PARKING SPACES SCHEDULE					
SPACES REQUIRED			SPACES PROVIDED		
REGULAR	ADA	TOTAL	REGULAR	ADA	TOTAL
5	1	6	6	1	7

OPEN SPACE SCHEDULE			
REQUIRED		PROVIDED	
PER UNIT	UNITS	TOTAL	TOTAL
500 SQ FT	4	2000 SQ FT	2263 SQ FT

## KEYED NOTES

- REFUSE ENCLOSURE PER DETAIL 8/C-1.
- 21.0' DRIVEPAD PER COA DWG 2425 WITH 12:1 SLOPE ON ADA RAMP EACH END.
- 4" WHITE PAINTED STRIPE (TYP).
- 4' SIDEWALK AT 0.30% PER DETAIL 4/C-1.
- SPECIAL CURB AND GUTTER PER DETAIL 5/C-1.
- ASPHALT PAVEMENT PER DETAIL 6/C-1.
- LANDSCAPE AREA. SEE LANDSCAPE PLAN.
- LANDSCAPED SWALE AT 0.4% CONTINUOUS THROUGH OPENINGS IN CEDAR FENCES.
- 25' LF 4" ASPHALT CURB ALONG SOUTH PL.

MAXIMUM FLOW IN SIDEWALK ALLEY  
GUTTER AT 0.30%

MANNING'S EQUATION FOR UNIFORM FLOW IN  
TRAPEZOIDAL CHANNELS

*INPUT*		*OUTPUT*	
DEPTH (FT):	0.05	FLOW RATE (CFS):	0.49
MANNING'S "N" VALUE:	0.013	CROSS SECT. AREA (SF):	0.38
BED SLOPE (F/FT):	0.0030	TOP WIDTH (FT):	4.00
BOTTOM WIDTH (FT):	4.00	WETTED PERIMETER (FT):	4.11
SIDE SLOPE #1 (HORZ:VERT):	0.00	HYDRAULIC RADIUS (FT):	0.09
SIDE SLOPE #2 (HORZ:VERT):	0.00	VELOCITY (FPS):	1.29
CROWN-NEG. FOR INVERTED (FT):	-0.08	FROUDE NUMBER:	0.73
		ENERGY GRADE:	0.08

## SURVEY NOTES

FIELD SURVEY BY: SURVEYS SOUTHWEST, LTD.  
333 LOMAS BLVD, NE  
ALBUQUERQUE, NM 87102

SURVEY DATE: SEPT., 2004  
PHONE: (505) 98-0303  
FAX: (505) 998-0306

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE SURVEYOR BY THE APPROPRIATE UTILITY COMPANIES. SURVEYOR DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

## ACS BENCHMARK

ACS MONUMENT "15-K16" BEING A 3 1/4" ACS ALUMINUM CAP SET FLUSH IN THE CURB RETURN APPROXIMATELY 33' EAST OF THE GIRARD BLVD. CENTERLINE AND 42.7' SOUTH OF THE CENTRAL AVE CENTERLINE, WITH AN ELEVATION OF 5191.308 (SLD 1929).

## LEGAL DESCRIPTION

LOT NUMBERED SIX (6) IN BLOCK NUMBERED TWENTY-THREE (23) OF THE UNIVERSITY HEIGHTS ADDITION, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT THEREOF FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON FEBRUARY 7, 1916 IN BOOK D, FOLIO 27.

## DRAINAGE INFORMATION

### LOCATION & DESCRIPTION

THE PROPOSED SITE IS 0.183 ACRES LOCATED ON THE EAST SIDE OF PRINCETON DRIVE MIDWAY BETWEEN LEAD AVENUE AND SILVER AVENUE AS SEEN ON THE VICINITY MAP ON THIS SHEET. THE SITE IS DEVELOPED AS A SINGLE FAMILY RESIDENCE WITH A DETACHED GARAGE. THE STRUCTURES ARE IN DISREPAIR. THIS DEVELOPMENT WILL REPLACE THE EXISTING STRUCTURES WITH A 4-PLEX RESIDENTIAL STRUCTURE AND ASSOCIATED PAVED PARKING SPACES.

### FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0353E, DATED NOVEMBER 19, 2003 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN.

### METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

### PRECIPITATION

THE 100-YR, 6-HR AND 100-YR, 10 DAY DURATION STORM EVENTS WERE USED AS THE DESIGN STORMS FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 2AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION WERE USED TO ESTABLISH THE 6-HOUR, 24-HOUR, AND 10-DAY PRECIPITATION VALUES, EXCESS PRECIPITATION, AND PEAK DISCHARGE.

### EXISTING DRAINAGE

THE SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION." THIS AREA IS FLAT WITH STREETS AT APPROXIMATELY A 0.3% GRADE. THE LOTS ARE GRADED TO DRAIN TO THE STREETS WHICH ARE DEVELOPED WITH CURB AND GUTTER AND 3.5" SIDEWALKS. A 16' PAVED ALLEY SEPARATES THE LOTS TO THE EAST FROM THE LOTS ALONG PRINCETON DRIVE. SOLID WALLS HAVE BEEN CONSTRUCTED AROUND THE ADJACENT LOTS. THEREFORE, THE ONLY OFFSITE RUNOFF IS FROM THE ALLEY ADJACENT TO THIS SITE. THIS SHEET SHOWS A SURVEY OF THE EXISTING DEVELOPMENT TO COMPARE EXISTING RUNOFF WITH THE PROPOSED DEVELOPMENT. THE SITE IS APPROXIMATELY 41% IMPERVIOUS AND THE REMAINDER IS EITHER GRAVEL LANDSCAPING OR HARD PACKED DIRT THAT HAS BEEN USED FOR PARKING. THE 100-YEAR HYDRAULIC CALCULATIONS BELOW DEMONSTRATE THAT THE SITE GENERATES 0.69-CFS DURING THE 100-YEAR STORM EVENT.

### DEVELOPED CONDITION

THE PROPOSED DEVELOPMENT WILL REPLACE EXISTING RESIDENCE AND GARAGE WITH A 4-PLEX RESIDENCE AND ASSOCIATED PAVING. THE SITE WILL CONTINUE TO DRAIN WEST TO PRINCETON DRIVE ALONG WITH THE SMALL PORTION OF THE 16' PAVED ALLEY. THIS DEVELOPMENT WILL INCREASE THE RUNOFF BY 0.11-CFS TO 0.80-CFS. THIS IS AN INSIGNIFICANT INCREASE FOR THIS AREA SO DETENTION PONDING IS NOT INCLUDED IN THE DEVELOPMENT. THE DEVELOPMENT WILL GREATLY BENEFIT THE AREA BY PROVIDING ADDITIONAL HOUSING FOR THIS AREA NEAR THE UNIVERSITY AND IMPROVE THE AESTHETICS OF THE AREA. DRAINAGE PATTERNS WILL NOT BE ALTERED BY THIS DEVELOPMENT.

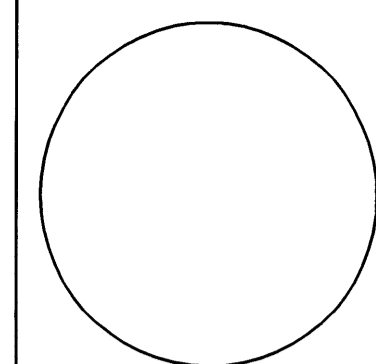
## 100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(10 day) (acre-ft)	V(10 day) (cu-ft)	Q (cfs)
		A (%)	B (%)	C (%)	D (%)						
EXISTING CONDITIONS											
SITE	0.1834	0.00	0.00	59.04	40.96	1.54	0.02	1,023	0.03	1,459	0.89
OFFSITE	0.0184	0.00	0.00	0.00	100.00	2.12	0.00	141	0.01	248	0.09
TOTAL	0.2018						0.03	1,184	0.04	1,707	0.78
PROPOSED CONDITIONS											
SITE	0.1834	0.00	0.00	21.71	78.29	1.91	0.03	1,289	0.05	2,103	0.80
OFFSITE	0.0184	0.00	0.00	0.00	100.00	2.12	0.00	141	0.01	248	0.09
TOTAL	0.2018						0.03	1,410	0.05	2,351	0.89
EXCESS PRECIP.											
		0.53	0.78	1.13	2.12	E (in)					
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q <sub>h</sub> (cfs)					
WEIGHTED E (in) = (E <sub>A</sub> )(%A) + (E <sub>B</sub> )(%B) + (E <sub>C</sub> )(%C) + (E <sub>D</sub> )(%D)											
V <sub>6-hr</sub> (acre-ft) = (WEIGHTED E)(AREA)/12											
V <sub>10day</sub> (acre-ft) = V <sub>6-hr</sub> + (A <sub>0</sub> )(P <sub>10day</sub> - P <sub>6-hr</sub> )/12											
Q (cfs) = (Q <sub>h</sub> )(A <sub>h</sub> ) + (Q <sub>10</sub> )(A <sub>10</sub> ) + (Q <sub>24</sub> )(A <sub>24</sub> ) + (Q <sub>48</sub> )(A <sub>48</sub> )											
ZONE = 2											
P <sub>6-hr</sub> (in.) = 2.35											
P <sub>24-hr</sub> (in.) = 2.75											
P <sub>10day</sub> (in.) = 3.95											

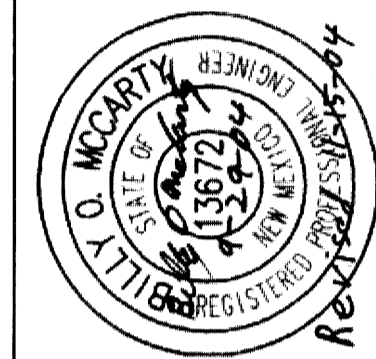
## TRAFFIC CIRCULATION LAYOUT APPROVED

11/15  
10/5/04  
Signed Date

REVISION	DATE	DESCRIPTION
1	11/15	ADDED CURB ALONG S. PL



ROBERT C. PONTO  
a r c h i t e c t



PROJECT:

4-PLEX  
212 PRINCETON DR.

Grading Plan  
and Traffic  
Circulation

dNb  
DRAWN BY:  
B.O.M.  
CHECKED BY:

September 20, 2004

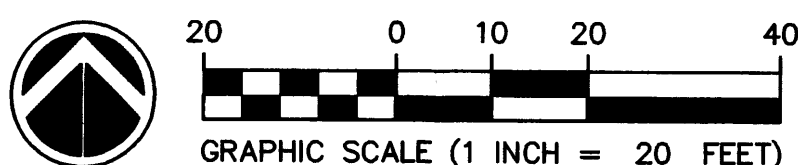
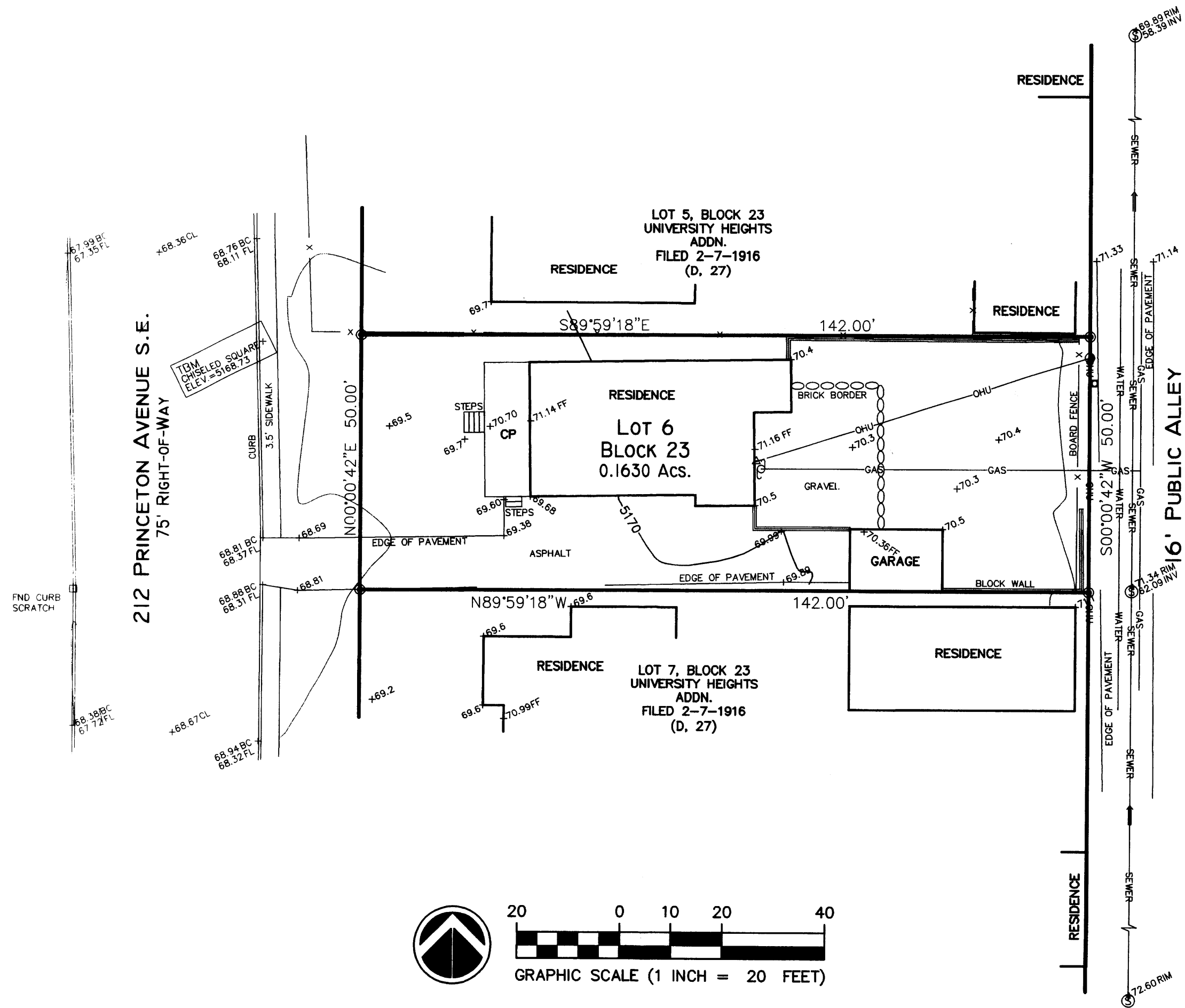
DATE:

1" = 20'

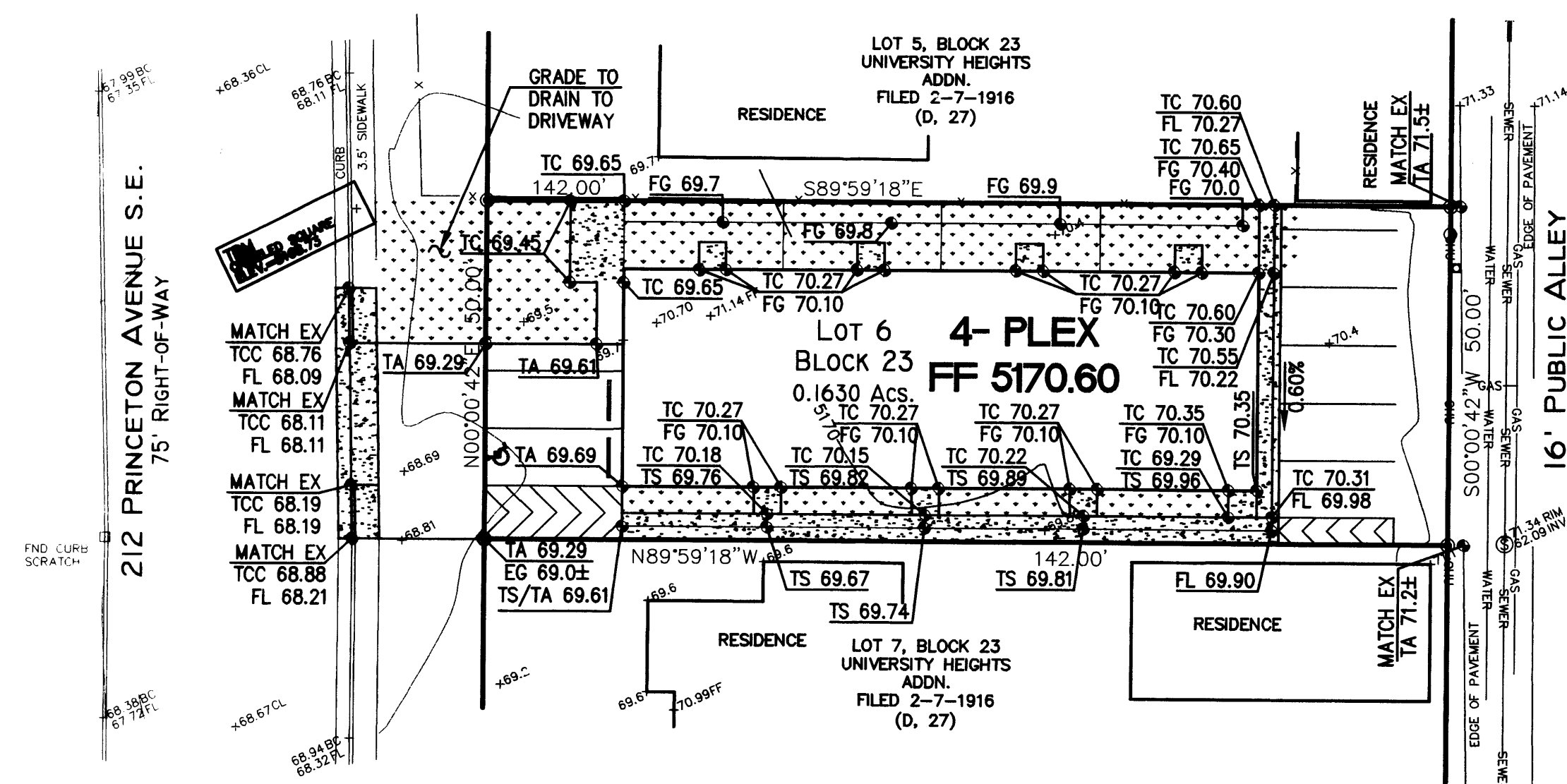
SCALE:

JOB NUM.:

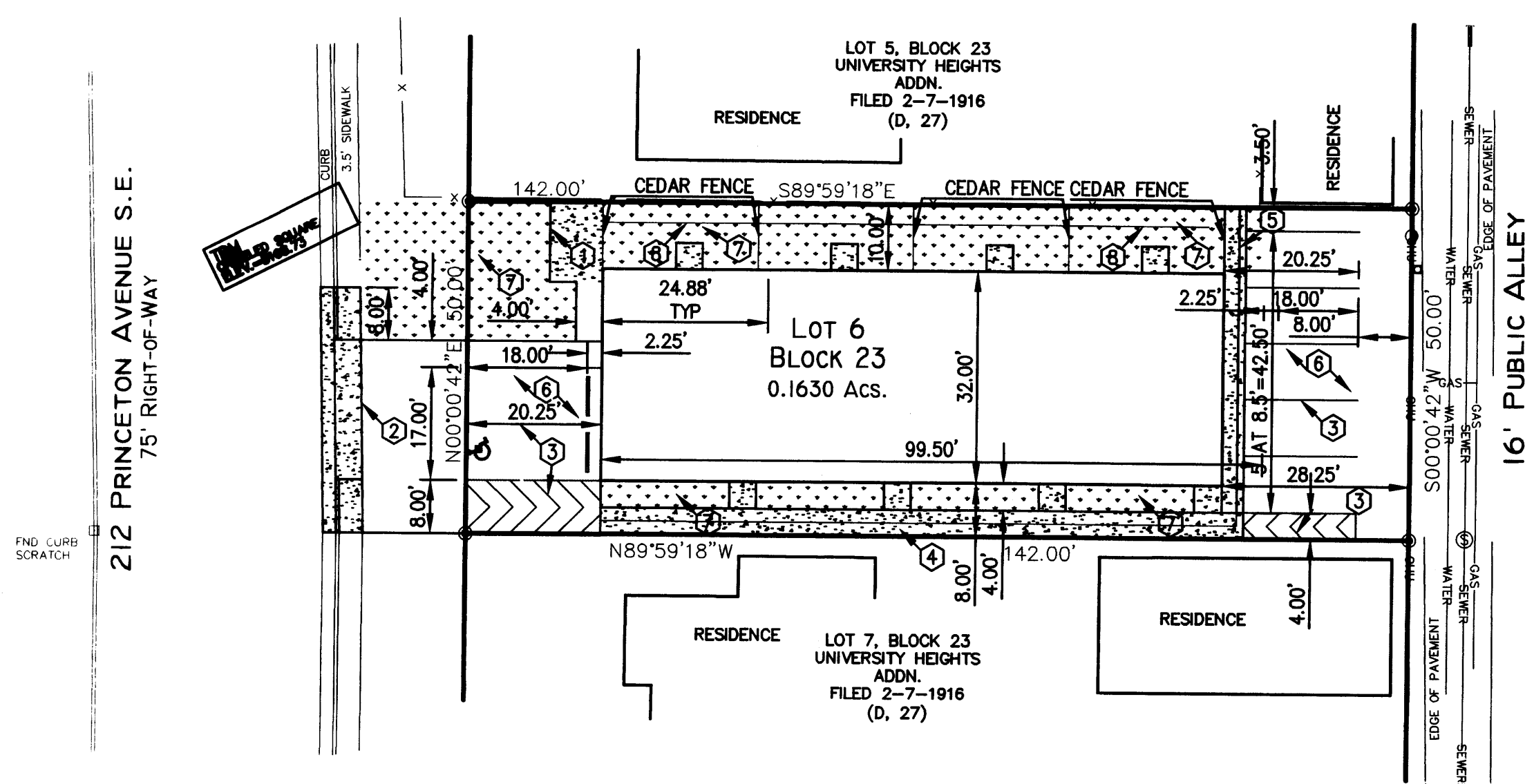
C-2  
SHEET:



Existing Development



Grading Plan



Traffic Circulation Layout

**SYMBOLS LEGEND**

- = POWER POLE
- OH- = OVERHEAD UTILITY LINE
- GAS- = UNDERGROUND GAS LINE
- SEWER- = UNDERGROUND SEWER LINE
- WATER- = UNDERGROUND WATER LINE
- ⊙ = SEWER MANHOLE
- = WATER METER
- ⊙ = GAS METER
- = BLOCK WALL
- X- = FENCE
- △ = ELECTRIC METER

**SPOT ELEVATION LEGEND**

- +00.0 = ELEVATION AT GROUND
- +00.00 = ELEVATION AT TOP OF FINISHED SURFACE
- +00.00CL = ELEVATION AT CENTERLINE OF DRIVING LANE
- +00.00BC = ELEVATION AT BACK OF CURB
- +00.00FL = ELEVATION AT FLOWLINE OF CURB
- +00.00FF = ELEVATION AT FINISHED FLOOR
- +00.00RM = ELEVATION AT RIM OF MANHOLE

**MONUMENT LEGEND**

- - FOUND MONUMENT AS NOTED
- - SET 1/2" REBAR W/YELLOW PLASTIC CAP STAMPED "GRITSKO L58686" UNLESS OTHERWISE NOTED

**PARKING SPACES SCHEDULE**

SPACES REQUIRED	SPACES PROVIDED
REGULAR ADA TOTAL	REGULAR ADA TOTAL
5 1 6	6 1 7

**OPEN SPACE SCHEDULE**

REQUIRED	PROVIDED
PER UNIT UNITS TOTAL	PER UNIT UNITS TOTAL
500 SQ FT 4	2000 SQ FT 2263 SQ FT

- KEYED NOTES**
- REFUSE ENCLOSURE PER DETAIL 8/C-1.
  - 21.0' DRIVEPAD PER COA DWG 2425 WITH 12:1 SLOPE ON ADA RAMP EACH END.
  - 4" WHITE PAINTED STRIPE (TYP).
  - 4' SIDEWALK AT 0.30% PER DETAIL 4/C-1.
  - SPECIAL CURB AND GUTTER PER DETAIL 5/C-1.
  - ASPHALT PAVEMENT PER DETAIL 6/C-1.
  - LANDSCAPE AREA. SEE LANDSCAPE PLAN.
  - LANDSCAPED SWALE AT 0.4% CONTINUOUS THROUGH OPENINGS IN CEDAR FENCES.

**SURVEY NOTES**

FIELD SURVEY BY: SURVEYS SOUTHWEST, LTD.  
333 LOMAS BLVD, NE  
ALBUQUERQUE, NM 87102

SURVEY DATE: SEPT., 2004  
PHONE: (505) 98-0303  
FAX: (505) 988-0306

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE SURVEYOR BY THE APPROPRIATE UTILITY COMPANIES. SURVEYOR DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

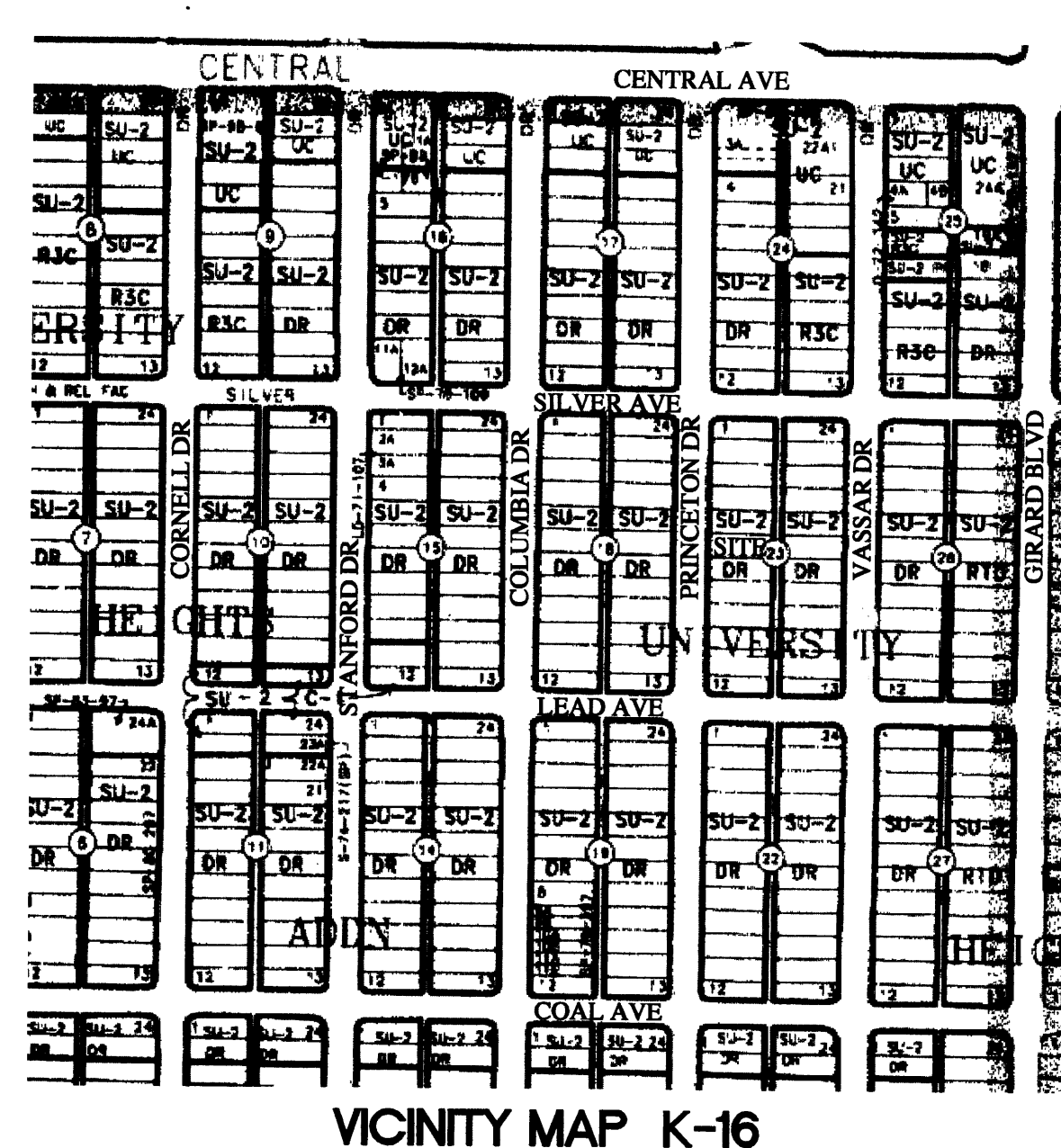
THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

**ACS BENCHMARK**

ACS MONUMENT "15-K16" BEING A 3 1/4" ACS ALUMINUM CAP SET FLUSH IN THE CURB RETURN APPROXIMATELY 33' EAST OF THE GIRARD BLVD. CENTERLINE AND 42.7' SOUTH OF THE CENTRAL AVE CENTERLINE, WITH AN ELEVATION OF 5191.308 (SLD 1929).

**LEGAL DESCRIPTION**

LOT NUMBERED SIX (6) IN BLOCK NUMBERED TWENTY-THREE (23) OF THE UNIVERSITY HEIGHTS ADDITION, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT THEREOF FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON FEBRUARY 7, 1916 IN BOOK D, FOLIO 27.



## DRAINAGE INFORMATION

**LOCATION & DESCRIPTION**

THE PROPOSED SITE IS 0.183 ACRES LOCATED ON THE EAST SIDE OF PRINCETON DRIVE, MIDWAY BETWEEN LEAD AVENUE AND SILVER AVENUE AS SEEN ON THE VICINITY MAP ON THIS SHEET. THE SITE IS DEVELOPED AS A SINGLE FAMILY RESIDENCE WITH A DETACHED GARAGE. THE STRUCTURES ARE IN DISREPAIR. THIS DEVELOPMENT WILL REPLACE THE EXISTING STRUCTURES WITH A 4-PLEX RESIDENTIAL STRUCTURE AND ASSOCIATED PAVED PARKING SPACES.

**FLOODPLAIN STATUS**

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0353E, DATED NOVEMBER 19, 2003 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN.

**METHODOLOGY**

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

**PRECIPITATION**

THE 100-YR, 6-HR AND 100-YR, 10 DAY DURATION STORM EVENTS WERE USED AS THE DESIGN STORMS FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 2AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION WERE USED TO ESTABLISH THE 6-HOUR, 24-HOUR, AND 10-DAY PRECIPITATION VALUES, EXCESS PRECIPITATION, AND PEAK DISCHARGE.

**EXISTING DRAINAGE**

THE SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION." THIS AREA IS FLAT WITH STREETS AT APPROXIMATELY A 0.3% GRADE. THE LOTS ARE GRADED TO DRAIN TO THE STREETS WHICH ARE DEVELOPED WITH CURB AND GUTTER AND 3.5' SIDEWALKS. A 16' PAVED ALLEY SEPARATES THE LOTS TO THE EAST FROM THE LOTS ALONG PRINCETON DRIVE. SOLID WALLS HAVE BEEN CONSTRUCTED AROUND THE ADJACENT LOTS. THEREFORE, THE ONLY OFFSITE RUNOFF IS FROM THE ALLEY ADJACENT TO THIS SITE. THIS SHEET SHOWS A SURVEY OF THE EXISTING DEVELOPMENT TO COMPARE EXISTING RUNOFF WITH THE PROPOSED DEVELOPMENT. THE SITE IS APPROXIMATELY 41% IMPERVIOUS AND THE REMAINDER IS EITHER GRAVEL LANDSCAPING OR HARD PACKED DIRT THAT HAS BEEN USED FOR PARKING. THE 100-YEAR HYDRAULIC CALCULATIONS BELOW DEMONSTRATE THAT THE SITE GENERATES 0.69-CFS DURING THE 100-YEAR STORM EVENT.

**DEVELOPED CONDITION**

THE PROPOSED DEVELOPMENT WILL REPLACE EXISTING RESIDENCE AND GARAGE WITH A 4-PLEX RESIDENCE AND ASSOCIATED PAVING. THE SITE WILL CONTINUE TO DRAIN WEST TO PRINCETON DRIVE ALONG WITH THE SMALL PORTION OF THE 16' PAVED ALLEY. THIS DEVELOPMENT WILL INCREASE THE RUNOFF BY 0.11-CFS TO 0.80-CFS. THIS IS AN INSIGNIFICANT INCREASE FOR THIS AREA SO DETENTION PONDING IS NOT INCLUDED IN THE DEVELOPMENT. THE DEVELOPMENT WILL GREATLY BENEFIT THE AREA BY PROVIDING ADDITIONAL HOUSING FOR THIS AREA NEAR THE UNIVERSITY AND IMPROVE THE AESTHETICS OF THE AREA. DRAINAGE PATTERNS WILL NOT BE ALTERED BY THIS DEVELOPMENT.

**100-YEAR HYDROLOGIC CALCULATIONS**

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (10 day) (acre-ft)	V (10 day) (cu-ft)	Q (cfs)
		A (%)	B (%)	C (%)	D (%)						
<b>EXISTING CONDITIONS</b>											
SITE	0.1834	0.00	0.00	59.04	40.95	1.54	0.02	1,023	0.03	1,450	0.69
<b>PROPOSED CONDITIONS</b>											
SITE	0.1834	0.00	0.00	21.71	78.29	1.91	0.03	1,268	0.05	2,103	0.80
EXCESS PRECIP.		0.53	0.78	1.13	2.12	E (in)					
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q <sub>h</sub> (cfs)					
WEIGHTED E (in) = (E <sub>A</sub> )(%A) + (E <sub>B</sub> )(%B) + (E <sub>C</sub> )(%C) + (E <sub>D</sub> )(%D) V <sub>6-hr</sub> (acre-ft) = (WEIGHTED E)(AREA)/12 V <sub>10-day</sub> (acre-ft) = V <sub>6-hr</sub> + (A <sub>0</sub> )(P <sub>10-day</sub> - P <sub>6-hr</sub> )/12 Q (cfs) = (Q <sub>h</sub> )(A <sub>0</sub> ) + (Q <sub>h</sub> )(A <sub>0</sub> ) + (Q <sub>h</sub> )(A <sub>0</sub> ) + (Q <sub>h</sub> )(A <sub>0</sub> )											
						ZONE = 2 P <sub>6-hr</sub> (in.) = 2.35 P <sub>10-day</sub> (in.) = 2.75 P <sub>10-day</sub> (in.) = 3.95					

**TRAFFIC CIRCULATION LAYOUT APPROVED**

*[Signature]* 10/5/04  
Signed Date

Public Infrastructure shown on these plans for information only and not part of approval. Separate DRC/Permit approval and Work Order required.

PROJECT: **4-PLEX 212 PRINCETON DR.**

TITLE: **Grading Plan and Traffic Circulation**

dNb  
DRAWN BY: **B.O.M.**  
CHECKED BY: **September 20, 2004**  
DATE: **1" = 20'**  
SCALE: **JOB NUM.:**  
**C-2**  
SHEET:

ROBERT C. PONTO  
a r c h i t e c t

REGISTERED PROFESSIONAL ENGINEER  
STATE OF NEW MEXICO  
No. 13572