

VICINITY MAP
SCALE: 1" = 750'

LEGAL DESCRIPTION: LOT 2, SUNDT'S INDUSTRIAL AREA

PROJECT BENCHMARK:

A SQUARE "X" CHISELED IN TOP OF CONCRETE CURB @ THE ENE RETURN. LOCATED @ THE INTERSECTION OF CANDELARIA RD. AND HIGH ST. N.E. IN THE NORTHEAST QUADRANT OF THE INTERSECTION. ELEVATION = 4995.328 FT. (M.S.L.D.)

I.B.M.:

A SQUARE "X" CHISELED IN TOP OF CONCRETE SIDEWALK LOCATED @ THE NW CORNER OF PROPERTY. ELEVATION = 5034.59 FT. (M.S.L.D.)

LEGEND

EXISTING SPOT ELEVATION	TC
EXISTING TOP OF CURB	FL
EXISTING FLOW LINE	
EXISTING ROOF DRAINAGE	
EXISTING CONTOUR	
PROPOSED SPOT ELEVATION	XX-X
PROPOSED CONTOUR	H-15
RETAINING WALL	

PARKING ANALYSIS

1. REQUIRED	
WHOLESALE	4000/1000 = 5
	1140/1000 = 2
OFFICE	1140/200 = 6
WAREHOUSE	21,000/2000 = 12
REQUIRED PARKING	25

2. PROVIDED	
REGULAR SPACES	26
HANDICAP SPACES	2
TOTAL PROVIDED	28

DRAINAGE PLAN

The following items concerning the Dahl, Inc. Drainage Plan are contained herein:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located on the south side of Candelaria Road N.E., between 1-25 and Edith Boulevard N.E. At present, the site is developed commercially with buildings and asphalt paving. Concurrent with this project, a new private entrance and median modifications will be constructed onto Candelaria Road N.E.

As shown by Panel 332 of 825 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the County of Bernalillo, New Mexico dated September 20, 1996, this site does not lie within a designated flood hazard zone. The site currently drains north toward Candelaria Road N.E. Candelaria Road N.E. drains to the west toward the intersection with Edith Boulevard N.E. From this point, it appears that the majority of the street runoff continues to flow west to a low point in Candelaria Road N.E. just east of the Atchison, Topeka & Santa Fe Railroad crossing. An AH Flood Zone is designated at this location. The runoff from this site may feed that existing flood hazard zone. An increase in impervious area is not proposed by this plan, hence this project will not aggravate the existing condition.

The Grading Plans shows: 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, 4) the limit and character of future improvements, and 5) continuity between existing and proposed grades. As shown by this Plan, the proposed improvements, for this phase, consist of parking lot modifications. Additional landscaped areas are being created which will decrease the net impervious area of the site. The new paving will be contoured to discharge to Candelaria Road N.E. via a new private entrance. Future building addition locations are shown. These building additions will replace existing paved surfaces with roof area. This will not alter the existing hydrology of the site.

The Calculations which appear herein analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these Calculations, a slight decrease in runoff is anticipated due to the proposed improvements. As stated above, impervious area will be removed and replaced with landscaping. Consequently, mitigation of the runoff discharging from this site is not required as the existing hydrology and drainage pattern of the site will not be significantly altered. The drainage pattern will be maintained and the net runoff decreased.

CALCULATIONS

Site Characteristics

1.	Precipitation Zone =	2
2.	$P_{6,100} = P_{360} =$	2.35 in.
3.	Total Area (A_T) =	84,800 sf/1.95 ac
4.	Existing Land Treatment	
	Treatment	Area (sf/ac)
	C	4,000/0.09
	D	80,800/1.86
5.	Developed Land Treatment	
	Treatment	Area (sf/ac)
	B	4,000/0.09
	C	600/0.01
	D	80,200/1.85

Existing Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_W = (1.13)(0.09) + (2.12)(1.86) / 1.95 = 2.07 \text{ in.}$$

$$V_{100} = (E_W / 12) A_T$$

$$V_{100} = (2.07 / 12) 1.95 = 0.34 \text{ ac.ft.; } 14,650 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = (3.14)(0.09) + (4.70)(1.86) = 9.0 \text{ cfs}$$

Developed Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_W = (0.78)(0.09) + (1.13)(0.01) + (2.12)(1.85) / 1.95 = 2.05 \text{ in.}$$

$$V_{100} = (E_W / 12) A_T$$

$$V_{100} = (2.05 / 12) 1.95 = 0.33 \text{ ac.ft.; } 14,500 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = (2.28)(0.13) + (3.14)(0.97) + (4.70)(0.96) = 7.9 \text{ cfs}$$

Comparison

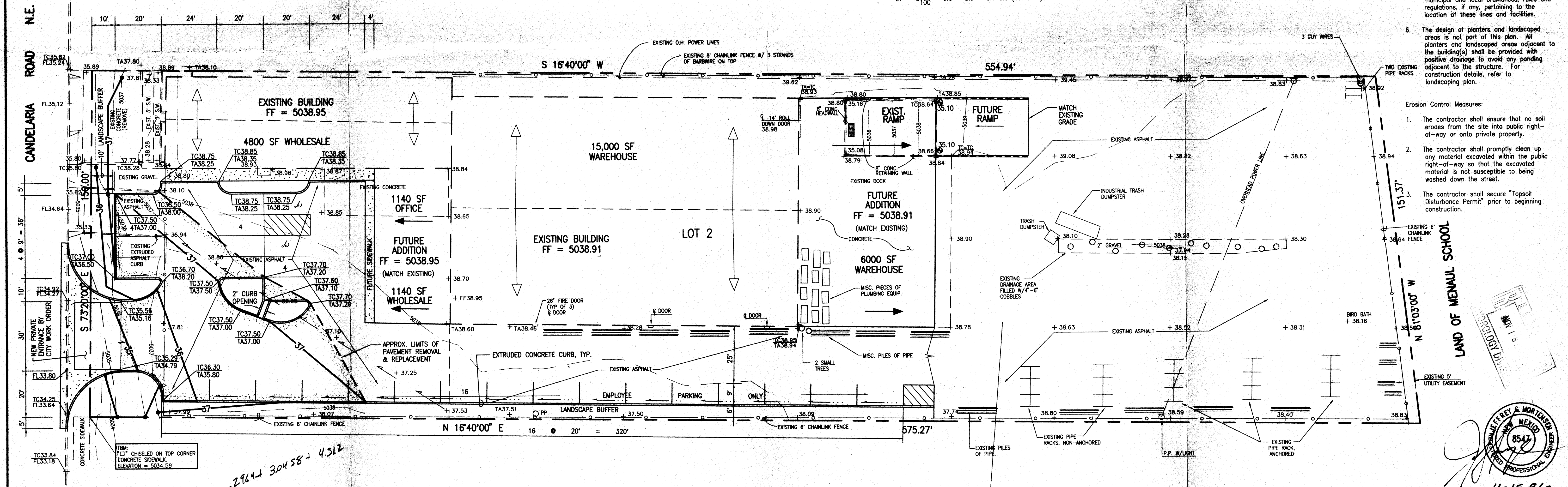
1. $V_{100} = 14,650 - 14,500 = 150 \text{ cf} = 0.01 \text{ ac.ft. (decrease)}$
2. $Q_{100} = 9.0 - 8.9 = 0.1 \text{ cfs (decrease)}$

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990 (Albuquerque Area), 1-800-321-ALERT(2537) (Statewide), for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer in writing so that the conflict can be resolved with a minimum amount of delay. The Contractor shall be responsible for all interpretations it makes without first contacting the Engineer as required above.
3. 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.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

Erosion Control Measures:

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.
2. The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.



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GRADING AND DRAINAGE PLAN DAHL, INC.

DESIGNED BY	J.G.M.	NO.	DATE	BY	REVISIONS	JOB NO.	960772
DRAWN BY	C.J.H./M.L.S.					DATE	08-1996
APPROVED BY	J.G.M.					SHEET	1 OF 1

