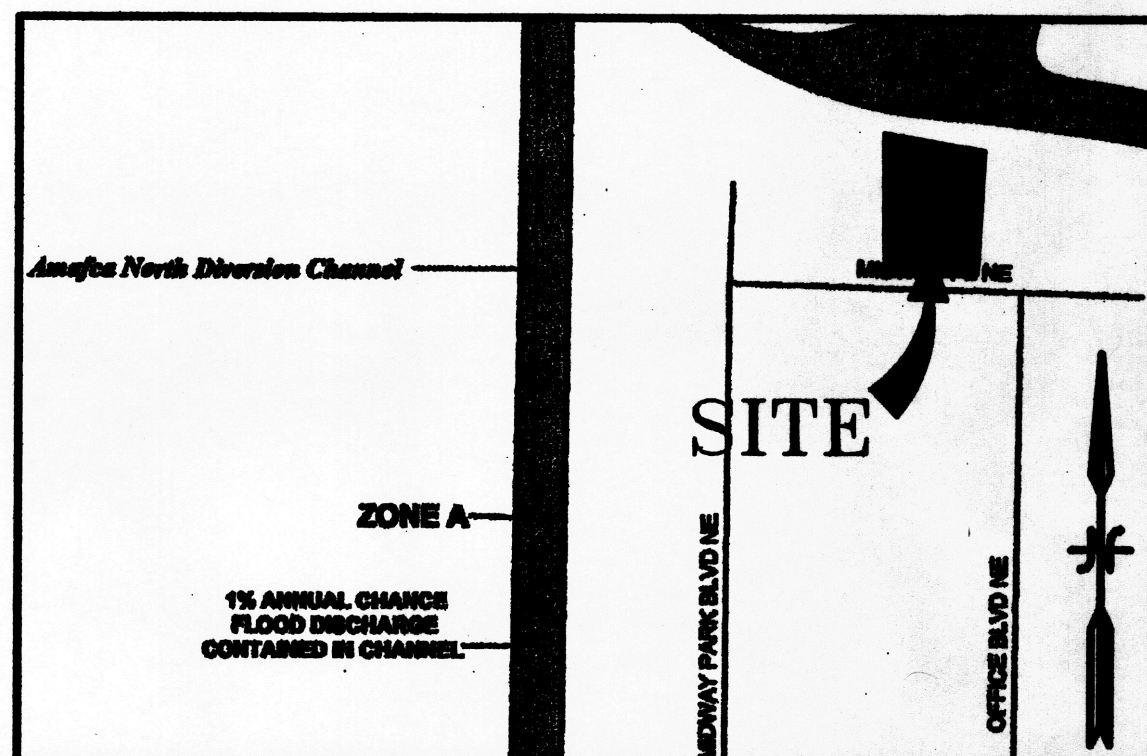


VICINITY MAP  
NOT TO SCALE



FLOODPLAIN MAP  
NOT TO SCALE

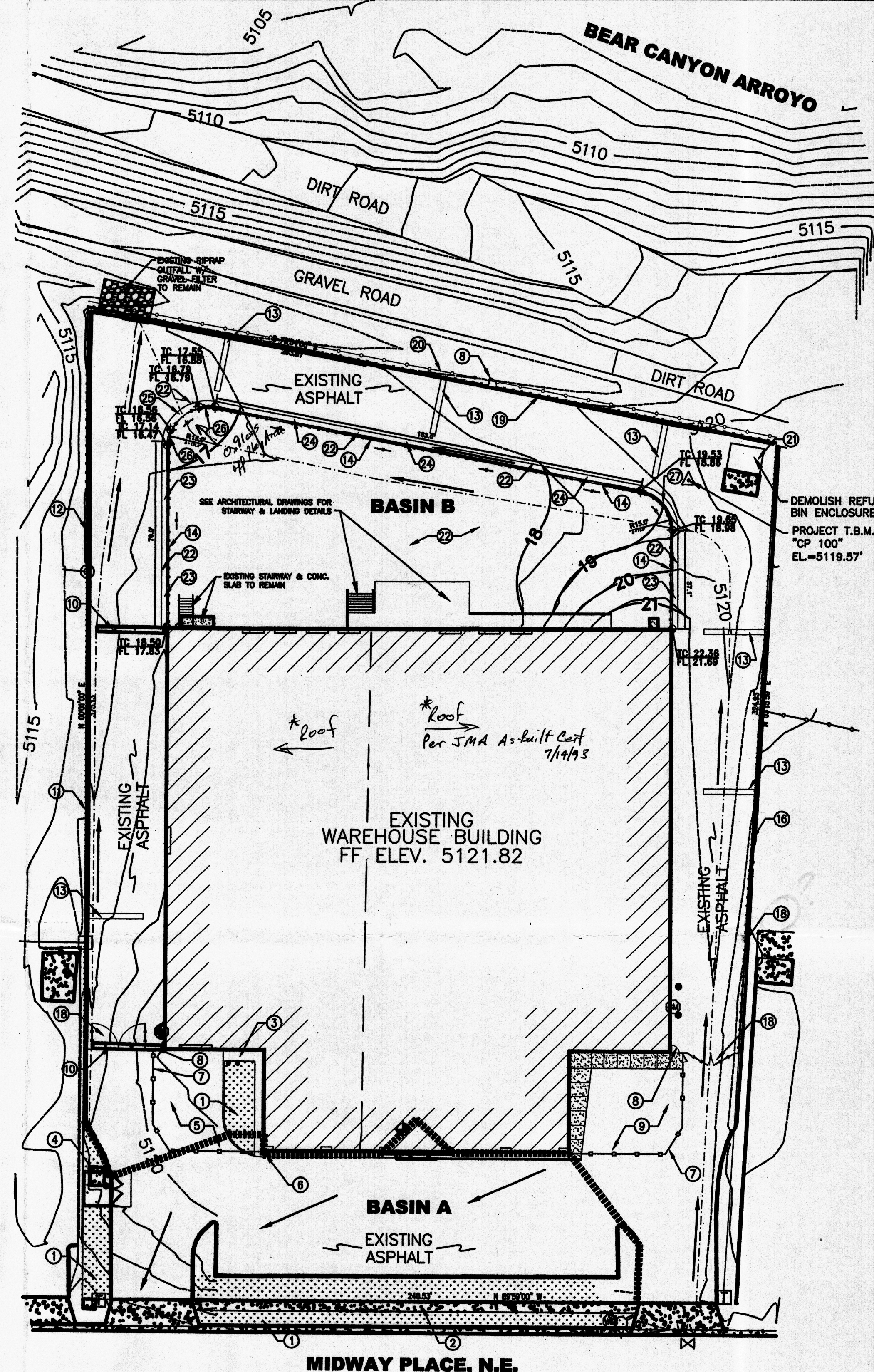
- LEGEND**
- NEW CONCRETE SIDEWALK
  - 13 PROPOSED ELEV. CONTOUR
  - EXISTING ELEV. CONTOUR
  - FIN. FLR 94.00 EXISTING BLDG FINISH FLOOR ELEV.
  - PROPOSED FLOW DIRECTION
  - TC 12.67 PROPOSED TOP OF CURB SPOT ELEVATION
  - FL 12.67 PROPOSED FLOWLINE ELEVATION

TBM: 5/8" REBAR W/ ALUMINUM CAP  
STAMPED "CP 100"  
36" S 66°53'04" W OF NW PROPERTY CORNER.  
TBM ELEV = 5119.57 FEET (NAVD 1988  
VERTICAL DATUM)

BM: BRASS DISC "SC 27 26 34 35 1965"  
284.00' NORTH OF SINGER BLVD. & MIDWAY PARK  
BLVD. INTERSECTION, THEN WEST 179.00'.  
BM ELEV = 5113.12 FT (NAVD 1988 VERT.  
DATUM).

# GENERAL NOTES:

1. ADD 5100.00 FEET TO ALL SPOT ELEVATIONS.
2. FOR TOP OF CONCRETE SLABS AND TOP OF FINISH GRADE SEE: FLOOR PLAN, FOUNDATION PLAN AND DETAILS, AND EXTERIOR WALL SECTION INCLUDED IN BUILDING PERMIT SET OF DRAWINGS.
3. THIS IS NOT A BOUNDARY SURVEY. BEARINGS AND DISTANCES SHOWN HEREON ARE FOR REFERENCE ONLY.



MIDWAY PLACE, N.E.

**LEGAL DESCRIPTION:**  
Lot 13-A-1, Midway Business Park, City of Albuquerque New Mexico.

**STREET ADDRESS:**  
3831 Midway Place, NE, City of Albuquerque New Mexico.

**FLOOD HAZARD ZONE:**  
Tract A-1 is located in Flood Hazard Zone X (i.e., Areas determined to be outside 500-year floodplain) designated on the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map Panel No. 35001C138E (November 19, 2003).

**EXISTING SITE CONDITIONS:**  
Lot 13-A-1 is fully developed. Existing site improvements include an existing 34,783 sq warehouse building, loading docks, an asphalt-paved parking lot, and landscape planters along the Midway Place frontage.

**PROPOSED IMPROVEMENTS:**  
Proposed site improvements include a change of use for the existing 34,783 sq warehouse building (i.e., occupancy by the Montessori Elementary School) and removal and replacement of asphalt pavement on the north side of the building and at the southeast corner of the building to accommodate a student drop off traffic lane, a children's playground and additional landscaping, respectively.

**DRAINAGE ANALYSIS:**  
REFERENCE: City of Albuquerque, Development Process Manual -Vol. 2, Section 22.2 - Hydrology, January, 1993.

Principal Design Storm: 100-year 6-hour event

Precipitation Zone 2 (Table A-1)

Excess Precipitation (Table A-8):  
 $E_1 = 0.53$  in (Land Treatment 'A'),  $E_2 = 0.78$  in (Land Treatment 'B')  
 $E_3 = 1.13$  in (Land Treatment 'C'), &  $E_4 = 2.12$  in (Land Treatment 'D')

Peak Discharge (Table A-9):  
 $Q_{p1} = 1.56$  ft<sup>3</sup>/sec-acre (Land Treatment 'A')  
 $Q_{p2} = 2.28$  ft<sup>3</sup>/sec-acre (Land Treatment 'B')  
 $Q_{p3} = 3.14$  ft<sup>3</sup>/sec-acre (Land Treatment 'C')  
 $Q_{p4} = 4.70$  ft<sup>3</sup>/sec-acre (Land Treatment 'D')

Total Area (Lot 13-A-1) = 87584.0 ft<sup>2</sup> x 1 acre/43,560 ft<sup>2</sup> = 2.0 acres

**On-Site 'Existing' Condition (Lot 13-A-1, Basin A):**  
Basin A Area = 11,418 ft<sup>2</sup> x 1 acre/43,560 ft<sup>2</sup> = 0.26 acres  
22.06% Land Treatment 'B'; 77.94% Land Treatment 'D'

Weighted E =  $((E_2 \times 0.06 \text{ acres}) + (E_4 \times 0.20 \text{ acres}))/0.26 \text{ acres}$   
= 1.68 in

$V_{360} = (1.68 \text{ in} \times 0.26 \text{ acres}) \times 1 \text{ ft}^3/12 \text{ in}$   
= 0.037 acre-ft x 43,560 ft<sup>2</sup>/acre  
= 1,602 ft<sup>3</sup>

Total  $Q_p = (Q_{p2} \times 0.06 \text{ acres}) + (Q_{p4} \times 0.20 \text{ acres})$   
= 1.01 ft<sup>3</sup>/sec

**On-Site 'Existing' Condition (Lot 13-A-1, Basin B):**  
Basin B Area = 76,166 ft<sup>2</sup> x 1 acre/43,560 ft<sup>2</sup> = 1.75 acres  
0.78% Land Treatment 'B'; 99.22% Land Treatment 'D'

Weighted E =  $((E_2 \times 0.01 \text{ acres}) + (E_4 \times 1.73 \text{ acres}))/1.75 \text{ acres}$   
= 1.96 in

$V_{360} = (1.96 \text{ in} \times 1.75 \text{ acres}) \times 1 \text{ ft}^3/12 \text{ in}$   
= 0.286 acre-ft x 43,560 ft<sup>2</sup>/acre  
= 12,439 ft<sup>3</sup>

Total  $Q_p = (Q_{p2} \times 0.01 \text{ acres}) + (Q_{p4} \times 1.73 \text{ acres})$   
= 7.61 ft<sup>3</sup>/sec

**On-Site 'Post Development' Condition (Lot 13-A-1, Basin A):**  
Basin A Area = 11,418 ft<sup>2</sup> x 1 acre/43,560 ft<sup>2</sup> = 0.26 acres  
20.85% Land Treatment 'B'; 79.15% Land Treatment 'D'

Weighted E =  $((E_2 \times 0.05 \text{ acres}) + (E_4 \times 0.21 \text{ acres}))/0.26 \text{ acres}$   
= 1.70 in

$V_{360} = (1.70 \text{ in} \times 0.26 \text{ acres}) \times 1 \text{ ft}^3/12 \text{ in}$   
= 0.037 acre-ft x 43,560 ft<sup>2</sup>/acre  
= 1,617 ft<sup>3</sup>

Total  $Q_p = (Q_{p2} \times 0.05 \text{ acres}) + (Q_{p4} \times 0.21 \text{ acres})$   
= 1.02 ft<sup>3</sup>/sec

**On-Site 'Post Development' Condition (Lot 13-A-1, Basin B):**  
Basin B Area = 76,166 ft<sup>2</sup> x 1 acre/43,560 ft<sup>2</sup> = 1.75 acres  
17.53% Land Treatment 'C'; 82.47% Land Treatment 'D'

Weighted E =  $((E_3 \times 0.31 \text{ acres}) + (E_4 \times 1.44 \text{ acres}))/1.75 \text{ acres}$   
= 1.80 in

$V_{360} = (1.80 \text{ in} \times 1.75 \text{ acres}) \times 1 \text{ ft}^3/12 \text{ in}$   
= 0.262 acre-ft x 43,560 ft<sup>2</sup>/acre  
= 11,413 ft<sup>3</sup>

Total  $Q_p = (Q_{p3} \times 0.31 \text{ acres}) + (Q_{p4} \times 1.44 \text{ acres})$   
= 7.18 ft<sup>3</sup>/sec

Runoff from offsite drainage basins does not enter onto Lot 13-A-1. All runoff from Lot 13-A-1 is discharged to the AMAFCA Bear Canyon Arroyo right-of-way and, subsequently, enters the AMAFCA North Diversion Channel. The 'Post Development' peak discharge from Lot 13-A-1 will have a reduced impact on the AMAFCA Bear Canyon Arroyo right-of-way. Free discharge from Lot 13-A-1 is recommended for the following reasons:

1. The 'Post Development' runoff from Lot 13-A-1 is a small percentage of the total runoff from the entire offsite drainage basin.
2. The Bear Canyon Arroyo has sufficient capacity to convey the 'Post Development' runoff from Lot 13-A-1.
3. There are no storm water ponds on parcels adjacent to Lot 13-A-1.

# ENGINEER'S CERTIFICATION:

THE ENGINEER HAS PERSONALLY VISITED AND INSPECTED THE SITE. NO GRADING, FILLING, OR EXCAVATIONS HAVE OCCURRED AFTER THE "AS BUILT" GRADING AND PLAN WAS SUBMITTED IN MARCH 1994.

JAMES L. HEWITT, JR., P.E. # 6871

01/28/08  
DATE

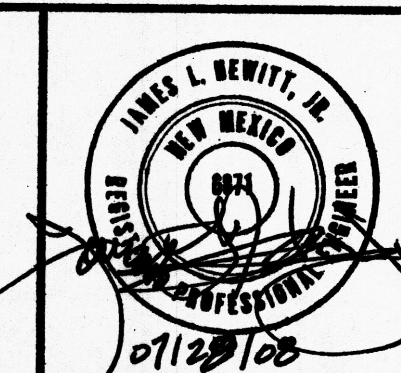
# OKeyed Notes

1. EXISTING LANDSCAPE, TYPICAL.
2. EXISTING 4'-0" WIDE SIDEWALK.
3. CONCRETE SIDEWALK.
4. NEW REFUSE BIN ENCLOSURE.
5. ART PATIO & BREAK, EXISTING ASPHALT PAVING.
7. 6'-0" HIGH WROUGHT IRON FENCE.
8. ACCESS GATE.
9. PRESCHOOL PATIO & PLAY AREA.
10. EXISTING SPEED BUMP.
11. EXISTING 8'-0" HIGH CHAIN LINK FENCE (±278' LONG).
12. 8' HIGH NEW CHAIN LINK FENCE (±99' LONG - V.I.F.).
13. SPEED BUMP.
14. 4'-0" HIGH NEW CHAIN LINK FENCE WITH 4'-0" ACCESS POINTS @ 40 O.C. TYP.
15. PLAY AREA.
16. EXISTING 8'-0" HIGH CHAIN LINK FENCE (±159' LONG).
17. 8'-0" HIGH NEW CHAIN LINK FENCE (±166' LONG - V.I.F.).
18. 8'-0" HIGH NEW CHAIN LINK GATE - 18' WIDE - (2) 9'-0" SECTIONS.
19. 8'-0" HIGH NEW CHAIN LINK FENCE (±264' LONG - V.I.F.).
20. EXISTING GUARDRAIL.
21. REPAIR EXISTING CONCRETE AFTER REMOVAL OF REFUSE BIN ENCLOSURE.
22. SAW CUT AND REMOVE ASPHALT PAVEMENT, FINE GRADE AND INSTALL NON-WOVEN GEOTEXTILE (MIRAFI 140L OR ENGINEER APPROVED EQUAL) W/ 2 FT OVERLAP & NO STAPLES, AND BACKFILL W/ "PLAYGROUND GRADE" SAND. FINISH GRADE TO 5 IN DEPTH OVER ENTIRE PAVEMENT REMOVAL AREA.
23. CONSTRUCT DEPRESSIONED GUTTER (OVER EXISTING SUBGRADE COMPACTED TO 95%) PER COA STD DWG #2415A. MATCH GUTTER TO TOP OF EXISTING ASPHALT PAVEMENT.
24. CONSTRUCT STANDARD CURB AND GUTTER (OVER EXISTING SUBGRADE COMPACTED TO 95%) PER COA STD DWG #2415A. MATCH GUTTER TO TOP OF EXISTING ASPHALT PAVEMENT.
25. CONSTRUCT 2'-7 1/2" X 6" RIBBON CURB (OVER EXISTING SUBGRADE COMPACTED TO 95%) BETWEEN CURB RETURNS. MATCH GUTTER TO TOP OF EXISTING ASPHALT PAVEMENT.
26. CONSTRUCT FILLET CURB TRANSITION FROM DEPRESSIONED GUTTER TO STANDARD CURB AND GUTTER TO RIBBON CURB (TO EXTEND FROM CURB RETURN TO 6 FT BEYOND CURB RETURN).
27. TRANSITION FROM DEPRESSIONED GUTTER TO STANDARD CURB AND GUTTER BETWEEN CURB RETURNS.

# Legend

- 8'-0" NEW CHAINLINK FENCE
- EXISTING CHAINLINK FENCE
- 6' WROUGHT IRON FENCE

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MONTESSORI SCHOOL  
TENANT IMPROVEMENTS  
Albuquerque, New Mexico

PROJECT ARCHITECT:  
BOB HALL, AIA

RECEIVED  
JUL 29 2008

HYDROLOGY  
SECTION

Project #: IDA-07-21-P  
Date: JULY 28, 2008

# REVISED GRADING & DRAINAGE PLAN

By: JLH  
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