

CITY OF
Albuquerque
Public Works Department
June 30, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Graeme Means
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**RE: DOUBLE RAINBOW II PARKING LOT (F21-D67) GRADING AND DRAINAGE PLAN
GRADING PERMIT, AND PAVING PERMIT APPROVALS. ENGINEER'S STAMP
DATED 6-25-97.**

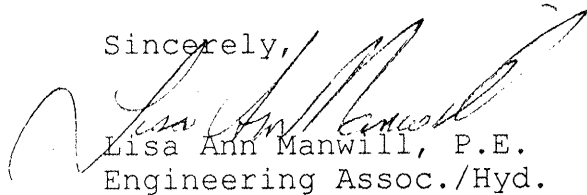
Dear Graeme:

Based on the information provided on your June 25, 1997 submittal, the above referenced project is approved for grading and paving permits.

Please provide this office with an Engineer's Certification upon completion.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103



PROJECT TITLE: DOUBLE RAINBOW II PARKING ZONE ATLAS/DRNG. FILE #: F-21/D67

DRB #: 96-330 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: LOT 21, LANDS OF FERRARI, ESQUIVEL AND PALMER

CITY ADDRESS: JUAN TABO BLVD N.E.

ENGINEERING FIRM: JMA CONTACT: GRAEME MEANS

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

OWNER: MARK & JEAN BERNSTEIN CONTACT: ARCHITECT

ADDRESS: _____ PHONE: _____

ARCHITECT: ED FITZGERALD ARCHITECTS CONTACT: ED FITZGERALD

ADDRESS: 2225 LEAD AVE S.E. PHONE: 268-9055

SURVEYOR: JMA CONTACT: CHUCK CALA

ADDRESS: _____ PHONE: 345-4250

CONTRACTOR: NOT DETERMINED CONTACT: _____

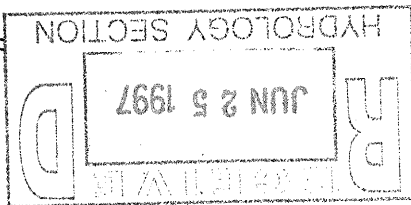
ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

- ☐ YES
☒ NO
☐ COPY PROVIDED



CHECK TYPE OF APPROVAL SOUGHT:

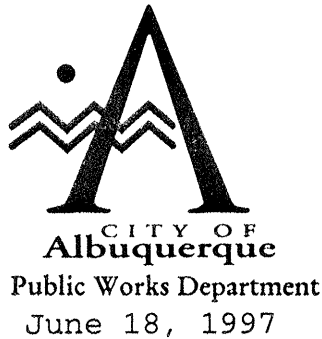
- ☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☒ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

XC: MARK & JEAN BERNSTEIN

XC: ED FITZGERALD

DATE SUBMITTED: 06-25-97

BY: JEFF PETERSON



Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Graeme Means
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**RE: DOUBLE RAINBOW II PARKING LOT (F21-D67) GRADING AND DRAINAGE PLAN
GRADING PERMIT, AND PAVING PERMIT APPROVALS. ENGINEER'S STAMP
DATED 6-12-97.**

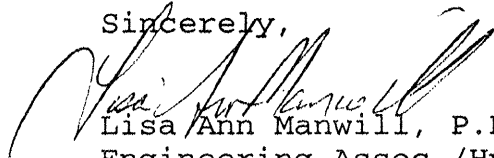
Dear Graeme:

Based on the information provided on your June 13, 1997 submittal,
City Hydrology has the following comments:

1. Why are you using infiltration? Developed flow can not be used for water harvesting.
2. I am confused by calculation IX (B). Where does 3.1 cfs come from?

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103



PROJECT TITLE: DOUBLE RAINBOW II PARKING ZONE ATLAS/DRNG. FILE #: F-21/D67DRB #: 96-330 EPC #: _____ WORK ORDER #: _____LEGAL DESCRIPTION: LOT 21, LANDS OF FERRARI, ESQUIBEL AND PALMERCITY ADDRESS: JUAN TABO BLVD N.E.ENGINEERING FIRM: JMA CONTACT: GRAEME MEANSADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250OWNER: MARK & JEAN BERNSTEIN CONTACT: ARCHITECT

ADDRESS: _____ PHONE: _____

ARCHITECT: ED FITZGERALD ARCHITECTS CONTACT: ED FITZGERALDADDRESS: 2225 LEAD AVE S.E. PHONE: 268-9055SURVEYOR: JMA CONTACT: CHUCK CALAADDRESS: _____ PHONE: 345-4250

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

- ☐ YES
☒ NO
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☒ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

XC: ED FITZGERALDDATE SUBMITTED: 07/25/96BY: J. GRAEME MEANS

GRADING AND DRAINAGE EASEMENT AGREEMENT

THIS AGREEMENT is made this 30 day of August, 1994, by and between ROSEANNE PALMER LA FON, a married woman dealing with her sole and separate property (hereinafter "La Fon"), and ~~ROGER SMITH~~ (hereinafter "Smith"). *RHS Properties Inc* *RHS*

WHEREAS, Smith is fee simple owner of Lot 22, Lands of Ferrari, Esquibel and Palmer (hereinafter "Lot 22") across which La Fon desires a permanent drainage easement; and

WHEREAS, La Fon is fee simple owner of Lot 21, Lands of Ferrari, Esquibel and Palmer (hereinafter "Lot 21") across which Smith desires an easement for grading; and

WHEREAS, Smith and La Fon are willing to grant to one another said easements.

NOW, THEREFORE, in consideration of the mutual agreements hereinbelow, Smith and La Fon agree as follows:

1. La Fon grants to Smith a temporary easement for the sole purpose of grading and maintaining a drainage channel along the Southern Boundary of Lot 21 as more particularly shown on the grading and drainage plan which is attached hereto as Exhibit "A" and is incorporated by reference herein (hereinafter the "Grading Easement").

2. Smith grants to La Fon a permanent drainage easement along the Western Boundary of Lot 22 as more particularly shown on the attached Exhibit "A" (hereinafter the "Drainage Easement") for the purpose of accepting the surface drainage that is flowing across and from Lot 21 onto Lot 22.

JUL 25 1994

3. The Grading Easement is temporary and shall terminate upon completion of the grading on Lot 21 or on August 30, 1995, whichever occurs earlier; provided, however, that Smith and his successors and assigns shall remain responsible for all future costs associated with maintaining the drainage channel in proper working order.

5. Smith shall bear all costs associated with the grading on Lot 21 and shall hold harmless and defend La Fon from any and all injuries, claims, liability and property damage resulting from the grading on Lot 21 and the maintenance of the drainage channel.

6. Any soil excavated during Smith's grading on Lot 21 shall be uniformly distributed on Lot 21 in a manner that does not create a nuisance or shall be stockpiled on Lot 21 at a location designated by La Fon.

7. Smith, its agents and employees shall not utilize existing fill material located on Lot 21 in the development of Lot 22.

8. Grading on Lot 21 shall be performed by Smith, its agents or employees in a manner providing for gradual sloping and shall not diminish the value of Lot 21.

9. If at any time Lot 21 must be re-graded to comply with governmental drainage requirements for any reason including, but not limited to, the development of Lot 21, Smith shall bear the cost of such grading and re-design up to Three Thousand and No/100ths Dollars (\$3,000.00).

10. The Drainage Easement shall be perpetual, shall run with the land and shall be binding upon and inure to the benefit of the successors and assigns of the parties hereto.

11. Smith shall bear all costs associated with the construction and maintenance of the Drainage Easement and shall maintain the easement in a manner that does not impede drainage from Lot 21.

12. Smith shall cause the Drainage Easement to be included in a plat of Lot 22 at Smith's sole cost and expense.

IN WITNESS WHEREOF, the parties hereto have set their hands on the date first written above.

Roseanne Palmer La Fon
ROSEANNE PALMER LA FON

Roger Smith
ROGER SMITH, President
~~Roger H~~ RHS Properties inc

STATE OF NEW MEXICO)
COUNTY OF Sandoval) ss.

This instrument was acknowledged before me on 8-30-94, 1994, by Roseanne Palmer La Fon.

Gerald L. Collins
NOTARY PUBLIC

My Commission Expires:
STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD



OFFICIAL SEAL
GERALD L. COLLINS
NOTARY PUBLIC - STATE OF NEW MEXICO
Notary Bond Filed With Secretary of State
My Commission Expires 10-29-95

1994 SEP 14 PM 3:31

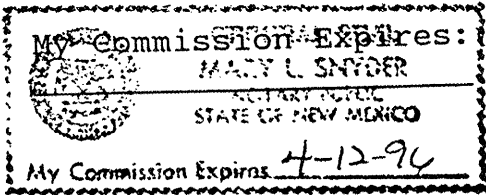
94-26-5058-
JUDY D. WOOD 5063
J. Jaraman

STATE OF NEW MEXICO)
COUNTY OF Bernalillo) ss.

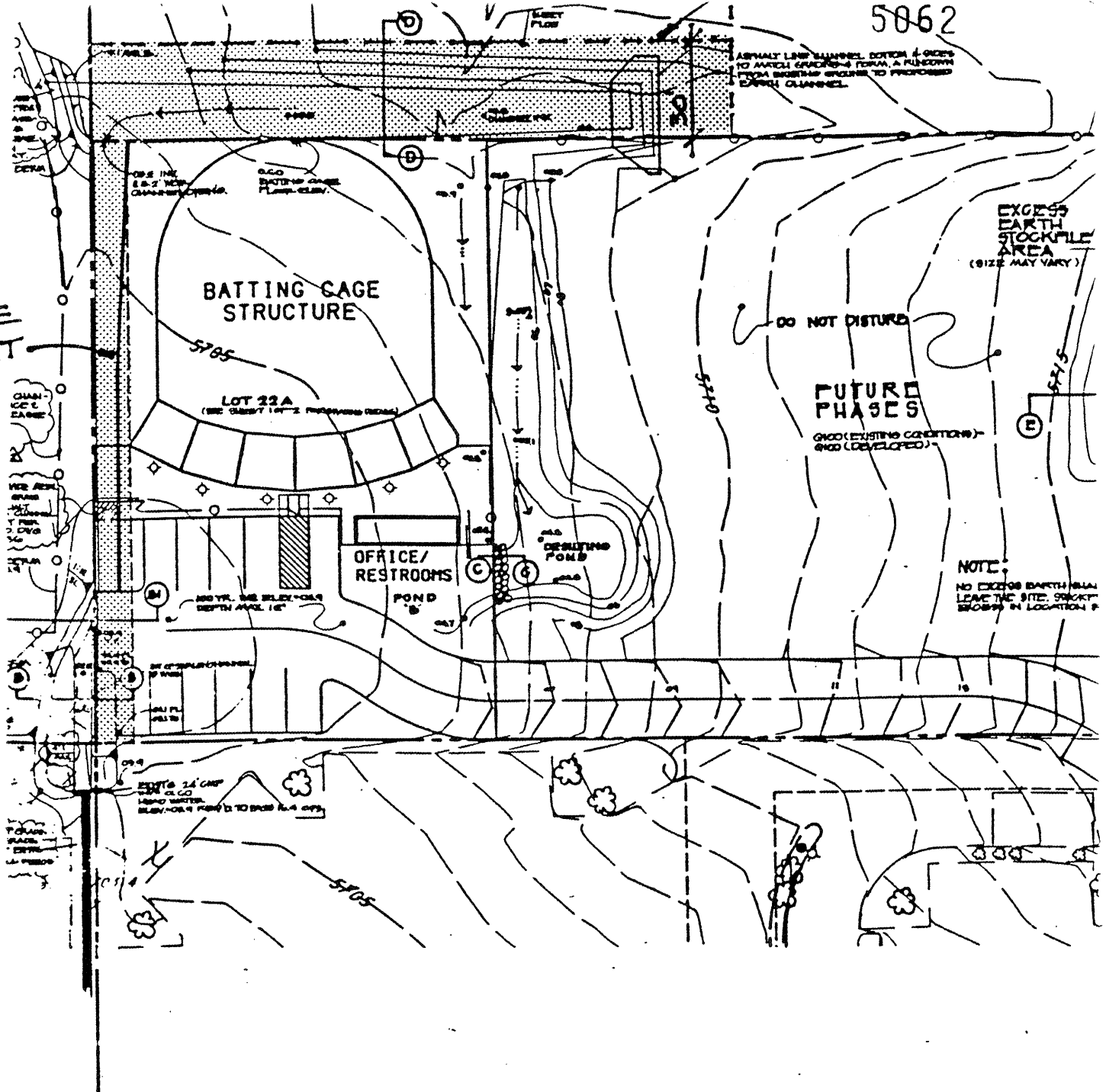
This instrument was acknowledged before me on

August 30, 1994, by Roger Smith.

Mary L. Snyder
NOTARY PUBLIC



WIDE
DRAINAGE
CEMENT
R USE
LOT
21





CITY OF
Albuquerque
August 15, 1996

Martin J. Chávez, Mayor

Graeme Means
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**RE: DOUBLE RAINBOW II PARKING LOT (F21-D67) GRADING AND DRAINAGE PLAN
FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT, GRADING PERMIT,
AND PAVING PERMIT APPROVALS. ENGINEER'S STAMP DATED 7-25-96.**

Dear Graeme:

Based on the information provided on your July 25, 1996 submittal, the above referenced project is approved for Site Development Plan for Building Permit, Grading Permit, and Paving Permit.

Please provide this office with an Engineer's Certification upon completion of the project.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!





CITY OF
Albuquerque
July 17, 1996

Martin J. Chávez, Mayor

Graeme Means
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**RE: DOUBLE RAINBOW II PARKING LOT (F21-D67) GRADING AND DRAINAGE PLAN
FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT, GRADING PERMIT, AND
PAVING PERMIT APPROVALS. ENGINEER'S STAMP DATED 6-27-96.**

Dear Graeme:

Based on the information provided on your June 27, 1996 submittal, City Hydrology has the following comments:

1. It appears that the Grading and Drainage Easement Agreement between lots 21 and 22 was temporary and expired August 30, 1995.
2. How much offsite flow enters the site?
3. No water harvesting will be allowed. If you want use the storm water for irrigation purposes, than you can release less water from you pond. The 4-inch discharge line will be a maintenance problem for the owner. I suggest using a larger pipe with an orifice plate to control your discharge.
4. Please discuss the storm water path once it leaves this site. Does it eventually get to Montgomery?

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Mark & Jean Bernstein - Owners
Andrew Garcia
File

Good for You, Albuquerque!



Grant of Private Drainage Easement between MINATO INC. (USA), a New Mexico corporation, ("Minato") owner of Lot B, Minato Square, whose address is 10721 Montgomery NE, Albuquerque, N.M. 87111, SANDIA ENTERPRISES, INC., a New Mexico corporation ("Sandia") owner of Lot A, Minato Square, whose address is 11013 Double Eagle, NE, Albuquerque, New Mexico, 87111 [Minato and Sandia are collectively referred to herein as "Grantors"], RBS PROPERTIES, INC., a New Mexico corporation, current owner, and future owners of Lot 22, Replat of Lands of Ferrari, Esquibel and Palmer ("Grantee"), whose address is 4101 Morris NE, Albuquerque, N.M. 87111.

1. Grantors grant to Grantee a non-exclusive permanent 10' wide private drainage easement ("Easement") in, over upon and across the portions of Lots A and B, Minato Square, as shown on the Plat of Minato Square recorded in the Bernalillo County, New Mexico real estate records on April 22, 1987, in Vol. C33, Folio 105, as depicted on Exhibits "A" and "B" attached hereto. The Easement is provided for the acceptance of developed drainage from Grantee. The existing 24" RCP pipe will be extended into Lot 22 and minor grading will be conducted within the easement to direct run-off into the pipe. The graded area will be grassed over to the reasonable satisfaction of Grantors. The construction, maintenance, repair, modification or replacement of this graded and extended pipe area shall be the responsibility of the owner or owners of Lot 22. The maintenance, repair, modification, replacement and operation of the existing 24" RCP pipe within this easement area shall be the responsibility of Minato for Lot B, Minato Square, and the responsibility of Sandia for Lot A, Minato Square.

2. Grantee agrees to release this drainage easement at such time as drainage from Lot 22 no longer needs to pass over the Minato Property.

3. Grantee agrees to defend, indemnify and hold harmless the Grantors, its agents and/or employees from and against any and all claims, actions, suits or proceedings of any kind brought against the Grantors as a result of Grantee's use of the Grantors' property. To the extent, if at all, Section 56-7-1, NMSA 1978 is applicable to this Easement, this agreement to indemnify will not extend to liability, claims, damages, losses or expense, including attorney's fees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the Grantors, or the agents or employees of the Grantors; or (2) the giving of or the failure to give direction or instructions by the Grantors, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD

1994 OCT -5 PM 12:43

BK PG
JUDY D. WOODWARD
CLERK

...expenses associated with culvert extension and subsequent additional landscaping removal and/or replacement as described in Exhibit A shall accrue to Grantee.

The grant and other provisions of this Easement constitute covenants running with the land for the benefit of future owners, its successors and assigns until terminated by Grantee.

GRANTORS:

SANDIA ENTERPRISE, INC., a New Mexico corporation
(Current Owner of Lot A)

By: [Signature]

YASUTAKA TERADA

Secretary/Treasurer

Date: 10-5-94

MINATO, INC. (USA),
a New Mexico corporation
(Current Owner of Lot B)

By: [Signature]

YASUTAKA TERADA

President

Date: 10-5-94

GRANTEE:

RHS Properties Inc. (Current Owner of Lot 22)

By: [Signature]

Its: [Signature]

Date: 10-5-94

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

)
) ss.
)

This instrument was acknowledged before me on October 5th, 1994, by Yasutaka Terada, Secretary/Treasurer of Sandia Enterprises, Inc., a New Mexico corporation, on behalf of said corporation.

My Commission Expires:

3-11-97



Laurie F. Bryan
Notary Public

OFFICIAL SEAL

LAURIE F. BRYAN

NOTARY PUBLIC - STATE OF NEW MEXICO

Notary Bond Filed with Secretary of State

My Commission Expires March 11, 1997

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on October 5, 1994, by Yasutaka Terada, President of Minato, Inc. (USA), a New Mexico corporation, on behalf of said corporation.

Laurie F. Bryan
Notary Public

My Commission Expires:

3-11-97



OFFICIAL SEAL
LAURIE F. BRYAN
NOTARY PUBLIC - STATE OF NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires 3-11-97

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on 10-5-94, 1994, by Rex H. Smith, President of RHS Properties, Inc, a Persian corporation on behalf of said corporation.

Rex H. Smith
Notary Public

My Commission Expires: -

July 25, 1998

LOT A

S89°53'36"E
10.00'

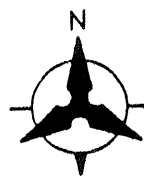
LOT B

MINATO SQUARE
FILED: APRIL 23, 1987
(C33-105)

10' PRIVATE
DRAINAGE EASEMENT
1,569 SQ. FT.

A.C.S. STA. "21-F21"
GEOGRAPHIC POSITION (NAD 1927)
N.M. STATE PLANE COORDINATES (CENTRAL ZONE)
X=419,821.67 Y=1,502,893.70
GRND. TO GRID FACTOR=0.9996352
ΔCC= -0°09'15"
ELEVATION=5690.558

Existing 10' Water
Line Easement
Filed: April 10, 1986
(C30-22)



50 25 0 50
SCALE: 1" = 50'

TRACT "B-1"
FILED: APRIL 10, 1986
(C30-22)

N00°11'38"E
S00°11'38"W
156.90'

S77°54'57"W
255.12'

N89°53'36"W
10.00'

MONTGOMERY BLVD. N.E. (106' R.O.W.)

DESCRIPTION

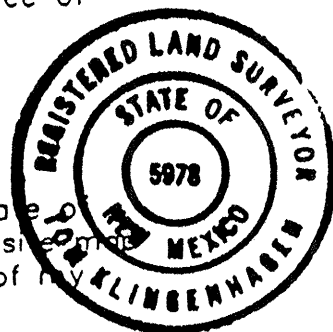
A certain tract of land situate within the southeast one-quarter of Section 33, T11N, R4E, N.M.P.M., City of Albuquerque, Bernalillo County, New Mexico. Said tract being a portion of Lot B, MINATO SQUARE, as the same is shown and designated on the plat filed in the office of the County Clerk of Bernalillo County, New Mexico on April 23, 1987, in Volume C33, folio 105, and being more particularly described by New Mexico State Plane Grid Bearings (Central Zone) and ground distances as follows:

BEGINNING at a point on the northerly right-of-way line of Montgomery Blvd. N.E., said point being the southeast corner of the tract herein described, the southeast corner of said Lot B, and also the southwest corner of Tract B-1, REPLAT OF TRACT B OF THE N.W. CORNER OF MONTGOMERY & JUAN TABO BLVDS., N.E., as the same is shown and designated on the plat filed in the office of the County Clerk of Bernalillo County, New Mexico on April 10, 1986, in Volume C30, folio 22, whence the City of Albuquerque survey monument "21-F21", a brass tablet in concrete, having New Mexico State Plane Grid Coordinates for the Central Zone: X=419,821.67, Y=1,502,893.70, bears S77°54'57"W a distance of 255.12 feet; thence along the said northerly right-of-way line and the southerly property line of said Lot B, N89°53'36"W a distance of 10.00 feet to a point; thence N00°11'38"E a distance of 156.90 feet to a point; thence S89°53'36"E a distance of 10.00 feet to a point on the easterly property line of said Lot B; thence along the said easterly property line, S00°11'38"W a distance of 156.90 feet to the point and place of beginning.

This tract contains 1,569 sq. ft., more or less.

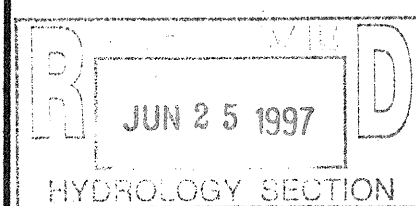
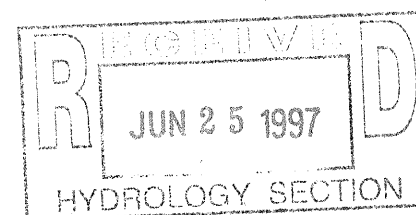
SURVEYOR'S CERTIFICATION

I, Thomas G. Klingenhagen, a registered surveyor in the State of New Mexico, hereby certify that the above description and site map was prepared by me and is true and correct to the best of my knowledge and belief.



BOHANNAN-HUSTON INC.
Courtyard 1
7500 Jefferson St. NE
Albuquerque, NM 87109

Thomas G. Klingenhagen
New Mexico Surveyor No. 5978

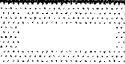



LEGAL DESCRIPTION
TRACT A, LANDS OF DOUBLE RAINBOW

PROJECT BENCHMARK
A STANDARD NMSHC BRASS TABLET STAMPED "JT-1A", SET IN THE TOP OF A CONCRETE POST FLUSH WITH THE GROUND AND LOCATED IN THE SOUTHERLY MEDIAN ON JUAN TABO BLVD., N.E. AND MONTGOMERY BLVD., N.E.
ELEVATION = 5721.25 FEET (M.S.L.D.)

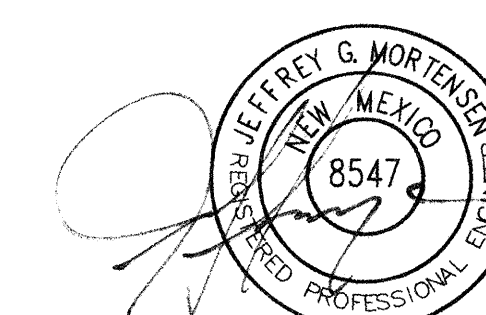
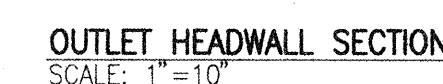
T.B.M.
A "□" CHISELED ON THE TOP BACK OF CURB AT THE END OF THE CONCRETE
CURB AS SHOWN ON THE DRAWING.
ELEVATION = 5721.17 FEET (M.S.L.D.)

LEGEND

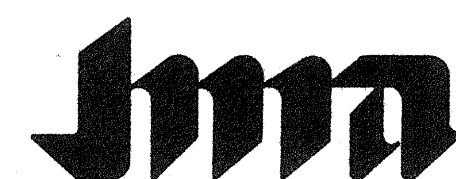
TC	TOP OF CURB
FL	FLOWLINE
TA	TOP OF ASPHALT
TW	TOP OF WALL
EA	EDGE OF ASPHALT
TAC	TOP OF ASPHALT CURB
+ 11.52	EXISTING SPOT ELEVATION
	EXISTING CONTOUR
	PROPOSED CONTOUR
● 14.30	PROPOSED SPOT ELEVATION
TC	PROPOSED TOP OF CURB
TA	PROPOSED TOP OF ASPHALT
← . . .	PROPOSED FLOW LINE
▲	PROPOSED SLOPE
	NEW ASPHALT
— . . . —	BASIN BOUNDARY
	CONCRETE

NOTES:

1. A TOPOGRAPHIC SURVEY WAS PERFORMED ON MAY 13, 1996 BY JEFF MORTENSEN & ASSOCIATES.
2. THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS BASED UPON THE REPLAT OF LANDS OF FERRARI-ESQUIBEL-PALMER, FILED 4-1-1985, C26-192.



06-12-97
06-25-97



JEFF MORTENSEN & ASSOCIATES, INC.
☐ 6010-B MIDWAY PARK BLVD. N.E.
☐ ALBUQUERQUE ☐ NEW MEXICO 87109
☐ ENGINEERS ☐ SURVEYORS (505) 345-4250

GRADING AND DRAINAGE PLAN

DOUBLE RAINBOW II PARKING LOT EXPANSION

DESIGNED BY	J.A.P.	NO.	DATE	BY	REVISIONS	JOB NO.
DRAWN BY	S.G.H./J.Y.R.	2	5/97	J.A.P.	EXPAND SITE PLAN	950514
APPROVED BY	J.G.M.					DATE 03-1997
						SHEET 1 OF 2

DRAINAGE PLAN

The following items concerning the Double Rainbow II Parking Expansion Drainage Plan are contained herein:

1. Vicinity Map
2. Grading Plan
3. Calculations
4. Details and Sections

As shown by the Vicinity Map, the site is located west of Juan Tabo Boulevard N.E. and north of Montgomery Boulevard N.E. Access to this site is from the east through the existing Double Rainbow Cafe. The proposed construction consists of a new parking lot expansion to serve the Double Rainbow Cafe. There will be new asphaltic concrete paving and associated landscaping associated with this new parking lot.

As shown by Panel 18 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the City of Albuquerque, New Mexico dated October 14, 1983, this site does not lie within a designated flood hazard zone.

Offsite flows do not enter the site from the west which lies topographically lower, from the south, which exhibits parallel topography, or from the east which contains all of its own runoff (see C.O.A. Hydrology File No. F21/D60). Offsite flows amounting to 4.7 cfs do enter the site from the north. These flows will not be blocked and will be allowed to pass through the site to their historic outfall at the southwest corner of the site.

The Grading Plan 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, and 4) continuity between existing and proposed grades. As shown by this plan, detention ponding is proposed to mitigate the increase in runoff attributable to the introduction of impervious area upon this site. Two private storm inlets are located at the bottom of this pond which will lie within the proposed parking lot. These inlets will be connected by an 18" HDPE perforated storm drain. The perforated pipe will allow a portion of the runoff to infiltrate into the soil located under the landscaped area. This storm drain system will drain via 8" PVC storm drain to the southwest. The discharge to this 8" storm drain will be restricted by a 8" orifice plate. The 8" pipe will outlet to an existing asphaltic concrete rundown located within an existing 10' private drainage easement which is accessible from the southwest corner of the site. This private drainage easement serves Lot 21 and will accept developed flows at a rate not to exceed 2.45 cfs per acre. This rate was established in City of Albuquerque Hydrology File F21/D62. The easement extends to the southwest corner of Lot 22A where a 24" RCP storm drain carries flows to Montgomery Blvd. N.E. which discharge via two 24" sidewalk culverts. This 24" storm drain is located within a 10' private drainage easement filed 10/05/94, doc# 94121165. As shown by the Detention Pond Calculations, the maximum discharge from the proposed parking lot expansion is 2.92 cfs which amounts to 2.34 cfs per acre. This is less than the allowable rate of 2.45 cfs per acre established by F21/D62.

The Calculations which appear hereon 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, there will be an increase in the peak rate and volume of runoff generated by this proposed development, however, this increase will be mitigated through detention ponding. The developed discharge from this site is well within the allowable maximum which was specified in City of Albuquerque Hydrology File F21/D62.

CALCULATIONS

Site Characteristics

I. Precipitation Zone = 4

II. $P_{6,100} = P_{360} = 2.90$ in.

III. Total Area (A_T) = 54,550 sf/1.25 ac

IV. Existing Land Treatment
Treatment C Area (sf/ac) 54,550/1.25 % 100

V. Developed Land Treatment
Treatment B Area (sf/ac) 3,900/0.09 % 07
C 9,460/0.22 % 17
D 41,190/0.94 % 76

VI. Existing Condition

A. Volume

$$E_W = (E_A^A + E_B^B + E_C^C + E_D^D) / A_T$$

$$E_W = (1.46)(1.25) / 1.25 = 1.46 \text{ in.}$$

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

$$V_{100} = (1.46 / 12) 1.25 = 0.1521 \text{ ac.ft.} / 6,620 \text{ cf}$$

B. Peak Discharge

$$Q_p = Q_{PA}^A + Q_{PB}^B + Q_{PC}^C + Q_{PD}^D$$

$$Q_p = Q_{100} = (3.73)(1.25) = 4.7 \text{ cfs}$$

C. Offsite Flows to be passed through site = 1.6 cfs

VII. Developed Condition

A. Volume

$$E_W = (E_A^A + E_B^B + E_C^C + E_D^D) / A_T$$

$$E_W = (1.08)(0.09) + (1.46)(0.22) + (2.64)(0.94) / 1.25 = 2.32 \text{ in.}$$

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

$$V_{100} = (2.32 / 12) 1.25 = 0.2417 \text{ ac.ft.} / 10,530 \text{ cf}$$

B. Peak Discharge

$$Q_p = Q_{PA}^A + Q_{PB}^B + Q_{PC}^C + Q_{PD}^D$$

$$Q_p = Q_{100} = (2.92)(0.09) + (3.73)(0.22) + (5.25)(0.94) = 6.0 \text{ cfs}$$

VIII. Offsite Flows

A = 0.62 ac

Land Treatment C

$$Q_{100} = (3.73)(0.43) = 1.6 \text{ cfs}$$

IX. Comparison

$$A. \Delta V_{100} = 10,530 - 6,620 = 3,910 \text{ cf (increase)}$$

$$B. \Delta Q_{100} = 4.7 - 3.1 = 1.6 \text{ cfs (decrease)}$$

X. Detention Ponding Calculations

A. Inlet Condition (Max W.S.L. = 10.5)

$$Q = CA(2gh)^{1/2}$$

$$C = 0.6, g = 32.2, h = 2.6, A = (1/2)(1.5)^2 = 1.77 \text{ sf}$$

$$Q = 13.74 \text{ cfs per inlet} >> Q_{100}$$

B. Entrance Condition (8" Orifice)

$$Q = CA(2gh)^{1/2}$$

$$C = 0.6, g = 32.2, h = 3.0, A = 0.35 \text{ sf}$$

$$Q = 2.92 \text{ cfs} = Q_{\text{release}}$$

C. Pond Volume

$$A_g = 0 \text{ sf}$$

$$A_{10} = 14,890 \text{ sf}$$

$$A_{10.5} = 17,080 \text{ sf}$$

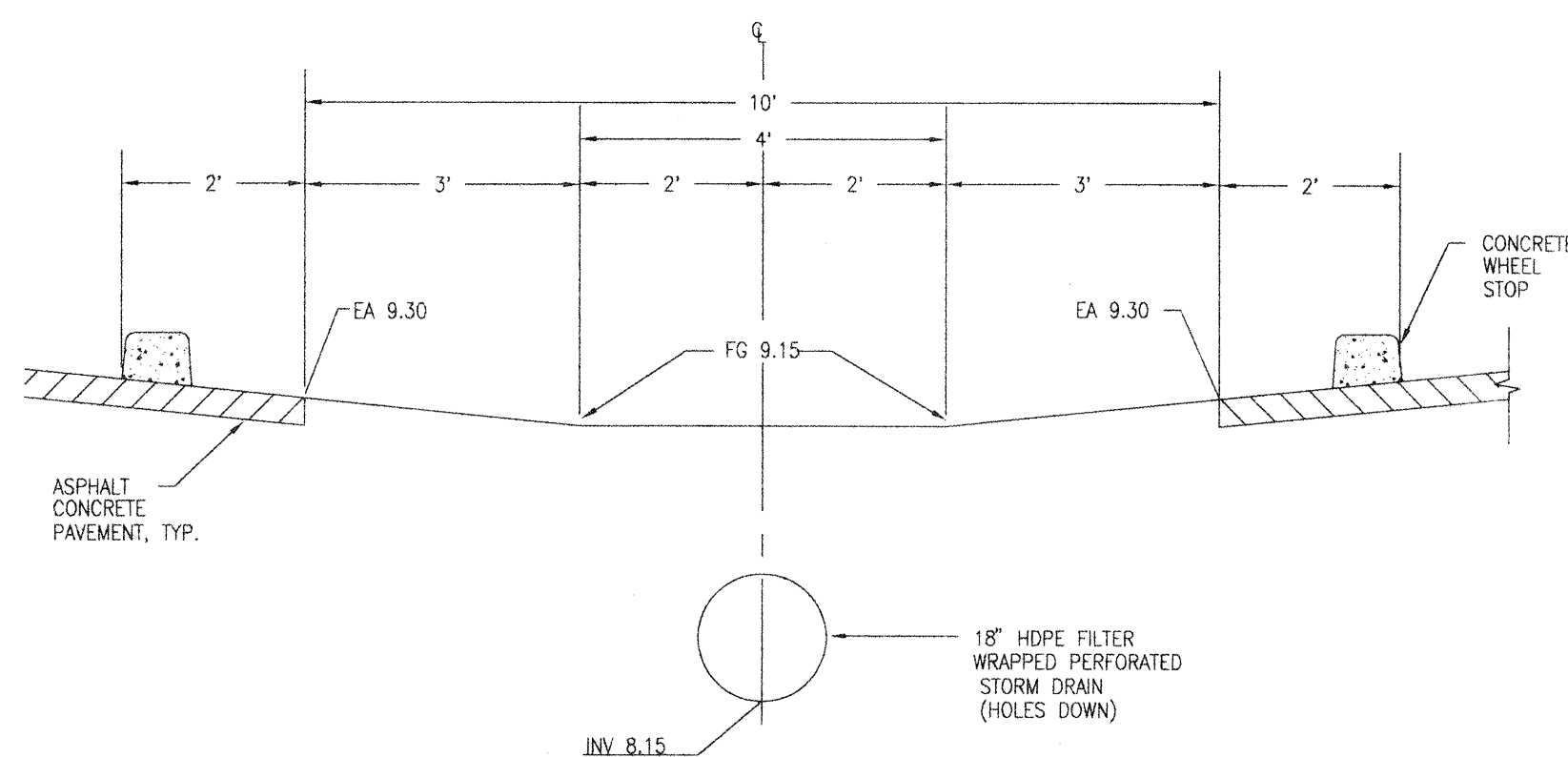
$$V_{10.5} = 0.5(0 + 14,890) + (0.5)(0.5)(14,890 + 17,080)$$

$$V_{10.5} = 15,440 \text{ cf} >> V_{100}$$

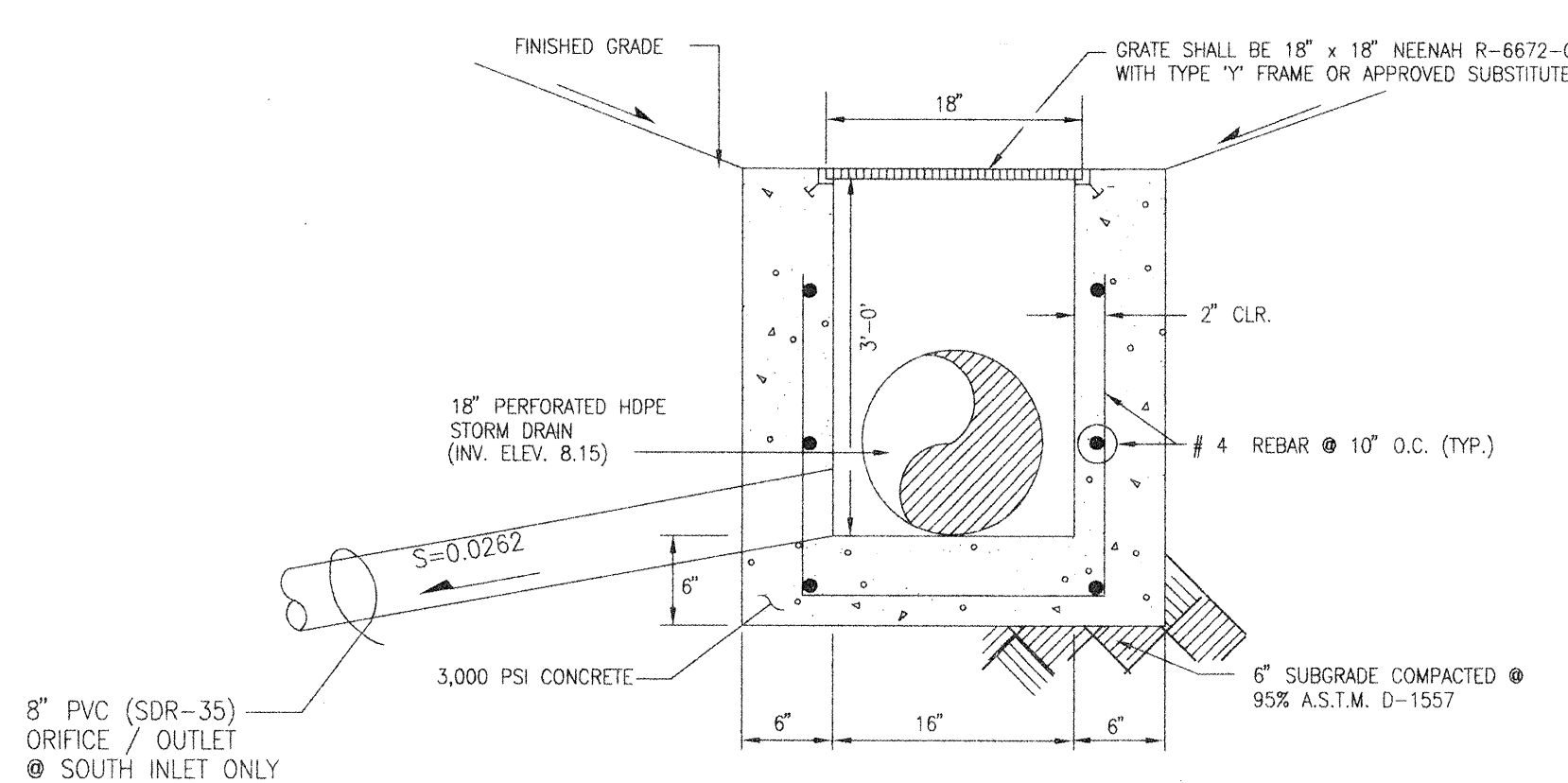
Because $V_{10.5} >> V_{100}$ no hydrograph calculations required.

D. Allowable Discharge = 2.45 cfs/acre
Developed Condition = 2.92 cfs/1.25 acre
= 2.34 cfs/acre

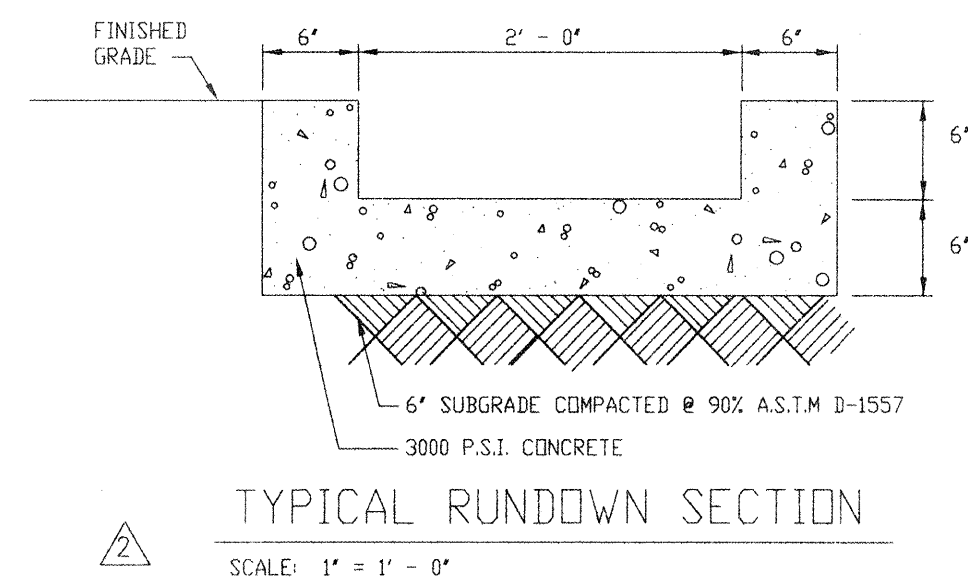
Therefore: $Q_{\text{allowable}} >> Q_{\text{release}}$



SECTION B-B
SCALE: 1" = 2' - 0"



TYPICAL STORM INLET SECTION
SCALE: 1" = 1' - 0"



TYPICAL RUNDOWN SECTION
SCALE: 1" = 1' - 0"

CONSTRUCTION NOTES:

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1986, (UPDATE 6).
2. 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.
3. 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.
4. SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
6. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
7. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
8. 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.
9. CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.
10. CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO ENSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER.
11. A DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL (CONTAMINATED OR OTHERWISE), ASPHALTIC PAVING, CONCRETE PAVING, ETC. SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
12. A BORROW SITE FOR IMPORT MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A BORROW SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFELY OBTAINING THE REQUIRED COMPACTION. THE CONTRACTOR SHALL SELECT AND USE METHODS WHICH SHALL NOT BE INJURIOUS OR DAMAGING TO THE EXISTING FACILITIES AND STRUCTURES WHICH SURROUND THE WORK AREAS.
14. THE CONTRACTOR SHALL CONFINE HIS WORK WITHIN THE CONSTRUCTION LIMITS IN ORDER TO PRESERVE THE EXISTING IMPROVEMENTS AND SO AS NOT TO INTERFERE WITH THE OPERATIONS OF THE EXISTING FACILITIES.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH. THIS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL OTHER UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
17. CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.



04-12-97
06-25-97



JEFF MORTENSEN & ASSOCIATES, INC.
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DRAINAGE PLAN, CALCULATIONS, SECTIONS AND DETAILS, GRADING NOTES DOUBLE RAINBOW II PARKING

DESIGNED BY	NO.	DATE	BY	REVISIONS	JOB NO.
J.A.P.	1	07/96	G.M.	REVISE DRAINAGE PLAN, ADD OFFSITE BASIN CALCULATIONS, ADD ORIFICE PLATE.	950514
DRAWN BY	NO.	DATE	BY	REVISIONS	DATE
C.J.H.	2	05/97	J.A.P.	EXPAND SITE PLAN	06-1996
APPROVED BY	NO.	DATE	BY	REVISIONS	SHEET
J.G.M.	3	06/97	J.A.P.	REVISIONS PER C.O.A. HYDROLOGY COMMENTS	2 OF 2