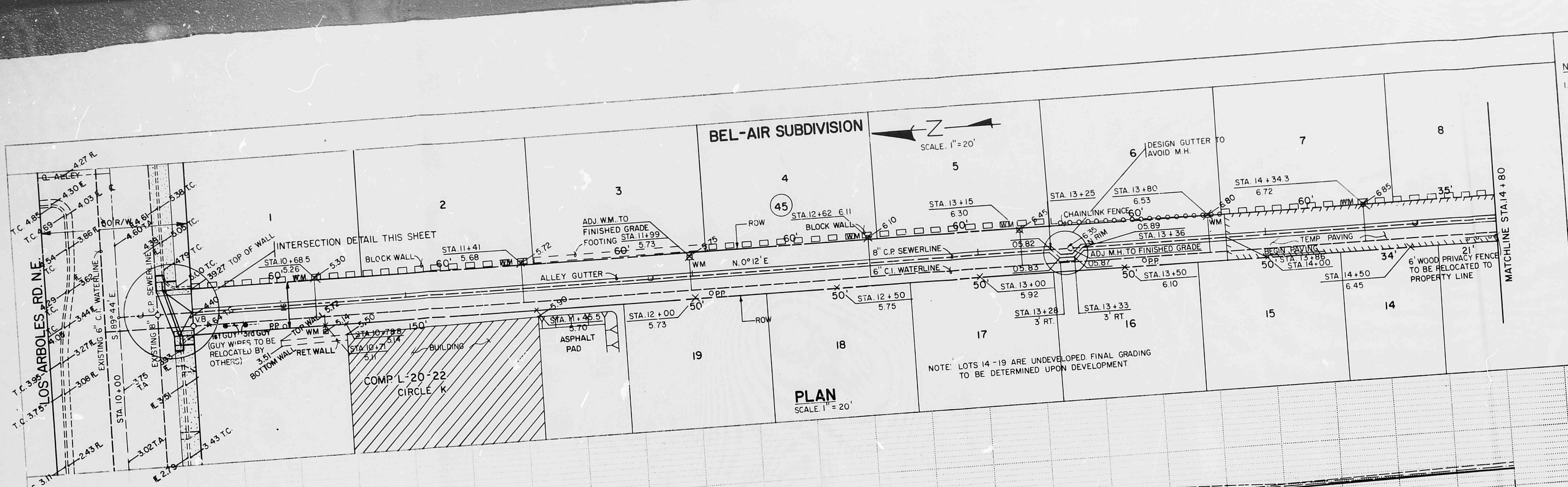




NOTES

1. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVING OR CURB AND GUTTER DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE SAME AT HIS OWN EXPENSE.
2. ALL POWER POLES WITHIN ALLEY ARE TO BE RELOCATED TO PROPERTY LINE BY OTHERS.
3. PRIOR TO CONSTRUCTION VERIFY WITH WATER RESOURCES IF NEED FOR REPLACEMENT OF EXISTING CONCRETE SAS LINE.

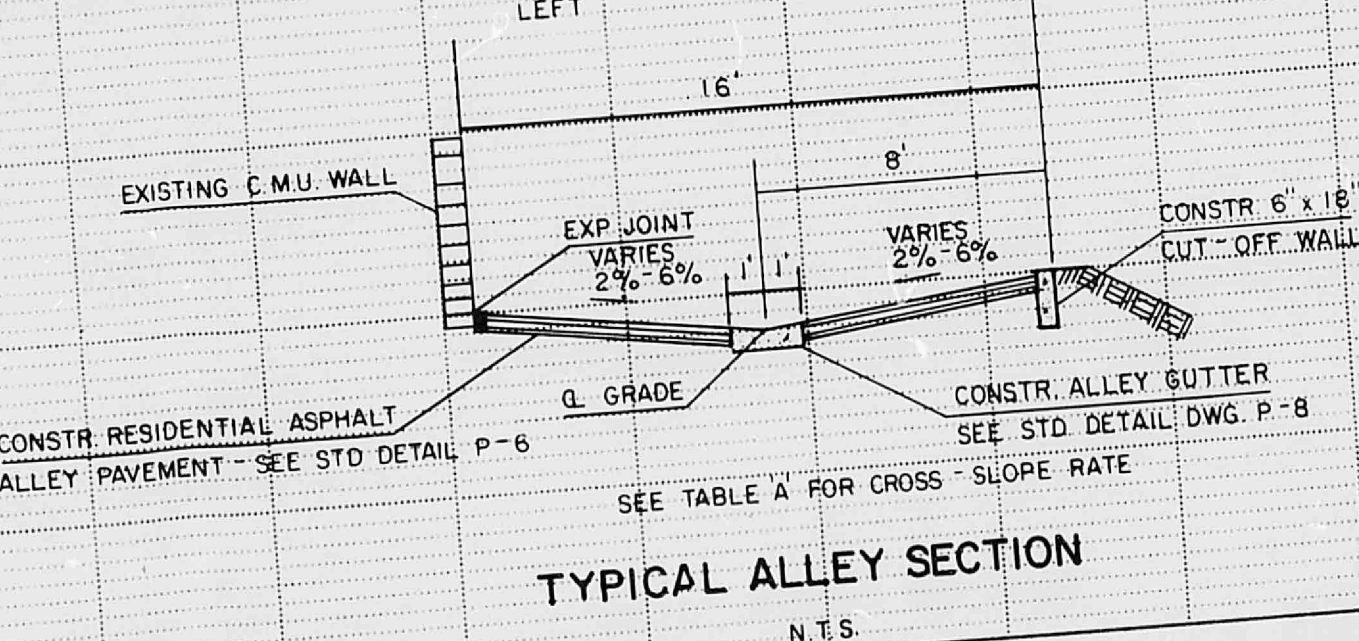
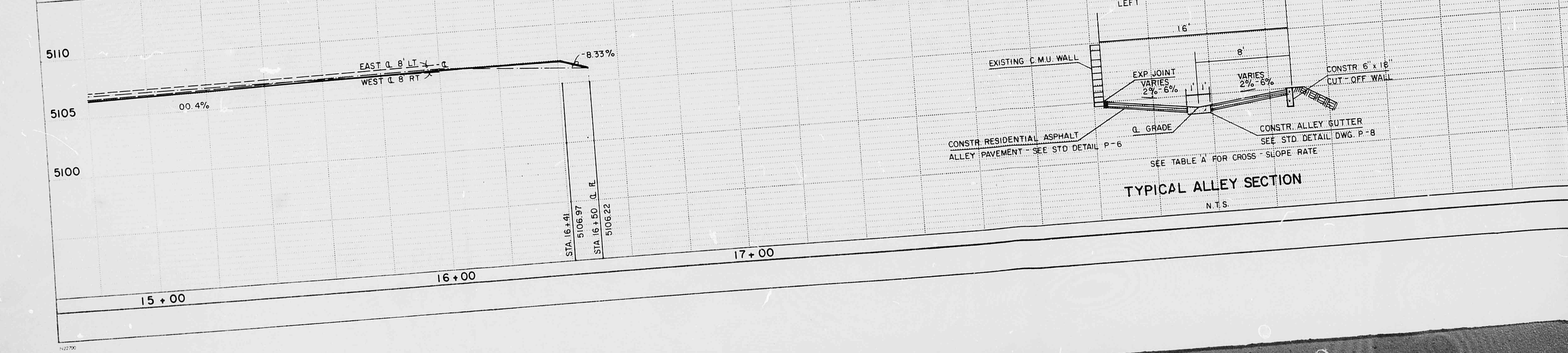
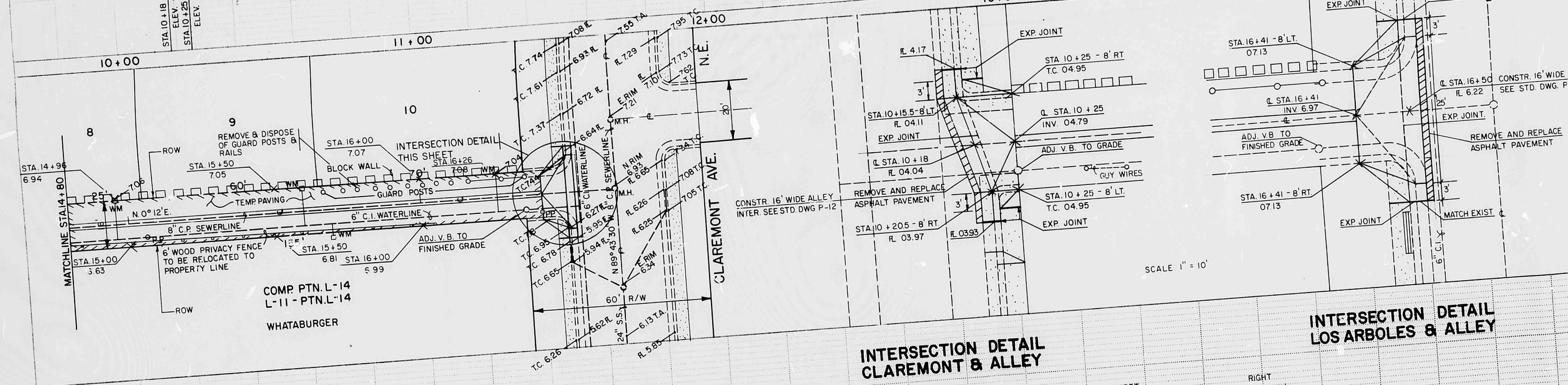
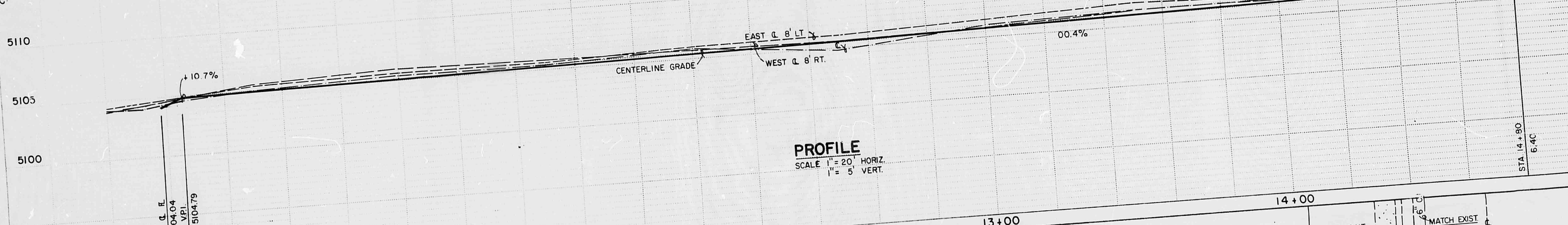
LEGEND

- EXISTING ELEVATIONS
- PROPOSED ELEVATIONS
- REMOVE EXISTING PAVEMENT

TABLE A
Alley Cross Slopes

Left Side		Right Side	
Station	Slope	Station	Slope
10+25	2%	10+25	2%
10+68.5	4%	10+71	2%
11+41	5%	10+78.8	6%
11+99	6%	11+45.5	4%
12+62	6%	12+00	2%
14+96	5%	12+50	2%
15+50	5%	16+00	2%
16+00	3%	16+41	2%
16+26	2%		
16+41	2%		

All slope transitions between stations listed will be straight line transitions.



AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	MARKED BY	DATE	FIELD NOTES	NO.	DATE	REMARKS
ACS 6A-HIT ELEV. 5148.74		DS-49 R. GALLEGOS					
PROFILE ALLEY LOCATED B/W HERMOSA & CARLISLE FROM CLAREMONT TO LOS ARBOLES							

REVISIONS			
NO.	DATE	BY	REMARKS
1	1-31-86	J. LUEHRING	DESIGNED
2	1-31-86	P. HERNANDEZ	CHECKED

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: ALLEY GRADES BETWEEN LOS ARBOLES RD. AND CLAREMONT AVE. N.E. - BEL-AIR SUBDIVISION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	2/27/86	Liquid Waste	<i>[Signature]</i>	1-31-86
A.C.E. - Design	<i>[Signature]</i>	1/31/86	Traffic	<i>[Signature]</i>	1-31-86
A.C.E. - Hydrology	<i>[Signature]</i>	1/31/86	Water	<i>[Signature]</i>	1-31-86

DRAWING NO. 2734 MAP NO. H-17N SHEET 2 OF 2

H17/D39

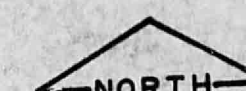
GRADING AND DRAINAGE PLAN LOTS 16, 17, 18 & 19, BEL-AIR SUBDIVISION ALBUQUERQUE NEW MEXICO



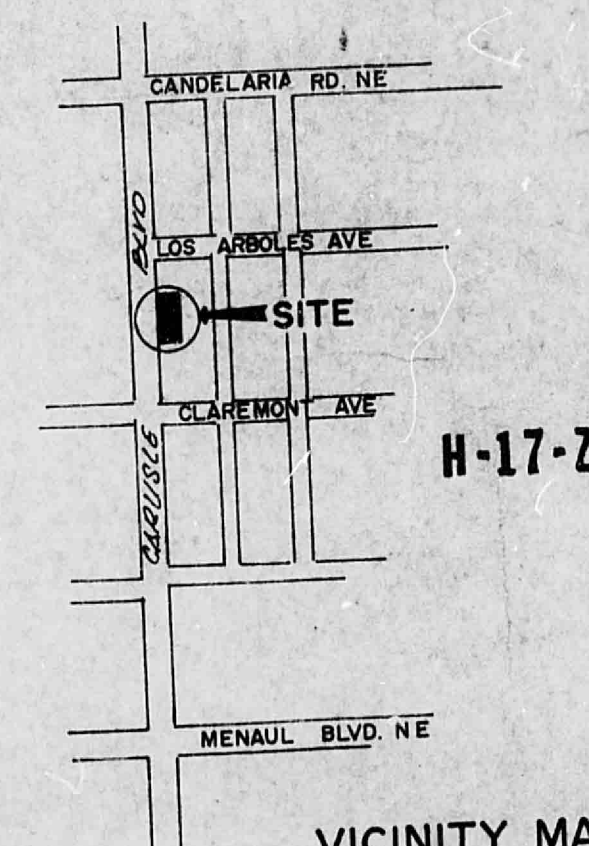
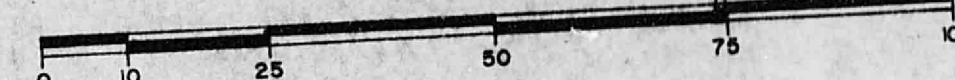
DECEMBER 4, 1985
REV. JAN. 15, 1986

NOTE:

SUBJECT PROPERTY DOES NOT LIE WITHIN A
DESIGNATED FLOOD ZONE PER PANEL 23 OF 50,
SEE REFERENCE 'C'.



SCALE 1" = 20'



H-17-Z

VICINITY MAP

SECTION D-D (PROFILE ONLY)

SECTION A-A

SECTION B-B

SECTION C-C

EROSION CONTROL PLAN

1. REFERENCES:

- City of Albuquerque Development Process Manual (DPM) Vol. 2, Design Criteria, Chapter 22: Drainage, Flood Control, and Erosion Control.
- Soil Survey of Bernalillo County and parts of Sandoval and Valencia Counties, New Mexico, United States Department of Agriculture, Soil Conservation Service.
- Floodway, Flood boundary and Floodway map, City of Albuquerque, New Mexico, Bernalillo County, Panel 23 of 53.
- City of Albuquerque Zone Atlas page H-17-Z.
- City Benchmark Datum, reference to benchmark 6A-H-17, elevation 5148.74, temporary benchmark as shown on drainage plan marked with a square symbol, elevation 5143.57 (MSL). (NOTE: "D" SYMBOL SPRAY PAINTED TOP OF CURB)

11. GENERAL INFORMATION:

- Soil Type (Ref. B, Page 21) Soil type is Wink-Embudo Complex (WeB), Hydrologic soil group "B".
- Imperviousness:

Type of Surface	Existing Area Sq. Ft. / Acres	Proposed Area Sq. Ft. / Acres
Building Roof	7650	0.1756
Concrete Surfaces	252	0.0058
Asphalt Surfaces	9487	0.2173
Landscaping	2735	0.0628
Undeveloped Surface		
Site Total	20124	0.4620
Percent Impervious	0.0%	86%

- "C" Factor (See Ref. A, Plate 22.2 C-1)
 - Undeveloped "C" Factor = 0.34
 - Developed "C" Factor = 0.82

- Rainfall, 100-year, 6-hour, R(6); (See Ref. A, Plate 22.2 D-1); R(6) = 2.25 inches.

- Time of Concentration, Tc; Tc 10 minutes. Use 10 minutes (minimum value) for calculations.

- Rainfall intensity, I; (See Ref. A, Plate 22.2 D-2)

$$I = \frac{R(6)}{T_c} \times 6.84 \times 10^{(-0.51)}$$

$$= \frac{2.25}{10} \times 6.84 \times 10^{(-0.51)}$$

$$= 4.76 \text{ in/hr}$$

III. PEAK DISCHARGE:

- Existing Conditions. (Use Rational Equation)

$$Q(100) = 0.34 \times 4.76 \times 0.46 = 0.74 \text{ cfs}$$

$$Q(10) = 0.657 \times 0.74 = 0.49 \text{ cfs (Ref. A, Plate 22.2 D-1)}$$

- Developed Conditions.

$$Q(100) = 0.82 \times 4.76 \times 0.46 = 1.80 \text{ cfs}$$

$$Q(10) = 0.657 \times 1.80 = 1.18 \text{ cfs}$$
 Increase of 1.06 cfs due to new addition.

IV. CONCLUSIONS:

- As shown on additional separate submittal, the site is at the bottom of the contributing water shed basin and therefore it would discharge into the flood channel first.
- An increase of 1.06 cfs due to new development is a comparatively small amount (to the total contributing basin) and therefore would not adversely affect downstream conditions (minimum impact).
- This is an infill development.
- All runoff generated by development is discharged to Carlisle Boulevard via the drive pad. The two adjacent developed (Circle K & Whataburger) discharge freely into Carlisle.
- All off-site flows are accepted as shown on drainage plan.

V. CONSTRUCTION NOTES:

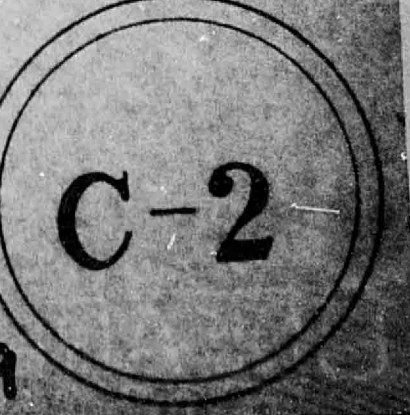
- Two (2) working days prior to any excavation, contractor must contact line locating service at 765-1234 for location of existing utilities.
- Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
- All work on this project shall be performed in accordance with applicable Federal, State and Local laws, rules, and regulations concerning construction safety and health.
- All construction within City Right-of-Way shall be performed in accordance with applicable City of Albuquerque standards and procedures.

SYMBOL LEGEND

- - - Existing contour
- - - Proposed contour
- > Direction of flow
- Proposed spot elevation
- TA Top of asphalt
- RD Roof drain
- TC Top of curb
- TSW Top of sidewalk

GRADING AND DRAINAGE PLAN
2828 CARLISLE BOULEVARD NE
ALBUQUERQUE, NEW MEXICO

H17/D39



LOTS 16, 17, 18 & 19, BEL-AIR SUBDIVISION
ALBUQUERQUE NEW MEXICO

DECEMBER 4, 1985
REV. JAN. 15, 1986

SUBJECT PROPERTY DOES NOT LIE WITHIN A
DESIGATED FLOOD ZONE PER PANEL 23 of 50,
SEE REFERENCE "C."

- A. City of Albuquerque Development Process Manual (DPM) Vol. 2, Design Criteria, Chapter 22: Drainage, Flood Control, and Erosion Control.
- B. Soil Survey of Bernalillo County and parts of Sandoval and Valencia Counties, New Mexico, United States Department of Agriculture, Soil Conservation Service.
- C. Floodway, Flood boundary and Floodway map, City of Albuquerque, New Mexico, Bernalillo County, Panel 23 of 53.
- D. City of Albuquerque Zone Atlas page H-17-Z.

A. Soil Type (Ref. B, Page 21) Soil type is Wink-Embudo Complex (WeB), Hydrologic soil group "B".

Site Total	20124	0.4620	20124	0.4620
Percent Impervious		0.0%		86%

2. Developed "C" Factor = 0.82

E. Time of Concentration, T_c ; T_c 10 minutes. Use 10 minutes (minimum value) for calculations.

II. PEAK DISCHARGE:

8. Developed Conditions.
 $Q(100) = 0.82 \times 4.76 \times 0.46 = 1.80 \text{ cfs}$
 $Q(10) = 0.657 \times 1.80 = 1.18 \text{ cfs}$
 Increase of 1.06 cfs due to new addition.

1. As shown on additional separate submittal, the site is at the bottom of the contributing water shed basin and therefore it would discharge into the flood channel first.
2. An increase of 1.05 cfs due to new development is a comparatively small amount (to the total contributing basin) and therefore would not adversely affect downstream conditions (minimum impact).
3. This is an infill development.

1. Two (2) working days prior to any excavation, contractor must contact line locating service at 765-1234 for location of existing utilities.

2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all potential obstructions. Should a conflict exist, the contractor shall notify the engineering so that the conflict can be resolved with a minimum amount of delay.
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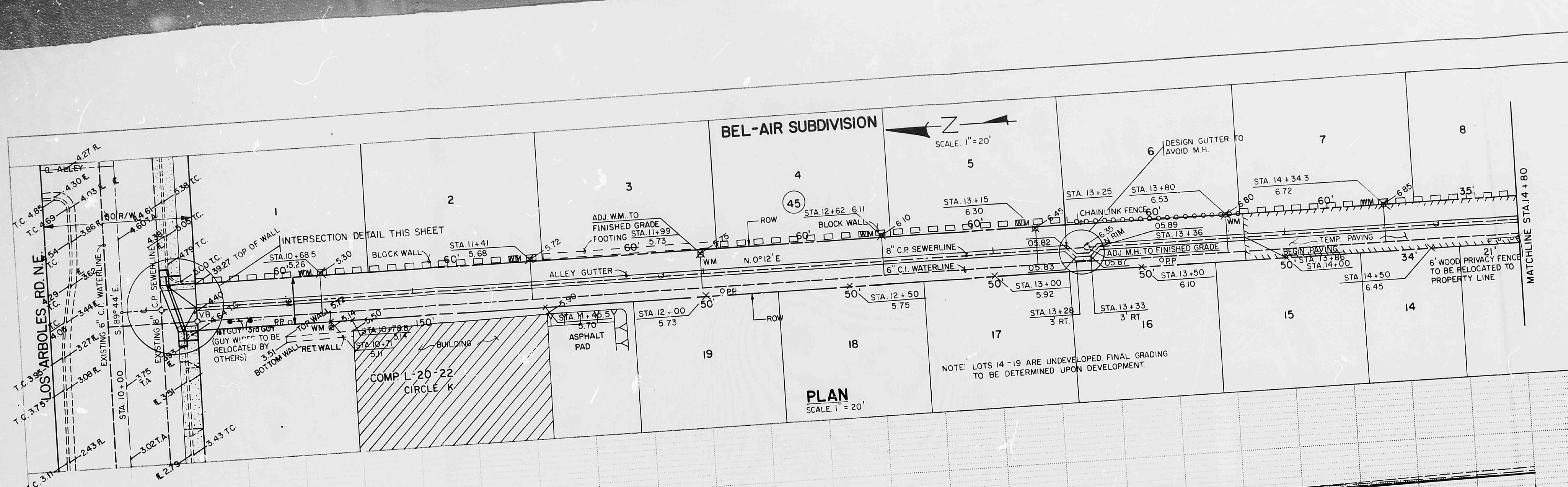
	Existing contour
	Proposed contour
	Direction of flow
	Proposed spot elevation
TA	Top of asphalt
RD	Roof drain
TC	Top of curb
TSW	Top of sidewalk

GRADING AND DRAINAGE PLAN

2828 CARLISLE BOULEVARD NE
ALBUQUERQUE, NEW MEXICO

C-2

H17/D39



- NOTES**
1. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVING OR CURB AND GUTTER DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE SAME AT HIS OWN EXPENSE.
 2. ALL POWER POLES WITHIN ALLEY ARE TO BE RELOCATED TO PROPERTY LINE BY OTHERS.
 3. PRIOR TO CONSTRUCTION VERIFY WITH WATER RESOURCES IF NEED FOR REPLACEMENT OF EXISTING CONCRETE SAS LINE.

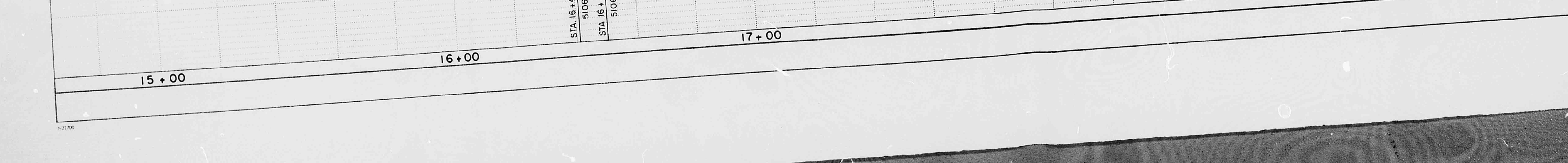
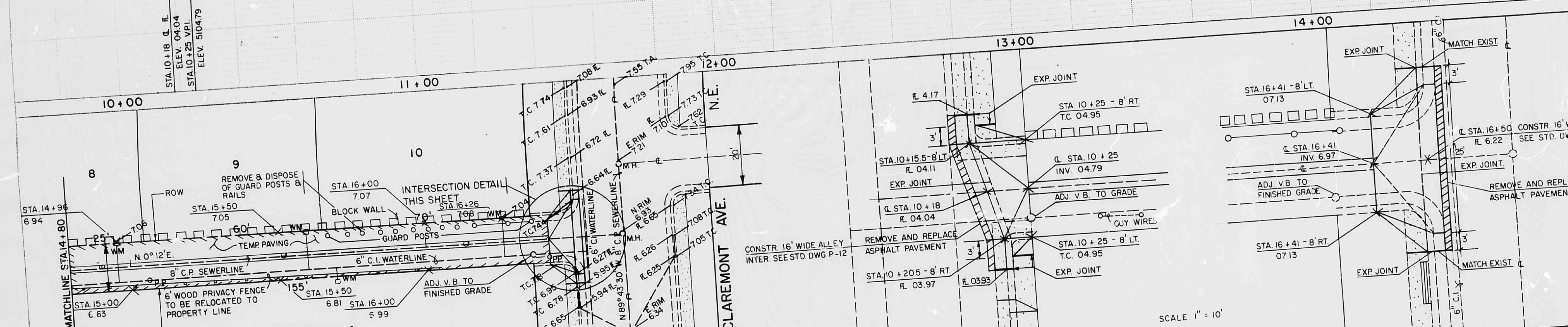
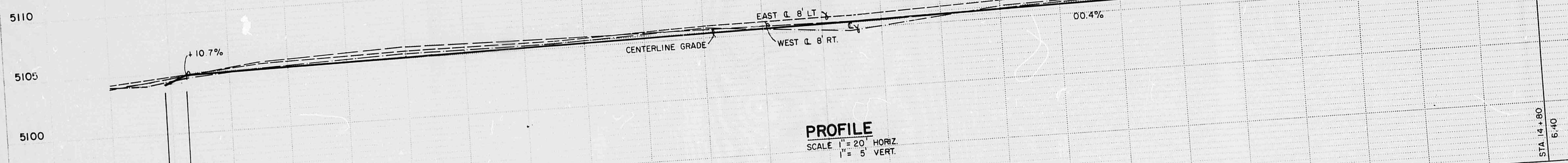
LEGEND

- EXISTING ELEVATIONS
- PROPOSED ELEVATIONS
- REMOVE EXISTING PAVEMENT

TABLE A
Alley Cross-Slopes

Left Side		Right Side	
Station	Slope	Station	Slope
10+25	2%	10+25	2%
10+68.5	4%	10+71	2%
11+41	6%	10+78.8	6%
11+99	4%	11+45.5	4%
12+62	6%	12+00	2%
14+96	6%	12+50	2%
15+50	5%	16+00	2%
16+00	3%	16+41	2%
16+26	2%		
16+41	2%		

All slope transitions between stations listed will be straight line transitions.



AS BUILT INFORMATION

CONTRACTOR	DATE	INSPECTOR	DATE	REVISION	DATE
ACG 6A-HIT ELEV 5148.74					
PROFILE ALLEY LOCATED B/W HERMOSA & CARLSLE FROM CLAREMONT TO LOS ARBOLES					

ENGINEER'S SEAL

DATE	BY	NO.
	DS-45 R. CALLEGOS	

REVISIONS

NO.	DATE	REVISIONS	BY

**CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION**

TITLE: ALLEY GRADES BETWEEN LOS ARBOLES RD. AND CLAREMONT AVE. N.E. - BEL-AIR SUBDIVISION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		2/27/86	Liquid Waste		1-31-86
A.C.E. - Design		1/31/86	Traffic		1/31/86
A.C.E. - Hydrology		1/31/86	Water		1-31-86

DRAWING NO. 2734

MAP NO. H-17N

SHEET 2 OF 2

DATE 1-31-86

DESIGNED BY J. LUEHRING

DRAWN BY P. HERNANDEZ

CHECKED BY

1. REFERENCES:

- City of Albuquerque Development Process Manual (DPM) Vol. 2, Design Criteria, Chapter 22: Drainage, Flood Control, and Erosion Control.
- Soil Survey of Bernalillo County and parts of Sandoval and Valencia Counties, New Mexico, United States Department of Agriculture, Soil Conservation Service.
- Floodway, Flood boundary and Floodway map, City of Albuquerque, New Mexico, Bernalillo County, Panel 23 of 53.
- City of Albuquerque Zone Atlas page H-17-Z.
- City Benchmark Datum, reference to benchmark 6A-H-17, elevation 5148.74, temporary benchmark as shown on drainage plan marked $\square$ TBM elevation 5143.57' (MSL). (NOTE: TBM SYMBOL SPRAY PAINTED TOP OF CURB)

II. GENERAL INFORMATION:

- Soil Type (Ref. B, Page 21) Soil type is Wink-Embudo Complex (WeB), Hydrologic soil group "3".

Type of Surface	Existing		Proposed	
	Sq. Ft.	/ Acres	Sq. Ft.	/ Acres
Building Roof			7650	0.1756
Concrete Surfaces			252	0.0058
Asphalt Surfaces			9487	0.2178
Landscaping			2735	0.0628
Undeveloped Surface				
Site Total	20124	0.4620	20124	0.4620
Percent Impervious		0.0%		86%

- "C" Factor (See Ref. A, Plate 22.2 C-1)
 - Undeveloped "C" Factor = 0.34
 - Developed "C" Factor = 0.82

- Rainfall, 100-year, 6-hour, R(6); (See Ref. A, Plate 22.2 D-1); R(6) = 2.25 inches.

- Time of Concentration, T_c ; T_c 10 minutes. Use 10 minutes (minimum value) for calculations.

- Rainfall intensity, I ; (See Ref. A, Plate 22.2 D-2)

$$I = R(6) \times 6.84 \times T_c^{(-0.51)}$$

$$= 2.25 \times 6.84 \times 10^{(-0.51)}$$

$$= 4.76 \text{ in/hr}$$

III. PEAK DISCHARGE:

- Existing Conditions. (Use Rational Equation)

$$Q(100) = 0.34 \times 4.76 \times 0.46 = 0.74 \text{ cfs}$$

$$Q(10) = 0.657 \times 4.76 \times 0.46 = 0.49 \text{ cfs (Ref. A, Plate 22.2 D-1)}$$
- Developed Conditions.

$$Q(100) = 0.82 \times 4.76 \times 0.46 = 1.80 \text{ cfs}$$

$$Q(10) = 0.657 \times 1.80 = 1.18 \text{ cfs}$$
 Increase of 1.06 cfs due to new addition.

IV. CONCLUSIONS:

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- All runoff generated by development is discharged to Carlisle Boulevard via the drive pad. The two adjacent developed (Circle K & Whataburger) discharge freely into Carlisle.
- All off-site flows are accepted as shown on drainage plan.

V. CONSTRUCTION NOTES:

- Two (2) working days prior to any excavation, contractor must contact line locating service at 765-1234 for location of existing utilities.
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SYMBOL LEGEND

- Existing contour
- Proposed contour
- Direction of flow
- Proposed spot elevation
- TA Top of asphalt
- RD Roof drain
- TC Top of curb
- TSW Top of sidewalk

GRADING AND DRAINAGE PLAN
2828 CARLISLE BOULEVARD NE
ALBUQUERQUE, NEW MEXICO

H17/D39

C-2

GRADING AND DRAINAGE PLAN

LOTS 16, 17, 18 & 19, BEL-AIR SUBDIVISION
ALBUQUERQUE NEW MEXICO



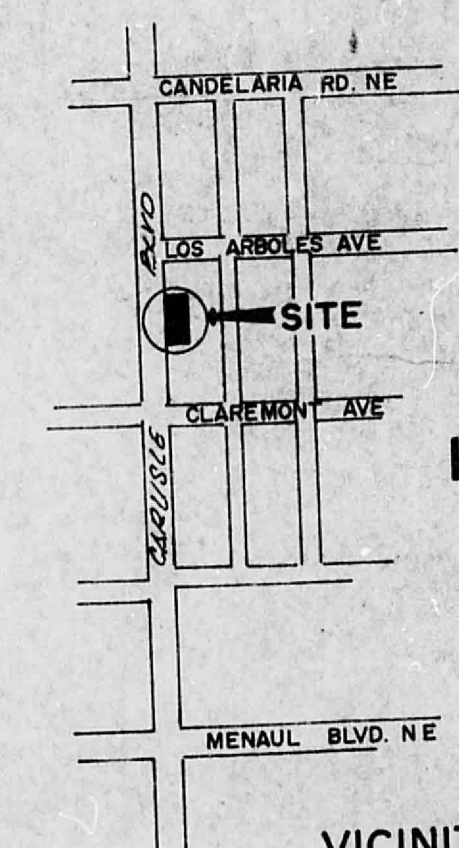
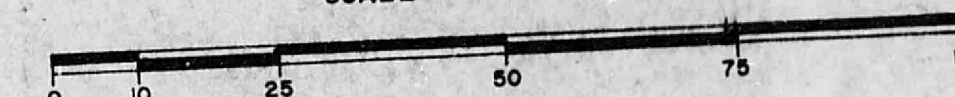
DECEMBER 4, 1985
REV. JAN. 15, 1986

NOTE:

SUBJECT PROPERTY DOES NOT LIE WITHIN A DESIGNATED FLOOD ZONE PER PANEL 23 OF 50, SEE REFERENCE "C".

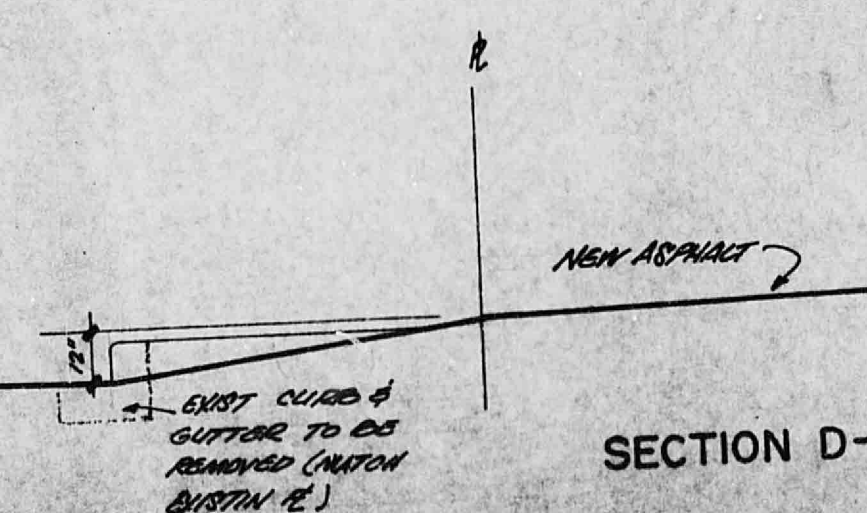
NORTH

SCALE 1" = 20'



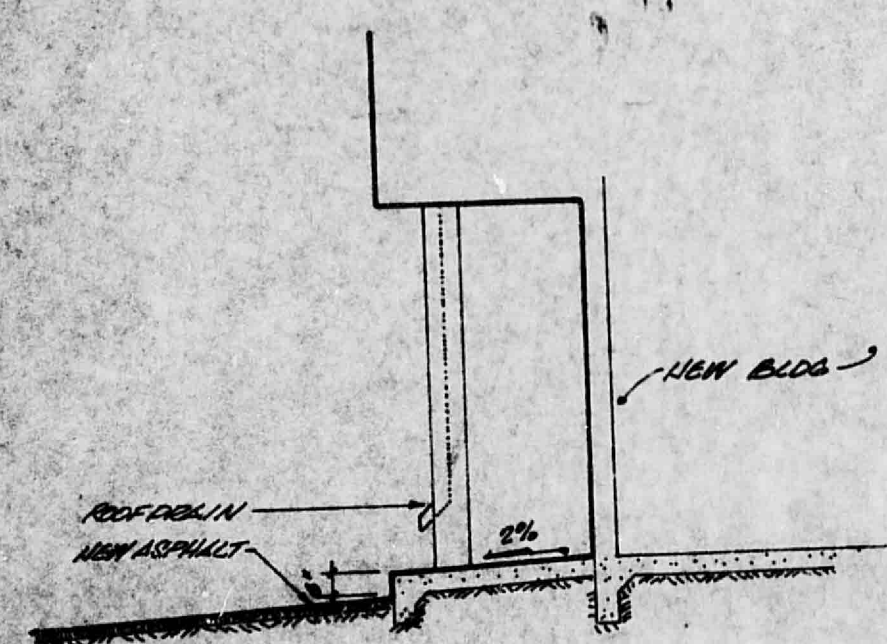
VICINITY MAP

H-17-Z

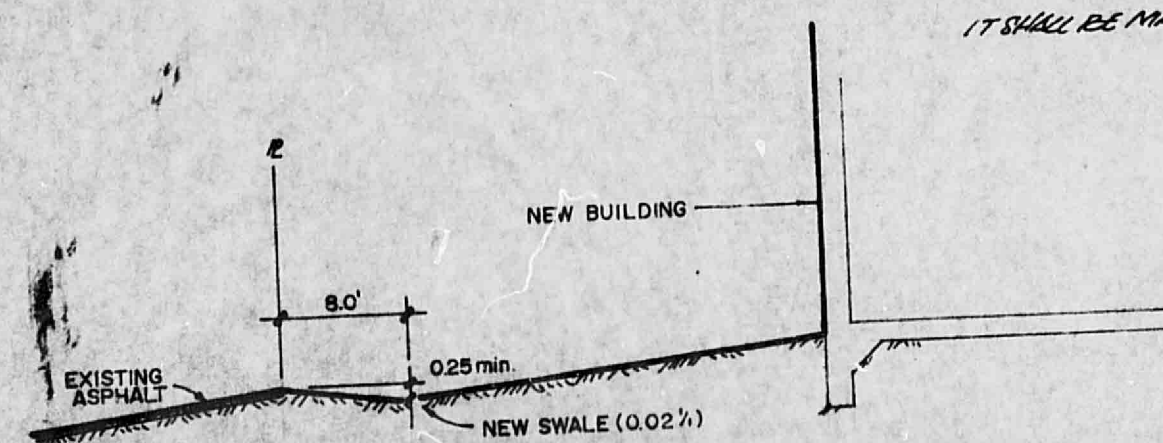


SECTION D-D (PROFILE ONLY)

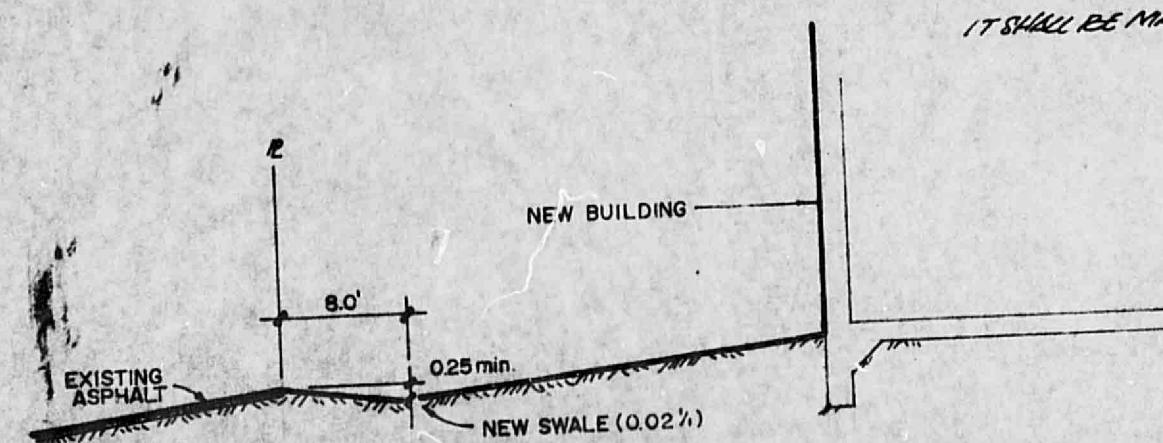
SECTION A-A



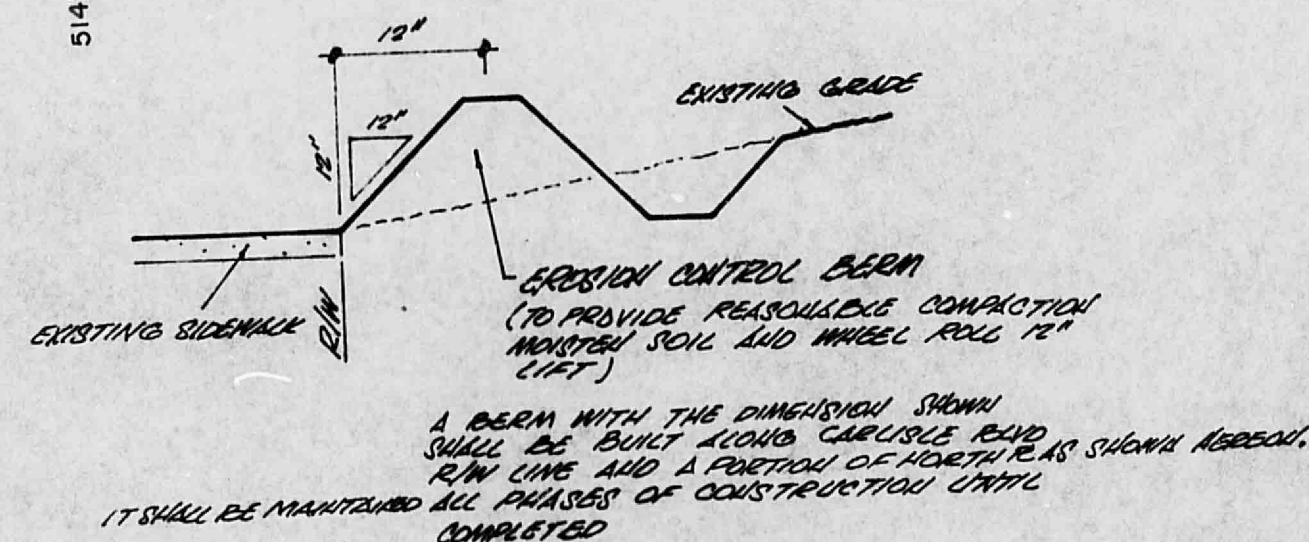
SECTION B-B



SECTION C-C



EROSION CONTROL PLAN



EROSION CONTROL PLAN