

DRAINAGE INFORMATION SHEET

1122

PROJECT TITLE: GREENHOUSE FOR THE RIO GRANDE 200 ZONE ATLAS/DRNG.FILE #: K-13/P27LEGAL DESCRIPTION: NOT AVAILABLECITY ADDRESS: 14th & STOVER (1323 STOVER SW)ENGINEERING FIRM: CHAVEZ-GRIEVES CONTACT: RICARDO SANCHEZADDRESS: 4600-C MONTGOMERY NE PHONE: 881-7376OWNER: CITY OF ABQ CONTACT: JOHN MOOREADDRESS: 903 10th SW PHONE: _____ARCHITECT: DALE CRAWFORD CONTACT: DALE CRAWFORDADDRESS: 117 JEFFERSON PHONE: 266-0986SURVEYOR: CITY OF ABQ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

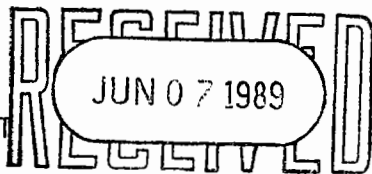
☒ YES VERBAL: VICTOR CHAVEZ & FRED AGUIRRE☒ NOCOPY OF CONFERENCE RECAP
SHEET PROVIDED

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT☒ DRAINAGE PLAN **HYDROLOGY SECTION**☐ CONCEPTUAL GRADING & DRAINAGE PLAN☒ GRADING PLAN☐ EROSION CONTROL PLAN☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ SITE DEVELOPMENT PLAN APPROVAL☐ FINAL PLAT APPROVAL☒ BUILDING PERMIT APPROVAL☐ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVAL☐ OTHER _____ (SPECIFY)DATE SUBMITTED: 6/7/89BY: [Signature]



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

CLARENCE V. LITHGOW
CHIEF
ADMINISTRATIVE OFFICER

DAN WEAKS
DEPUTY CAO
PUBLIC SERVICES

FRED E. MONDRAGON
DEPUTY CAO
DEVELOPMENT & ENTERPRISE SERVICES

RAY R. BACA
DEPUTY CAO
PUBLIC SAFETY

June 7, 1989

Victor Chavez, P.E.
Chavez-Grieves Consulting Engineers
4600-C Montgomery Boulevard, NE
Albuquerque, New Mexico 87109

RE: DRAINAGE PLAN SUBMITTAL OF THE RIO GRANDE ZOO GREENHOUSE
RECEIVED JUNE 7, 1989 (K-13/D27)

Dear Mr. Chavez:

The referenced plan with a revision date of June 7, 1989, is approved for Building Permit.

Please attach a copy of this plan to the construction sets prior to sign-off by Hydrology. Please advise the contractor that a final inspection will be required prior to release of the Certificate of Occupancy.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Fred J. Aguirre, P.E.
Hydrologist/Hydrology Section

FJA/bsj
(WP+1122)

KL3/027



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

CLARENCE V. LITHGOW
CHIEF
ADMINISTRATIVE OFFICER

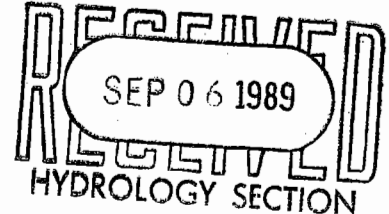
DAN WEAKS
DEPUTY CAO
PUBLIC SERVICES

FRED E. MONDRAGON
DEPUTY CAO
DEVELOPMENT & ENTERPRISE SERVICES

RAY R. BACA
DEPUTY CAO
PUBLIC SAFETY

September 5, 1989

PROJECT ACCEPTANCE LETTER



Alhambra Landscaping Company
8901 Edith N.E.
Albuquerque, NM 87113

RE: GREENHOUSE FOR RIO GRANDE ZOOLOGICAL PARK, PROJECT NO. 3659

Dear Cobb:

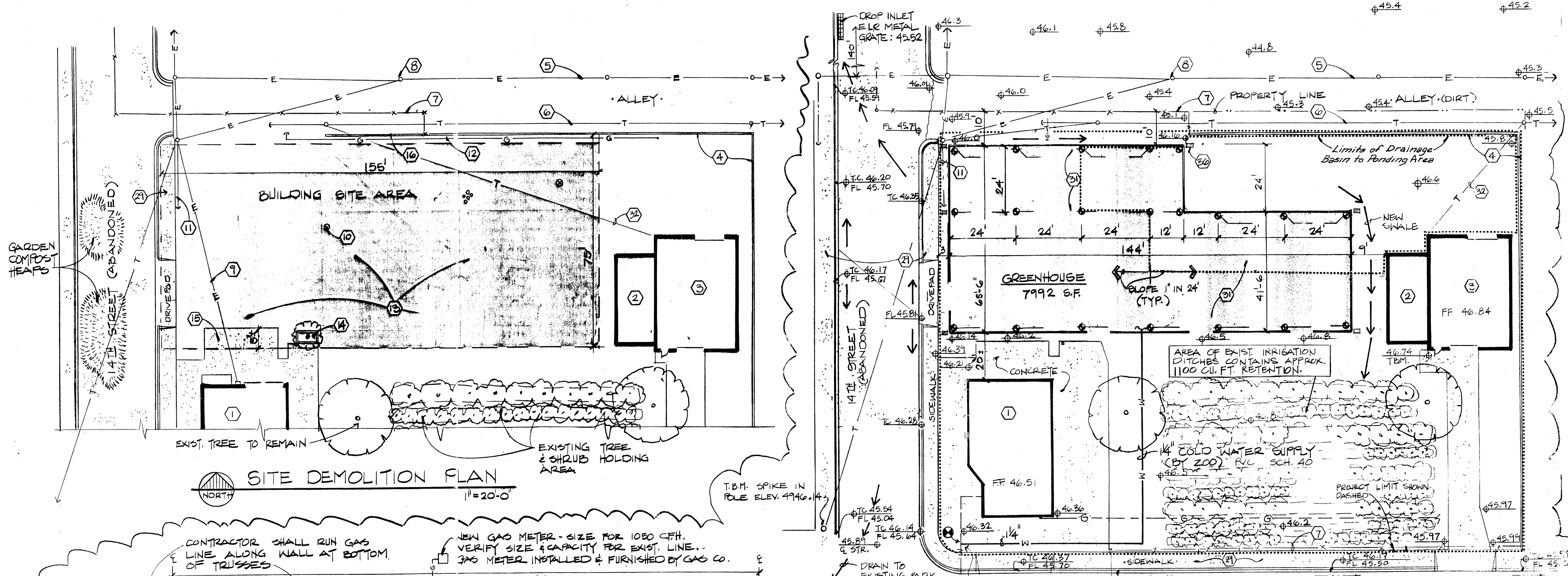
The above referenced project has been completed according to the plans and specifications. The project consisted of the construction of two connected greenhouses on concrete footings to include heating, cooling, lighting, and an automatic solid state control system.

The City of Albuquerque accepts the referenced project as a whole and the contractual correction period began August 3, 1989. The correction period on this project is for one (1) year.

Sincerely,

Russell B. Givler, P.E.
Chief Construction Engineer
Construction Management Division
Engineering Group
Public Works Department

RG:tp
INP137887



DRAINAGE PLAN
RIO GRANDE ZOO
GREEN HOUSE

LEGAL DESCRIPTION: 1323 STOVER AVENUE SW, RIO GRANDE ZOOLOGICAL PARK

LOCATION AND DESCRIPTION:
THE SITE IS LOCATED ON THE NE CORNER OF STOVER AVENUE AND 14TH STREET SW WITHIN THE RIO GRANDE ZOO PARK IN ALBUQUERQUE, NEW MEXICO. THE SITE, CONTAINING APPROXIMATELY 0.68 ACRES, IS PRESENTLY PARTIALLY DEVELOPED. EXISTING SLOPES ARE FROM THE CENTER OF THE SITE TO ALL DIRECTIONS AVERAGING 0.1 PERCENT. THE SITE IS LOCATED WITHIN FLOOD ZONE "B" AS SHOWN ON PANEL 28 OF THE FLOOD INSURANCE RATE MAP.

EXISTING CONDITIONS:
PRESENTLY, RUNOFF FROM THE SITE DISCHARGES INTO AN EXISTING ALLEY, STOVER AVENUE & 14TH STREET.

PROPOSED CONDITIONS:
PROPOSED DEVELOPMENT OF THE SITE INCLUDES A NEW GREEN HOUSE AND LANDSCAPING. A STORM WATER DETENTION POND WILL BE INCORPORATED INTO THIS DEVELOPMENT. THIS POND WILL BE DESIGNED TO PROTECT PROPERTY TO THE WEST FROM RUNOFF. DUE TO PROPOSED DEVELOPMENT, RUNOFF FROM THE SITE WILL INCREASE FROM 1.55 CFS TO 1.84 CFS.

CALCULATIONS: (BASED ON CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, VOLUME II)

Area = 0.6824 acres
I = 2.2 in./hr. Plate 22.2 D-2
6-hour, 100-year rainfall = 2.2 in. Plate 22.2 D-1
I = (2.2)(2.2) = 4.84 in./hr.

EXISTING ON-SITE CONDITIONS:		COMPOSITE	
SURFACE TYPE	"C" VALUE A (ACRES)	"C" X A	"C" = C X A/A
Streets, Drives, Walks	0.95 0.0822	0.0781	
Roofs	0.90 0.0500	0.0450	
Lawns & Landscaping	0.25 0.1377	0.0344	
Undeveloped	0.40 0.4125	0.1650	
TOTAL	0.6824	0.3225	0.4726

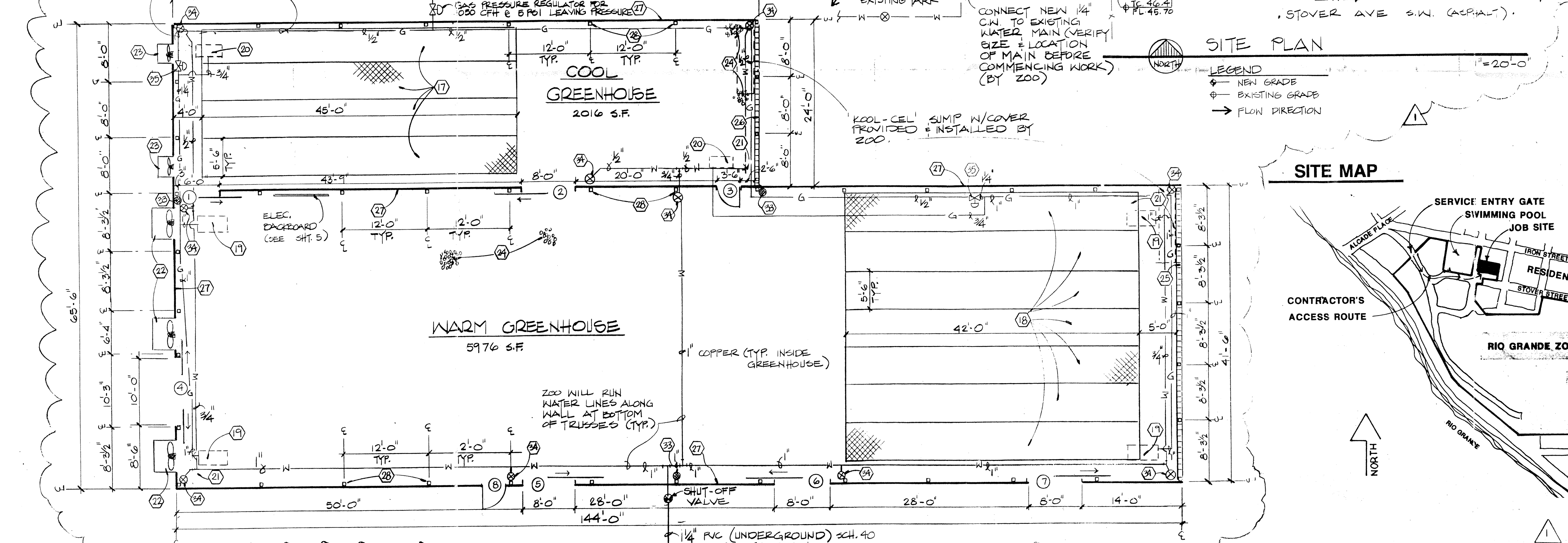
Q(100) = (0.47)(0.6824)(4.84) = 1.55 cfs
Q(10) = (0.657)(1.55) = 1.02 cfs
CN = 70 Plate 22.2 C-2
Direct Runoff = 0.33 in. Plate 22.2 C-4
V(100) = (0.33)(0.6824)(43560)/12 = 814.6 cu. ft.
V(10) = (0.657)(814.6) = 535.2 cu. ft.

PROPOSED ON-SITE CONDITIONS:		COMPOSITE	
SURFACE TYPE	"C" VALUE A (ACRES)	"C" X A	"C" = C X A/A
Streets, Drives, Walks	0.95 0.0822	0.0781	
Roofs	0.90 0.2413	0.2172	
Lawns & Landscaping	0.25 0.3589	0.0897	
Undeveloped	0.40 0.0000	0.0000	
TOTAL	0.6824	0.3850	0.5642

Q(100) = (0.56)(0.6824)(4.84) = 1.84 cfs
Q(10) = (0.657)(1.84) = 1.21 cfs
CN = 72 Plate 22.2 C-3
Direct Runoff = 0.35 in. Plate 22.2 C-4
V(100) = (0.35)(0.6824)(43560)/12 = 863.94 cu. ft.
V(10) = (0.657)(863.94) = 567.61 cu. ft.

WATER RETENTION AREA REQUIRED:
CN = 0.85
Direct Runoff = 0.90
V(100) = 6400 ft.² x 0.90 x 2.2 x 1 ft/12 inches = 1056 ft.³ (82.2 inches rain)

ACTUAL RETENTION AREA PROVIDED (EXISTING TREE FARM)
13 trenches each 1.17" wide X 110' long X 0.66" deep = 1100 ft.³



REVISION #1

LOCATION MAP

REVISION #1

STATE OF NEW MEXICO
REGISTERED ARCHITECT
357

DRAWN BY: DAN JONES
DATE: NOV. 1988
CHECKED BY: D.L.C.

RIO GRANDE ZOO GREENHOUSE
CITY OF ALBUQUERQUE

SITE PLAN, FLOOR PLAN, DOOR SCHEDULE

DALE CRAWFORD & ASSOC.
117 JEFFERSON NE
ALBUQUERQUE, N.M. 87108

ARCHITECTS
PLANNERS

SHT. NO. 2 OF 5

RECEIVED
JUN 07 1989
HYDROLOGY SECTION