

FEMA PANELS 113, 326 NTS

**GRADING AND DRAINAGE PLAN:**

**SCOPE:**  
The project consists of the construction of an electric utility substation for the Public Service Company of New Mexico (PNM), site grading, surfacing, and perimeter wall. Pursuant to the City of Albuquerque Drainage Ordinance, the Drainage Plan shown hereon reports the existing drainage conditions of the site, shows the proposed improvements, and quantifies the effects of those improvements.

**EXISTING CONDITIONS:**  
The project site is a 1.033-acre easement within Tract C, Rinconada Point Unit 1, owned by the City of Albuquerque, on the east side of Unser, north of Vista Alegre, as shown on the project location map. The property is zoned SU-1 for residential purpose, and is undeveloped though it is encumbered by easements for electric transmission lines, drainage, and a bike trail. The property is bounded on the north by the Rinconada Channel (concrete trapezoidal), on the east by Ladera West Subdivisions (single family residential), on the south by Vista Alegre, and on the west by Unser. The property to be developed is a 150' x 300' easement granted to PNM within Tract C, a private access and utilities easement.

The property is presently covered with a moderately dense mixture of native shrubs and grasses. The terrain slopes generally down from west toward southeast on a slope of approximately 1.5%. With the exception of a constructed swale within a 40' public drainage easement along the east property line, there are no well-defined or incised flow paths. Topography, and the construction of Unser, with its closed-conduit storm sewer system, preclude the property from receiving upstream runoff from offsite. Most stormwater generated within the property under existing conditions would sheet-flow to the swale along the east property line, then south to an existing detention pond in the southeast corner of the property. As-built drawings for Rinconada Point Unit 2, 1995, indicate that this pond drains to a downstream storm sewer system through a 30" pipe. This pipe outlet from the pond is not apparent in the field because it is either buried in pond sediment or was not constructed. If the outlet to this pond is not functional, an overflow from this pond would discharge to Vista Alegre and directly to drop inlets in the downstream storm sewer system. A portion of the property drains overland to the west end of San Benito where it runs east approximately 850' to a concrete runaround and into the Rinconada Channel. A minor portion of the property at its north and drains overland directly to the Rinconada Channel. According to FIRM PANELS 0113 and 0326, dated 11-19-03, the site is not encumbered by a designated Flood Hazard Zone.

**PROPOSED CONDITIONS:**  
Under this substation project, a yard of approximately 171' x 100' will be enclosed with a 12-foot high CMU wall, to contain low-level concrete foundations and electric utility structures. The yard is to be contained within a 150' x 300' easement. Access to the site will be by construction of a driveway on Vista Alegre and private access road within a private road and utilities easement. At the time of construction of Vista Alegre, an 80' long reach of temporary asphalt curb was substituted for permanent concrete standard curb and gutter in anticipation of some future street or driveway. The new driveway will be constructed at this location. The yard will be depressed by approximately one foot below the average surrounding terrain, and sloped within the perimeter wall to drain to small depressions (ponds) within the yard. The surface treatment within the walls will be 4 inches of gravel. All runoff generated within the yard will be retained within the yard. A 10' wide landscape buffer will be provided around the perimeter of the yard. The surrounding substation easement property will be graded to drain away from the easement toward existing and historic flow paths. The access road will be surfaced with base course. The horizontal and vertical geometry of the access road has been selected to accommodate delivery and maintenance of large equipment. Stormwater runoff generated west of the access road will be directed across the road over a dip section in the road grade. Since this plan proposes to retain all runoff from the site within the yard, the result of this plan is a marginal net increase in runoff rate and volume to each of the other basins. The proposed substation and access road grading does not adversely affect the historic flow patterns, flow rates, or runoff volumes within the overall drainage basin. The project will begin construction in March, 2006, and be completed by Fall, 2006.

**CALCULATIONS:**  
The calculations shown hereon define the 100-year/6-hour design storm falling within the project area under historic and existing developed conditions. The hydrology is from the Arid Lands Hydrologic Model (AHYMO) for Albuquerque, update 1997.

**LEGEND**

- 0.024 — EXIST. CONTOUR / ELEV.
- 02.5 x — EXIST. SPOT ELEV.
- TS 48.17 — TOP OF CONCRETE ELEV.
- SG 48.17 — TOP OF SUBGRADE ELEV.
- FL 48.17 — FLOWLINE ELEV.
- 57 — PROPOSED CONT. / ELEV.
- RIGHT-OF-WAY
- EASEMENT
- 20.2 — PROPOSED SPOT ELEV.
- ← DIRECTION OF FLOW
- ← DRAINAGE SWALE
- DRAINAGE BASIN DIVIDE
- CENTERLINE / BASELINE
- PROPOSED FENCE
- EXIST. FENCE
- UNPAVED ROAD
- GRAVEL SURFACE
- CONCRETE SURFACE
- CONCRETE FOUNDATIONS

**PROJECT DATA**

**LEGAL DESCRIPTION:**  
TRACT C RINCONADA POINT UNIT 1 (08/30/94, 94C - 289)

**PROPERTY ADDRESS:**  
7850 VISTA ALEGRE

**BENCHMARK:**  
ELEVATION DATUM IS BASED ON NGVD 1929 FROM A.C.S. MONUMENT "6-G10", ELEVATION (FEET) = 5111.87

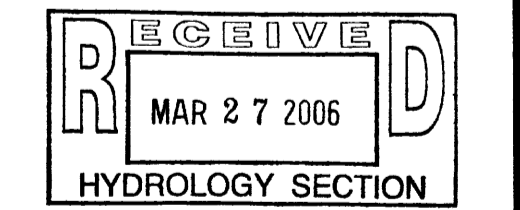
TOPOGRAPHY BY PRECISION SURVEYS

→ Call out all easements (40' drainage, 150'x300' PNM)

→ Check scale - easement widths do not scale exactly to width called out

→ What does FDNS mean? FDN?

→ Where is the existing swale located within the 40' public drainage easmt? Not shown on plan, but defined in write up

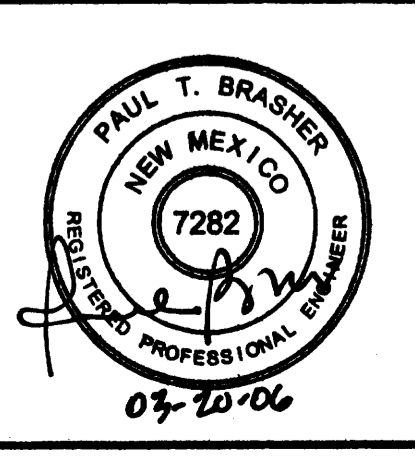
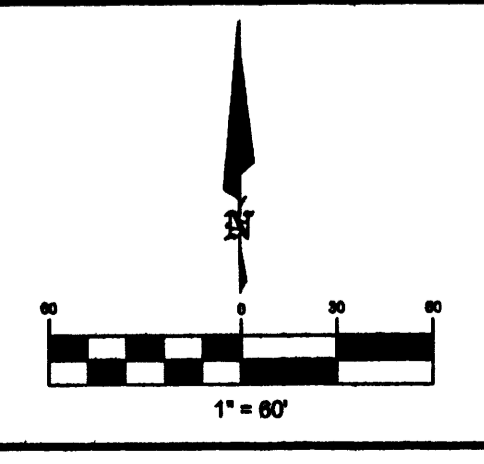


ZONE 1 / P 2.20 P DAY 2.66		PROJECT HYDROLOGY AHYMO						
EXISTING CONDITIONS								
BASIN	AREA (ac)	LAND TREATMENT TYPE (ac)				Q (cfs)	VOL (ac ft)	
		A	B	C	D	E		
A	0.3795	0.3404	0.0391	-0	-0	0.46	0.52	0.0145
B	1.0642	1.0257	0.0385	-0	-0	0.45	1.42	0.0397
C	0.6575	0.6575	-0	-0	-0	0.44	0.86	0.0241
D	3.1939	2.9927	0.1341	0.0671	-0	0.48	4.44	0.1276
E	6.4225	6.2619	0.1586	0.0020	-0	0.44	8.44	0.2377
PROPOSED CONDITIONS (NEW SUBSTATION ONLY)								
BASIN	AREA (ac)	LAND TREATMENT TYPE (ac)				Q (cfs)	VOL (ac ft)	
		A	B	C	D	E		
A	0.3795	-0	-0	0.3795	-0	0.99	1.10	0.0314
B	1.0642	0.9280	-0	0.1362	-0	0.49	1.57	0.0436
C	0.6575	0.5918	-0	0.0657	-0	0.48	0.94	0.0262
D	3.1939	2.5551	-0	0.5717	0.0671	0.55	5.12	0.1452
E	6.4225	5.7180	0.1608	0.5459	-0	0.48	9.16	0.2559

BASIN A (ENCLOSED YARD) 10-DAY STORAGE VOLUME = 3545 CF

**REVISION**

NO.	DATE	BY	DESCRIPTION
1	02/19/06	PB	MOVED STATION YARD SW BY APPROXIMATELY 60'
2	02/20/06	PB	PREPARE NEW SITE PLAN SHTS. GRADING PLAN, UTILITIES PLAN. REVISED YARD SPOT ELEVATIONS



**ASSOCIATED LAYERS**

LAYER NAME	DESCRIPTION
0	STANDARD
TBBL	TITLE BLOCK
DRAW	LINE WORK
TEXT	ALL TEXT

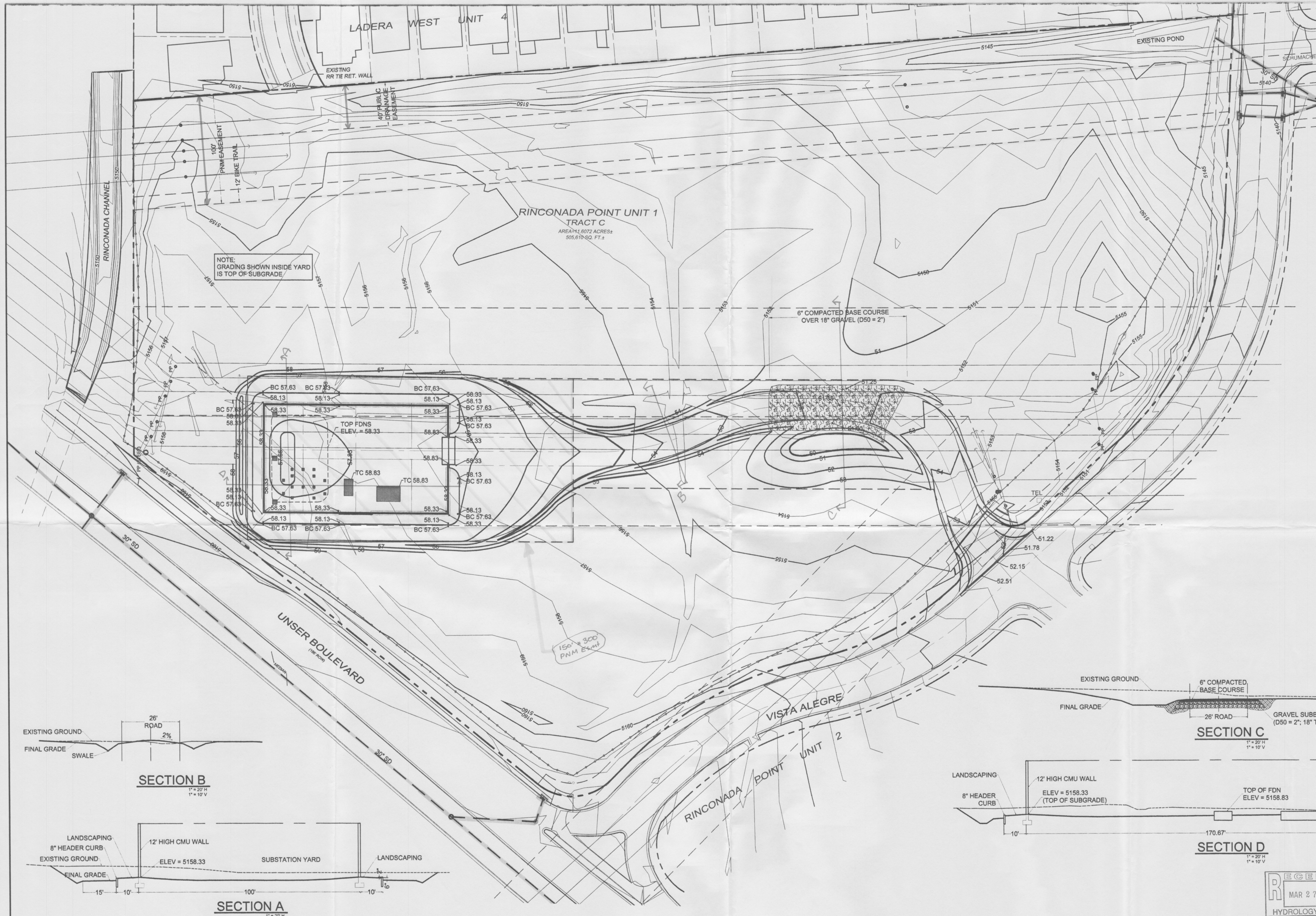
**PNM PUBLIC SERVICE COMPANY OF NEW MEXICO**

**UNSER SUBSTATION GRADING AND DRAINAGE PLAN**

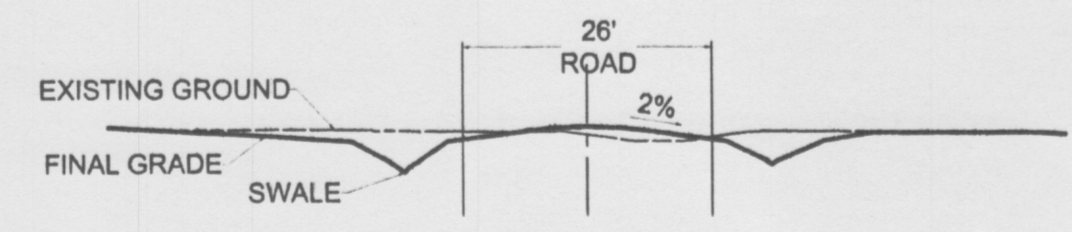
GRADING PLAN SHIT: 1 OF 2  
SITE DEVELOPMENT PLAN SHIT: 3 OF 6

DRW: R.M	TR:	DATE: 03/20/06
CKD: P.T.B	OK:	SCALE: 1"=80'
APP:	ACAD FILE:	USS -17204
REV. NO.	PNMUNSER	

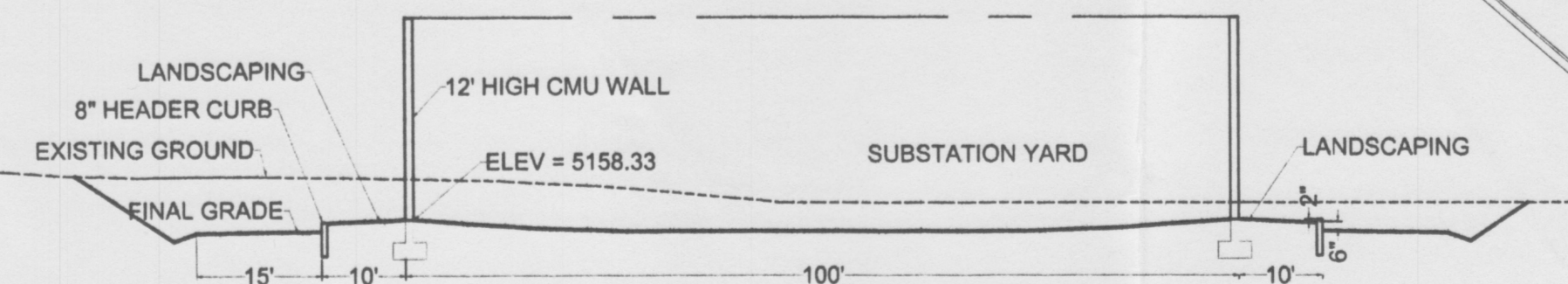




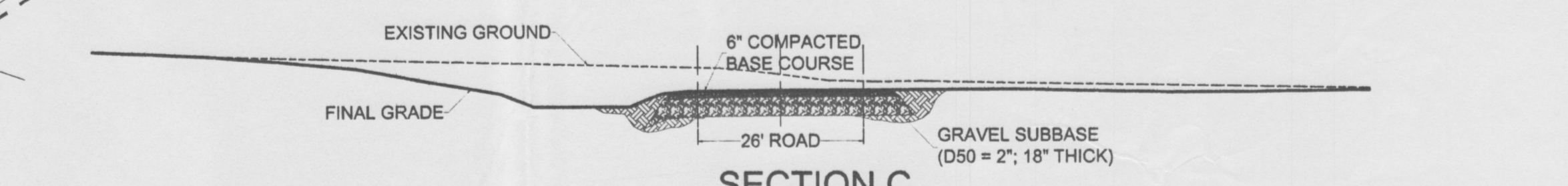
LEGEND	
6624	EXIST. CONTOUR / ELEV.
02.5 x	EXIST. SPOT ELEV.
TC 48.17	TOP OF CONCRETE ELEV.
BC 48.17	BOTTOM OF CURB ELEV.
FL 48.17	FLOWLINE ELEV.
57	PROPOSED CONT. / ELEV.
---	RIGHT-OF-WAY
---	EASEMENT
20.2	PROPOSED SPOT ELEV.
←	DIRECTION OF FLOW
←	DRAINAGE SWALE
■ ■ ■ ■	DRAINAGE BASIN DIVIDE
---	CENTERLINE / BASELINE
---	PROPOSED FENCE
---	EXIST. FENCE
---	UNPAVED ROAD
[Pattern]	GRAVEL SURFACE
[Pattern]	CONCRETE SURFACE
[Pattern]	CONCRETE FOUNDATIONS



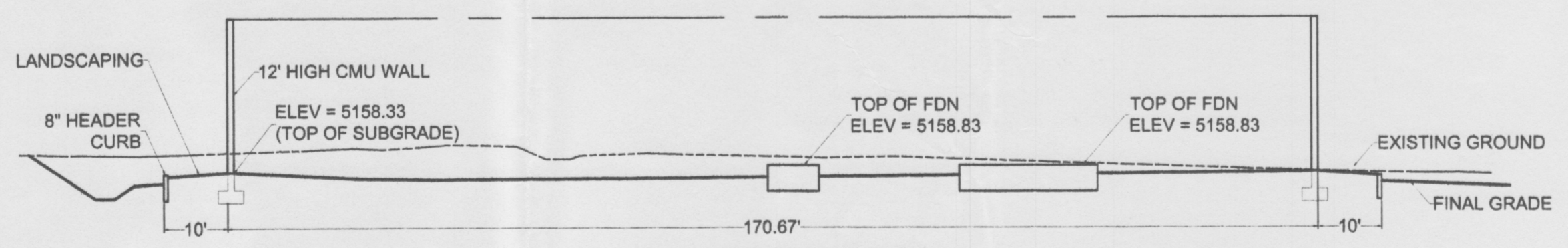
**SECTION B**  
1" = 20' H  
1" = 10' V



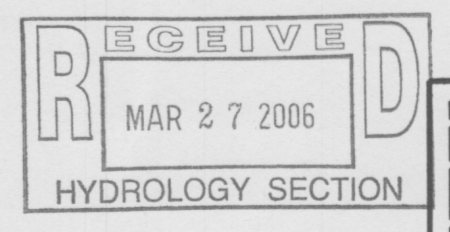
**SECTION A**  
1" = 20' H  
1" = 10' V



**SECTION C**  
1" = 20' H  
1" = 10' V



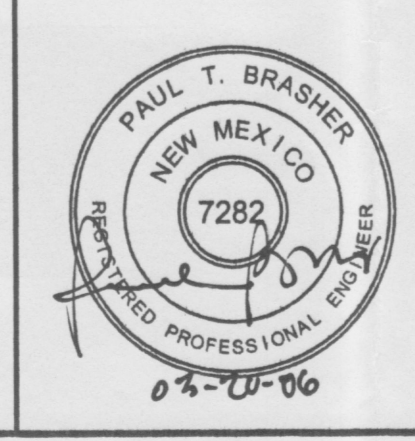
**SECTION D**  
1" = 20' H  
1" = 10' V



**BRASHER & LORENZ**  
CONSULTING ENGINEERS  
2001 San Pedro N.E. Building 1 Suite 1200  
Albuquerque, New Mexico 87112  
Ph: 505-888-6088 Fax: 505-888-4188

REVISION	NO.	DATE	BY
	1	02/19/06	PB
	2	03/20/06	PB

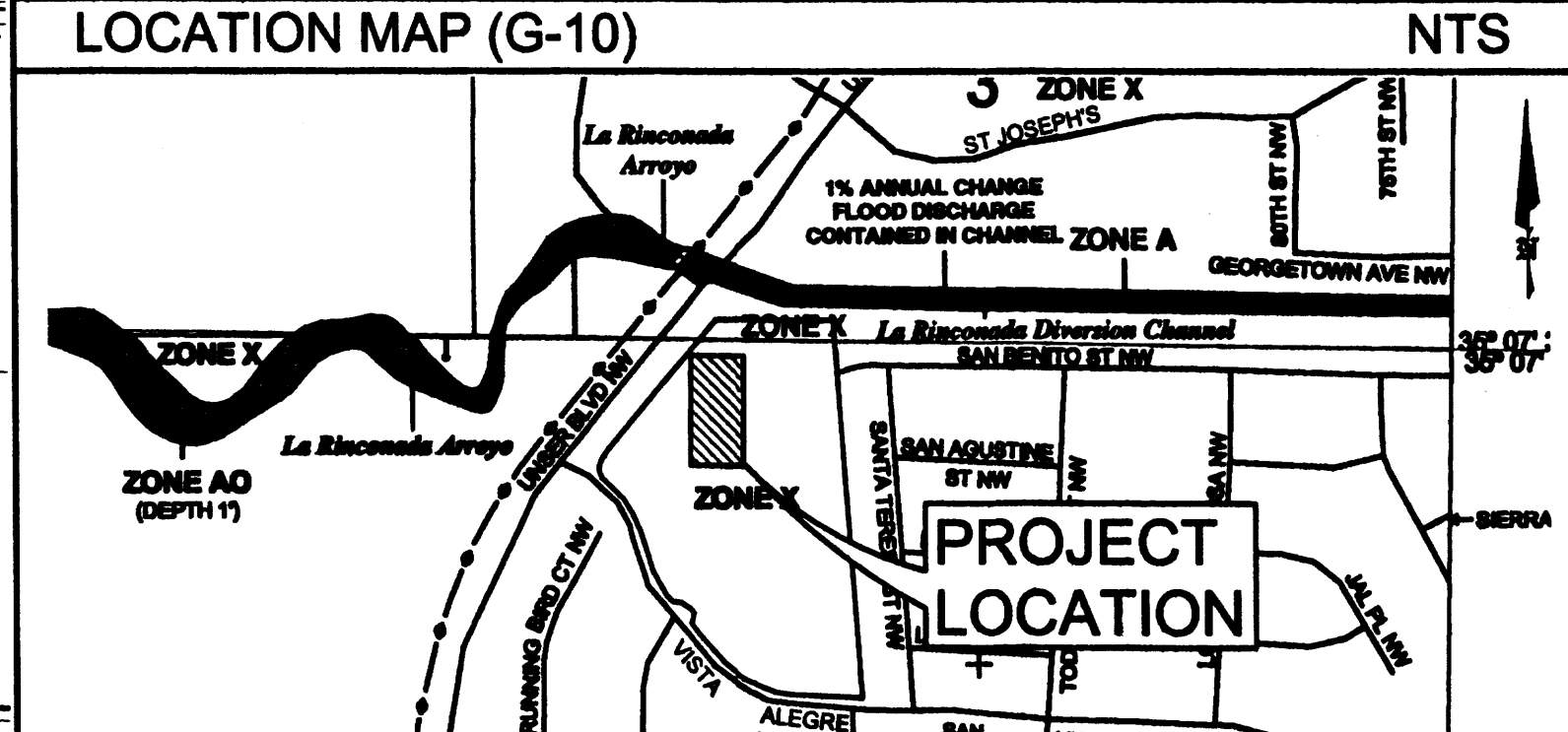
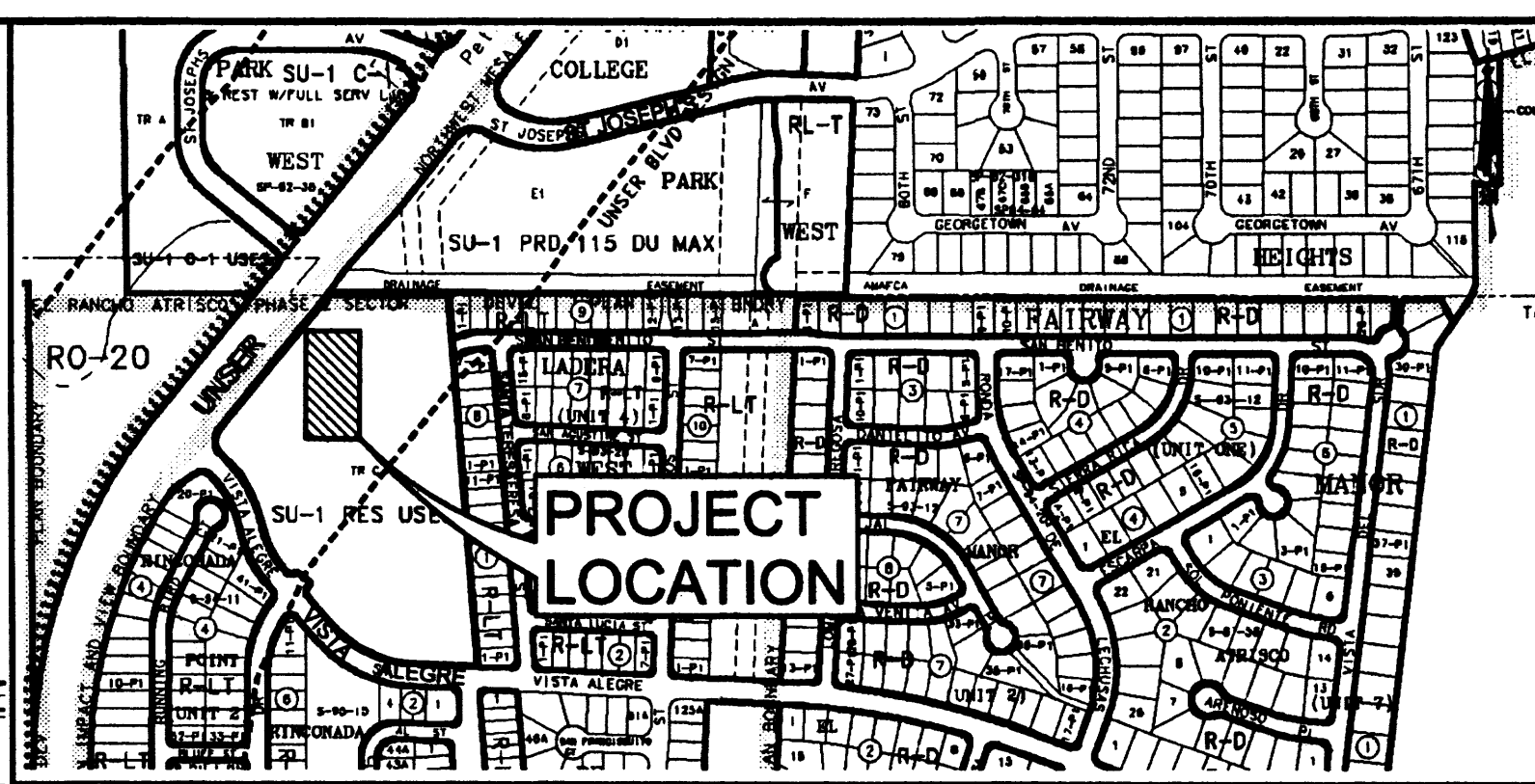
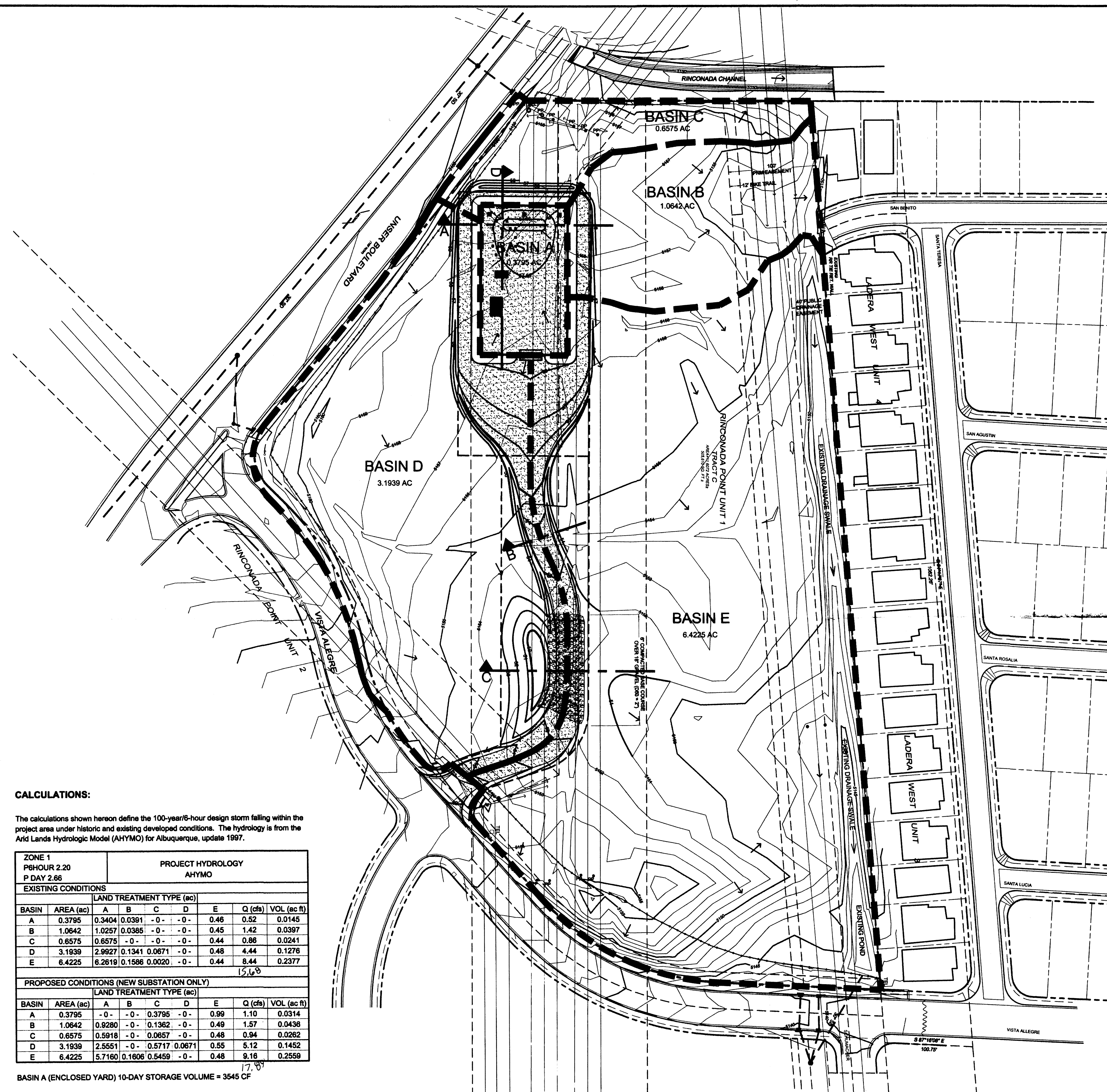
MOVED STATION YARD SW BY APPROXIMATELY 60'  
PREPARE NEW SITE PLAN SHTS, GRADING PLAN, UTILITIES PLAN  
REVISED YARD SPOT ELEVATIONS



ASSOCIATED LAYERS	
LAYER NAME	DESCRIPTION
0	STANDARD
TBBL	TITLE BLOCK
DRAW	LINE WORK
TEXT	ALL TEXT

PNM PUBLIC SERVICE COMPANY OF NEW MEXICO	
<b>UNSER SUBSTATION GRADING PLAN</b>	
DRW: R.M	TR: DATE: 03/20/06
CKD: P.T.B	OK: 1" = 40'
APP:	ACAD FILE: PNM/UNSER
REV. NO.	USS -17204

GRADING PLAN SHT: 2 OF 2  
SITE DEVELOPMENT PLAN SHT: 4 OF 6



**GRADING AND DRAINAGE PLAN:**

**SCOPE:**  
The project consists of the construction of an electric utility substation for the Public Service Company of New Mexico (PNM), site grading, surfacing, and perimeter wall. Pursuant to the City of Albuquerque Drainage Ordinance, the Drainage Plan shown hereon reports the existing drainage conditions of the site, shows the proposed improvements, and quantifies the effects of those improvements.

**EXISTING CONDITIONS:**  
The project site is a 1.033-acre easement within Tract C, Rinconada Point Unit 1, owned by the City of Albuquerque, on the east side of Unsur, north of Vista Alegre, as shown on the project location map. The property is zoned SU-1 for residential purpose, and is undeveloped though it is encumbered by easements for electric transmission lines, drainage, and a bike trail. The property is bounded on the north by the Rinconada Channel (concrete trapezoidal), on the east by Ladera West Subdivisions (single family residential), on the south by Vista Alegre, and on the west by Unsur. The property to be developed is a 150' x 300' easement granted to PNM within Tract C, together with a private access and utilities easement.

The property is presently covered with a moderately dense mixture of native shrubs and grasses. The terrain slopes generally down from west toward southeast on a slope of approximately 1.5%. With the exception of a constructed swale within a 40' public drainage easement along the east property line, there are no well-defined or incised flow paths. This swale is shown by the configuration of the topography and labeled inside the drainage easement. Topography, and the construction of Unsur, with its closed-conduit storm sewer system, preclude the property from receiving upstream runoff from offsite. Most stormwater generated within the property under existing conditions would sheet-flow to the swale along the east property line, then south to an existing detention pond in the southeast corner of the property. The swale and the detention pond are located within City easements on City property, and are the ownership and maintenance responsibility of the City. As-built drawings for Rinconada Point Unit 2, 1995, indicate that this pond drains to a downstream storm sewer system through a 30" pipe. This pipe outlet from the pond is not apparent in the field because it is either buried in pond sediment or was never constructed. There is no other information available pertaining to the original design criteria or details of this pond. Regardless of whether or not there is a functional outlet from the City's pond, its overflow or discharge is directly to Vista Alegre, and directly into existing drop inlets in the City's storm sewer system. A portion of the property drains overland to the west end of San Benito, a paved City street with curb and gutter, where it runs east approximately 850' to a City concrete runoff and into the City's Rinconada Channel. A minor portion of the property at its north end drains overland directly to the City's Rinconada Channel. According to FIRM PANELS 0113 and 0326, dated 11-19-03, the site is not encumbered by a designated Flood Hazard Zone.

**PROPOSED CONDITIONS:**  
Under this substation project, a yard of approximately 171' x 100' will be enclosed with a 12-foot high CMU wall, to contain low-level concrete foundations and electric utility structures. The yard is to be contained within a 150' x 300' easement. Although infrequently needed, access to the site will be by construction of a driveway on Vista Alegre and private access road within a private road and utilities easement. At the time of construction of Vista Alegre, an 80' long reach of temporary asphalt curb was substituted for permanent concrete standard curb and gutter in anticipation of some future street or driveway. The new driveway will be constructed at this location. The yard will be depressed by approximately one foot below the average surrounding terrain, and sloped within the perimeter wall to drain to a retention pond within the yard. The pond inside the yard serves two purposes: it retains all runoff generated within the yard; and it provides secondary containment for electric system components inside the yard. The surface treatment within the walls will be 4 inches of gravel. A 10' wide landscape buffer will be provided around the perimeter of the yard. The surrounding substation easement property will be graded to drain away from the easement toward existing and historic flow paths. The access road will be surfaced with base course. The horizontal and vertical geometry of the access road has been selected to accommodate delivery and maintenance of large equipment. Stormwater runoff generated west of the access road will be directed across the road over a dip section in the road grade. Since this plan proposes to retain all runoff from the site within the yard, the result of this plan is a marginal net increase in runoff rate and volume to each of the other basins. Specifically, under 100-yr/6hr storm conditions, the construction of this substation will result in an increase in runoff to the City's swale of 1.4 cfs, and an increase in runoff volume at the City's pond of 1559 cubic feet. The proposed substation and access road grading does not adversely affect the historic flow patterns, flow rates, or runoff volumes within the overall City property. In addition, the proposed substation and access road does not inhibit the City's ultimate development of the property or the City's ability to maintain its swale and pond. The project will begin construction in May, 2006, and be completed by Fall, 2006.

**LEGEND**

- 6624 --- EXIST. CONTOUR / ELEV.
- 02.5 x --- EXIST. SPOT ELEV.
- TC --- TOP OF CONCRETE ELEV.
- 82 --- TOP OF SUBGRADE ELEV.
- FL --- FLOWLINE ELEV.
- PROPOSED CONT. / ELEV.
- RIGHT-OF-WAY
- EASEMENT
- 20.2 --- PROPOSED SPOT ELEV.
- ← DIRECTION OF FLOW
- ← DRAINAGE SWALE
- DRAINAGE BASIN DIVIDE
- CENTERLINE / BASELINE
- PROPOSED FENCE
- EXIST. FENCE
- UNPAVED ROAD
- GRAVEL SURFACE
- CONCRETE SURFACE
- CONCRETE FOUNDATIONS (FDNS AS SHOWN)

**PROJECT DATA**

**LEGAL DESCRIPTION:**  
TRACT C  
RINCONADA POINT UNIT 1  
(08/30/94, 94C - 289)

**PROPERTY ADDRESS:**  
7850 VISTA ALEGRE

**BENCHMARK:**  
ELEVATION DATUM IS BASED ON  
NGVD 1929 FROM A.C.S. MONUMENT "G-610",  
ELEVATION (FEET) = 5111.87

TOPOGRAPHY BY PRECISION SURVEYS

**CALCULATIONS:**

The calculations shown hereon define the 100-year/6-hour design storm falling within the project area under historic and existing developed conditions. The hydrology is from the Arid Lands Hydrologic Model (AHYMO) for Albuquerque, update 1997.

ZONE 1 P8HOUR 2.20 P DAY 2.66		PROJECT HYDROLOGY AHYMO									
EXISTING CONDITIONS											
BASIN	AREA (ac)	LAND TREATMENT TYPE (ac)					Q (cfs)	VOL (ac ft)			
		A	B	C	D	E					
A	0.3795	0.3404	0.0391	-0	-0	0.46	0.52	0.0145			
B	1.0642	1.0257	0.0385	-0	-0	0.45	1.42	0.0397			
C	0.6575	0.6575	-0	-0	-0	0.44	0.86	0.0241			
D	3.1939	2.9827	0.1341	0.0671	-0	0.48	4.44	0.1276			
E	6.4225	6.2619	0.1586	0.0020	-0	0.44	8.44	0.2377			
							15.60				
PROPOSED CONDITIONS (NEW SUBSTATION ONLY)											
BASIN	AREA (ac)	LAND TREATMENT TYPE (ac)					Q (cfs)	VOL (ac ft)			
		A	B	C	D	E					
A	0.3795	-0	-0	-0.3795	-0	0.99	1.10	0.0314			
B	1.0642	0.9280	-0	-0.1362	-0	0.49	1.57	0.0436			
C	0.6575	0.5918	-0	-0.0657	-0	0.48	0.94	0.0262			
D	3.1939	2.5551	-0	-0.5717	0.0671	0.55	5.12	0.1452			
E	6.4225	5.7160	0.1606	0.5459	-0	0.48	9.16	0.2559			
							17.07				

BASIN A (ENCLOSED YARD) 10-DAY STORAGE VOLUME = 3545 CF

**REVISION**

NO.	DATE	BY	DESCRIPTION
1	02/18/06	PB	MOVED STATION YARD SW BY APPROXIMATELY 60'
2	03/20/06	PB	REVISED YARD SPOT ELEVATIONS
3	04/26/06	PB	REV. DRAINAGE PLAN TEXT, LEGEND, ADD ESSENTIAL DIM., SWALE LABELS
4	05/10/06	PB	CITY COMMENTS - ADD LABELS, REVISE LEGEND AND NARRATIVE

**ASSOCIATED LAYERS**

LAYER NAME	DESCRIPTION
0	STANDARD
TBBL	TITLE BLOCK
DRAW	LINE WORK
TEXT	ALL TEXT

**PNM PUBLIC SERVICE COMPANY OF NEW MEXICO**

**UNSER SUBSTATION GRADING AND DRAINAGE PLAN**

DATE: 05/10/06  
SCALE: 1"=60'

DRW: R.M. TR:  
CKD: P.T.B. OK:  
APP: ACAD FILE: PNM/UNSER  
REV. NO. USS -17204

**BRASHER & LORENZ CONSULTING ENGINEERS**

2201 San Pedro NE Building 1 Suite 1200  
Albuquerque, New Mexico 87110  
Ph: 505-488-0208 Fax: 505-488-0108

PAUL T. BRASHER  
NEW MEXICO  
7282  
PROFESSIONAL ENGINEER  
05-10-06

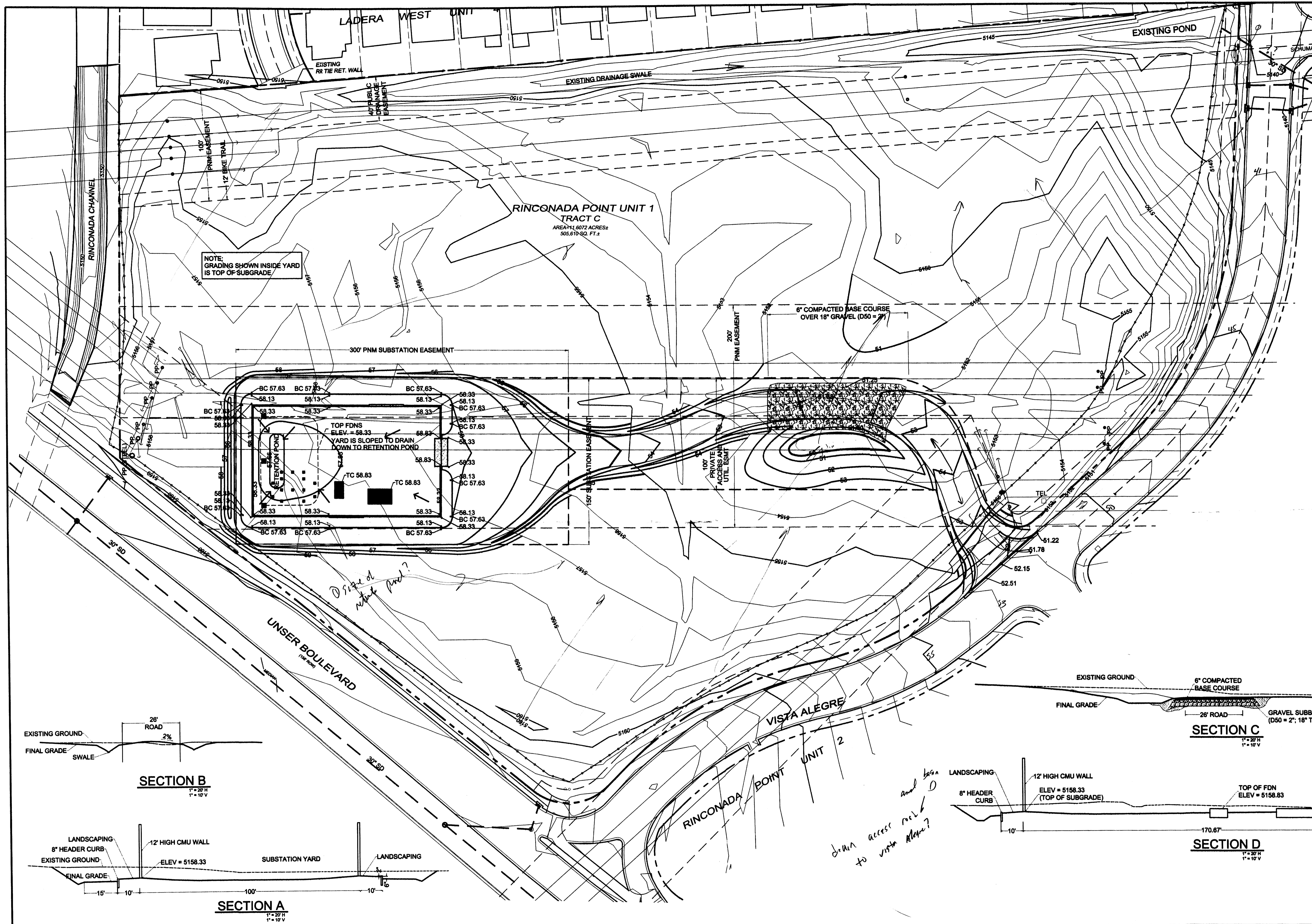
**RECEIVED**  
MAY 11 2006  
HYDROLOGY SECTION

**REVISION**

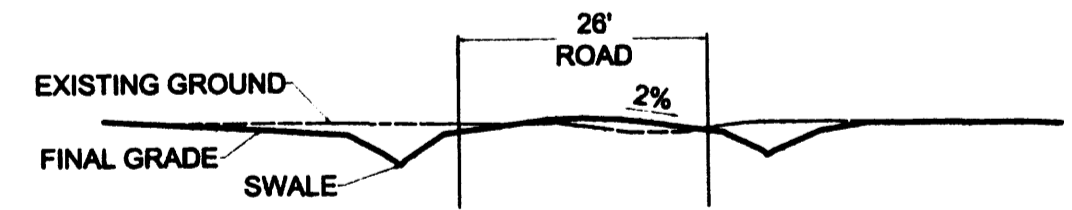
NO.	DATE	BY	DESCRIPTION
1	02/18/06	PB	MOVED STATION YARD SW BY APPROXIMATELY 60'
2	03/20/06	PB	REVISED YARD SPOT ELEVATIONS
3	04/26/06	PB	REV. DRAINAGE PLAN TEXT, LEGEND, ADD ESSENTIAL DIM., SWALE LABELS
4	05/10/06	PB	CITY COMMENTS - ADD LABELS, REVISE LEGEND AND NARRATIVE

**REVISION**

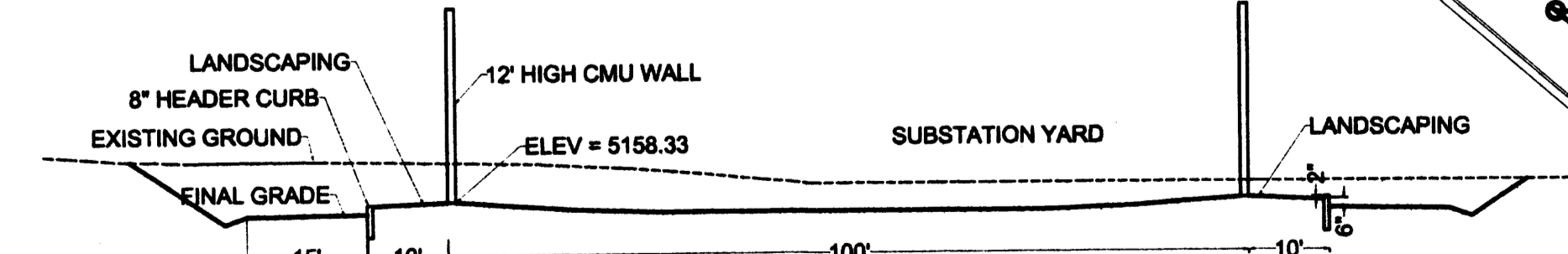
NO.	DATE	BY	DESCRIPTION
1	02/18/06	PB	MOVED STATION YARD SW BY APPROXIMATELY 60'
2	03/20/06	PB	REVISED YARD SPOT ELEVATIONS
3	04/26/06	PB	REV. DRAINAGE PLAN TEXT, LEGEND, ADD ESSENTIAL DIM., SWALE LABELS
4	05/10/06	PB	CITY COMMENTS - ADD LABELS, REVISE LEGEND AND NARRATIVE



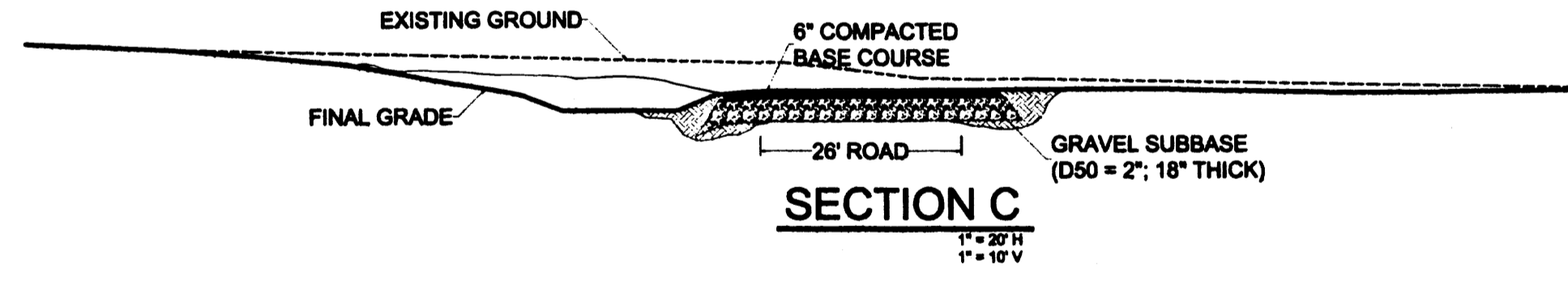
LEGEND	
— 66.21 —	EXIST. CONTOUR / ELEV.
02.5 ×	EXIST. SPOT ELEV.
TC 48.17	TOP OF CONCRETE ELEV.
BC 48.17	BOTTOM OF CURB ELEV.
FL 48.17	FLOWLINE ELEV.
— 67 —	PROPOSED CONT. / ELEV.
- - - - -	RIGHT-OF-WAY
- - - - -	EASEMENT
20.2 →	PROPOSED SPOT ELEV.
←	DIRECTION OF FLOW
←	DRAINAGE SWALE
■ ■ ■ ■	DRAINAGE BASIN DIVIDE
- - - - -	CENTERLINE / BASELINE
- - - - -	PROPOSED FENCE
- - - - -	EXIST. FENCE
—	UNPAVED ROAD
[Stippled Box]	GRAVEL SURFACE
[Dotted Box]	CONCRETE SURFACE
[Solid Box]	CONCRETE FOUNDATIONS (FDNS AS SHOWN)



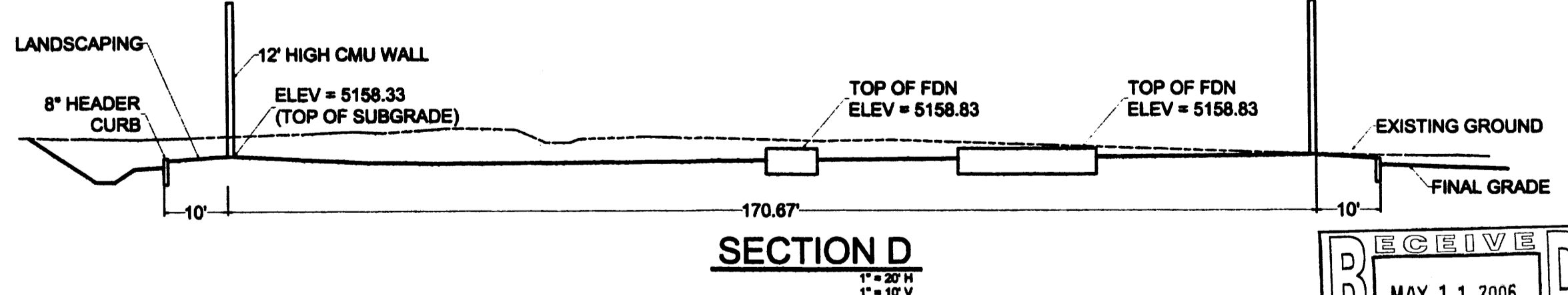
**SECTION B**  
1" = 20' H  
1" = 10' V



**SECTION A**  
1" = 20' H  
1" = 10' V



**SECTION C**  
1" = 20' H  
1" = 10' V



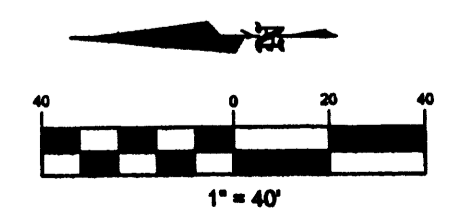
**SECTION D**  
1" = 20' H  
1" = 10' V

*draw access road and basin to vista Alegre?*

REVISION	NO.	DATE	BY
	1	02/19/06	PB
	2	03/20/06	PB
	3	04/25/06	PB
	4	05/10/06	PB

MOVED STATION YARD SW BY APPROXIMATELY 60'  
 PREPARE NEW SITE PLAN SHITS, GRADING PLAN, UTILITIES PLAN  
 REVISED YARD SPOT ELEVATIONS  
 REV. DRAINAGE PLAN TEXT, LEGEND, ADD ESMT DIM., SWALE LABELS  
 CITY COMMENTS - ADD LABELS, REVISE LEGEND AND NARRATIVE

*draw San basin + 7' on - 11' on 2 1/4' on*



ASSOCIATED LAYERS	
LAYER NAME	DESCRIPTION
0	STANDARD
TBBL	TITLE BLOCK
DRAW	LINE WORK
TEXT	ALL TEXT

**PNM** PUBLIC SERVICE COMPANY OF NEW MEXICO

**UNSER SUBSTATION GRADING PLAN**

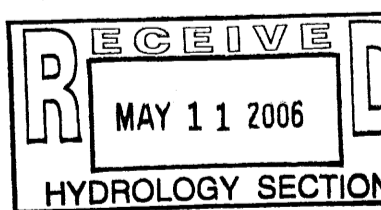
GRADING PLAN SHIT: 2 OF 2  
SITE DEVELOPMENT PLAN SHIT: 4 OF 8

DRW: R.M  
CKD: P.T.B  
APP:  
REV. NO.

TR:  
OK:  
ACAD FILE: PNM/UNSER

DATE: 05/10/06  
1" = 40'

**USS -17204**





STORM INLET CALCULATIONS

$$Q_{ORIFICE} = CA\sqrt{2gh}$$

$$Q_{WEIR} = CLH^{3/2}$$

$$Q_{ORIFICE} = 85.5 \text{ CFS} \quad Q_{WEIR} = 21.32 \text{ CFS}$$

POND OUTLET CALCULATIONS

$$Q_{100} = 1.30 \text{ CFS}$$

BOTTOM ELEV. = 5142 FEET  
 MAX WS ELEV. = 5144 FEET  
 VOLUME RQRD = 2230 CUBIC FEET  
 DESIGN VOLUME = 3072 CUBIC FEET

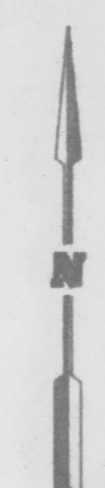
$$Q_{ORIFICE} = 4CA\sqrt{2gh}$$

$$Q_{ORIFICE} = 3.76 \text{ CFS}$$

EVACUATION TIME = 10.56min

LEGEND

- ON-SITE FLOW
- OFF-SITE FLOW
- PROPERTY LINE
- DRAINAGE BASIN DIVIDE
- CATCH BASIN
- STORM SEWER LINE
- 115.00 DRAINAGE BASIN ID



SCALE: 1" = 100'

TRACT "A"

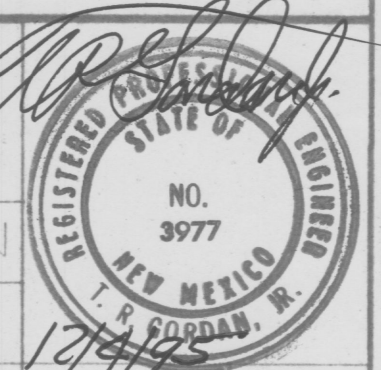
RINCONADA POINT UNIT IV  
DRAINAGE PLAN

RINCONADA POINT UNIT IV  
ALBUQUERQUE, NEW MEXICO

DRAINAGE PLAN

ON-SITE AND OFF-SITE FLOWS

GORDAN AND ASSOCIATES  
CONSULTING ENGINEERS  
1300 LUISA, SUITE 21  
SANTA FE, NEW MEXICO  
(505) 982-2567 FAX (505) 982-3906



JOB NO. 95077  
SCALE: 1" = 100'  
DRWN BY AER  
CHK'D BY TRG  
DATE: 12/4/95  
SHT. 1 OF 1

DEC-4 1995