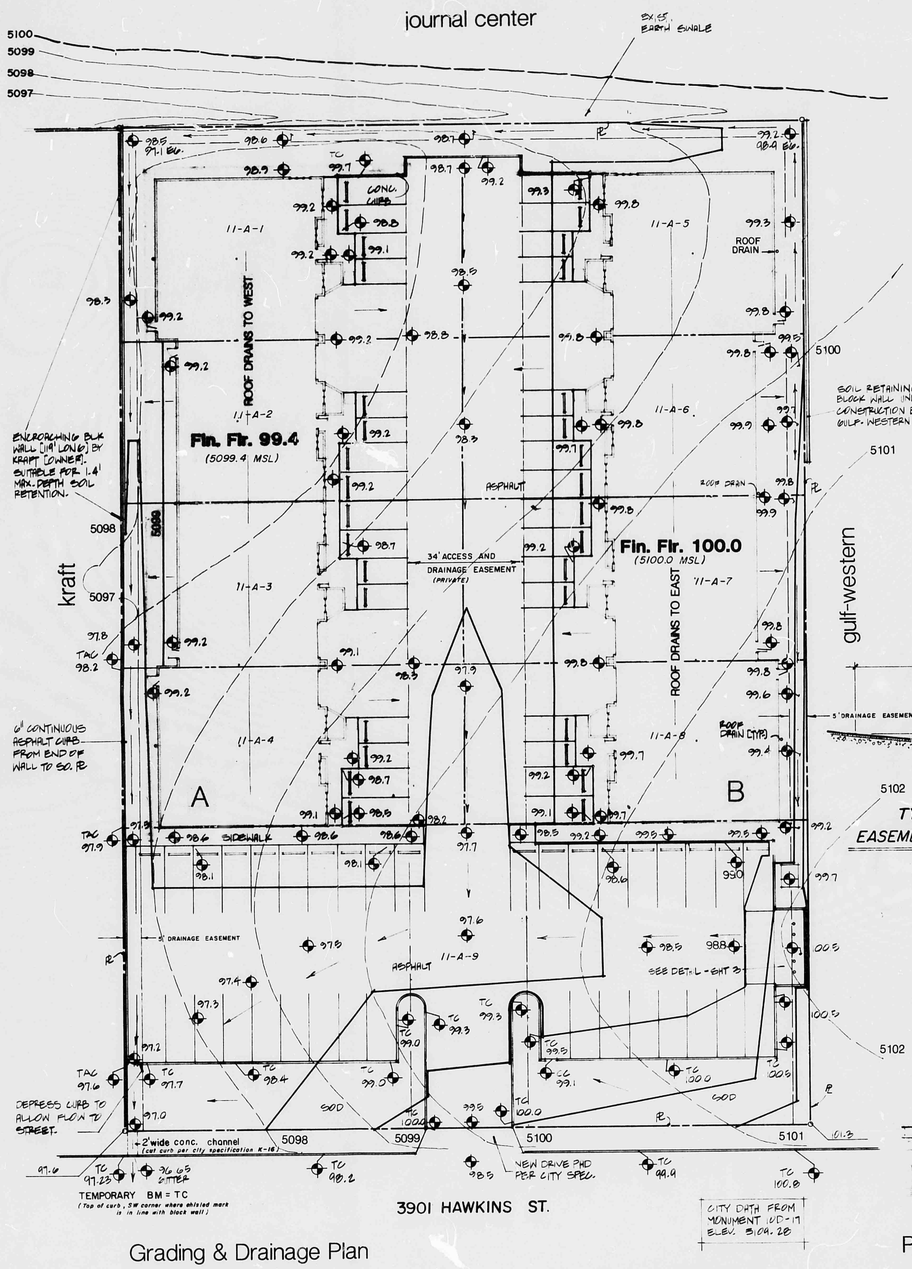
HYDROLOGY D17/D39 BILL SICKEL OFFICE WAREHOUSE

D17/D39

BILL SICKEL

OFFICE WARE-
HOUSE

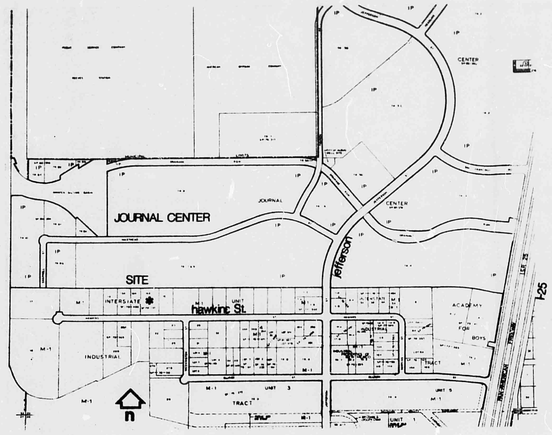
1 PLAN



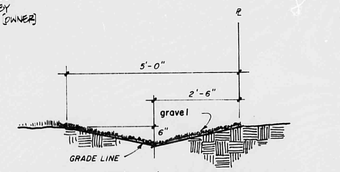
Grading & Drainage Plan

1" = 20'

NOTE LOT 11-A-9 RESERVED AS A PRIVATE DRAINAGE EASEMENT.

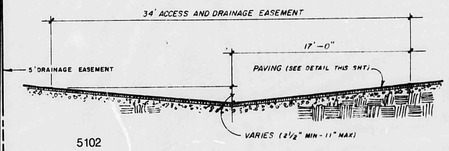


Area Map D-17



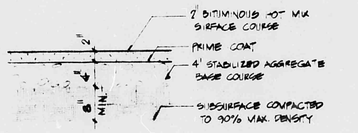
TYPICAL SWALE CROSS-SECTION

SCALE 1" = 2'-0"



TYPICAL ACCESS AND DRAINAGE EASEMENT SWALE CROSS-SECTION

NO SCALE



Paving Detail

CHANNEL RELEASE CALC

Q = Cd A 2gH

Q = (0.61)(.33) x 2 x 32.2 x 0.67

= 5.25 cfs < 7.28

NOTE: BECAUSE Lot 9 IS A DRAINAGE Esmt WATER CAN BACK UP

SITE INFORMATION SHEET

project title	BILL SIRKEL OFFICE WAREHOUSE
type of submittal	GRADING AND DRAINAGE PLAN
zone atlas page	D-17-Z
city address	3901 HAWKINS ST NE
legal description	LOT 11-A, UNIT IV, OF THE INTERSTATE INDUSTRIAL TRACT.
engineer	RICHARD HALL ENGINEERING COMPANY 2625 PENNSYLVANIA AVE. NE 884-6200
owner	BILL SIRKEL 3800 ACADEMY PARKWAY SOUTH NE 345-8891
architect	KNIGHT SEAVEY AIA,AICP 556 ROADRUNNER LANE NE 884-5573 299-7179
surveyor	RICHARD HALL ENGINEERING COMPANY 2625 PENNSYLVANIA AVE NE 884-6200
contractor	
general information	PLANNING HISTORY: NONE IN THE LAST FIVE YEARS SINCE LOT CREATED MARCH 14, 1978. THIS SITE IS NOT WITHIN THE H.U.D. FLOOD HAZARD BOUNDARY AS SHOWN ON MAPS. IN PRELIMINARY DISCUSSIONS WITH THE CITY OF ALBUQUERQUE, IT HAS BEEN DETERMINED THAT THERE SHALL BE NO PONDING ON SITE. SOILS REPORT WAS PREPARED BY F.M. FOX AND ASSOCIATES ON FEB 10, 1983 AND IS AVAILABLE UPON REQUEST. WATER SHED AREA TAKEN IN FIELD. ALL WATER FLOWS TO A.M.A.F.C.A. NORTH DIVERSION CHANNEL.

LEGEND

existing grade
finish grade
finish spot elevation
flow line
property line

DRAINAGE CALCULATIONS

existing conditions

A = 1.36
C = 0.25
I_{100} = 5.4 in/hr

Q = CIA = 1.84

OFFSITE FLOWS FROM THE EAST

A = 2.90 ac.*
C = 0.25
I_{100} = 5.4 in/hr

Q = CIA = 3.92 cfs

* NOTE: THIS LOT IS CURRENTLY UNDER DEVELOPMENT AND ALL FLOWS WILL BE CONTAINED ON SITE AND THEN CONDUCTED TO THE STREET.

TOTAL Q OF EXISTING CONDITIONS = 5.9 cfs

proposed conditions

IMPERVIOUS AREA = 57,115 SQUARE FEET
OPEN AREA = 2200 SQUARE FEET

A = 1.36 ac.
C = 1.0
I_{100} = 5.4 in/hr

Q = CIA = 7.3 cfs

TOTAL FLOW TO STREET

OFFSITE FLOWS	5.9 cfs
ONSITE FLOWS	7.3 cfs
TOTAL	11.2 cfs

NOTE: THIS TOTAL WILL BE 7.28 WHEN LOT TO EAST IS COMPLETE

NO PONDING ON SITE.

GUIDE SPECIFICATION 10 EARTHWORK
(REFER TO SPECIFICATION MANUAL; DIVISION 2 FOR COMPLETE SPECIFICATION)

1. THE FILL MATERIALS SHALL BE GRAVEL, SAND, SILT, OR CLAY MIXTURES WHICH HAVE A PLASTICITY INDEX NOT GREATER THAN 12 AND A LIQUID LIMIT NOT GREATER THAN 20. MATERIAL LARGER THAN 5 INCHES SHALL NOT BE PLACED IN THE FILL, AND MATERIAL LARGER THAN 4 INCHES SHALL NOT BE PLACED WITHIN ONE FOOT OF THE BEARING SURFACES OF SLABS OR FOUNDATIONS. MATERIALS SHALL BE APPROVED BY THE SOILS ENGINEER OR THE ARCHITECT. MAN-MADE FILL LOCATED ON THE SITE CAN BE USED AS STRUCTURALLY CONTROLLED FILL, IF ALL ORGANICS ENCOUNTERED ARE REMOVED.

2. PRIOR TO PLACEMENT OF FOOTINGS AND STRUCTURALLY CONTROLLED FILL, ALL OF THE MAN-MADE FILL LOCATED WITHIN THE BUILDING AREAS SHOULD BE EXCAVATED DOWN TO THE NATURAL SOILS. THE EXCAVATION OF THE BUILDING AREAS SHOULD EXTEND HORIZONTALLY FROM ALL BUILDING LINES A DISTANCE EQUAL TO THE DEPTH OF THE FILL TO BE PLACED. THE RESULTING EXCAVATED SURFACES SHOULD THEN BE SCARIFIED, BROUGHT TO OPTIMUM MOISTURE CONTENT (±2%) FOR AS DEEP AS PRACTICABLE, AND COMPACTED TO A MINIMUM, OF 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557, USING A HEAVY STATIC ROLLER. ALL STRUCTURAL FILL FOR FOUNDATION SUPPORT SHOULD BE PLACED AND COMPACTED AS DETAILED ELSEWHERE IN THIS GUIDE SPECIFICATION.

3. PRIOR TO THE PLACEMENT OF SITE FILL, AND SUBSEQUENT TO FINAL GRADING IN CUT SECTIONS, THE NATURAL GROUND SHALL BE SCARIFIED, BROUGHT TO OPTIMUM MOISTURE CONTENT (±2%) FOR AS DEEP AS PRACTICABLE, AND COMPACTED USING A HEAVY STATIC ROLLER TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557. VEGETATION AND TOPSOIL SHALL BE REMOVED BEFORE BEGINNING PREPARATION OF NATURAL GROUND.

4. NO BRUSH, SOD, FROZEN MATERIAL, OR OTHER PERISHABLE OR UNSUITABLE MATERIAL SHALL BE PLACED IN FILL. DISTRIBUTION OF MATERIAL SHALL BE SUCH AS TO AVOID LENSES DIFFERING SUBSTANTIALLY FROM THE SURROUNDING MATERIAL. THE MATERIALS SHALL BE DELIVERED TO THE FILL IN SUCH A MANNER AS TO RESULT IN A WELL AND UNIFORMLY COMPACTED FILL.

   BEFORE COMPACTING, THE FILL MATERIAL SHALL BE SPREAD IN APPROXIMATELY HORIZONTAL LAYERS NOT GREATER THAN 8 INCHES THICK.

5. THE MATERIAL WHILE BEING COMPACTED, SHALL CONTAIN THE OPTIMUM MOISTURE FOR COMPACTION DISTRIBUTED UNIFORMLY THROUGHOUT THE LAYERS. THE CONTRACTOR SHALL BE REQUIRED TO ADD MOISTURE TO THE MATERIAL IN THE EXCAVATION IF, IN THE OPINION OF THE SOILS ENGINEER OR ARCHITECT, IT IS NOT POSSIBLE TO OBTAIN PROPER AND UNIFORM MOISTURE BY ADDING WATER ON THE FILL SURFACE.

6. WHEN THE MOISTURE CONTENT AND CONDITION OF EACH INDIVIDUAL LAYER IS SATISFACTORY, IT SHALL BE COMPACTED BY A METHOD AS DISCUSSED HEREIN. AT THE EXPENSE OF THE GENERAL CONTRACTOR, A PROCTOR TEST SHALL BE PERFORMED ON EACH TYPICAL FILL MATERIAL AND FREQUENT DENSITY TESTS OF THE FILL SHALL BE TAKEN; AT THE DIRECTION OF THE ARCHITECT.

   WHEN COMPACTING COHESIONLESS, FREE-DRAINING MATERIALS SUCH AS SANDS AND GRAVELS, THE MATERIAL SHALL BE DEPOSITED IN LAYERS AND COMPACTED BY TREADS OF CRAWLER-TYPE TRACTOR, SMOOTH OR PNEUMATIC ROLLERS, HAND OR POWER TAMPERS OR BY OTHER MEANS APPROVED BY THE SOILS ENGINEER. THE THICKNESS OF THE HORIZONTAL LAYERS AFTER COMPACTION SHALL NOT EXCEED 6 INCHES COMPACTED THICKNESS IF COMPACTION IS PERFORMED BY METHODS DESCRIBED ABOVE. THE MATERIAL MAY BE PONDED OR FLOODED ONLY IF FREE DRAINING MATERIAL UNDERLIES THE NEW FILL.

   THE USE OF VIBRATORY COMPACTION TECHNIQUES IS NOT RECOMMENDED DUE TO THE PROXIMITY OF THE PRESENT COMMERCIAL STRUCTURE LOCATED WEST OF THE SITE.

7. FILL PLACED FOR FOUNDATION SUPPORT SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.

   FILL PLACED FOR SLAB SUPPORT SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.

8. DESIGN BEARING CAPACITY = 2000 PSF

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF THE SITE PLAN, AND BUILDING LOCATIONS ON THE PROPERTY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND ADEQUETE SHORING FOR ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION.
3. ALL TRADES SHALL COORDINATE AND VERIFY ALL OPENINGS IN FLOORS, ROOF AND WALLS WITH THE GENERAL CONTRACTOR AND ARCHITECT.
4. WHERE CONFLICT OCCURS BETWEEN SPECIFICATIONS, CODES, NOTES AND WORKING DRAWINGS, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

D17/D39

RECEIVED
JAN 14 1983
ENGINEERING

APRIL 21 | 83

STATE OF NEW MEXICO
KNIGHT L. SEAVEY
No. 1470
REGISTERED ARCHITECT

Knight Seavey Design

Sirkel Office-Warehouse
Condominium at Academy Park

Grading-Drainage

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