

DS #:

3950-4

APN:

125-20-510-007; -0115 012

PROJECT:

Montecito Marketplace-Phase II Update #3

SUBMITTAL:

6th

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		November 7, 2013
TO: Land Development Services Department of Public Works		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	
	Montecito Marketplace - Phase II (Pad R) (Update #3 to develop for Smith's Fuel Center)	
Cross Streets:	NEC of Durango Drive & Dorrell Lane	COPIES TO: Great Basin Engineering
File Number:	F:\Depot\DSMemos\DS3950F.doc	Montecito Companies
Parcel Number:	125-20-510-007; -011 & -012	Bart Anderson, P.E., DevCo
Zoning Action:	SDR-11702 & VAR-11710	
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES	NO X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Transaction #
1 st Submittal	2/2/2006	2/16/2006	Not Approved	\$400.00	37993: \$400
2 nd Submittal	4/24/2006	5/8/2006	Approved	\$400.00	Paid: \$400
3 rd Submittal	8/31/2006	9/14/2006	Approved	\$100.00	Paid: \$100
4 th Submittal	11/8/2006	11/27/2006	Approved	\$400.00	57476: \$400
5 th Submittal	3/12/2007	3/26/2007	Approved	\$100.00	64787: \$100
6 th Submittal	10/24/2013	11/7/2013	See Comments Below	\$100.00	337312: \$100
TOTAL FEES (LDDRS):				\$1,500.00	----

REMARKS:

The Drainage Study for the subject project has been reviewed and:

6th Submittal: Update to re-develop Pad R to a Smith's Fuel Center

5th Submittal: Update to develop Building "N" for El Pollo Loco

4th Submittal: Update to construct Building "O"

3rd Submittal: Sheet C4.2 - Update to add a junction box in order to shift the connection of an 18" RCP to an existing drop inlet in Grand Montecito Parkway to avoid a utility conduit (Nevada Power) conflict

X	is approved subject to conformance to all City standards and the following conditions:
	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the City of Las Vegas Flood Control Section. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the City of Las Vegas reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the Nevada Division of Environmental Protection a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS

ays

T/R/S: T19S/R60E/20
AREA G-20

 *** FAX TX REPORT ***

TRANSMISSION OK

JOB NO. 2525
 DESTINATION ADDRESS 18015219551
 PSWD/SUBADDRESS
 DESTINATION ID
 ST. TIME 11/07 17:15
 USAGE T 00' 39
 PGS. 2
 RESULT OK

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM

DATE:

November 7, 2013

TO:

Land Development Services
 Department of Public Works

FROM:

Albert Sung, P.E.
 Flood Control Project Engineer
 Department of Public Works

SUBJECT:

Drainage Study for:

Montecito Marketplace - Phase II (Pad R)
(Update #3 to develop for Smith's Fuel Center)

COPIES TO:

Great Basin Engineering

Cross Streets:

NEC of Durango Drive & Dorrell Lane

Montecito Companies

File Number:

F:\Depot\DSMemos\DS3950F.doc

Bart Anderson, P.E., DevCo

Parcel Number:

125-20-510-007; -011 & -012

Zoning Action:

SDR-11702 & VAR-11710

FEMA Flood Zone

YES

NO X

Proposed Storm Drain

YES

NO X

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Update #3
to the
Technical Drainage Study
for
Montecito Marketplace-Phase II

NEC Durango Drive & Dorrell Lane

October 22, 2013

Prepared for:
Smith's Food & Drug Centers, Inc.
1550 South Redwood Road
Salt Lake City, UT 84104



CONSULTING ENGINEERS &
LAND SURVEYORS

GREAT BASIN ENGINEERING - South

2010 North Redwood Road • P.O. Box 16747 • Salt Lake City, Utah 84116
(801) 521-8529 • (801) 394-7288 • Fax (801) 521-9551

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Smith's Fuel Center #332 Date: 10-22-2013

Location of Development: a) Descriptive (Cross Streets) North/South: Durango Drive

East/West: Dorrell Lane

b) Section: 20 Township: 19 S Range: 60 E

c) APN : 125-20-510-011

Name of Owner: Smith's Food & Drug Centers, Inc. - Roger Gough

Telephone No.: 801-974-1529 Fax No.: 801-974-1628 E-Mail Address: roger.gough@sfdc.com

Address: 1550 South Redwood Road, Salt Lake City, UT 84104

Contact Person-Name: Kirk Randall Telephone No.: 801-521-8529

* E-Mail Address: kirk@greatbasinsouth.com Fax No.: 801-521-9551

Firm: Great Basin Engineering South

Address: 2010 North Redwood Road, Salt Lake City, UT 84116

Type of Land Development/Land Disturbance Process:

☐	Rezoning	☐	Subdivision Map	☐	Clearing and Grading Only
☐	Parcel Map	☐	Planned Unit Development	☐	Other (Please specify below)
☐	Large Parcel Map	☒	Building Permit		

1. Total Owned Land Area: At Site: 63,102 s.f. or 1.449 acres Being Developed/Disturbed: 20,283 s.f. or 0.466 acres

2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? ☐ Yes** ☒ No

3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ Yes** ☒ No

4. Proposed type of development (Residential, Commercial, Etc.): Commercial

5. Approximate upstream land area which drains to the subject site: None

6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: TDS for Montecito Marketplace - Phase II and the Addendum to the TDS for Montecito Marketplace - Phase II

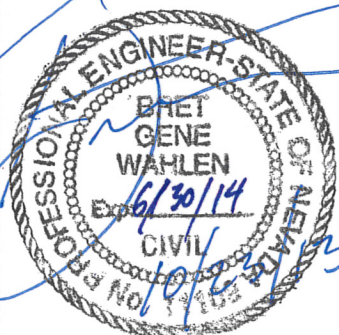
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Onto Dorrell Lane

8. Briefly describe your proposed schedule for the subject project: ASAP

Submit this form as part of the required drainage study to the local entity which has jurisdiction over the subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

*New Required Field

**Review and concurrence of the Clark County Regional Flood Control District is required.



Engineer's Seal

Local Entity File No. _____

Revision

Date

REFERENCE:

STANDARD FORM 1

GREAT BASIN ENGINEERING - South

2010 North Redwood Road • P.O. Box 16747 • Salt Lake City, Utah 84116
(801) 521-8529 • (801) 394-7288 • Fax (801) 521-9551



CONSULTING ENGINEERS
AND LAND SURVEYORS

October 22, 2013

City of Las Vegas
731 S. Fourth Street
Las Vegas, NV 89101

Attention: Albert Sung

RE: Update #3 to the Technical Drainage Study for Montecito Marketplace-Phase II

Dear Mr. Sung

This is a formal request to update the Technical Drainage Study for Montecito Marketplace Phase II by Great Basin Engineering approved May 8, 2006. At the time the first study and Addendum were conducted Pad R was designed and subsequently constructed as a Jonny Carino's restaurant. However, this area was analyzed in the developed condition as part of basin ON2. The restaurant has since gone out of business and the parcel has been purchased by Smith's Food & Drug Centers, Inc. Smith's is proposing to redevelop the parcel and construct an 8 multi-product dispenser (MPD) fuel center. The site has maintained the same drainage patterns as were assumed in the previous study and the design will not affect any of the drainage patterns or flows for the site.

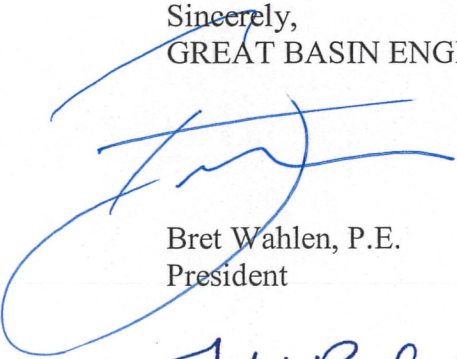
The only change in the design is that the proposed finish floor elevation of the fuel center's attendant kiosk (2585.12) is slightly lower than the Johnny Carino's finish floor elevation (2585.25) provided in the original study. However, the area still maintains positive drainage away from the building and is still protected to well over twice the depth of flow in Durango Drive by the adjacent retaining wall. The grading plan and detail sheet containing the revised cross sections for Building R have been attached.

From the original study, it was determined that the flow in the existing Durango Drive at this location was 2 and 3 cfs for a 10 and 100-year storm, respectively. The 10-year depth of flow for both sections was 0.29 feet and the 100-year depth was 0.32 feet. The retaining wall was already designed as a part of the previous study and has not changed. Durango Drive is an existing street and no changes to the roadway have occurred since the original study. An updated cross section (Section A) has been included which reflect the new layout of the fuel center attendant kiosk. This cross section can be found on the detail sheet included with this letter. A hydraulic cross section of Section A, which contains the section of Durango Drive adjacent to fuel center, has been attached for reference. This section is comparable to Section G from the original study, but is slightly different due to the new site layout. The hydraulic cross section of Section G from the original study has also been included for comparison. Section A results in slightly lower

flow depth for the 10-year event of 0.28 ft and the same flow depth of 0.32 ft for the 100 year event. Since the depth of flow has essentially remained the same and the height of the wall has remained the same as in the original study, the building is still well protected from the flows in Durango Drive even with the slightly lower finish floor elevation.

We request your earliest review of this update and thank you for your assistance in this matter. If you have any questions or comments, please feel free to contact our office.

Sincerely,
GREAT BASIN ENGINEERING – SOUTH



Bret Wahlen, P.E.
President



Jeff Randall
Dir. of Commercial Dev.

Appendix

Original Drainage Study Approval

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		May 8, 2006
TO: Land Development Services Department of Public Works		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
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			TOTAL FEES (LDDRS):	\$800.00	----

REMARKS:

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X	is approved subject to conformance to all City standards and the following conditions:
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1. Sheet C4.1: Provide a cross section at the north edge of *Pad R (Johnny Carino's)* which must include a retaining wall with the top two courses 8"-CMU solid grouted. Reference Section 8/C5.1.

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the City of Las Vegas Flood Control Section. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the City of Las Vegas reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

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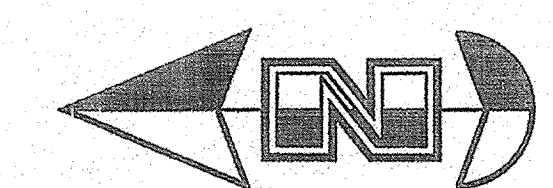
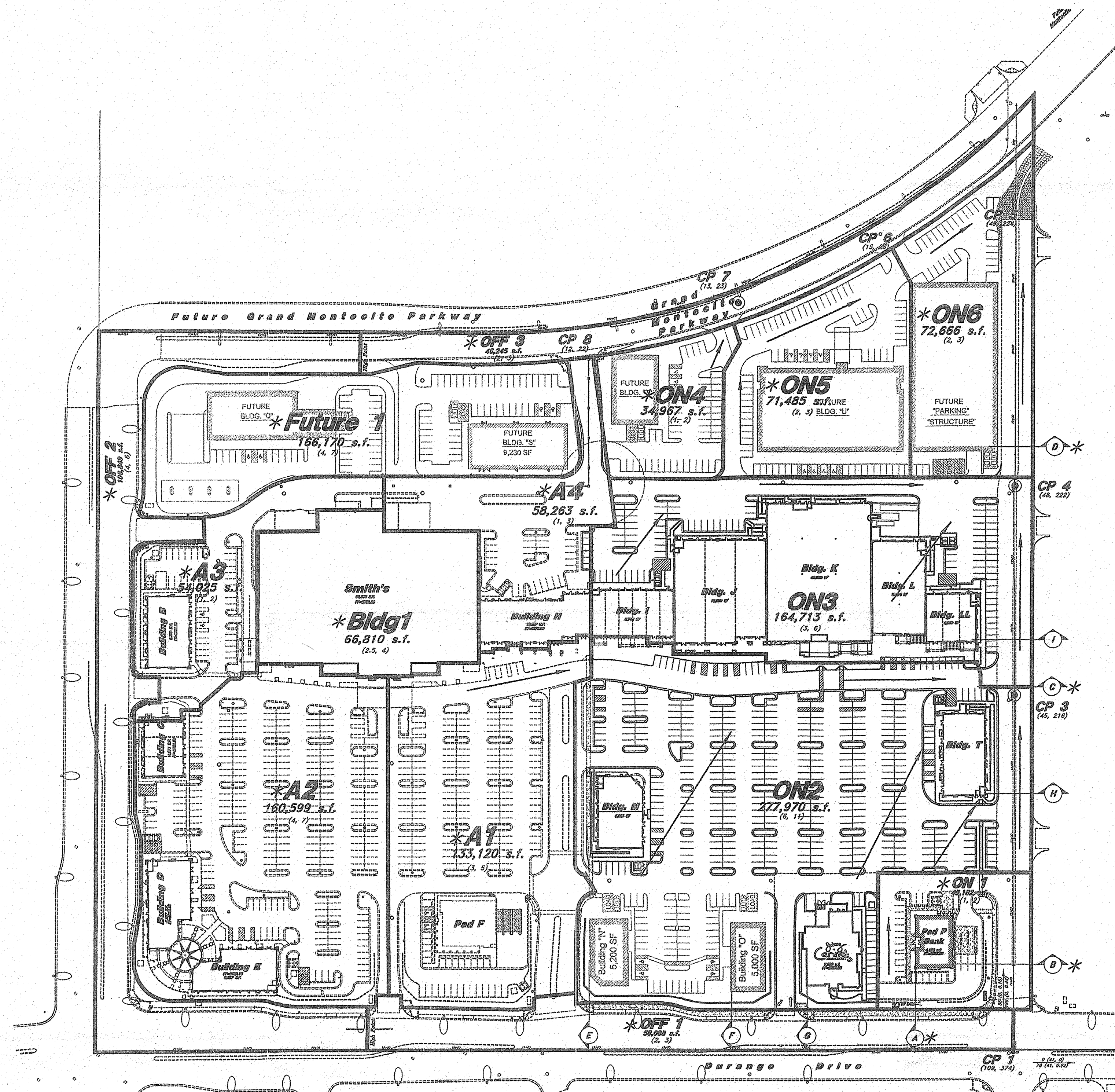
NOTE: This drainage study assumes that the project will be constructed in one phase. If improvement plans are submitted to break the project into separate phases, a drainage study update will be required for each phase addressing the interim condition.

END OF REMARKS

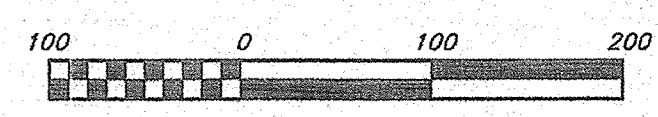
ays

T/R/S: T19S/R60E/20
AREA G-20

Drainage Map from Original Study



Scale : 1" = 100'



Area Generated Flows
(Q_{10} , Q_{100})

Surface Flows
 Q_{10} (Storm Drain Flow, Depth)
 Q_{100} (Storm Drain Flow, Depth)

Combination Point
● CP 1

Cross Section Parameters

X-Section	d (ft)	V (ft/s)	d ³ V	Q
100 Year Storm Event				
<i>Offsite Cross Sections (100-Year)</i>				
* Section A	0.32	2.18	0.70	3
* Section B	0.52	11.33	5.89	199
* Section C	0.67	7.77	5.21	216
* Section D	0.61	11.26	6.87	222
Section E	0.31	2.57	0.80	3
Section F	0.31	2.45	0.76	3
Section G	0.32	2.26	0.72	3
Section H	0.59	10.81	6.39	218
Section I	0.69	8.34	5.75	222
10 Year Storm Event				
<i>Offsite Cross Sections (10-Year)</i>				
* Section A	0.29	1.98	0.57	2
* Section B	0.29	5.79	1.68	36
* Section C	0.36	4.61	1.66	45
* Section D	0.33	6.13	2.02	48
Section E	0.28	2.34	0.66	2
Section F	0.28	2.22	0.62	2
Section G	0.29	2.06	0.60	2
Section H	0.34	5.79	1.97	45
Section I	0.39	4.90	1.82	48

* Reference Only (shown from Montecito Marketplace Pad P Study)

Benchmark

Rivet with Washer at the Northwest Corner of Deer Springs Way and Riley Street
Elevation = 2543.29 (775.1977 meters)
Published by Las Vegas City as Benchmark No. 8LV90 20N6 (NAVD 88 Datum)

Basis of Bearings

North 00°32'07" East, being the bearing of the east line of Section 17, T20S, R80E, M.D.M., as shown by map thereof on file in File 54, Page 09 of Parcel Maps, in the Clark County Recorder's Office, Clark County, Nevada.

Drainage Map

Montecito Marketplace
Durango Drive & Elkhorn Road
Las Vegas, Nevada

GREAT BASIN ENGINEERING - SOUTH
CONSULTING ENGINEERS and LAND SURVEYORS
2010 North Redwood Road, P.O. Box 16747
Salt Lake City, Utah 84116
SALT LAKE CITY (801) 521-4529 Ogden (801) 394-7988 Fax (801) 521-9551

31 Jan, 2006

SHEET NO.

Fig 3

05-890R

Hydraulic Section from Original Study – 10 & 100 Year

Worksheet for Section G-10 Yr

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.00700 ft/ft
Discharge 2.00 ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+18	91.12
0+53	90.41
0+55	90.28
0+55	90.78
0+55	90.78
0+60	90.88
0+70	91.07
0+80	92.67

Roughness Segment Definitions

Start Station & Elevation	End Station & Elevation	Roughness Coefficient
(0+18, 91.12)	(0+80, 92.67)	0.013

Results

Normal Depth 0.29 ft
Elevation Range 90.28 to 92.67 ft
Flow Area 0.97 ft²
Wetted Perimeter 9.77 ft
Top Width 9.48 ft
Normal Depth 0.29 ft
Critical Depth 0.30 ft
Critical Slope 0.00539 ft/ft
Velocity 2.06 ft/s
Velocity Head 0.07 ft

Great Basin Engineering

Worksheet for Section G-10 Yr

Results

Specific Energy	0.36	ft
Froude Number	1.13	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.29	ft
Critical Depth	0.30	ft
Channel Slope	0.00700	ft/ft
Critical Slope	0.00539	ft/ft

Cross Section for Section G-10 Yr

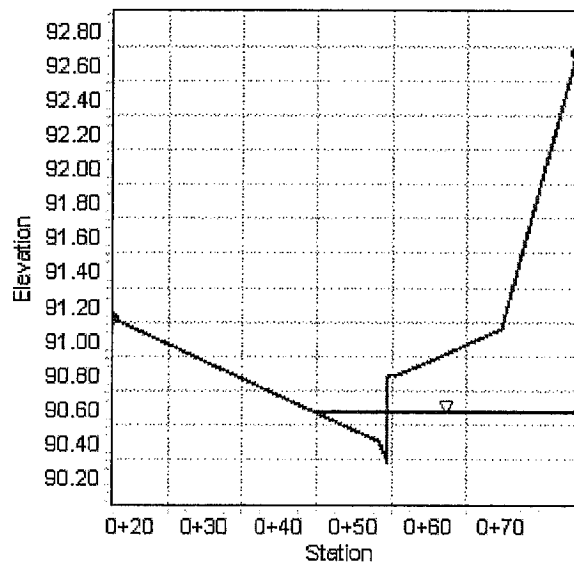
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.00700 ft/ft
Normal Depth 0.29 ft
Discharge 2.00 ft³/s

Cross Section Image



Worksheet for Section G-100 Yr

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.00700 ft/ft
Discharge 3.00 ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+18	91.12
0+53	90.41
0+55	90.28
0+55	90.78
0+55	90.78
0+60	90.88
0+70	91.07
0+80	92.67

Roughness Segment Definitions

Start Station & Elevation	End Station & Elevation	Roughness Coefficient
(0+18, 91.12)	(0+80, 92.67)	0.013

Results

Normal Depth 0.32 ft
Elevation Range 90.28 to 92.67 ft
Flow Area 1.33 ft²
Wetted Perimeter 11.52 ft
Top Width 11.19 ft
Normal Depth 0.32 ft
Critical Depth 0.34 ft
Critical Slope 0.00511 ft/ft
Velocity 2.26 ft/s
Velocity Head 0.08 ft

Great Basin Engineering

Worksheet for Section G-100 Yr

Results

Specific Energy	0.40	ft
Froude Number	1.16	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.32	ft
Critical Depth	0.34	ft
Channel Slope	0.00700	ft/ft
Critical Slope	0.00511	ft/ft

Cross Section for Section G-100 Yr

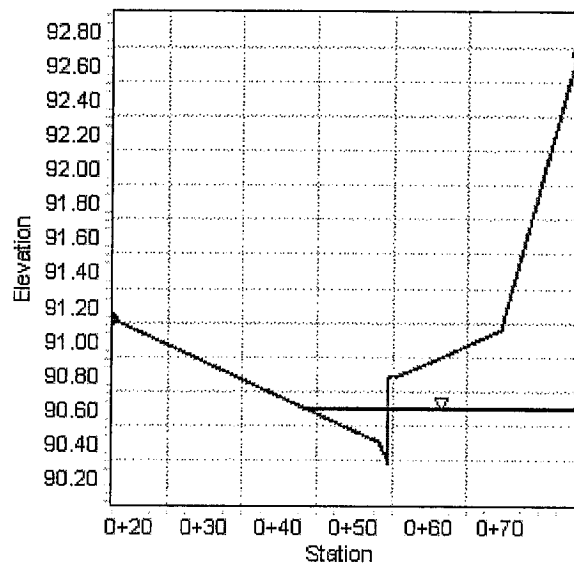
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Friction Method Manning Formula
Solve For Normal Depth

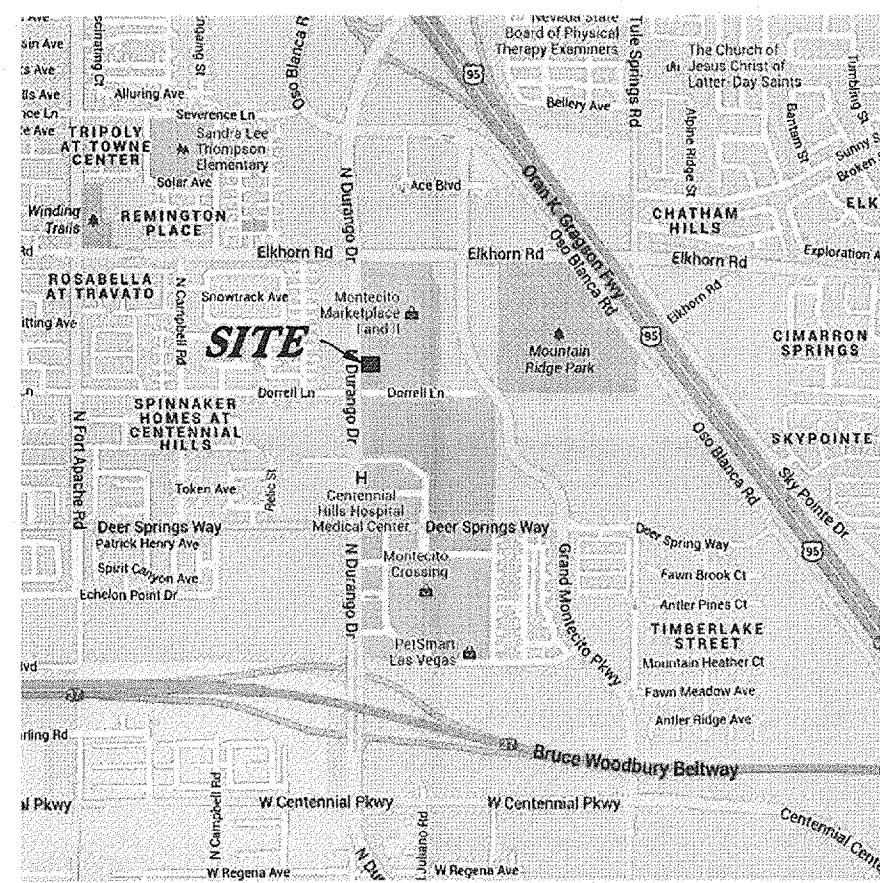
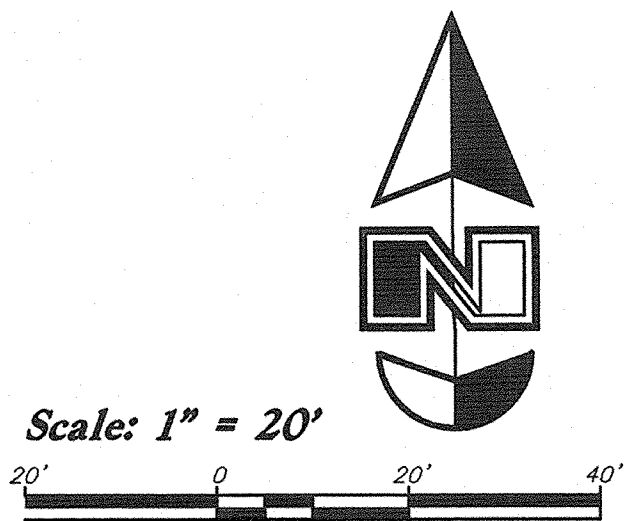
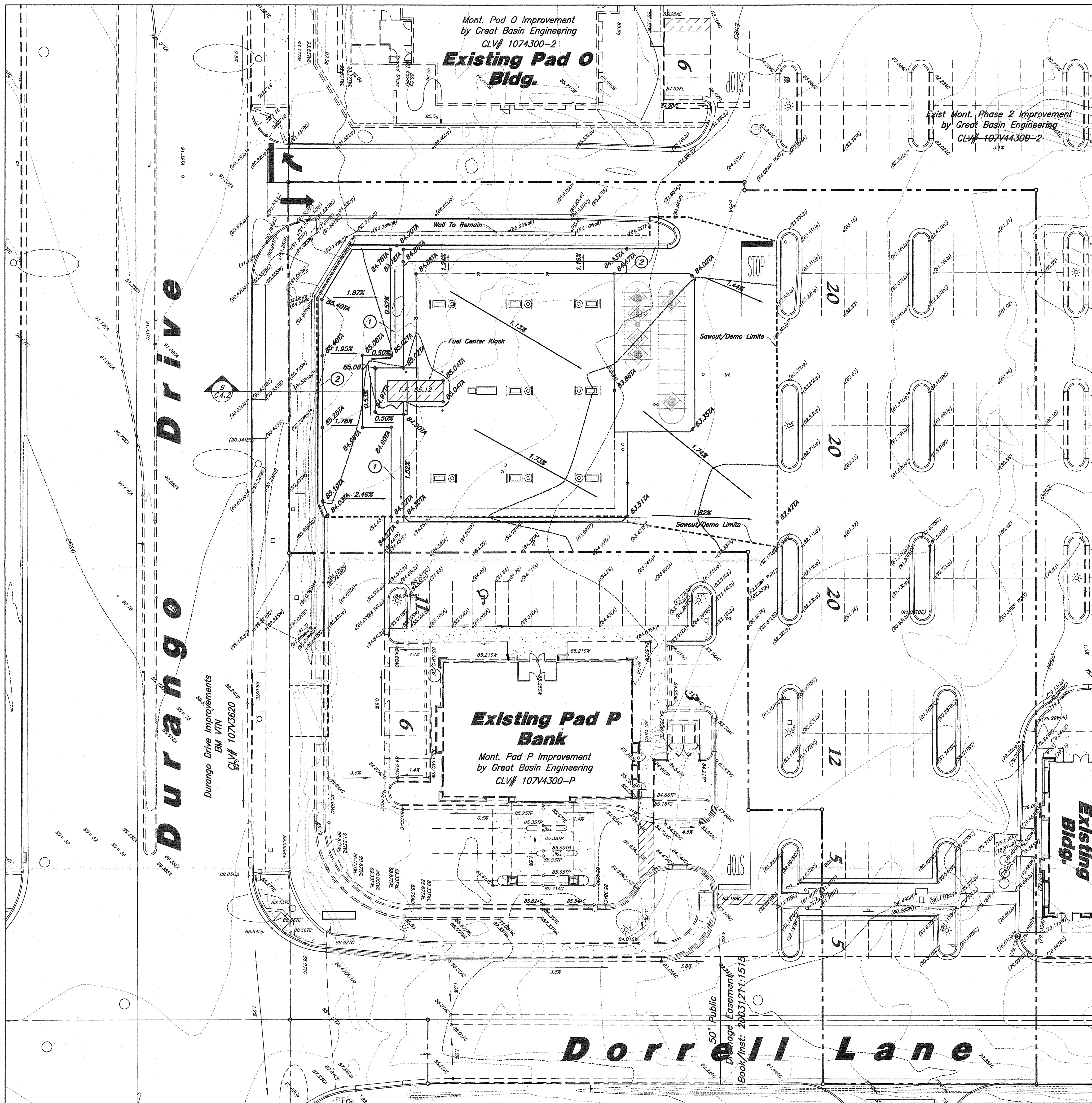
Input Data

Channel Slope 0.00700 ft/ft
Normal Depth 0.32 ft
Discharge 3.00 ft³/s

Cross Section Image



Proposed Grading Plan and Detail Cross Section



Vicinity Map
Not to Scale

Legend

Direction of Drainage	AC
Top of Asphalt	SW
Top of Walk	EA
Edge of Asphalt	FL
Flowline	TC
Top of Curb	TC
Top of Grate	TP
Top of Pavement	TP
Ridge line	R
Ground	g
Top of Retaining Wall	TWL
Proposed Spot Elevation	70.99AC
Prop. (Future) Spot Elev.	70.99AC
Exist. Spot Elevation	86.22AC
Std. Curb & Gutter	
Open Face C & G	

Construction Key Notes

- 1 Const. 5' Waterway
- 2 Const. 24" Curb & Gutter

Drainage Compliance Note:
I certify that the grading plan is in conformance with the approved drainage study on file with the city of Las Vegas for this project.

Bret Wahlen #11109 Date

Call before you Dig
1-800-227-2600

Call before you OVERHEAD
1-702-227-2929

Basis of Bearings
This Survey retraces and honors a previous Record of Survey on file in File 150 of Surveys, Page 11 in the Office of the County Recorder.
A line between recovered survey markers as recorded in File 114 of Plats, Page 18 was assigned the record bearing of N 89°52'26" E as the Basis of Bearings to retrace and honor the previous Survey.
No Property Corners were placed with this Survey.

Benchmark
Finish Floor of the Existing Building
Elevation = 2585.24 feet (assigned)
Observed May 17, 2013

Smith's
FOOD & DRUG STORES
1550 South Redwood Road
Salt Lake City, Utah 84104
Telephone (801) 974-1400
#332
Las Vegas, Nevada

Designed by: KR
Drafted by: JRM
Client Name: Smith's Food & Drug
SMC332-GR

GREAT BASIN ENGINEERING - SOUTH
CONSULTING ENGINEERS and LAND SURVEYORS
2010 North Redwood Road, P.O. Box 16747
Salt Lake City, Utah 84116
Fax (801) 551-9551

Grading Plan
Smith's Fuel Center #332
7050 North Durango Drive
Las Vegas Nevada

23 Oct, 2013
SHEET NO.
C2.1

Proposed Hydraulic Cross Section – 10 & 100 Year

Section A - 10 YR

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.00967 ft/ft
Discharge 2.00 ft³/s
Section Definitions

Station (ft)	Elevation (ft)
0+08	90.91
0+44	90.06
0+45	89.95
0+45	90.45
0+46	90.45
0+51	90.56
0+60	90.71
0+69	92.27

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+08, 90.91)	(0+44, 90.06)	0.016
(0+44, 90.06)	(0+46, 90.45)	0.013
(0+46, 90.45)	(0+51, 90.56)	0.033
(0+51, 90.56)	(0+60, 90.71)	0.013
(0+60, 90.71)	(0+69, 92.27)	0.033

Options

Current Roughness Weighted Method Pavlovskii's Method
Open Channel Weighting Method Pavlovskii's Method
Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 0.28 ft

Section A - 10 YR

Results

Elevation Range	89.95 to 92.27 ft	
Flow Area	0.95	ft²
Wetted Perimeter	9.01	ft
Hydraulic Radius	0.11	ft
Top Width	8.73	ft
Normal Depth	0.28	ft
Critical Depth	0.29	ft
Critical Slope	0.00749	ft/ft
Velocity	2.11	ft/s
Velocity Head	0.07	ft
Specific Energy	0.35	ft
Froude Number	1.13	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.28	ft
Critical Depth	0.29	ft
Channel Slope	0.00967	ft/ft
Critical Slope	0.00749	ft/ft

Section A - 10 YR

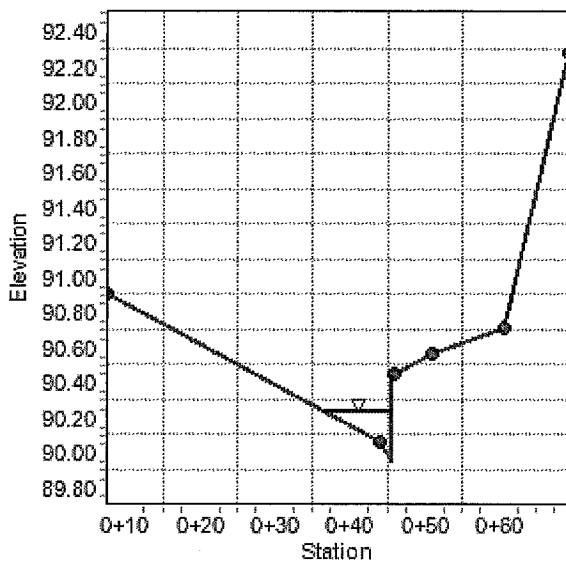
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00967	ft/ft
Normal Depth	0.28	ft
Discharge	2.00	ft ³ /s

Cross Section Image



Section A - 100 YR

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.00967 ft/ft
Discharge 3.00 ft³/s
Section Definitions

Station (ft)	Elevation (ft)
0+08	90.91
0+44	90.06
0+45	89.95
0+45	90.45
0+46	90.45
0+51	90.56
0+60	90.71
0+69	92.27

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+08, 90.91)	(0+44, 90.06)	0.016
(0+44, 90.06)	(0+46, 90.45)	0.013
(0+46, 90.45)	(0+51, 90.56)	0.033
(0+51, 90.56)	(0+60, 90.71)	0.013
(0+60, 90.71)	(0+69, 92.27)	0.033

Options

Current Roughness Weighting Method Pavlovskii's Method
Open Channel Weighting Method Pavlovskii's Method
Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 0.32 ft

Section A - 100 YR

Results

Elevation Range	89.95 to 92.27 ft	
Flow Area	1.30	ft²
Wetted Perimeter	10.60	ft
Hydraulic Radius	0.12	ft
Top Width	10.28	ft
Normal Depth	0.32	ft
Critical Depth	0.33	ft
Critical Slope	0.00717	ft/ft
Velocity	2.32	ft/s
Velocity Head	0.08	ft
Specific Energy	0.40	ft
Froude Number	1.15	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.32	ft
Critical Depth	0.33	ft
Channel Slope	0.00967	ft/ft
Critical Slope	0.00717	ft/ft

Section A - 100 YR

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00967	ft/ft
Normal Depth	0.32	ft
Discharge	3.00	ft ³ /s

Cross Section Image

