

DS #: 5128

APN: 138-15-410.056

PROJECT: Doral Academy - Fire Mesa Charter School

SUBMITTAL: 1st Submittal & Supplement

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		May 9, 2019
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT: Drainage Study for: Doral Academy – Fire Mesa Charter School (Update by Different Engineer)		COPIES TO: Nevada by Design, LLC
Cross Streets:	Fire Mesa Street & Trinity Peak Avenue	CA Las Vegas FMS, LLC
File Number:	F:\Depot\DSMemos\DS5128A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	138-15-410-056	
Zoning Action:	SDR-76109	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES NO X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal & Supplement	4/22/2019 & 5/9/2019	5/9/2019	See Comments Below	\$400.00	3099769: \$400
			TOTAL FEES (LDDRS):	\$400.00	----

REMARKS:

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

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.
	is conditionally approved subject to Clark County Public Works Department 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 Update 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

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T/R/S: T20S/R60E/15
AREA L-15

TECHNICAL DRAINAGE STUDY
FOR
DORAL ACADEMY
FIRE MESA CHARTER SCHOOL

NBD Project No. CE18199

April 17, 2019

Prepared For:

ethos three ARCHITECTURE
8985 S Eastern Ave, Suite 220
Las Vegas, NV 89123



Prepared By:

Nevada By Design, LLC
5795 So. Sandhill Road, Suite C
Las Vegas, NV 89120



Department of Planning Pre-Application Meeting

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Project Name	Doral Fire Mesa Classroom Addition		
Pre-App #	PREAPP2019-009889		
APN(s) 138-15-410-056	Ward 1 - Tarkanian	Ownership Date 03/11/15	Acres 4.91
Location 2568 Fire Mesa Street	Pre-app Date 02/06/19		Follow-up
Planner Jonathan Boyles, (702) 229-5447 jboyles@lasvegasnevada.gov	Location / Time DSC Conference Room 3A at 1:00pm		
	Submittal Deadline 02/19/19 - no later than 4:00pm		
	Earliest PC Date 04/09/19		
Project #	PRJ-75740	READY FOR SUBMITTAL	
Project Manager email	bsaxon@ethosthree.com		

APPLICATIONS		FEES			
		APPLICATION	NOTIFICATION	RECORDATION	AMOUNT
Site Development Plan Review (SDR), Minor		\$ 500.00	\$	\$	\$ 500.00
		\$	\$	\$	\$
		\$	\$	\$	\$
		\$	\$	\$	\$
SUB-TOTAL					\$ 500.00
Neighborhood Meeting NOT REQUIRED	Applicant sends notification = \$0; Envelope labels = \$50 Department sends notification = \$500 / \$750 / \$1,250				\$ N/A
TOTAL					\$ 500.00
If the project requires a neighborhood meeting, or you choose to have one, be aware: If you want the City to mail postcard notices for the meeting, provide all information to us <u>no later than 15 days prior</u> to the meeting date. It's best to provide the meeting information when you submit your application. Otherwise, you'll have to make your own arrangements for public notice to the neighborhood.					

	Name	Phone	Email
Owner	CA LAS VEGAS FMS LLC	(702)	
Applicant		(702)	
Representative	Kip Barton	(702) 456-1070	bsaxon@ethosthree.com
	Existing	Proposed	
Use	Public or Private School, Primary	No change	
General Plan	LI/R (Light Industry/Research)	No change proposed	
Zoning	C-PB (Planned Business Park)	No change	
Special Area, Master Plans, Overlay Districts	Airport Overlay (175 Feet); Las Vegas Technology Center Phase 2		
Special Land Use Designation	N/A		
Trails (if adjacent)	N/A		

Pre-Application Notes

☒ Meeting ☐ Email ☐ Conversation ☐ Telephone

Name	Organization	Phone	Fax	Email
1.				
2.				
3.	CLV - Planning			
4.	CLV - Planning/Business License	702-229-6321	702-383-0769	
5.	CLV- PW Sewer			
6. Roger Bailey	CLV - PW - Dev Co	702-229-6578	702-474-7599	
7.	CLV - PW - Traffic	702-229-6901		
8.	CLV - PW - Flood	702-229-6541	702-382-8551	
9. Michael Cunningham	CLV - Building and Safety	702-229-6251	702-382-1731	
10.	CLV - Fire and Rescue	702-229-0366	702-229-0124	
11.	CLV - Development Services	702-229-6551	702-385-3128	

~~VAR-XXXXX - VARIANCE - PUBLIC HEARING - APPLICANT: XXXXXXXX XXXXXXXX - OWNER: CA LAS VEGAS FMS, LLC - For possible action on a request for a Variance TO ALLOW 140 PARKING SPACES WHERE 144 PARKING SPACES ARE REQUIRED on 4.91 acres at 2568 Fire Mesa Street (APN 138-15-410-056), C-PB (Planned Business Park) Zone, Ward 1 (Tarkanian) [PRJ-75740].~~

~~SDR-XXXXX - SITE DEVELOPMENT PLAN REVIEW RELATED TO VAR-XXXXX - PUBLIC HEARING - APPLICANT: XXXXXXXX XXXXXXXX - OWNER: CA LAS VEGAS FMS, LLC - For possible action on a request for a Minor Amendment to a previously approved Site Development Plan Review (SDR-54330) TO ADD A 1,680 SQUARE-FOOT MODULAR BUILDING WITH TWO CLASSROOMS AND PARKING LOT RECONFIGURATION TO AN EXISTING PRIVATE SCHOOL, PRIMARY DEVELOPMENT on 4.91 acres at 2568 Fire Mesa Street (APN 138-15-410-056), C-PB (Planned Business Park) Zone, Ward 1 (Tarkanian) [PRJ-75740].~~

SDR-XXXXX - SITE DEVELOPMENT PLAN REVIEW - ADMINISTRATIVE - APPLICANT: XXXXXXXX XXXXXXXX - OWNER: CA LAS VEGAS FMS, LLC - For possible action on a request for a Minor Amendment to a previously approved Site Development Plan Review (SDR-54330) TO ADD A 1,680 SQUARE-FOOT MODULAR BUILDING WITH TWO CLASSROOMS AND PARKING LOT RECONFIGURATION TO AN EXISTING PRIVATE SCHOOL, PRIMARY DEVELOPMENT on 4.91 acres at 2568 Fire Mesa Street (APN 138-15-410-056), C-PB (Planned Business Park) Zone, Ward 1 (Tarkanian) [PRJ-75740].

Notes

- Applicant has proposed to add a (28' x 60') 1,680 square-foot modular building w/ two additional classrooms to the rear of the subject site; and to reconfiguring the rear parking lot area.
- Approved SUP-54332 and SDR-54330 required 138 parking spaces
 - Public School, Primary w/ 45 classrooms
 - Individual Care Center w/ 1 staff member & 20 individuals
- Revised Site Plan shows 140 total parking spaces, where 144 are required for the two additional classrooms
 - Variance is Required for insufficient parking.

Revisions

- Revise Parking analysis to show 140 parking spaces, not 141.
- Las Vegas Technology Center approval letter is required.
- Add proposed parking space dimensions (compact spaces) to the site plan
 - Compact Spaces - 8' x 18' required
 - Regualr Sapces - 9' x 18' required
 - Parallel Spaces - 9' x 23' required

PW Comments

- Update the Drainage Study

Background

Related Relevant City Actions by Planning, Fire, Bldg., etc	
02/22/99	The City Council approved a Rezoning (Z-0087-98) from C-1 (Limited Commercial) to C-PB (Planned Business Park) on property located at the northeast corner of Buffalo Drive and Smoke Ranch Road. Planning Commission and staff recommended approval. The City Council passed Ordinance 5270 on 11/01/00, which exercised the entitlement.
08/20/14	The City Council approved a request of a Site Development Plan Review (SDR-54330) for a two story, 54,078 square-foot Public School, Primary building on a portion of 8.39 acres at the northeast corner of Trinity Peak Avenue and Fire Mesa Street. The Planning Commission and Staff recommend approval of the request.
	The City Council approved a request of a Special Use Permit (SUP-54332) for a Public School, Primary use located at the northeast corner of Trinity Peak Avenue and Fire Mesa Street. The Planning Commission and Staff recommend approval of the request.

Related Building Permits/Business Licenses	
01/06/15	A building permit (#273602) was issued for an educational building at 2568 Fire Mesa Street. The permit was finalized on 11/05/15.
	A building permit (#273603) was issued for on-site improvements and trash enclosures at 2568 Fire Mesa Street. The permit was finalized on 09/02/15.
	A building permit (#273605) was issued for a chainlink and ornamental iron fence at 2568 Fire Mesa Street. The permit was finalized on 07/28/15.
03/10/16	A building permit (#311469) was issued for tenant improvements for a kitchen remodel at 2568 Fire Mesa Street. The permit was finalized on 04/05/16.
06/07/17	A building permit (#342105) was issued for a 570 square-foot shade structure at 2568 Fire Mesa Street. The permit has not been finalized.

Surrounding Property	Existing Land Use Per Title 19.12	Planned or Special Land Use Designation	Existing Zoning District
Subject Property	Public or Private School, Primary	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
North	General Retail	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
	Undeveloped		
South	Undeveloped	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
East	Business Park	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
West	Undeveloped	LI/R (Light Industry/Research)	C-PB (Planned Business Park)

Master and Neighborhood Plan Areas	Compliance
Las Vegas Technology Center – Phase 2	Y
Special Area and Overlay Districts	Compliance
A-O (Airport Overlay) District – 175 Feet	Y
Other Plans or Special Requirements	Compliance
Trails	N/A
Las Vegas Redevelopment Plan Area	N/A
Interlocal Agreement	N/A
Project of Significant Impact (Development Impact Notification Assessment)	N/A
Project of Regional Significance	N/A

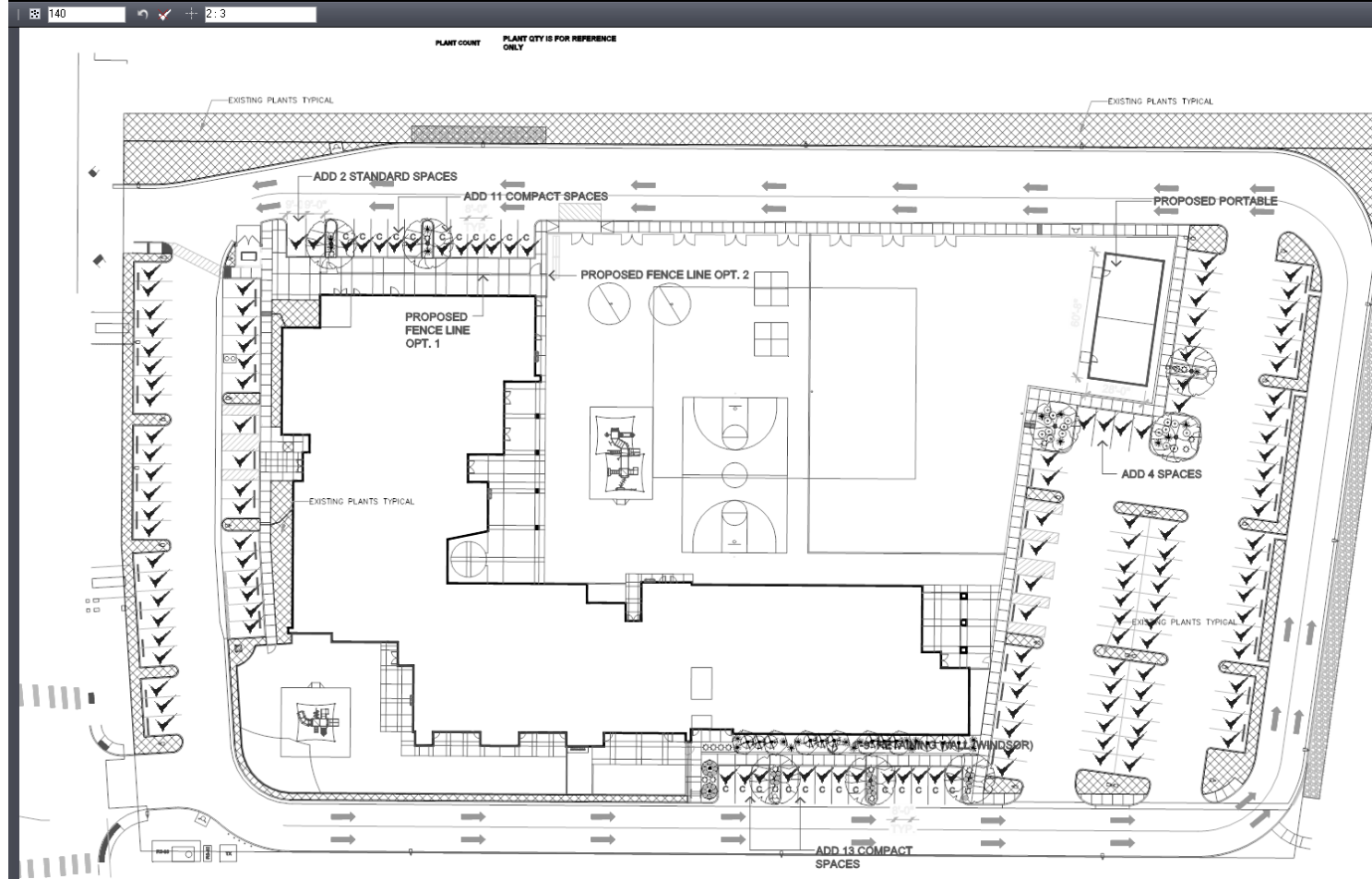
Street Name	Functional Classification of Street(s)	Governing Document	Actual Street Width (Feet)	Compliance with Street Section
Fire Mesa Street	Collector	Master Plan of Streets and Highways	60	Y

Pursuant to approved Special Use Permit (SUP-54332) and Site Development Plan Review (SDR-54330), the following parking standards apply:

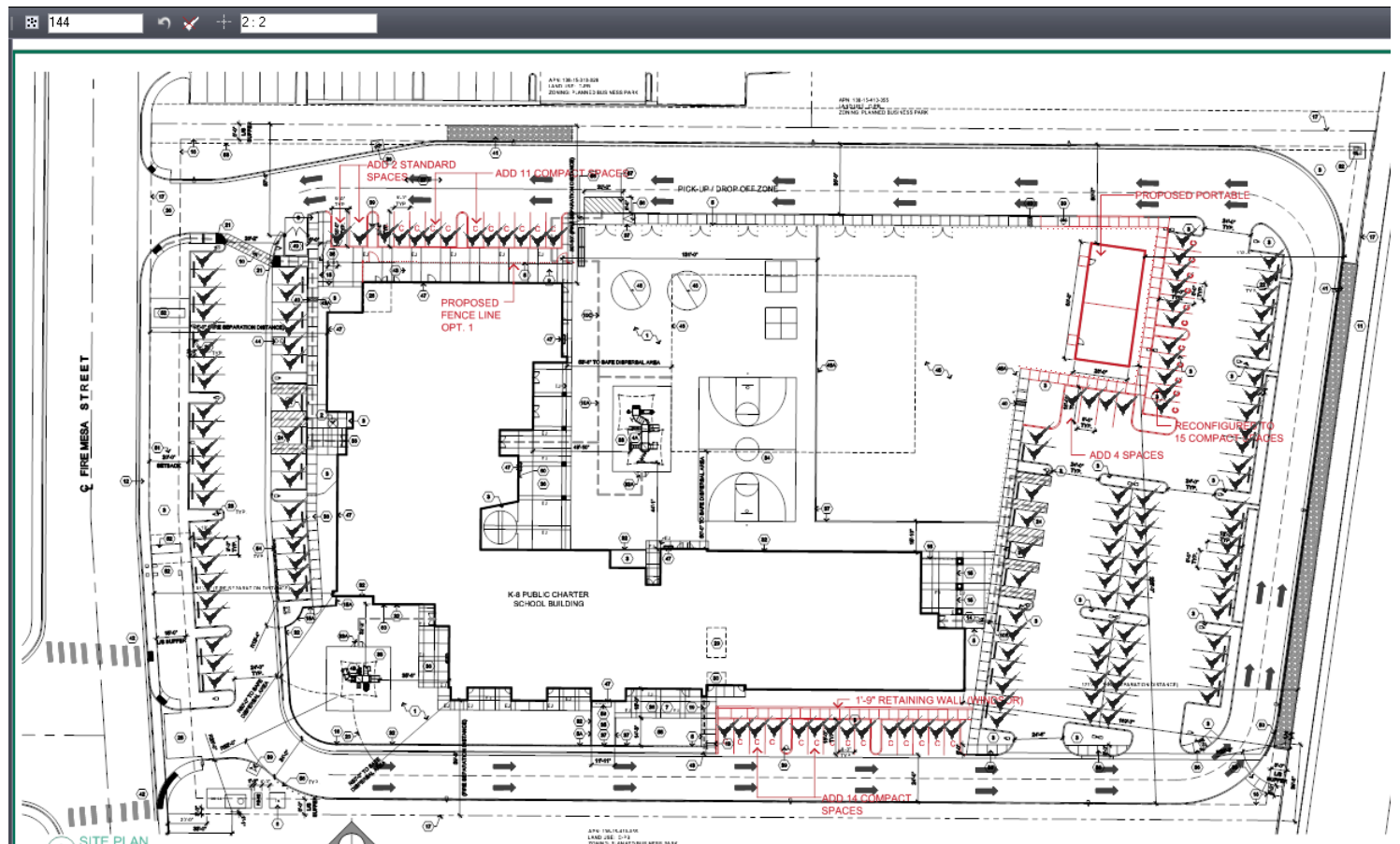
Parking Requirement							
Use	Gross Floor Area or Number of Units	Required			Provided		Compliance
		Parking Ratio	Parking		Parking		
			Regular	Handi-capped	Regular	Handi-capped	
Public School, Primary	45 classrooms	3 per classroom	135				
	2 classrooms (Additional)	3 per classroom	6				
Individual Care Center	1 staff member, 20 individuals	1:staff member, 1:10 individuals	3				
TOTAL SPACES REQUIRED			144		140		N*
Regular and Handicap Spaces Required			139	5	134	6	N*

140 parking spaces (including 24 compact spaces 17%)

ORIGINAL SITE PLAN



REVISED SITE PLAN 02/11/19 – Additional Parking Provided – 144 Total Spaces/ including 36 (25%) Compact



Pursuant to approved Special Use Permit (SUP-54332) and Site Development Plan Review (SDR-54330), the following parking standards apply:

Parking Requirement							
Use	Gross Floor Area or Number of Units	Parking Ratio	Required Parking		Provided Parking		Compliance
			Regular	Handi-capped	Regular	Handi-capped	
Public School, Primary	45 classrooms	3 per classroom	135				
	2 classrooms (Additional)	3 per classroom	6				
Individual Care Center	1 staff member, 20 individuals	1:staff member, 1:10 individuals	3				
TOTAL SPACES REQUIRED			144		144		Y
Regular and Handicap Spaces Required			139	5	134	6	Y

144 parking spaces (including 36 compact spaces 25%)

Pre-Application Files

☒ Upload all drawing files as individual sheets ☒ Follow CLVEPLAN [File Name Standards](#)

Required		FILE TYPE	FOLDER FILE NAME
YES	NO		
☒	☐	APPLICATION & STATEMENT OF FINANCIAL INTEREST (signed by property owner, notarized) Form	A-Documents PRJ75740_AP001
☒	☐	JUSTIFICATION LETTER (single detailed letter addressing all related applications) Letter Info	A-Documents PRJ75740_JF001
☒	☐	GRANT DEED AND LEGAL DESCRIPTION (may be available after year 1999 at Clark County)	A-Documents PRJ75740_DG001
☐	☒	LIST OF OFFICERS (may be available at NV Sec of State)	A-Documents PRJ75740_LO001
☒	☐	Cop(ies) of approval letter(s) for Las Vegas Technology Center	A-Documents PRJ75740_AL001
☒	☐	SITE PLAN – One color, one B/W version - North arrow, bar scale, graphic scale and vicinity map - Label <u>all</u> property lines, present dimensions, and building setbacks - Label <u>all</u> adjacent existing land uses and street names - Show <u>all</u> points of ingress and egress - Show <u>all</u> free-standing sign locations, heights and sizes - Label ADA accessibility requirements - Parking Calculation: - Parking standard(s) utilized: - Parking space count and typical dimensions labeled _____ # regular + _____ # compact (30% max) + _____ # handicap = _____ Total	A-Drawings PRJ75740_SP001
☒	☐	LANDSCAPE PLAN – One color, one B/W version - North arrow, bar scale, graphic scale, and vicinity map - Label <u>all</u> property lines and present dimensions - Show <u>all</u> required perimeter landscape planters - Show <u>all</u> required parking lot fingers/islands - Quantity, size, species/variety of <u>all</u> trees, shrubs, and ground cover in table format	A-Drawings PRJ75740_LP001
☒	☐	BUILDING ELEVATIONS – One color, one B/W version - Label graphic scale, bar scale and building dimensions - North, south, east, and west elevations of <u>all</u> buildings - Note <u>all</u> building materials and colors - Note <u>all</u> wall sign locations shown and sizes	A-Drawings PRJ75740_EV001
☒	☐	PHOTO REPRODUCTION OF THE COLOR & MATERIALS BOARD - SDR applications only May be included on the building elevations in the A-Drawings folder	A-Documents PRJ75740_MB001
☒	☐	FLOOR PLANS – B/W only - Label graphic scale, bar scale and building dimensions - North arrow, scale (to include a graphic scale) - Show <u>all</u> building entrances/exits - Label use of <u>all</u> rooms - Maximum Occupancy (per I.B.C.) - Seating Capacity (where applicable)	A-Drawings PRJ75740_FP001

PLANNING COMMISSION MEETINGS

Application Closing	Planning Commission	City Council**
Jan 22, 2019	Mar 12, 2019	Apr 3, 2019
Feb 4, 2019	Mar 26, 2019	Apr 17, 2019
Feb 19, 2019	Apr 9, 2019	May 1, 2019*
Mar 4, 2019	Apr 23, 2019	May 15, 2019*
Mar 25, 2019	May 14, 2019	Jun 5, 2019
Apr 8, 2019	May 28, 2019	Jun 19, 2019
Apr 22, 2019	Jun 11, 2019	Jul 3, 2019
May 6, 2019	Jun 25, 2019	Jul 17, 2019
May 20, 2019	Jul 9, 2019	Aug 7, 2019*
* General Plan Amendment Cycle		
** Reference only. Final council dates announced at the Planning Commission meeting.		

GENERAL PLAN AMENDMENT CYCLE

Ward	Application Closing	Last Day for Neighborhood Mailing	Last Day for Neighborhood Meeting	Planning Commission	City Council***
1, 3, 5	Feb 19, 2019	Mar 11, 2019	Mar 21, 2019	Apr 9, 2019	May 1, 2019
2, 4, 6	Mar 4, 2019	Mar 24, 2019	Apr 4, 2019	Apr 23, 2019	May 15, 2019
1, 3, 5	May 20, 2019	Jun 10, 2019	Jun 20, 2019	Jul 9, 2019	Aug 7, 2019
2, 4, 6	Jun 3, 2019	Jun 23, 2019	Jul 3, 2019	Jul 23, 2019	Aug 21, 2019
*** Failure to notice & hold a neighborhood meeting by the required date will automatically move your project to the next Planning Commission meeting.					

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: DORAL ACADEMY - FIRE MESA CHARTER SCHOOL Date: 4/17/2019

Location of Development: a) Descriptive (Cross Streets) North/South: FIRE MESA STREET

East/West: TRINITY PEAK AVENUE

b) Section: 15 Township: 20S Range: 60E

c) APN : 138-15-410-055

Name of Owner: CA LAS VEGAS FMS, LLC

Telephone No.: 702-431-6260 Fax No.: _____ E-Mail Address: butch.tomasetti@academicanv.com

Address: 6630 SURREY STREET, LAS VEGAS, NV 89119

Contact Person-Name: KENT B. ANDERSON, P.E. Telephone No.: 702-938-1525

* E-Mail Address: kanderson@nvbydesign.com Fax No.: _____

Firm: NEVADA BY DESIGN, LLC

Address: 5795 S SANDHILL RD STE C, LAS VEGAS, NV 89120

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: 8.39 Being Developed/Disturbed: 0.16 AC

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: DS#4685, DORAL ACADEMY - FIRE MESA CAMPUS, JUNE 2014

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: SITE WILL DISCHARGE INTO THE EXISTING CCRFCD MASTER PLAN FACILITY, BUFFALO CHANNEL AT THE NE CORNER OF THE PROPOSED DEVELOPMENT

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

Digitally signed
by Kent B.
Anderson

Date:

2019.04.17

'13:12:50 -07'00

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 4/17/2019

Local Entity File No. _____

REFERENCE:

STANDARD FORM 1

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

Project Name: Doral Academy Fire Mesa Charter School

Map ID: 138-15-410-055

Firm Name: Nevada By Design, LLC

Engineer: Kent B Anderson, P.E.

Address: 5795 S Sandhill Rd. Ste C

City: Las Vegas

State: NV

Zip: 89120

Phone Number:

Fax Number:

Property Owner: Las Vegas FMS, LLC

Address: 3000 Olympic Blvd., Bldg. 5, Suite 2120

City: Santa Monica

State: CA

Zip: 90404

Reviewed By:

Date Received:

Date Accepted for Review:

The following checklist is intended as a guide for the engineer preparing a Technical Drainage Study to submit to the local entity and Clark County Regional Flood Control District (if necessary). The listed items are the minimum information required prior to the entity performing a review. The engineer will remain responsible to ensure the Technical Drainage Study is prepared within the guidelines as set forth in the Clark County Regional Flood Control District (CCRFCD) Hydrologic Criteria and Drainage Design Manual (MANUAL).

This document is intended as an aid in preparing Technical Drainage Studies. Each study submitted is reviewed for compliance with local and regional criteria. This form is not intended to be all inclusive and does not limit the extent of the information, calculations or exhibits which may be necessary to properly evaluate the intended land use.

If items are not applicable for the subject site, provide N/A.

I. GENERAL REQUIREMENT

Yes

No

☒

☐

Design Manual **Standard Form 1** with the engineer's seal and signature.

☐

☒

Design Manual **Standard Form 4**.

☒

☐

2 copies of the 24" x 36" Drainage Plan.

☐

☒

A notarized letter from the adjacent property owner(s) allowing off-site grading or discharge.

II. MAPS AND EXHIBITS

Yes

No

☐

☒

A copy of a current Flood Insurance Rate Map (FIRM) with the site delineated.

☐

☒

A copy of the current CCRFCD Master Plan Update Figure, (F-x), for Flood Control Facilities and Environmental areas with the site delineated.

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

II. MAPS AND EXHIBITS (Continued)

Yes	No	
☐	☒	Off-site drainage basin maps for existing, interim and future conditions showing the existing topography, basin boundaries, concentration points, and flows in cfs.
☐	☒	On-site drainage basin maps for existing and proposed conditions showing the existing topography, basin boundaries, concentration points, and on-site and off-site flows in cfs.
☒	☐	Vicinity Map with local and major cross streets identified and a north arrow.

III. DRAINAGE PLAN

Yes	No	
☒	☐	Sheet size: 24" x 36" sealed by a registered engineer in the State of Nevada.
☒	☐	Minimum scale: 1" = 60'.
☒	☐	Project name.
☒	☐	Vicinity Map with local and major cross streets.
☒	☐	Revision box.
☒	☐	North arrow and bar scale.
☒	☐	Engineer's/consultant's address and phone number.
☒	☐	Elevation datum and benchmark.
☒	☐	Legend for symbols and abbreviations.
☒	☐	Cut/fill scarps, where applicable.
☐	☒	Street names, grades, widths.
☐	☒	Proposed future and existing spot grades for top of curbs and street crowns at lot lines, grade breaks, and along curb returns on both sides of the street.
☐	☒	Existing contours encompassing the site and 100 feet beyond with spot elevations for important locations, where appropriate.
☐	☒	Minimum finish floor elevations with top-of-curb elevations at upstream end of lot.
☐	☒	Proposed typical street sections.

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes	No	
☐	☒	Streets with off-set crowns.
☐	☒	Proposed contours or spot elevations in sufficient detail to exhibit intended drainage patterns and slopes.
☐	☒	Property lines.
☐	☒	Right-of-way lines and widths, existing and proposed.
☒	☐	Existing improvements and their elevations.
☐	☒	Delineation of proposed on-site drainage basins indicating area and 10-year and 100-year storm peak flows at basin concentration points.
☐	☒	Concentration points and drainage flow direction with Q_{100} and V_{100} and D_{100} in streets.
☐	☒	Cumulative flows, velocity, and direction of flow at upstream and downstream ends of site for the 10-year and 100-year flows.
☐	☒	Location and cross-section of street capacity calculations.
☐	☒	Cross-sectional detail for channels, including cutoff wall locations.
☐	☒	Existing and proposed drainage facilities, appurtenances, and connections (i.e., sidewalk, ditches, swales, storm drain systems, unimproved and improved channels, and culverts, etc.) stating size, material, shape, and slope with plan and profile and HGL calculations.
☐	☒	Existing and proposed drainage easements and widths shown with sufficient detail. A cross sectional detail must be provided that shows appropriate lining and reinforcement.
☐	☒	Location and detail of existing, proposed, and future block wall openings. Minimum size is 16" x 48". Wrought iron gate is required for flows > 10 cfs.
☐	☒	Location and detail of flood walls illustrating depth of flow, proposed grouting height, etc.
☐	☒	Perimeter retaining wall locations. All existing and proposed walls (retaining screen and flood) must be shown with adjacent ground elevations. Flood walls with 8-inch concrete masonry unit.
☐	☒	Building and/or lot numbers.
☐	☒	Alignment of all existing, proposed, or future Regional Facilities adjacent to the site.
☐	☒	Limits of existing floodplain based on current FIRM or best available information; limits of proposed floodplains based on best available information.

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes No

- | | | |
|--------------------------|-------------------------------------|--|
| ☐ | ☒ | For areas in Zone A, AE, AH, and AO, base flood elevations (BFEs) must be shown for each lot; BFEs may be listed on each lot, or in a table. Finish floor elevations must be a minimum of 18 inches above BFE. |
| ☐ | ☒ | Appropriately elevated "humps" 6 inches above the 100 year water surface elevation at site accesses where the intent is to protect the site from the Q_{100} flows. |
| ☐ | ☒ | Street slopes for perimeter and interior streets. The minimum slope is 0.4 percent. |
| ☐ | ☒ | Location and detail of best management practice (BMP) for parking lots and low impact development (LID) (if required). |

IV. HYDROLOGIC ANALYSIS

Yes No

- | | | |
|-------------------------------------|-------------------------------------|--|
| ☐ | ☒ | Appropriate soil information and Soils Map for existing and future conditions with subbasins and property delineated. |
| ☐ | ☒ | Input and output information for existing conditions from computer models (HEC-1 or TR-55). The flow routing diagram must be provided with HEC-1 models. |
| ☐ | ☒ | Input and output information for future conditions from computer models (HEC-1 or TR-55). The flow routing diagram must be provided with HEC-1 models. |
| ☐ | ☒ | Use of correct precipitation values in and around the McCarran Airport rainfall area. |
| ☐ | ☒ | A discussion in the text of the hydrologic analysis justifying subbasin boundaries and cutoffs, supporting assumptions, and calculations. |
| ☐ | ☒ | A summary table of stormwater flows showing basin area, Q_{10} and Q_{100} for both individual basins and combined basin flows, where applicable. |
| ☒ | ☐ | Copies of supporting technical information referenced from a previously approved study and a statement accepting these results. |
| ☒ | ☐ | On-site facilities must perpetuate flows through or around the site without significantly impacting adjacent property owners in accordance with current Nevada Drainage Law. |
| ☐ | ☒ | Calculation for impervious area for parking lots and LIDs (if required). |

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

V. HYDRAULIC ANALYSIS

Yes No

- | | | |
|-------|---|---|
| _____ | x | Flow split calculations and supporting documentation or reference for the method of flow split calculations used. |
| _____ | x | Normal depth street flow calculations and cross section diagrams for all interior and perimeter streets. Provide "d x v" products for the Q_{100} and Q_{10} flows representing the worst case for interior and all perimeter streets. $Q_{100} d \times v \leq 8$. $Q_{10} d \times v \leq 6$ and 12 foot dry lane for rights-of-way ≥ 80 feet. Calculations must be labeled by street name as indicated on the Grading Plan. |
| _____ | x | A summary table of interior and exterior street capacity calculations showing the street name, Q_{100} flow, slope, depth of flow, velocity and depth times velocity product and streets needing to meet 12 foot dry lane criteria. |
| _____ | x | Appropriate hydraulic calculations for block wall openings assuming a 50 percent vertical clogging factor. (Assume the lower half of the opening is plugged.) |
| _____ | x | Appropriate hydraulic calculations at drainage easement entrance and discharge locations to set finish floor elevations. Hydraulic calculations must include submerged weir, superelevation and tee intersection losses, where appropriate. |
| _____ | x | Provide necessary freeboard requirements to set the finished floor elevations of all proposed buildings, 2 x depth of flow or depth of flow plus 18 inches of freeboard, whichever is less. The minimum requirement is 6 inches above adjacent upstream top of curb. Buildings adjacent to drainage easements must always be provided with 18 inches of freeboard above the Q_{100} weir height or flow depth, whichever is greater. |
| _____ | x | A complete water surface profile analysis (HEC-2, HEC-RAS, etc.) for channel flows and FEMA Zone A flood zones. <ul style="list-style-type: none"> • Field survey data. • Input and output information. • Plotted cross-sections based on survey with proper encroachments. • A map showing the location of the cross-sections. • Analysis of both sub and super-critical flow segments. • A summary table and a discussion of the results in the text of the report. |
| _____ | x | Provide a 50 percent clogging factor in the capacity calculation for drop inlets. |
| _____ | x | Hydraulic calculations for culverts and storm drains. D-Load calculations must be provided for storm drain pipes in public rights-of-way, including headwater pool inundation. |
| _____ | x | The mitigation of nuisance water, both during construction and in the fully developed condition, must be addressed. |
| _____ | x | Provide BMP type, size and supporting calculations for parking lots and LIDs (if required). |

REFERENCE:

STANDARD FORM 2



CITY OF LAS VEGAS

MINIMUM DRAINAGE STUDY CRITERIA STANDARD FORM 2 CHECKLIST SUPPLEMENT

(Revised 5/18/11)

The following checklist is intended as a supplemental guide for the engineer preparing a Technical Drainage Study submittal to the City of Las Vegas. This supplement focuses on requirements specific to the City of Las Vegas. The requirements presented are in addition to the Clark County Regional Flood Control District (CCRFCDD) Manual Standard Form 2. The listed items are the minimum information required prior to the City performing a review. The engineer will remain responsible to ensure the Technical Drainage Study is prepared within the guidelines as set forth in the CCRFCDD Hydrologic Criteria and Drainage Design Manual (Design Manual).

An appointment must be made to preview this checklist in conjunction with CCRFCDD Standard Form 2 prior to the City accepting a new drainage study for review. The engineer must contact the Flood Control Section at (702) 229-6541 to schedule a submittal appointment.

If items are not applicable for the subject site, provide N/A.

I. GENERAL REQUIREMENT		
Yes	No	
	n/a	A notarized letter from the adjacent property owner(s) allowing off-site grading. (A copy of the letter must be received prior to final acceptance of the drainage study.)
x		Copies of all conditions of approval for development related to this property. (e.g. zoning, use permit, tentative map, etc.) Verify compliance with conditions.
x		An electronic copy of the complete submittal is required to be submitted with one original hard copy of the study. Electronic documents should be on a universal computer-readable digital output device replicating your submittal. An Indexed Portable Document Format (PDF) or Print Ready CAD file formats with a minimum of 300dpi are the desired formats. If figures are in color, they must be scanned in color and saved as a separate file. _____ by initial here, the engineer on record acknowledges that the electronic copy is an identical replicate of the original hard copy submitted to the City of Las Vegas.

II. GRADING PLAN INFORMATION		
Yes	No	
x		(1) 24" X 36" copy of the Grading Plan, (including all Detail Sheets) sealed by the engineer.
	n/a	Proposed future and existing spot grades for top of curbs and street crowns at lot lines, grade breaks, and along curb returns on both sides of the street. Note: Proposed top of curb elevations must be provided for both sides of roadways even if only half street construction is required.
	n/a	Label existing topography at a minimum 5 foot elevation interval including adjacent developments, finished floor elevations of existing buildings and top of existing curbs extending 100 feet around the perimeter of the site. (*Measured from the centerline of the adjacent roadway.)

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

II. GRADING PLAN INFORMATION		
Yes	No	
	n/a	Proposed on-site and off-site storm drains and other flood control facilities with plan and profile sheets for public storm drains showing the class of pipe, (Class III, IV, V, etc.), design hydraulic grade line, (HGL) and 100 year storm flow. A public drainage easement must be provided over on-site storm drains conveying off-site flows. An overflow path must be provided over all storm drains.
	n/a	All existing and "to be constructed" walls with cross-sections showing wall type, (e.g. block wall, retaining wall, flood wall, etc.), with limits clearly defined, adjacent ground elevations. Wall heights must meet current ordinances and in no case exceed 14 feet above the adjacent property.
	n/a	Street slopes for both interior and perimeter streets. Note: The minimum slope for a roadway is 0.4 percent, a minimum 18-inch storm drain must be provided where minimum slopes cannot be met.
	n/a	Back of lot elevations and lot drainage pattern for all lots including common lots.
	n/a	Sites with a grade difference two feet above or below existing ground are required to have approval from City of Las Vegas Current Planning. Current Planning approval is required prior to final approval of the drainage study.
	n/a	On-site facilities must perpetuate flows through or around the site without significantly impacting adjacent property owners. (The project must pass flows through the site every 600 feet where the project is blocking flow paths.)
	n/a	This project uses a solid grouted stem wall (or approved alternate) at the back of sidewalk to provide erosion protection for landscaped areas where the depth of flow in the roadway exceeds the back of walk elevation. A corresponding cross-section detail is included.
	n/a	Commercial and Common Lot Landscape areas are not allowed to drain over the sidewalk. The grading plans show flow lines with grades and sidewalk under drains for all landscape areas draining to the public ROW.

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
	n/a	Concrete valley gutters are required in parking lots with slopes less than 1 percent. Slopes through cul-de-sac must be at a 1 percent minimum where flow is drained through the cul-de-sac.
	n/a	Ten-foot wide public drainage easements to be privately maintained are allowed for flow less than 20 cfs. The depth of flow entering the easement must be checked using the submerged weir calculation.
	n/a	The limits of the flood zones and the base flood elevations (BFE) must be shown on all grading plans for all developments within a Special Flood Hazard Zone A, AO, AE, etc.
	n/a	Minimum finish floor elevation is 6 inches above highest adjacent top of curb. Finish floor calculations must include allowances for super elevations on curves and velocity head for tee intersections.
	n/a	Finished floor elevations for buildings adjacent to public drainage easements must be a minimum of 18 inches above the Q100 weir of submerged weir elevation, whichever is greater.

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
	n/a	Lots with “B and C Type Drainage” that drain from one lot to another through a drainage easement shall be required to install an underground nuisance drainage system or a 2-foot valley gutter. 16” x 24” minimum block wall openings are required for both options.
	n/a	Bubblers are required across 80 foot and greater ROW streets. When flows exceed 10 cfs, bubblers larger than 18 inches will be required up to a maximum of 36”. Inlets must be sized to match the pipe size provided.

- Contact the Flood Control Section regarding the drainage study review fee. These fees are payable at the time of submittal.
- The Drainage Study must be conditionally approved prior to submitting improvement plans to the Civil and Planning Development of the Department of Building and Safety for review.

This document is intended as an **aid** in preparing Technical Drainage Studies for the City of Las Vegas. Each study submitted is reviewed for compliance with local and regional criteria. This form is not intended to be all-inclusive and does not limit the extent of the information, calculations or exhibits which may be necessary to properly evaluate the intended land use.

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LIST OF ATTQCHMENTS

On-Site Drainage Basins (Oringal Study)
Grading Plan (Approved from Original Study)
Grading Plan Changes (Classroom Addition)

SECTION I: GENERAL LOCATION AND DEVELOPMENT DESCRIPTION

INTRODUCTION

The purpose of this report is to provide and update from the existing Technical Drainage Study and to establish a record finish floor elevation for the prefabricated classroom building being built in the northeastern portion of the site. The parcel is currently owned by CA Las Vegas FMS, LLC. The proposed development will consist of the demolition of portion of the existing parking lot and placement of a 28'x60' prefabricated classroom building on a permanent foundation.

This report will identify issues with the 6,900 sf site changes to accommodate the prefab building and changes to the parking and circulation.

LOCATION

The project new building is to be located in the northeastern portion of the existing school at 2568 Fire Mesa Street. The Assessor's Parcel Number is 138-15-410-056. The site has partial development on the north, flood channel on the east and vacant property on the south.

DRAINAGE EVALUATION

This update accepts the previous study by Walker Engineering ,LLC in its entirety. The placement of the classroom building has insignificant impact to the original study. Drainage evaluation can be found in the Doral Academy – Fire Mesa Campus Study prepared by Walker Engineering, LLC dated June 30, 2014 DS# 4685

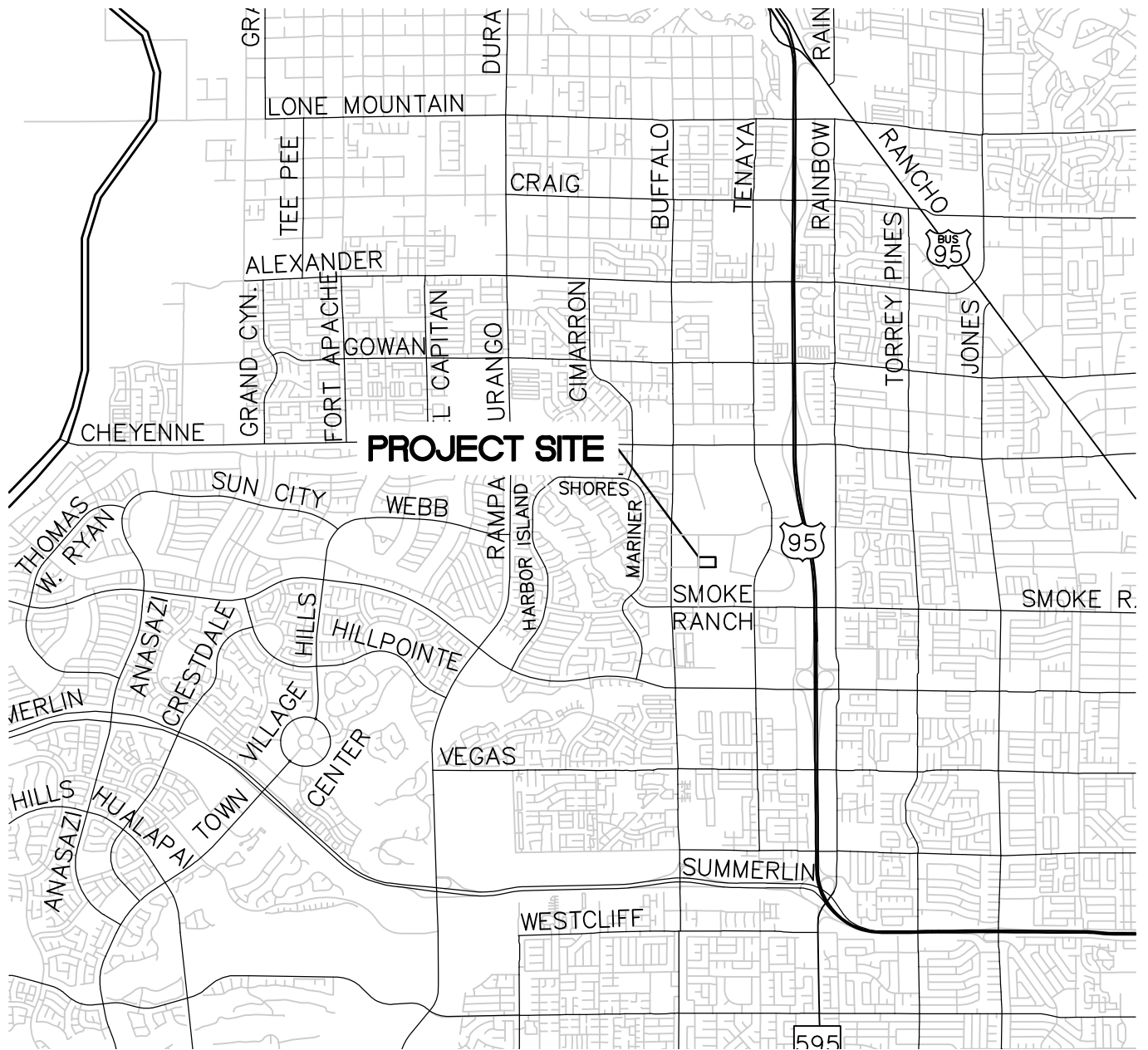
SECTION II: SITE DESCRIPTION

PROPOSED ON-SITE DRAINAGE DESCRIPTION

The proposed change on the site consists of demolition of approximately 6900 square feet of existing parking lot and the placement of a 28' x 60' prefabricated classroom on a concrete foundation. The flows west of the classroom site will continue to drain through a undersidewalk drain onto the driveway on the north and through a curb, gutter and sidewalk south of the proposed improvements. The placement of the classroom will drain away from the building to the west, north south and east. The finish floor has been set to be 0.66 feet above the asphalt in the parking stall at the southwest corner of the building of which there is minimal drainage. This criteria meets the requirement of the International Building Code for drain around a building. The new building finish floor is to be set at an elevation of 2482.50 feet. The new building will be protected from the 100 year storm event.

The original study's have been reviewed and I accept the findings. These reports are the basis of this update report pertaining to the new building finish floor elevation.

Attached are the original site basins and grading plan from DS# 4685 for information purposes and grading plans for the classroom building, Sheets G1.00, G1.01 and C2.00.



Nevada By Design

ENGINEERING CONSULTANTS
5795 S Sandhill Rd, Ste C
Las Vegas, NV 89120
Phone: (702) 938-1525
kanderson@nvbydesign.com

VICINITY MAP FIGURE 1

DRAWN BY:	KBA	JOB NO.:	CE18199
DATE:	4/17/2019	SHT.	1 OF 1

SECTION III: SUMMARY

RECOMMENDATIONS

The following recommendations are provided to facilitate safety; both public and private, for the proposed classroom building addition to the site.

1. Final Finish Floor elevation of the Classroom building is to be set at 2482.50 feet with the surrounding grade draining away from the building and foundation as shown on the grading plan.

CONCLUSION

The proposed classroom addition will not adversely impact the surrounding areas due to flooding. The development of this proposed project site is in compliance with the Drainage Design Manual

REFERENCES

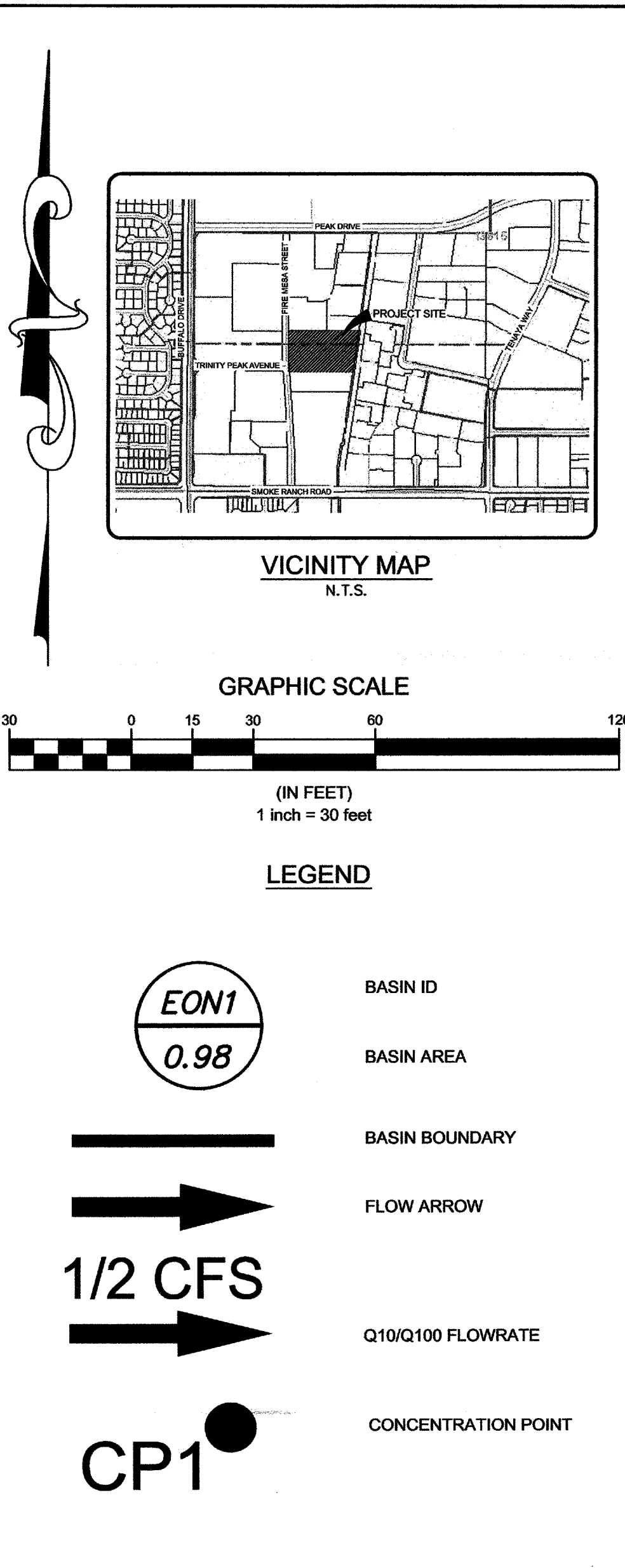
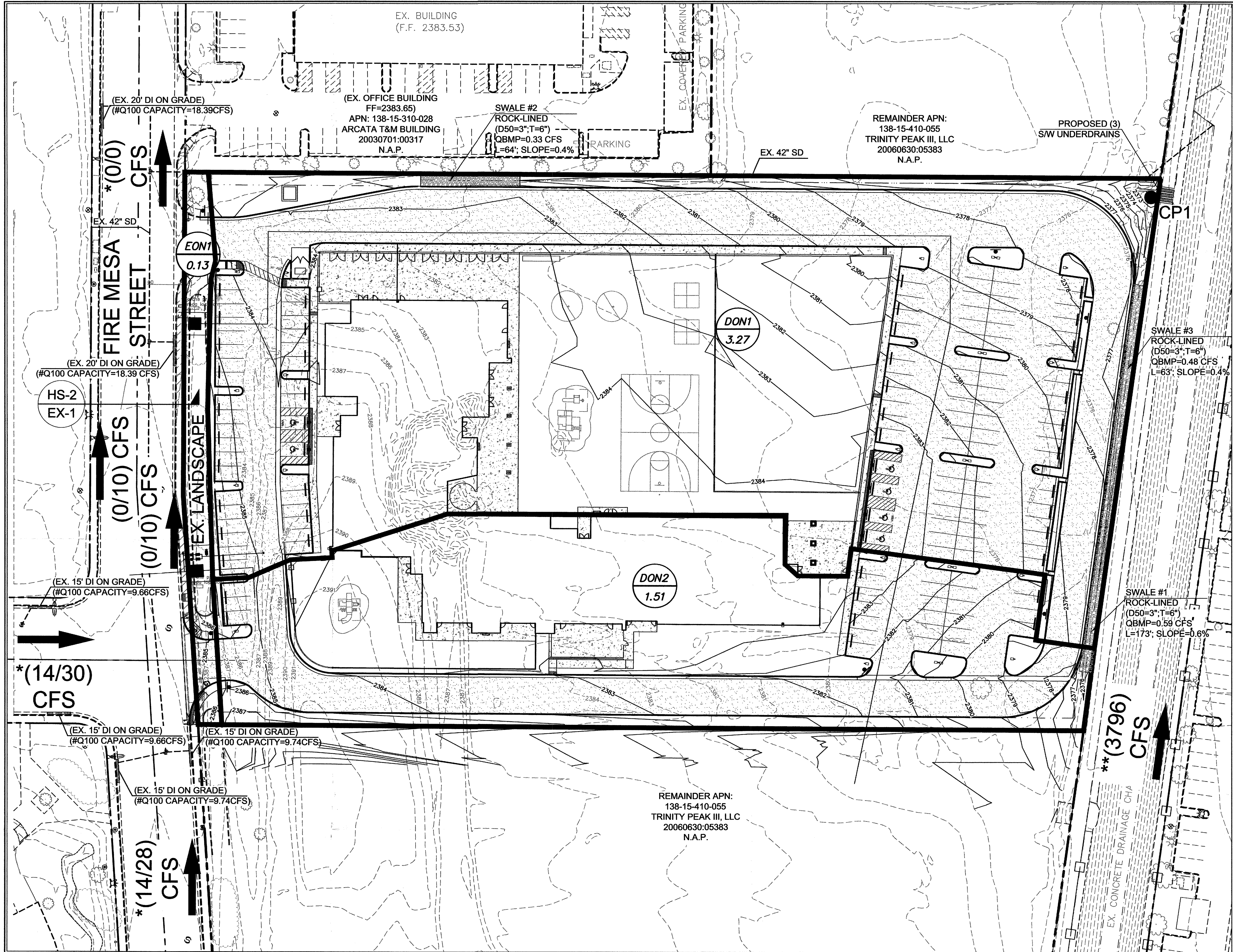
Clark County Regional Flood Control District Hydrologic Criteria and Drainage Design Manual, dated August 1999, prepared by WRC Engineering Incorporated and updated by Montgomery Watson.

Clark County Regional Flood Control District Flood Control Master Plan Update, dated 2002, prepared by Post, Buckley, Schuh & Jernigan, Inc., G.C. Wallace, Inc. and Louis Berger Group.

Clark County Regional Flood Control District Flood Control Master Plan Update, dated 2013, prepared by Post, Buckley, Schuh & Jernigan, Inc. and VTN Nevada.

Flood Insurance Rate Map Number 32003C2135F, effective November 16, 2011, prepared by Federal Emergency Management Agency.

Doral Academy – Fire Mesa Campus Drainage Study, prepared by Walker Engineering, LLC . in June 2014. DS#4685



WIE

WALKER ENGINEERING, LLC
5765 S. RAINBOW BLVD., SUITE 101
LAS VEGAS, NV 89118
TEL: 702.873.5197
FAX: 702.873.5346

APPROVAL

REVISIONS

SUBMITTAL NO. TDS1
DATE: JUNE 30, 2014

DATE

DATE

DATE

INITIALS

DESCRIPTION OF REVISION

DATE

DORAL ACADEMY
FIRE MESA CAMPUS

PROPOSED CONDITION BASIN MAP

1317.00

CLV:

PR-1

1 OF 1 SHEETS

NOTE
*EXISTING CONDITION FLOW RATES REFERENCED FROM TECHNICAL DRAINAGE STUDY FOR LAS VEGAS TECHNOLOGY CENTER PHASE II OFFICE BUILDING #L-2. DS#3573
**EXISTING CONDITION FLOW RATES REFERENCED FROM 2013 LAS VEGAS VALLEY FLOOD CONTROL MASTER PLAN UPDATE FIGURE F-25.

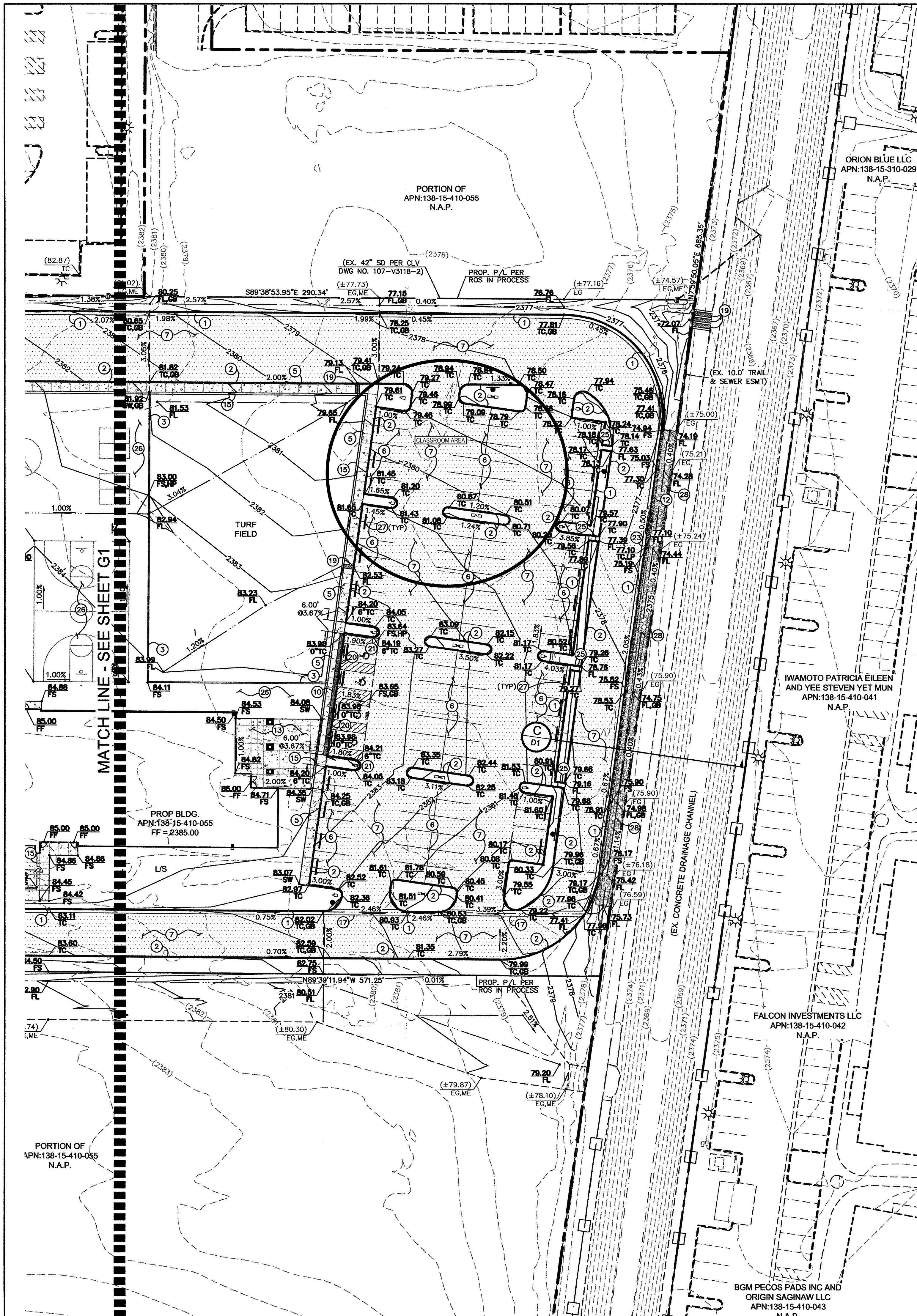
#EXISTING DROP INLET CAPACITY REFERENCED FROM TECHNICAL DRAINAGE STUDY FOR LAS VEGAS TECHNOLOGY CENTER PHASE 2. DS#2440

FLOW SUMMARY

BASIN	BASIN AREA (ACRES)	10-YEAR FLOW (CFS)	100-YEAR FLOW (CFS)
EON1	0.13	0	0
DON1	3.27	7	12
DON2	1.51	3	6
CP1	-	10	18

HYDRAULIC CALCULATIONS

SECTION NAME	Q10 (CFS)	FLOW DEPTH (FT)	V10 (FPS)	D-V	Q100 (CFS)	FLOW DEPTH (FT)	V100 (FPS)	D-V	DRY LANE?
HS-1 FIRE MESA ST	0	-	-	-	10	0.30	2.34	0.70	N/A
HS-2 FIRE MESA ST (EAST 1/2)	0	-	-	-	10	0.46	2.43	1.12	N/A



ACCESSIBILITY NOTES

1. MAXIMUM SLOPE ON THE ACCESSIBLE ROUTE IS 5.0% IN THE DIRECTION OF TRAVEL, 2.0% CROSS SLOPE.
2. MAXIMUM SLOPE IN ACCESSIBLE PARKING STALL LOADING AISLES IS 2.0% IN ANY DIRECTION.
3. PROVIDE ACCESSIBLE PARKING STALL SIGNAGE FOR HANDICAP AND VAN ACCESSIBLE STALLS PER NRS 484.408.
4. HANDICAP STALLS SHALL BE 9'-0" WIDE x 18'-6" LONG (18'-6" WITH PERMITTED OVERHANG). HANDICAP STALL LOADING AISLES ARE 5'-0" WIDE x THE ENTIRE LENGTH OF THE PARKING STALL (8'-0" WIDE FOR VAN ACCESSIBLE SPACES).

ENGINEER'S NOTES:

1. ALL WORK SHALL CONFORM TO THE SOILS REPORT PREPARED BY WESTERN TERRACON CONSULTANTS, INC. DATED JUNE 26, 2014 PROJECT NO. 641459220.
2. ALL OFF-SITE IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST EDITION.
3. FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES SHALL BE ONE-HALF INCH ABOVE THE TOP OF THE GUTTER (INCLUDING OPEN GRADE).
4. CONTRACTOR IS RESPONSIBLE FOR DUST AND EROSION CONTROL DURING CONSTRUCTION.
5. THIS PLAN SHALL NOT, IN PART OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY ALL APPLICABLE GOVERNMENT AGENCIES.
6. ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES IMMEDIATELY.
7. MATCH ELEVATIONS SHOWN TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

- LEGEND**
- PROPERTY LINE
 - STREET CENTERLINE
 - PROPOSED RETAINING WALL
 - PROPOSED BUILDING
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED CURB & GUTTER
 - PROPOSED CURB
 - PROPOSED EDGE OF PAVEMENT
 - EXISTING CURB & GUTTER
 - EXISTING CURB
 - EXISTING BUILDING
 - CONSTRUCTION NOTE
 - CUT FILL TRANSITION
 - SAWCUT LIMITS
 - SCARP
 - SLOPE
 - FLOW LINE
 - EASEMENT LINE
 - HANDICAP PARKING
 - FINISHED SURFACE
 - CURB FACE
 - CURB BACK
 - EDGE OF PAVEMENT
 - TOP OF GRATE
 - PROPOSED GRADE
 - EXISTING GRADE
 - PROP. AC PAVEMENT
 - PROP. PCC PAVEMENT
 - REMOVE & REPLACE EXISTING AC PAVEMENT

FLOODZONE

THE PARCEL DESCRIBED HEREON LIES WITHIN THE FLOOD HAZARD ZONE HAVING A ZONE DESIGNATION OF "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) BY THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT, AS SHOWN ON FIRM MAP NO. 2135F DATED NOVEMBER 16, 2011.

BACK OF CURB CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	52.43	25.00	120°10'00"	43.45
C2	23.58	15.00	89°59'49"	15.00

BACK OF CURB LINE TABLE		
LINE	LENGTH	BEARING
L1	2.91	S03°29'40"E

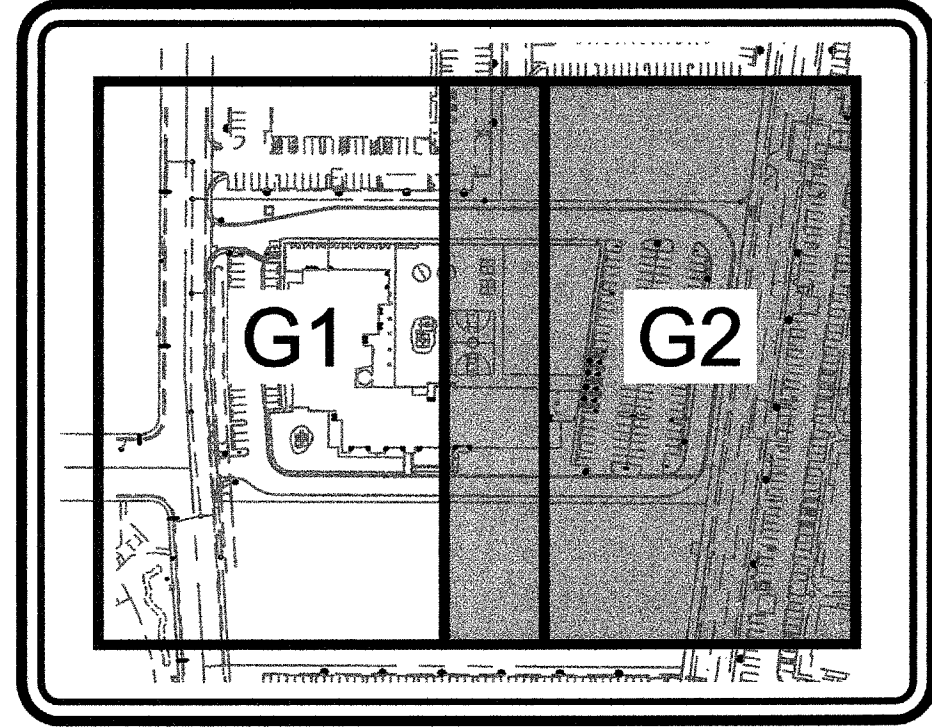
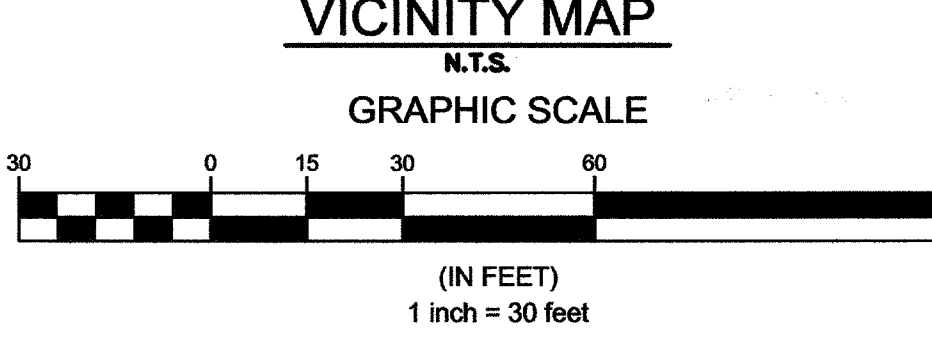
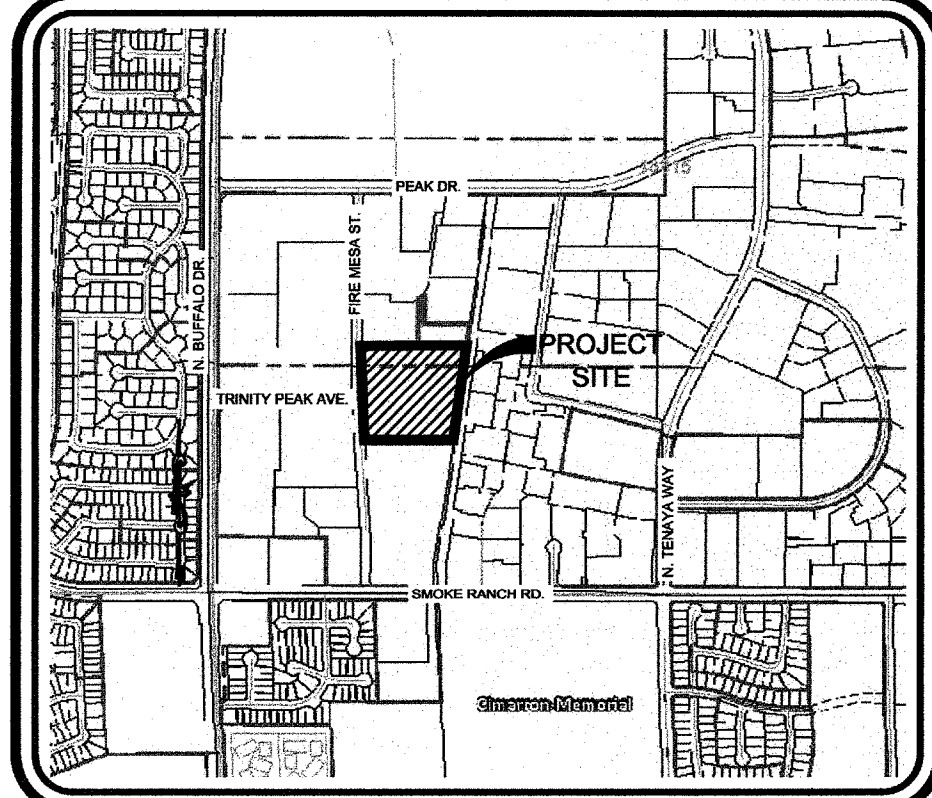
LEGAL DESCRIPTION:
SEE COVER SHEET FOR FULL LEGAL DESCRIPTION

BASIS OF BEARINGS:
NORTH 89°40'51" WEST, BEING THE BEARING OF THE CENTERLINE OF SMOKE RANCH ROAD AND THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 155, PAGE 31 OF SURVEYS, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:
CITY OF LAS VEGAS BM #0LC0016SE6E,
BEING A RIVET PLATE IN THE TOP OF CURB WEST SIDE OF BUFFALO AT TRINITY PEAK AVENUE
ELEVATION: 2401.52 (US SURVEY FEET)
731.98 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

SIGHT VISIBILITY ZONES NOTE
NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM THE TOP OF CURB.

EARTHWORK QUANTITIES
*NOTE: THESE QUANTITIES ARE APPROXIMATE AND ARE RAW VOLUMES ONLY. OVERCUT, SUBSIDENCE, SHRINKAGE, & BULKING FACTORS ARE NOT TAKEN INTO ACCOUNT.
CUT = x C.Y.
FILL = x C.Y.



KEY MAP
N.T.S.

- CONSTRUCTION NOTES**
1. CONSTRUCT "L" TYPE CURB & GUTTER PER STD DWG NO. 216
 2. CONSTRUCT "A" TYPE CURB ER STD DWG NO. 219
 3. CONSTRUCT NOW CURB PER ARCHITECTURAL PLANS (BY OTHERS)
 4. SAWCUT NEAT & MATCH EXISTING
 5. CONSTRUCT CONCRETE SIDEWALK PER ARCHITECTURAL PLANS (BY OTHERS)
 6. CONSTRUCT 2" STANDARD A.C. PAVEMENT OVER 4" TYPE II AGG. BASE PER SOILS REPORT BY TERRACON CONSULTANTS. SEE DETAIL 1 ON SHEET D2
 7. CONSTRUCT 3" HEAVY A.C. PAVEMENT OVER 4" TYPE II AGG. BASE PER SOILS REPORT BY TERRACON CONSULTANTS. SEE DETAIL 2 ON SHEET D2
 8. CONSTRUCT 2" PCC OVER 4" TYPE II AGG. BASE PER SOILS REPORT BY TERRACON CONSULTANTS. SEE DETAIL 3 ON SHEET D2
 9. CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG NO. 226-S1
 10. INSTALL ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 4 ON SHEET D2
 11. CONSTRUCT SIDEWALK RAMP PER STD DWG NO. 235 CASE 1
 12. CONSTRUCT 4.0' MAX RETAINING WALL DESIGN & PERMITS (BY OTHERS)
 13. CONSTRUCT CONCRETE WALKWAY PAVEMENT PER ARCHITECTURAL PLANS (BY OTHERS)
 14. INSTALL TRASH ENCLOSURE PER ARCHITECTURAL PLANS (BY OTHERS)
 15. INSTALL CHAIN LINK FENCE PER ARCHITECTURAL PLANS (BY OTHERS)
 16. INSTALL DECORATIVE WROUGHT IRON FENCE PER ARCHITECTURAL PLANS (BY OTHERS)
 17. CONSTRUCT 3.0' WIDE VALLEY GUTTER PER DETAIL 5 ON SHEET D2
 18. CONSTRUCT SIDEWALK RAMP PER DETAIL 6 ON SHEET D2
 19. CONSTRUCT SIDEWALK DRAIN PER STD DWG NO. 236
 20. CONSTRUCT 0" CURB
 21. TRANSITION FROM 6" CURB TO 0" CURB PER DETAIL 7 ON SHEET D2
 22. INSTALL 4" PVC STORM DRAIN, OUTLET AT CURB FACE
 23. CONSTRUCT 2.0' WIDE CURB OPENING PER DETAIL 8 ON SHEET D2
 24. MATCH EXISTING
 25. CONSTRUCT 2" CONCRETE FLUME PER DETAIL 9 ON SHEET D2
 26. CONSTRUCT ASPHALT PLAYGROUND SURFACE PER ARCHITECTURAL PLANS (BY OTHERS)
 27. INSTALL PRECAST CONCRETE WHEEL STOP BY JENSEN OR EQUIVALENT PER ARCHITECTURAL PLANS (BY OTHERS)
 28. CONSTRUCT CLASS 150 RIP RAP (D50=6", T=12") OVER 8" CLASS 150 BEDDING OVER NON-WOVEN GEOTEXTILE PER NDOT R-1.4.1

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE WITH CITY OF LAS VEGAS FOR THIS PROJECT, DS ---.

TREASEA WOLF, P.E. No. 17879 DATE

LV DRAWING NO. TBD

W E

WALKER ENGINEERING, LLC
5765 S. RAINBOW BLVD.
SUITE 101
LAS VEGAS, NV 89118
TEL: 702.873.5197
FAX: 702.873.5346

STATE OF NEVADA
Professional Engineer
No. 17879
12/14

APPROVAL
DATE
INITIALS

REVISIONS

DORAL ACADEMY
FIRE MESA CAMPUS

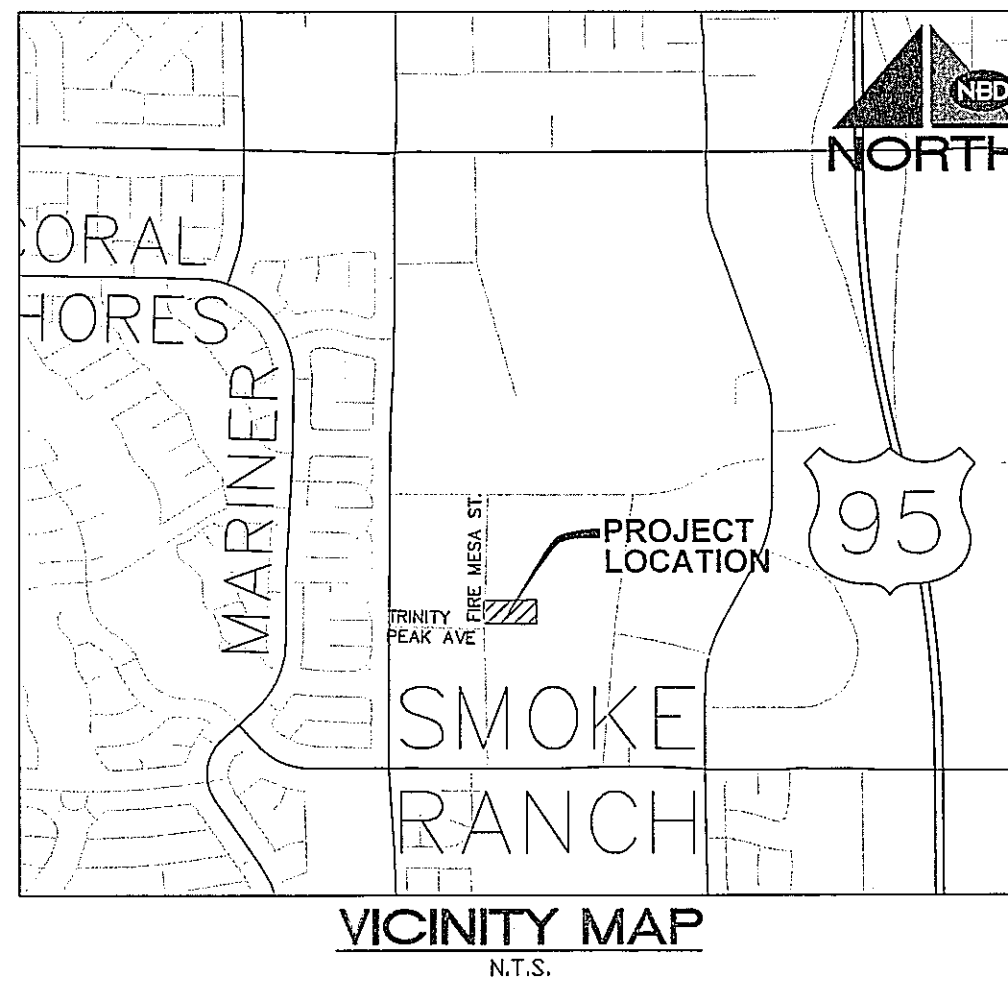
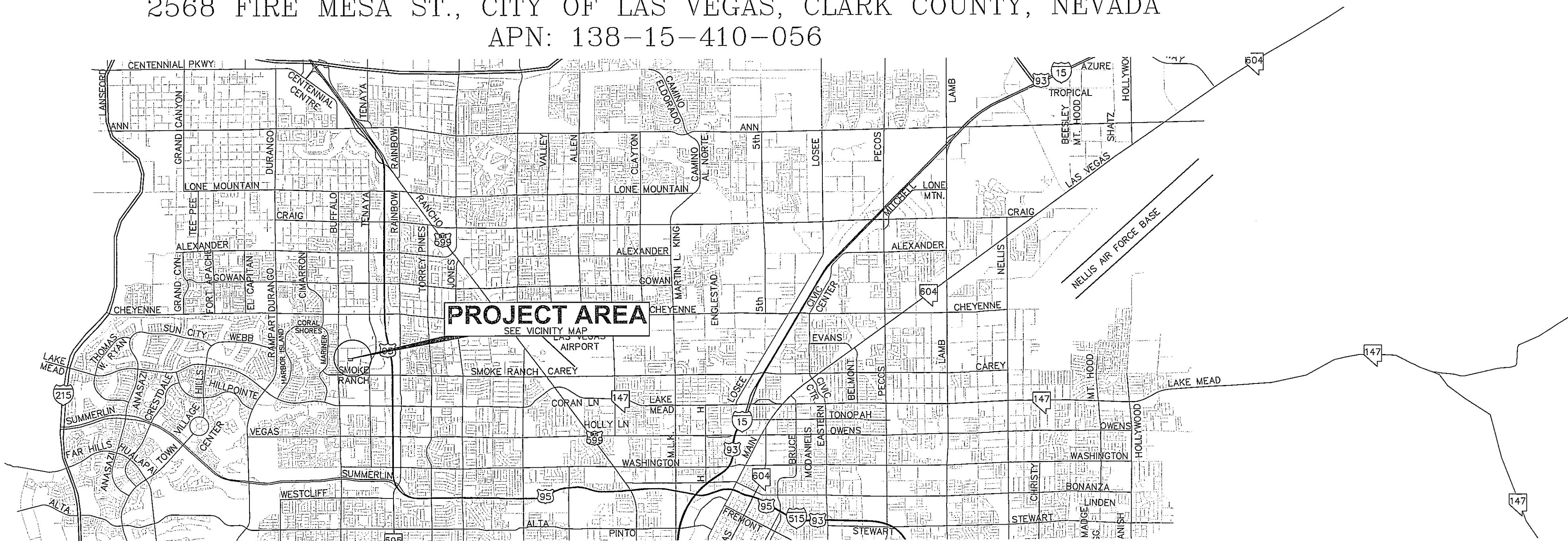
PRECISE GRADING PLAN 2 OF 2

SUBMITTAL NO. TDS
DATE: JULY 02, 2014
WE PROJECT NO.
1317.00
AGENCY NO.
CLV:
SHEET NO.:
G2
8 OF 10 SHEETS

DORAL ACADEMY – FIRE MESA – CLASSROOM ADDITION IMPROVEMENT PLANS

2568 FIRE MESA ST., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA

APN: 138-15-410-056



ABBREVIATIONS:

2	AND	HPS	HIGH PRESSURE SODIUM
3	AT	ID	INSIDE DIAMETER
4	DIAMETER OR ROUND	INV	INVERT
5	NUMBER	IRR	IRRIGATION
AC	ASPHALTIC CONCRETE	LAT	LATERAL
ADP	ASBESTOS CEMENT PIPE	LF	LINEAL FEET
ADJ	ADJUST	LS	LANDSCAPE
AGG	AGGREGATE	LT	LEFT
ALT	ALTERNATE	LVWD	LAS VEGAS VALLEY WATER
AVE	AVENUE	DISTRICT	DISTRICT
BC	BACK OF CURB	MAX	MAXIMUM
BCR	BEGINNING OF CURB RETURN	MH	MANHOLE
BDR	BOUNDARY	MIN	MINIMUM
BEG	BEGIN	NG	NATURAL GRADE
BM	BENCHMARK	NO	NUMBER
BSW	BACK OF SIDEWALK	NO	NEVADA DEPARTMENT OF
BTWN	BETWEEN	NDOT	TRANSPORTATION
BVC	BEGINNING OF VERTICAL CURVE	OC	ON CENTER
CATV	CABLE TV	OD	OUTSIDE DIAMETER
C & G	CURB AND GUTTER	OD	OVERHEAD POWER
CIP	CAST IRON PIPE	P	POWERLINE
CL	CENTERLINE	PB	PULL BOX
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
CMU	CONCRETE MASONRY UNIT	PCC	POINT OF COMPOUND CURVE
CO	CLEAN OUT	PE	POLYETHYLENE
CONC	CONCRETE	PI	POINT OF INTERSECTION
CONST	CONSTRUCT	PL	PROPERTY LINE
CBC	CITY OF BOULDER CITY	POC	POINT OF CONNECTION
CLV	CITY OF LAS VEGAS	PP	POWER POLE
ONLY	CITY OF NORTH LAS VEGAS	PRC	POINT OF REVERSE CURVE
COH	CITY OF HENDERSON	PROP	PROPOSED
COM	CITY OF MESQUITE	PT	POINT OF TANGENT
CC	CLARK COUNTY	PVC	POLY VINYL CHLORIDE PIPE
CCAUSD	CLARK COUNTY AREA UNIFORM	PVI	POINT OF VERTICAL INTERSECTION
STANDARD DRAWINGS		PVMT	PAVEMENT
CCWRD	CLARK COUNTY WATER RECLAMATION	Q	RATE OF FLOW
DISTRICT		R	RADIUS
CCRFD	CLARK COUNTY REGIONAL FLOOD	RCB	REINFORCED CONCRETE BOX
CONTROL DISTRICT		RCP	REINFORCED CONCRETE PIPE
DC	DEPRESSED CURB	RD	ROAD
DCSWCS	DESIGN AND CONSTRUCTION	RR	RAILROAD
STANDARDS FOR WASTEWATER		RT	RIGHT
COLLECTION SYSTEM		ROW	RIGHT-OF-WAY
DI	DIAMETER	SS	SANITARY SEWER
DIA	DUCTILE IRON PIPE	SD	STORM DRAIN
DIP	DROP MANHOLE	SDWK	SIDEWALK
DMH	DOMESTIC	SHT	SHEET
DOM	DOMESTIC	STA	STATION
DWY	DRIVEWAY	ST	STREET
E	ELECTRIC	STD	STANDARD
EAC	EDGE OF AC	T	TELEPHONE
EC	END OF CURVE	TC	TOP OF CURB
ECR	END OF CURB RETURN	TF	TOP OF FOOTING
ECOD	END DRIVEWAY	TMH	TOP OF MANHOLE
EL	ELEVATION	TRANS	TRANSITION
EM	ELECTRIC METER	TS	TRAFFIC SIGNAL
EOP	EDGE OF PAVEMENT	TSC	TRAFFIC SIGNAL CONDUIT
ESMT	EASEMENT	TW	TOP OF WALL
EVC	END OF VERTICAL CURVE	TYP	TYPICAL
EW	EACH WAY	UDACS	UNIFORM DESIGN AND
EX	EXISTING	UG	UNDERGROUND
FF	FINISH FLOOR	VC	VERTICAL CURVE
FG	FINISH GRADE	VCL	VITRIFIED CLAY PIPE
FH	FIRE HYDRANT	VERT	VERTICAL
FLC	FLOW LINE	VG	VALLEY GUTTER
FS	FACE OF CURB	VWD	VIRGIN VALLEY WATER DISTRICT
FSR	FINISHED SURFACE	WL	WATER LINE
FSR	FIRE SPRINKLER RISER	WM	WATER METER
G	GAS	W/	WITH
GALV	GALVANIZED	W/O	WITHOUT
GB	GRADE BREAK		
GR	GRATE		
H	HIGH OR HEIGHT		
HDP	HIGH DENSITY POLYETHYLENE		
HOR	HORIZONTAL		
HP	HIGH POINT		

INDEX OF SHEETS:

1. COVER SHEET	G1.00
2. GENERAL NOTES SHEET	G1.01
3. DEMOLITION PLAN	C1.00
4. IMPROVEMENT PLAN	C2.00
5. HORIZONTAL CONTROL - UTILITY PLAN	C3.00

APPROVALS:

ALAN PAVELKA P.E., CITY ENGINEER	DATE
APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARDS DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA.	
CITY OF LAS VEGAS PLANNING DEPARTMENT	DATE
THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT.	
LAS VEGAS FIRE & RESCUE	DATE
NV ENERGY	DATE
NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.	
SOUTHWEST GAS CORPORATION	DATE
COX COMMUNICATIONS LAS VEGAS, INC.	DATE
CENTRAL TELEPHONE CO. DBA CENTURYLINK	DATE
THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.	
APPROVED FOR CONSTRUCTION	
Las Vegas Valley Water District Engineering Services	
Project No. 126366	First Approved Date:
SHEETS: G1.00, G1.01, C1.00 & C4.00	

DEVELOPER/OWNER:

2568 FIRE MESA STREET LAS VEGAS, NEVADA 89128
LEGAL DESCRIPTION:
A PORTION OF THE LAS VEGAS TECHNOLOGY CENTER BLOCK FIVE (5), LOT ONE (1) AS SHOWN UPON THAT CERTAIN PLAT MAP RECORDED AS BOOK 47, PAGE 35 OF PLATS, SAME BEING FURTHER SHOWN AS AREA E ON THAT CERTAIN RECORD OF SURVEY RECORDED AS FILE 155, PAGE 31 OF SURVEYS, CLARK COUNTY OFFICIAL RECORDS SITUATED IN SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA.
FURTHER DESCRIBED AS LOT E-2 ON THAT CERTAIN RECORD OF SURVEY ON FILE IN FILE 193, PAGE 36 IN THE OFFICE OF THE CLARK RECORDER, CLARK COUNTY, NEVADA.
CONTAINS 4.91 ACRES MORE OR LESS

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NUMBER 0L00016SEE6, BEING A RIVET PLATE IN THE TOP IF CURB WEST SIDE OF BUFFALO AT TRINITY PEAK AVENUE. (NAVD 88)
ELEVATION= 731.98 METERS 2401.52 FEET

BASIS OF BEARING:

NORTH 89°40'51" WEST, BEING THE BEARING OF THE CENTERLINE OF SMOKE RANCH ROAD AND THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 155, PAGE 31 OF SURVEYS, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.



DORAL ACADEMY - FIRE MESA CHARTER SCHOOL

APN: 138-15-410-056

2568 FIRE MESA ST., LAS VEGAS, NV

COVER SHEET

PROJECT:

DRAWING TITLE:

SEAL:



4/17/2019

SHEET NO.:

G1.00

SHEET 1 OF 5

DWG. NO.:

SHEETS: G1.00, G1.01 C1.00& C4.00

23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

15. CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY CHANGES TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMISSION, ADDING OR MODIFYING EXISTING MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

NONE

NORTH 89°40'51" WEST, BEING THE BEARING OF THE CENTERLINE OF SMOKE RANCH ROAD AND THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 155, PAGE 31 OF SURVEYS, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

Call before you dig
Underground

Avoid overheard power line contact. It's costly.

Call before you dig
Overhead

Call before you dig
Avoid cutting underground utility lines. It's costly.

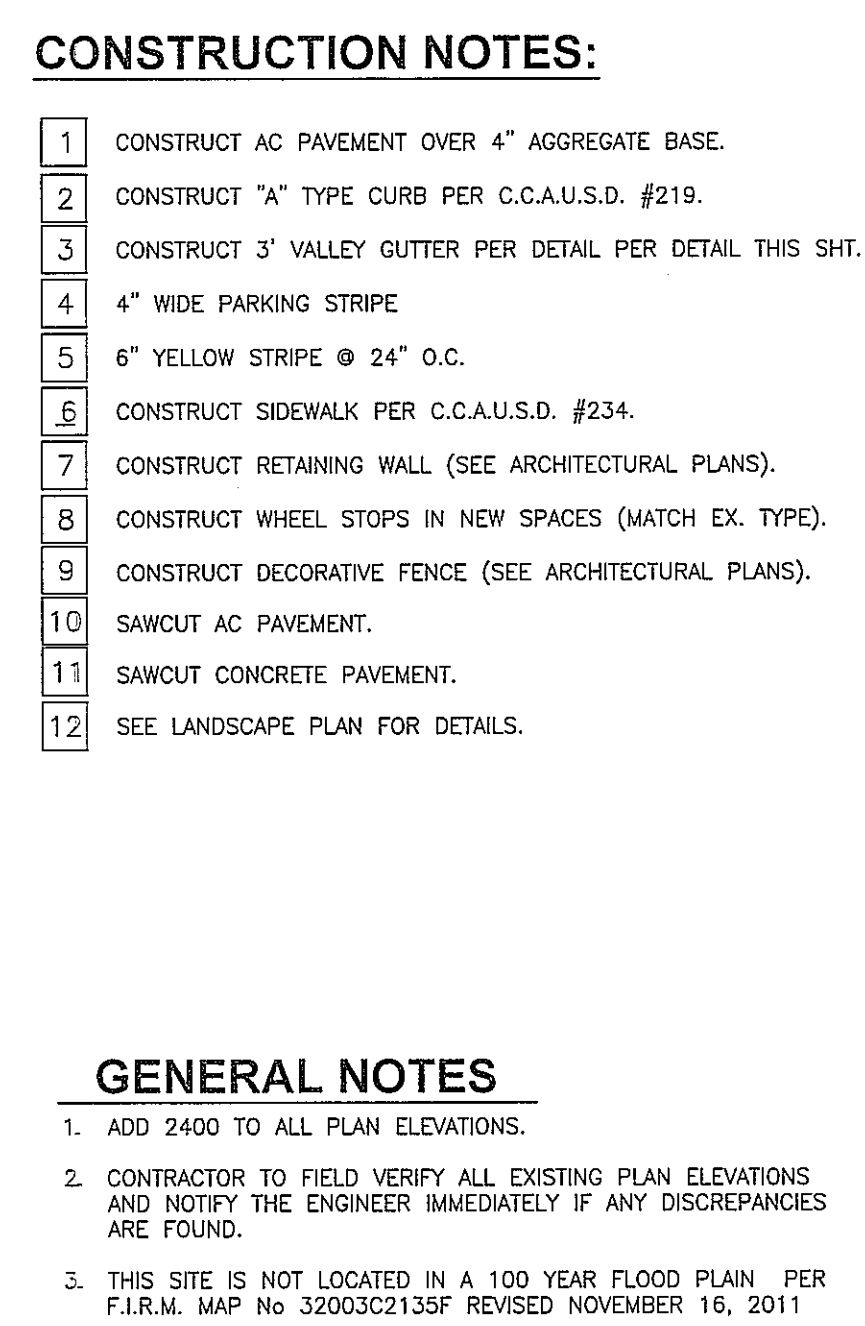
Call 811

1-702-432-5300

1-702-227-2929

1-800-227-2600

SHEET NO.:
G1.01
SHEET 2 OF 5
DWG. NO. -



Digitally signed
by Kent B.
.Anderson, P.E
Date:
2019.04.17
'12:51:55 -07'00

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK NUMBER OLC0016SEE6, BEING A
RIVET PLATE IN THE TOP IF CURB WEST SIDE OF BUFFALO AT
TRINITY PEAK AVENUE. (NAVD 88)
ELEVATION= 731.98 METERS 2401.52 FEET

BASIS OF BEARING:
NORTH 89°40'51" WEST, BEING THE BEARING OF THE CENTERLINE OF SMOKE RANCH ROAD AND THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 155, PAGE 31 OF SURVEYS OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

[illegible]

Nevada By Design
 ENGINEERING CONSULTANTS
 5795 So. Sunpath Rd., Ste. C
 Las Vegas, NV 89120
 Phone: (702) 898-1525
 email: info@nbdbydesign.com

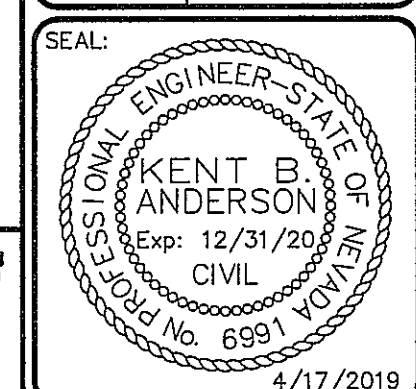


DORAL ACADEMY - FIRE MESA CHARTER SCHOOL
APN: 138-15-410-056

2568 FIRE MESA ST., LAS VEGAS, NV
IMPROVEMENT PLAN

PROJECT:

DRAWING TITLE:



SHEET NO.:
C2.00
SHEET 3 OF 5
DWG. NO. _____

[illegible]

TECHNICAL DRAINAGE STUDY
FOR
DORAL ACADEMY
FIRE MESA CHARTER SCHOOL

NBD Project No. CE18199

April 17, 2019

Prepared For:

ethos three ARCHITECTURE
8985 S Eastern Ave, Suite 220
Las Vegas, NV 89123



Prepared By:

Nevada By Design, LLC
5795 So. Sandhill Road, Suite C
Las Vegas, NV 89120



Department of Planning Pre-Application Meeting

**C
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C
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E

7**

Project Name	Doral Fire Mesa Classroom Addition		
Pre-App #	PREAPP2019-009889		
APN(s) 138-15-410-056	Ward 1 - Tarkanian	Ownership Date 03/11/15	Acres 4.91
Location 2568 Fire Mesa Street	Pre-app Date 02/06/19		Follow-up
Planner Jonathan Boyles, (702) 229-5447 jboyles@lasvegasnevada.gov	Location / Time DSC Conference Room 3A at 1:00pm		
	Submittal Deadline 02/19/19 - no later than 4:00pm		
	Earliest PC Date 04/09/19		
Project #	PRJ-75740	READY FOR SUBMITTAL	
Project Manager email	bsaxon@ethosthree.com		

APPLICATIONS		FEES			
		APPLICATION	NOTIFICATION	RECORDATION	AMOUNT
Site Development Plan Review (SDR), Minor		\$ 500.00	\$	\$	\$ 500.00
		\$	\$	\$	\$
		\$	\$	\$	\$
		\$	\$	\$	\$
SUB-TOTAL					\$ 500.00
Neighborhood Meeting NOT REQUIRED	Applicant sends notification = \$0; Envelope labels = \$50 Department sends notification = \$500 / \$750 / \$1,250				\$ N/A
TOTAL					\$ 500.00
If the project requires a neighborhood meeting, or you choose to have one, be aware: If you want the City to mail postcard notices for the meeting, provide all information to us <u>no later than 15 days prior</u> to the meeting date. It's best to provide the meeting information when you submit your application. Otherwise, you'll have to make your own arrangements for public notice to the neighborhood.					

	Name	Phone	Email
Owner	CA LAS VEGAS FMS LLC	(702)	
Applicant		(702)	
Representative	Kip Barton	(702) 456-1070	bsaxon@ethosthree.com
	Existing	Proposed	
Use	Public or Private School, Primary	No change	
General Plan	LI/R (Light Industry/Research)	No change proposed	
Zoning	C-PB (Planned Business Park)	No change	
Special Area, Master Plans, Overlay Districts	Airport Overlay (175 Feet); Las Vegas Technology Center Phase 2		
Special Land Use Designation	N/A		
Trails (if adjacent)	N/A		

Pre-Application Notes

☒ Meeting ☐ Email ☐ Conversation ☐ Telephone

Name	Organization	Phone	Fax	Email
1.				
2.				
3.	CLV - Planning			
4.	CLV - Planning/Business License	702-229-6321	702-383-0769	
5.	CLV- PW Sewer			
6. Roger Bailey	CLV - PW - Dev Co	702-229-6578	702-474-7599	
7.	CLV - PW - Traffic	702-229-6901		
8.	CLV - PW - Flood	702-229-6541	702-382-8551	
9. Michael Cunningham	CLV - Building and Safety	702-229-6251	702-382-1731	
10.	CLV - Fire and Rescue	702-229-0366	702-229-0124	
11.	CLV - Development Services	702-229-6551	702-385-3128	

~~VAR-XXXXX - VARIANCE - PUBLIC HEARING - APPLICANT: XXXXXXXX XXXXXXXX - OWNER: CA LAS VEGAS FMS, LLC - For possible action on a request for a Variance TO ALLOW 140 PARKING SPACES WHERE 144 PARKING SPACES ARE REQUIRED on 4.91 acres at 2568 Fire Mesa Street (APN 138-15-410-056), C-PB (Planned Business Park) Zone, Ward 1 (Tarkanian) [PRJ-75740].~~

~~SDR-XXXXX - SITE DEVELOPMENT PLAN REVIEW RELATED TO VAR-XXXXX - PUBLIC HEARING - APPLICANT: XXXXXXXX XXXXXXXX - OWNER: CA LAS VEGAS FMS, LLC - For possible action on a request for a Minor Amendment to a previously approved Site Development Plan Review (SDR-54330) TO ADD A 1,680 SQUARE-FOOT MODULAR BUILDING WITH TWO CLASSROOMS AND PARKING LOT RECONFIGURATION TO AN EXISTING PRIVATE SCHOOL, PRIMARY DEVELOPMENT on 4.91 acres at 2568 Fire Mesa Street (APN 138-15-410-056), C-PB (Planned Business Park) Zone, Ward 1 (Tarkanian) [PRJ-75740].~~

SDR-XXXXX - SITE DEVELOPMENT PLAN REVIEW - ADMINISTRATIVE - APPLICANT: XXXXXXXX XXXXXXXX - OWNER: CA LAS VEGAS FMS, LLC - For possible action on a request for a Minor Amendment to a previously approved Site Development Plan Review (SDR-54330) TO ADD A 1,680 SQUARE-FOOT MODULAR BUILDING WITH TWO CLASSROOMS AND PARKING LOT RECONFIGURATION TO AN EXISTING PRIVATE SCHOOL, PRIMARY DEVELOPMENT on 4.91 acres at 2568 Fire Mesa Street (APN 138-15-410-056), C-PB (Planned Business Park) Zone, Ward 1 (Tarkanian) [PRJ-75740].

Notes

- Applicant has proposed to add a (28' x 60') 1,680 square-foot modular building w/ two additional classrooms to the rear of the subject site; and to reconfiguring the rear parking lot area.
- Approved SUP-54332 and SDR-54330 required 138 parking spaces
 - Public School, Primary w/ 45 classrooms
 - Individual Care Center w/ 1 staff member & 20 individuals
- Revised Site Plan shows 140 total parking spaces, where 144 are required for the two additional classrooms
 - Variance is Required for insufficient parking.

Revisions

- Revise Parking analysis to show 140 parking spaces, not 141.
- Las Vegas Technology Center approval letter is required.
- Add proposed parking space dimensions (compact spaces) to the site plan
 - Compact Spaces - 8' x 18' required
 - Regualr Sapces - 9' x 18' required
 - Parallel Spaces - 9' x 23' required

PW Comments

- Update the Drainage Study

Background

Related Relevant City Actions by Planning, Fire, Bldg., etc	
02/22/99	The City Council approved a Rezoning (Z-0087-98) from C-1 (Limited Commercial) to C-PB (Planned Business Park) on property located at the northeast corner of Buffalo Drive and Smoke Ranch Road. Planning Commission and staff recommended approval. The City Council passed Ordinance 5270 on 11/01/00, which exercised the entitlement.
08/20/14	The City Council approved a request of a Site Development Plan Review (SDR-54330) for a two story, 54,078 square-foot Public School, Primary building on a portion of 8.39 acres at the northeast corner of Trinity Peak Avenue and Fire Mesa Street. The Planning Commission and Staff recommend approval of the request.
	The City Council approved a request of a Special Use Permit (SUP-54332) for a Public School, Primary use located at the northeast corner of Trinity Peak Avenue and Fire Mesa Street. The Planning Commission and Staff recommend approval of the request.

Related Building Permits/Business Licenses	
01/06/15	A building permit (#273602) was issued for an educational building at 2568 Fire Mesa Street. The permit was finalized on 11/05/15.
	A building permit (#273603) was issued for on-site improvements and trash enclosures at 2568 Fire Mesa Street. The permit was finalized on 09/02/15.
	A building permit (#273605) was issued for a chainlink and ornamental iron fence at 2568 Fire Mesa Street. The permit was finalized on 07/28/15.
03/10/16	A building permit (#311469) was issued for tenant improvements for a kitchen remodel at 2568 Fire Mesa Street. The permit was finalized on 04/05/16.
06/07/17	A building permit (#342105) was issued for a 570 square-foot shade structure at 2568 Fire Mesa Street. The permit has not been finalized.

Surrounding Property	Existing Land Use Per Title 19.12	Planned or Special Land Use Designation	Existing Zoning District
Subject Property	Public or Private School, Primary	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
North	General Retail	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
	Undeveloped		
South	Undeveloped	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
East	Business Park	LI/R (Light Industry/Research)	C-PB (Planned Business Park)
West	Undeveloped	LI/R (Light Industry/Research)	C-PB (Planned Business Park)

Master and Neighborhood Plan Areas	Compliance
Las Vegas Technology Center – Phase 2	Y
Special Area and Overlay Districts	Compliance
A-O (Airport Overlay) District – 175 Feet	Y
Other Plans or Special Requirements	Compliance
Trails	N/A
Las Vegas Redevelopment Plan Area	N/A
Interlocal Agreement	N/A
Project of Significant Impact (Development Impact Notification Assessment)	N/A
Project of Regional Significance	N/A

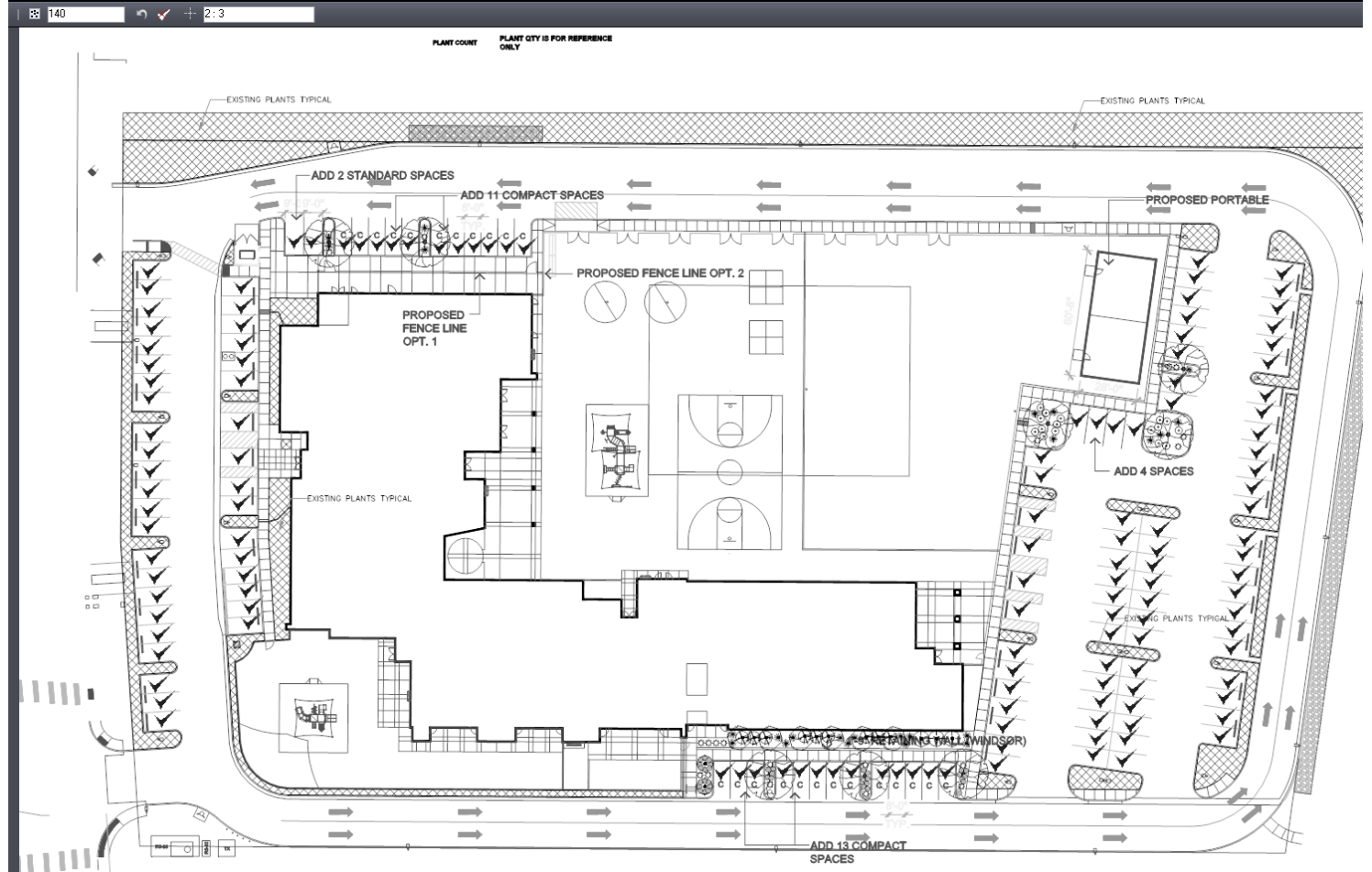
Street Name	Functional Classification of Street(s)	Governing Document	Actual Street Width (Feet)	Compliance with Street Section
Fire Mesa Street	Collector	Master Plan of Streets and Highways	60	Y

Pursuant to approved Special Use Permit (SUP-54332) and Site Development Plan Review (SDR-54330), the following parking standards apply:

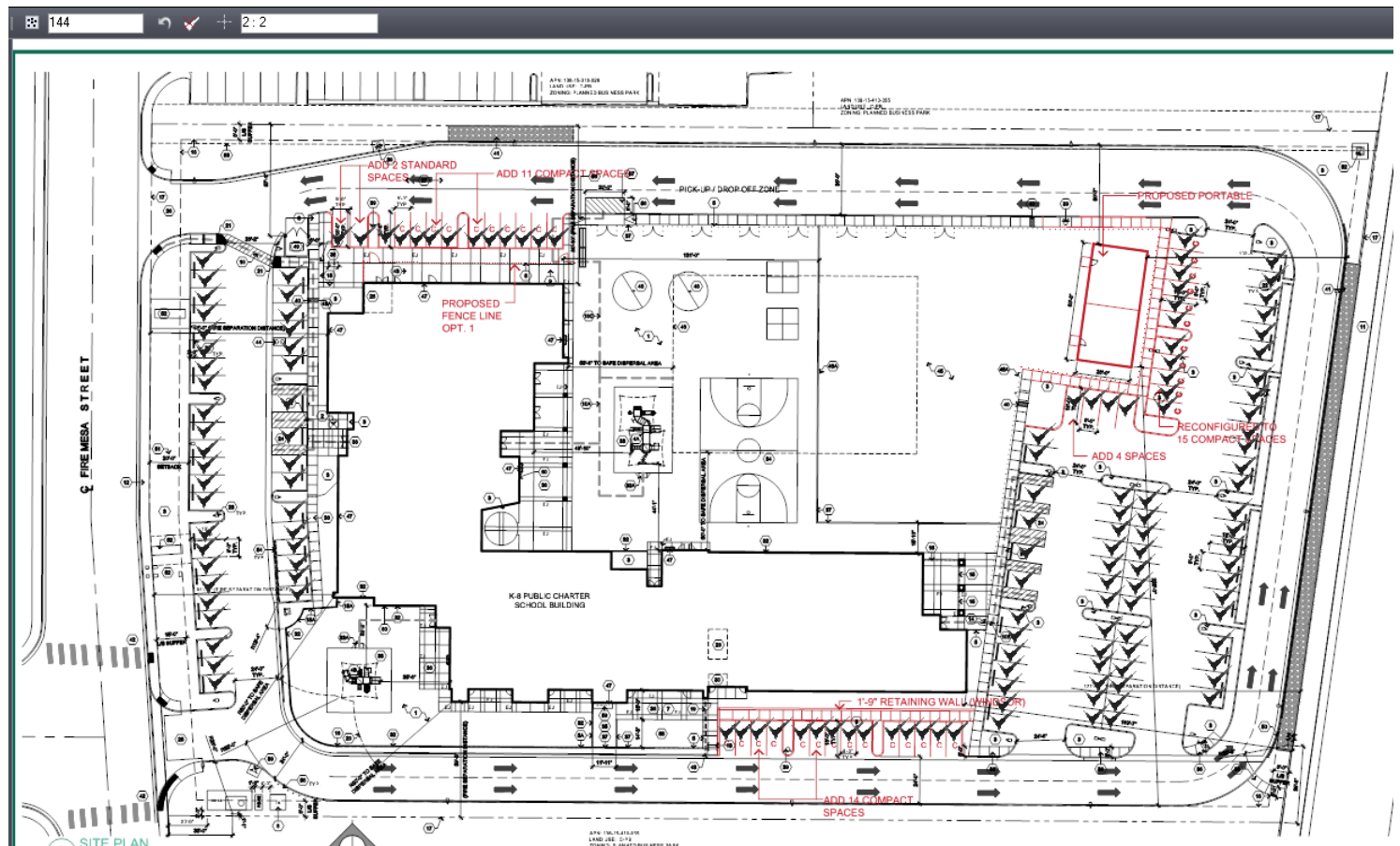
Parking Requirement							
Use	Gross Floor Area or Number of Units	Required			Provided		Compliance
		Parking Ratio	Parking		Parking		
			Regular	Handi-capped	Regular	Handi-capped	
Public School, Primary	45 classrooms	3 per classroom	135				
	2 classrooms (Additional)	3 per classroom	6				
Individual Care Center	1 staff member, 20 individuals	1:staff member, 1:10 individuals	3				
TOTAL SPACES REQUIRED			144		140		N*
Regular and Handicap Spaces Required			139	5	134	6	N*

140 parking spaces (including 24 compact spaces 17%)

ORIGINAL SITE PLAN



REVISED SITE PLAN 02/11/19 – Additional Parking Provided – 144 Total Spaces/ including 36 (25%) Compact



Pursuant to approved Special Use Permit (SUP-54332) and Site Development Plan Review (SDR-54330), the following parking standards apply:

Parking Requirement							
Use	Gross Floor Area or Number of Units	Parking Ratio	Required Parking		Provided Parking		Compliance
			Regular	Handi-capped	Regular	Handi-capped	
Public School, Primary	45 classrooms	3 per classroom	135				
	2 classrooms (Additional)	3 per classroom	6				
Individual Care Center	1 staff member, 20 individuals	1:staff member, 1:10 individuals	3				
TOTAL SPACES REQUIRED			144		144		Y
Regular and Handicap Spaces Required			139	5	134	6	Y

144 parking spaces (including 36 compact spaces 25%)

Pre-Application Files

☒ Upload all drawing files as individual sheets ☒ Follow CLVEPLAN [File Name Standards](#)

Required		FILE TYPE	FOLDER FILE NAME
YES	NO		
☒	☐	APPLICATION & STATEMENT OF FINANCIAL INTEREST (signed by property owner, notarized) Form	A-Documents PRJ75740_AP001
☒	☐	JUSTIFICATION LETTER (single detailed letter addressing all related applications) Letter Info	A-Documents PRJ75740_JF001
☒	☐	GRANT DEED AND LEGAL DESCRIPTION (may be available after year 1999 at Clark County)	A-Documents PRJ75740_DG001
☐	☒	LIST OF OFFICERS (may be available at NV Sec of State)	A-Documents PRJ75740_LO001
☒	☐	Cop(ies) of approval letter(s) for Las Vegas Technology Center	A-Documents PRJ75740_AL001
☒	☐	SITE PLAN – One color, one B/W version - North arrow, bar scale, graphic scale and vicinity map - Label <u>all</u> property lines, present dimensions, and building setbacks - Label <u>all</u> adjacent existing land uses and street names - Show <u>all</u> points of ingress and egress - Show <u>all</u> free-standing sign locations, heights and sizes - Label ADA accessibility requirements - Parking Calculation: - Parking standard(s) utilized: - Parking space count and typical dimensions labeled _____ # regular + _____ # compact (30% max) + _____ # handicap = _____ Total	A-Drawings PRJ75740_SP001
☒	☐	LANDSCAPE PLAN – One color, one B/W version - North arrow, bar scale, graphic scale, and vicinity map - Label <u>all</u> property lines and present dimensions - Show <u>all</u> required perimeter landscape planters - Show <u>all</u> required parking lot fingers/islands - Quantity, size, species/variety of <u>all</u> trees, shrubs, and ground cover in table format	A-Drawings PRJ75740_LP001
☒	☐	BUILDING ELEVATIONS – One color, one B/W version - Label graphic scale, bar scale and building dimensions - North, south, east, and west elevations of <u>all</u> buildings - Note <u>all</u> building materials and colors - Note <u>all</u> wall sign locations shown and sizes	A-Drawings PRJ75740_EV001
☒	☐	PHOTO REPRODUCTION OF THE COLOR & MATERIALS BOARD - SDR applications only May be included on the building elevations in the A-Drawings folder	A-Documents PRJ75740_MB001
☒	☐	FLOOR PLANS – B/W only - Label graphic scale, bar scale and building dimensions - North arrow, scale (to include a graphic scale) - Show <u>all</u> building entrances/exits - Label use of <u>all</u> rooms - Maximum Occupancy (per I.B.C.) - Seating Capacity (where applicable)	A-Drawings PRJ75740_FP001

PLANNING COMMISSION MEETINGS

Application Closing	Planning Commission	City Council**
Jan 22, 2019	Mar 12, 2019	Apr 3, 2019
Feb 4, 2019	Mar 26, 2019	Apr 17, 2019
Feb 19, 2019	Apr 9, 2019	May 1, 2019*
Mar 4, 2019	Apr 23, 2019	May 15, 2019*
Mar 25, 2019	May 14, 2019	Jun 5, 2019
Apr 8, 2019	May 28, 2019	Jun 19, 2019
Apr 22, 2019	Jun 11, 2019	Jul 3, 2019
May 6, 2019	Jun 25, 2019	Jul 17, 2019
May 20, 2019	Jul 9, 2019	Aug 7, 2019*
* General Plan Amendment Cycle		
** Reference only. Final council dates announced at the Planning Commission meeting.		

GENERAL PLAN AMENDMENT CYCLE

Ward	Application Closing	Last Day for Neighborhood Mailing	Last Day for Neighborhood Meeting	Planning Commission	City Council***
1, 3, 5	Feb 19, 2019	Mar 11, 2019	Mar 21, 2019	Apr 9, 2019	May 1, 2019
2, 4, 6	Mar 4, 2019	Mar 24, 2019	Apr 4, 2019	Apr 23, 2019	May 15, 2019
1, 3, 5	May 20, 2019	Jun 10, 2019	Jun 20, 2019	Jul 9, 2019	Aug 7, 2019
2, 4, 6	Jun 3, 2019	Jun 23, 2019	Jul 3, 2019	Jul 23, 2019	Aug 21, 2019
*** Failure to notice & hold a neighborhood meeting by the required date will automatically move your project to the next Planning Commission meeting.					

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: DORAL ACADEMY - FIRE MESA CHARTER SCHOOL Date: 4/17/2019

Location of Development: a) Descriptive (Cross Streets) North/South: FIRE MESA STREET

East/West: TRINITY PEAK AVENUE

b) Section: 15 Township: 20S Range: 60E

c) APN : 138-15-410-055

Name of Owner: CA LAS VEGAS FMS, LLC

Telephone No.: 702-431-6260 Fax No.: _____ E-Mail Address: butch.tomasetti@academicanv.com

Address: 6630 SURREY STREET, LAS VEGAS, NV 89119

Contact Person-Name: KENT B. ANDERSON, P.E. Telephone No.: 702-938-1525

* E-Mail Address: kanderson@nvbydesign.com Fax No.: _____

Firm: NEVADA BY DESIGN, LLC

Address: 5795 S SANDHILL RD STE C, LAS VEGAS, NV 89120

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: 8.39 Being Developed/Disturbed: 0.16 AC

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: DS#4685, DORAL ACADEMY - FIRE MESA CAMPUS, JUNE 2014

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: SITE WILL DISCHARGE INTO THE EXISTING CCRFCD MASTER PLAN FACILITY, BUFFALO CHANNEL AT THE NE CORNER OF THE PROPOSED DEVELOPMENT

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

Digitally signed
by Kent B.
Anderson

Date:

2019.04.17

'13:12:50 -07'00

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 4/17/2019

Local Entity File No. _____

REFERENCE:

STANDARD FORM 1

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

Project Name: Doral Academy Fire Mesa Charter School		Map ID: 138-15-410-055																									
Firm Name: Nevada By Design, LLC		Engineer: Kent B Anderson, P.E.																									
Address: 5795 S Sandhill Rd. Ste C																											
City: Las Vegas		State: NV	Zip: 89120																								
Phone Number:		Fax Number:																									
Property Owner: Las Vegas FMS, LLC																											
Address: 3000 Olympic Blvd., Bldg. 5, Suite 2120																											
City: Santa Monica		State: CA	Zip: 90404																								
Reviewed By:		Date Received:	Date Accepted for Review:																								
The following checklist is intended as a guide for the engineer preparing a Technical Drainage Study to submit to the local entity and Clark County Regional Flood Control District (if necessary). The listed items are the minimum information required prior to the entity performing a review. The engineer will remain responsible to ensure the Technical Drainage Study is prepared within the guidelines as set forth in the Clark County Regional Flood Control District (CCRFCD) Hydrologic Criteria and Drainage Design Manual (MANUAL). This document is intended as an aid in preparing Technical Drainage Studies. Each study submitted is reviewed for compliance with local and regional criteria. This form is not intended to be all inclusive and does not limit the extent of the information, calculations or exhibits which may be necessary to properly evaluate the intended land use. If items are not applicable for the subject site, provide N/A. I. GENERAL REQUIREMENT <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">Yes</td> <td style="width: 10%; text-align: center;">No</td> <td></td> </tr> <tr> <td style="text-align: center;"><u> x </u></td> <td style="text-align: center;"><u> </u></td> <td>Design Manual Standard Form 1 with the engineer's seal and signature.</td> </tr> <tr> <td style="text-align: center;"><u> </u></td> <td style="text-align: center;"><u> x </u></td> <td>Design Manual Standard Form 4.</td> </tr> <tr> <td style="text-align: center;"><u> x </u></td> <td style="text-align: center;"><u> </u></td> <td>2 copies of the 24" x 36" Drainage Plan.</td> </tr> <tr> <td style="text-align: center;"><u> </u></td> <td style="text-align: center;"><u> x </u></td> <td>A notarized letter from the adjacent property owner(s) allowing off-site grading or discharge.</td> </tr> </table> II. MAPS AND EXHIBITS <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">Yes</td> <td style="width: 10%; text-align: center;">No</td> <td></td> </tr> <tr> <td style="text-align: center;"><u> </u></td> <td style="text-align: center;"><u> x </u></td> <td>A copy of a current Flood Insurance Rate Map (FIRM) with the site delineated.</td> </tr> <tr> <td style="text-align: center;"><u> </u></td> <td style="text-align: center;"><u> x </u></td> <td>A copy of the current CCRFCD Master Plan Update Figure, (F-x), for Flood Control Facilities and Environmental areas with the site delineated.</td> </tr> </table>				Yes	No		<u> x </u>	<u> </u>	Design Manual Standard Form 1 with the engineer's seal and signature.	<u> </u>	<u> x </u>	Design Manual Standard Form 4 .	<u> x </u>	<u> </u>	2 copies of the 24" x 36" Drainage Plan.	<u> </u>	<u> x </u>	A notarized letter from the adjacent property owner(s) allowing off-site grading or discharge.	Yes	No		<u> </u>	<u> x </u>	A copy of a current Flood Insurance Rate Map (FIRM) with the site delineated.	<u> </u>	<u> x </u>	A copy of the current CCRFCD Master Plan Update Figure, (F-x), for Flood Control Facilities and Environmental areas with the site delineated.
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REFERENCE:		STANDARD FORM 2																									

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

II. MAPS AND EXHIBITS (Continued)

Yes	No	
☐	☒	Off-site drainage basin maps for existing, interim and future conditions showing the existing topography, basin boundaries, concentration points, and flows in cfs.
☐	☒	On-site drainage basin maps for existing and proposed conditions showing the existing topography, basin boundaries, concentration points, and on-site and off-site flows in cfs.
☒	☐	Vicinity Map with local and major cross streets identified and a north arrow.

III. DRAINAGE PLAN

Yes	No	
☒	☐	Sheet size: 24" x 36" sealed by a registered engineer in the State of Nevada.
☒	☐	Minimum scale: 1" = 60'.
☒	☐	Project name.
☒	☐	Vicinity Map with local and major cross streets.
☒	☐	Revision box.
☒	☐	North arrow and bar scale.
☒	☐	Engineer's/consultant's address and phone number.
☒	☐	Elevation datum and benchmark.
☒	☐	Legend for symbols and abbreviations.
☒	☐	Cut/fill scarps, where applicable.
☐	☒	Street names, grades, widths.
☐	☒	Proposed future and existing spot grades for top of curbs and street crowns at lot lines, grade breaks, and along curb returns on both sides of the street.
☐	☒	Existing contours encompassing the site and 100 feet beyond with spot elevations for important locations, where appropriate.
☐	☒	Minimum finish floor elevations with top-of-curb elevations at upstream end of lot.
☐	☒	Proposed typical street sections.

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes	No	
☐	☒	Streets with off-set crowns.
☐	☒	Proposed contours or spot elevations in sufficient detail to exhibit intended drainage patterns and slopes.
☐	☒	Property lines.
☐	☒	Right-of-way lines and widths, existing and proposed.
☒	☐	Existing improvements and their elevations.
☐	☒	Delineation of proposed on-site drainage basins indicating area and 10-year and 100-year storm peak flows at basin concentration points.
☐	☒	Concentration points and drainage flow direction with Q_{100} and V_{100} and D_{100} in streets.
☐	☒	Cumulative flows, velocity, and direction of flow at upstream and downstream ends of site for the 10-year and 100-year flows.
☐	☒	Location and cross-section of street capacity calculations.
☐	☒	Cross-sectional detail for channels, including cutoff wall locations.
☐	☒	Existing and proposed drainage facilities, appurtenances, and connections (i.e., sidewalk, ditches, swales, storm drain systems, unimproved and improved channels, and culverts, etc.) stating size, material, shape, and slope with plan and profile and HGL calculations.
☐	☒	Existing and proposed drainage easements and widths shown with sufficient detail. A cross sectional detail must be provided that shows appropriate lining and reinforcement.
☐	☒	Location and detail of existing, proposed, and future block wall openings. Minimum size is 16" x 48". Wrought iron gate is required for flows > 10 cfs.
☐	☒	Location and detail of flood walls illustrating depth of flow, proposed grouting height, etc.
☐	☒	Perimeter retaining wall locations. All existing and proposed walls (retaining screen and flood) must be shown with adjacent ground elevations. Flood walls with 8-inch concrete masonry unit.
☐	☒	Building and/or lot numbers.
☐	☒	Alignment of all existing, proposed, or future Regional Facilities adjacent to the site.
☐	☒	Limits of existing floodplain based on current FIRM or best available information; limits of proposed floodplains based on best available information.

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes No

- _____ x For areas in Zone A, AE, AH, and AO, base flood elevations (BFEs) must be shown for each lot; BFEs may be listed on each lot, or in a table. Finish floor elevations must be a minimum of 18 inches above BFE.
- _____ x Appropriately elevated "humps" 6 inches above the 100 year water surface elevation at site accesses where the intent is to protect the site from the Q_{100} flows.
- _____ x Street slopes for perimeter and interior streets. The minimum slope is 0.4 percent.
- _____ x Location and detail of best management practice (BMP) for parking lots and low impact development (LID) (if required).

IV. HYDROLOGIC ANALYSIS

Yes No

- _____ x Appropriate soil information and Soils Map for existing and future conditions with subbasins and property delineated.
- _____ x Input and output information for existing conditions from computer models (HEC-1 or TR-55). The flow routing diagram must be provided with HEC-1 models.
- _____ x Input and output information for future conditions from computer models (HEC-1 or TR-55). The flow routing diagram must be provided with HEC-1 models.
- _____ x Use of correct precipitation values in and around the McCarran Airport rainfall area.
- _____ x A discussion in the text of the hydrologic analysis justifying subbasin boundaries and cutoffs, supporting assumptions, and calculations.
- _____ x A summary table of stormwater flows showing basin area, Q_{10} and Q_{100} for both individual basins and combined basin flows, where applicable.
- x _____ Copies of supporting technical information referenced from a previously approved study and a statement accepting these results.
- x _____ On-site facilities must perpetuate flows through or around the site without significantly impacting adjacent property owners in accordance with current Nevada Drainage Law.
- _____ x Calculation for impervious area for parking lots and LIDs (if required).

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

V. HYDRAULIC ANALYSIS

Yes No

- | | | |
|-------|---|---|
| _____ | x | Flow split calculations and supporting documentation or reference for the method of flow split calculations used. |
| _____ | x | Normal depth street flow calculations and cross section diagrams for all interior and perimeter streets. Provide "d x v" products for the Q_{100} and Q_{10} flows representing the worst case for interior and all perimeter streets. $Q_{100} d \times v \leq 8$. $Q_{10} d \times v \leq 6$ and 12 foot dry lane for rights-of-way ≥ 80 feet. Calculations must be labeled by street name as indicated on the Grading Plan. |
| _____ | x | A summary table of interior and exterior street capacity calculations showing the street name, Q_{100} flow, slope, depth of flow, velocity and depth times velocity product and streets needing to meet 12 foot dry lane criteria. |
| _____ | x | Appropriate hydraulic calculations for block wall openings assuming a 50 percent vertical clogging factor. (Assume the lower half of the opening is plugged.) |
| _____ | x | Appropriate hydraulic calculations at drainage easement entrance and discharge locations to set finish floor elevations. Hydraulic calculations must include submerged weir, superelevation and tee intersection losses, where appropriate. |
| _____ | x | Provide necessary freeboard requirements to set the finished floor elevations of all proposed buildings, 2 x depth of flow or depth of flow plus 18 inches of freeboard, whichever is less. The minimum requirement is 6 inches above adjacent upstream top of curb. Buildings adjacent to drainage easements must always be provided with 18 inches of freeboard above the Q_{100} weir height or flow depth, whichever is greater. |
| _____ | x | A complete water surface profile analysis (HEC-2, HEC-RAS, etc.) for channel flows and FEMA Zone A flood zones. <ul style="list-style-type: none"> • Field survey data. • Input and output information. • Plotted cross-sections based on survey with proper encroachments. • A map showing the location of the cross-sections. • Analysis of both sub and super-critical flow segments. • A summary table and a discussion of the results in the text of the report. |
| _____ | x | Provide a 50 percent clogging factor in the capacity calculation for drop inlets. |
| _____ | x | Hydraulic calculations for culverts and storm drains. D-Load calculations must be provided for storm drain pipes in public rights-of-way, including headwater pool inundation. |
| _____ | x | The mitigation of nuisance water, both during construction and in the fully developed condition, must be addressed. |
| _____ | x | Provide BMP type, size and supporting calculations for parking lots and LIDs (if required). |

REFERENCE:

STANDARD FORM 2



CITY OF LAS VEGAS

MINIMUM DRAINAGE STUDY CRITERIA STANDARD FORM 2 CHECKLIST SUPPLEMENT

(Revised 5/18/11)

The following checklist is intended as a supplemental guide for the engineer preparing a Technical Drainage Study submittal to the City of Las Vegas. This supplement focuses on requirements specific to the City of Las Vegas. The requirements presented are in addition to the Clark County Regional Flood Control District (CCRFCDD) Manual Standard Form 2. The listed items are the minimum information required prior to the City performing a review. The engineer will remain responsible to ensure the Technical Drainage Study is prepared within the guidelines as set forth in the CCRFCDD Hydrologic Criteria and Drainage Design Manual (Design Manual).

An appointment must be made to preview this checklist in conjunction with CCRFCDD Standard Form 2 prior to the City accepting a new drainage study for review. The engineer must contact the Flood Control Section at (702) 229-6541 to schedule a submittal appointment.

If items are not applicable for the subject site, provide N/A.

I. GENERAL REQUIREMENT		
Yes	No	
	n/a	A notarized letter from the adjacent property owner(s) allowing off-site grading. (A copy of the letter must be received prior to final acceptance of the drainage study.)
x		Copies of all conditions of approval for development related to this property. (e.g. zoning, use permit, tentative map, etc.) Verify compliance with conditions.
x		An electronic copy of the complete submittal is required to be submitted with one original hard copy of the study. Electronic documents should be on a universal computer-readable digital output device replicating your submittal. An Indexed Portable Document Format (PDF) or Print Ready CAD file formats with a minimum of 300dpi are the desired formats. If figures are in color, they must be scanned in color and saved as a separate file. _____ by initial here, the engineer on record acknowledges that the electronic copy is an identical replicate of the original hard copy submitted to the City of Las Vegas.

II. GRADING PLAN INFORMATION		
Yes	No	
x		(1) 24" X 36" copy of the Grading Plan, (including all Detail Sheets) sealed by the engineer.
	n/a	Proposed future and existing spot grades for top of curbs and street crowns at lot lines, grade breaks, and along curb returns on both sides of the street. Note: Proposed top of curb elevations must be provided for both sides of roadways even if only half street construction is required.
	n/a	Label existing topography at a minimum 5 foot elevation interval including adjacent developments, finished floor elevations of existing buildings and top of existing curbs extending 100 feet around the perimeter of the site. (*Measured from the centerline of the adjacent roadway.)

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

II. GRADING PLAN INFORMATION		
Yes	No	
	n/a	Proposed on-site and off-site storm drains and other flood control facilities with plan and profile sheets for public storm drains showing the class of pipe, (Class III, IV, V, etc.), design hydraulic grade line, (HGL) and 100 year storm flow. A public drainage easement must be provided over on-site storm drains conveying off-site flows. An overflow path must be provided over all storm drains.
	n/a	All existing and "to be constructed" walls with cross-sections showing wall type, (e.g. block wall, retaining wall, flood wall, etc.), with limits clearly defined, adjacent ground elevations. Wall heights must meet current ordinances and in no case exceed 14 feet above the adjacent property.
	n/a	Street slopes for both interior and perimeter streets. Note: The minimum slope for a roadway is 0.4 percent, a minimum 18-inch storm drain must be provided where minimum slopes cannot be met.
	n/a	Back of lot elevations and lot drainage pattern for all lots including common lots.
	n/a	Sites with a grade difference two feet above or below existing ground are required to have approval from City of Las Vegas Current Planning. Current Planning approval is required prior to final approval of the drainage study.
	n/a	On-site facilities must perpetuate flows through or around the site without significantly impacting adjacent property owners. (The project must pass flows through the site every 600 feet where the project is blocking flow paths.)
	n/a	This project uses a solid grouted stem wall (or approved alternate) at the back of sidewalk to provide erosion protection for landscaped areas where the depth of flow in the roadway exceeds the back of walk elevation. A corresponding cross-section detail is included.
	n/a	Commercial and Common Lot Landscape areas are not allowed to drain over the sidewalk. The grading plans show flow lines with grades and sidewalk under drains for all landscape areas draining to the public ROW.

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
	n/a	Concrete valley gutters are required in parking lots with slopes less than 1 percent. Slopes through cul-de-sac must be at a 1 percent minimum where flow is drained through the cul-de-sac.
	n/a	Ten-foot wide public drainage easements to be privately maintained are allowed for flow less than 20 cfs. The depth of flow entering the easement must be checked using the submerged weir calculation.
	n/a	The limits of the flood zones and the base flood elevations (BFE) must be shown on all grading plans for all developments within a Special Flood Hazard Zone A, AO, AE, etc.
	n/a	Minimum finish floor elevation is 6 inches above highest adjacent top of curb. Finish floor calculations must include allowances for super elevations on curves and velocity head for tee intersections.
	n/a	Finished floor elevations for buildings adjacent to public drainage easements must be a minimum of 18 inches above the Q100 weir of submerged weir elevation, whichever is greater.

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
	n/a	Lots with “B and C Type Drainage” that drain from one lot to another through a drainage easement shall be required to install an underground nuisance drainage system or a 2-foot valley gutter. 16” x 24” minimum block wall openings are required for both options.
	n/a	Bubblers are required across 80 foot and greater ROW streets. When flows exceed 10 cfs, bubblers larger than 18 inches will be required up to a maximum of 36”. Inlets must be sized to match the pipe size provided.

- Contact the Flood Control Section regarding the drainage study review fee. These fees are payable at the time of submittal.
- The Drainage Study must be conditionally approved prior to submitting improvement plans to the Civil and Planning Development of the Department of Building and Safety for review.

This document is intended as an **aid** in preparing Technical Drainage Studies for the City of Las Vegas. Each study submitted is reviewed for compliance with local and regional criteria. This form is not intended to be all-inclusive and does not limit the extent of the information, calculations or exhibits which may be necessary to properly evaluate the intended land use.

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Drainage Evaluation.....	2

SECTION II: SITE DESCRIPTION

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Vicinity Map	4

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Recommendations.....	5
Conclusion	5
References.....	6

LIST OF ATTQCHMENTS

On-Site Drainage Basins (Oringal Study)
Grading Plan (Approved from Original Study)
Grading Plan Changes (Classroom Addition)

SECTION I: GENERAL LOCATION AND DEVELOPMENT DESCRIPTION

INTRODUCTION

The purpose of this report is to provide and update from the existing Technical Drainage Study and to establish a record finish floor elevation for the prefabricated classroom building being built in the northeastern portion of the site. The parcel is currently owned by CA Las Vegas FMS, LLC. The proposed development will consist of the demolition of portion of the existing parking lot and placement of a 28'x60' prefabricated classroom building on a permanent foundation.

This report will identify issues with the 6,900 sf site changes to accommodate the prefab building and changes to the parking and circulation.

LOCATION

The project new building is to be located in the northeastern portion of the existing school at 2568 Fire Mesa Street. The Assessor's Parcel Number is 138-15-410-056. The site has partial development on the north, flood channel on the east and vacant property on the south.

DRAINAGE EVALUATION

This update accepts the previous study by Walker Engineering ,LLC in its entirety. The placement of the classroom building has insignificant impact to the original study. Drainage evaluation can be found in the Doral Academy – Fire Mesa Campus Study prepared by Walker Engineering, LLC dated June 30, 2014 DS# 4685

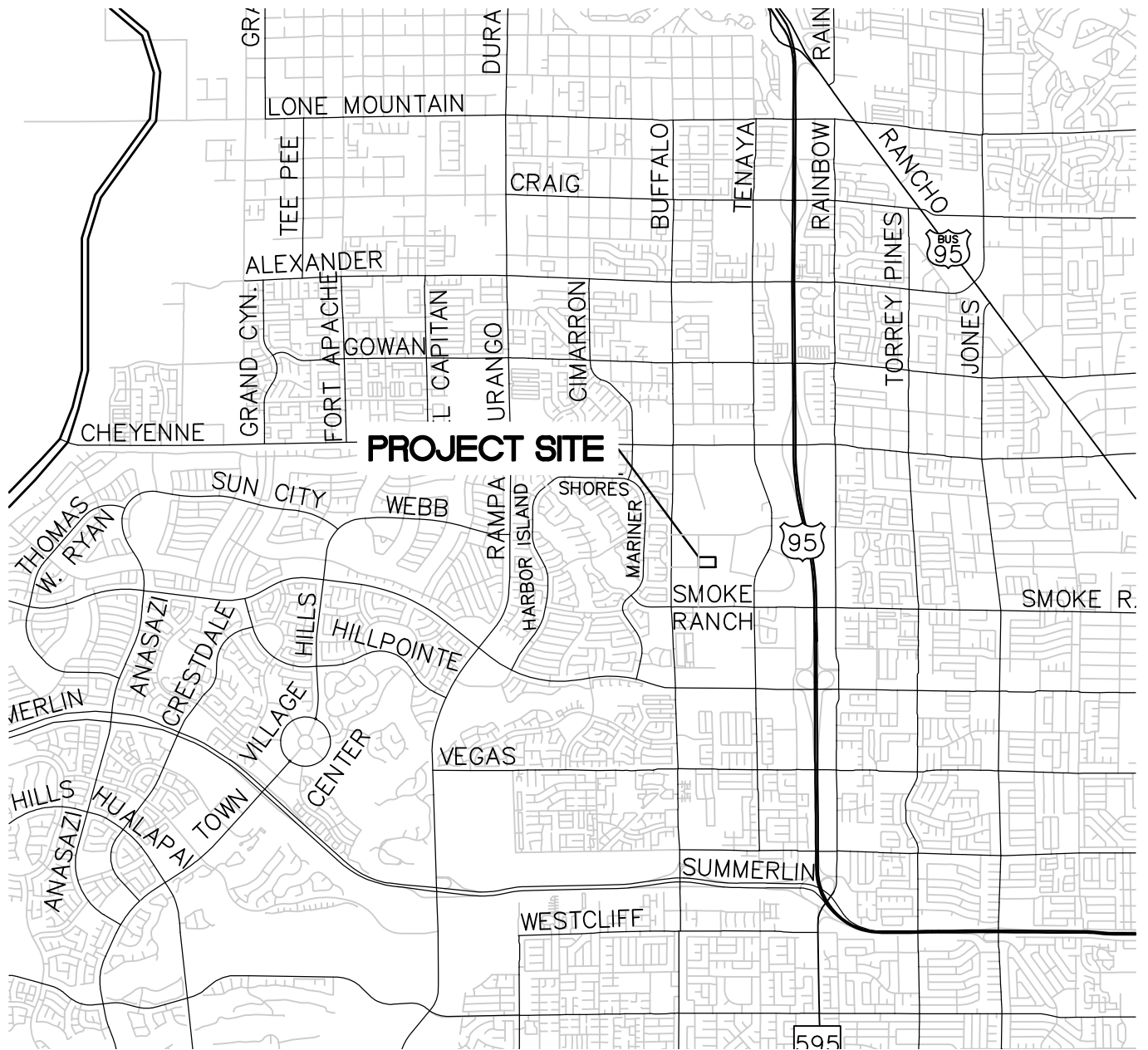
SECTION II: SITE DESCRIPTION

PROPOSED ON-SITE DRAINAGE DESCRIPTION

The proposed change on the site consists of demolition of approximately 6900 square feet of existing parking lot and the placement of a 28' x 60' prefabricated classroom on a concrete foundation. The flows west of the classroom site will continue to drain through a undersidewalk drain onto the driveway on the north and through a curb, gutter and sidewalk south of the proposed improvements. The placement of the classroom will drain away from the building to the west, north south and east. The finish floor has been set to be 0.66 feet above the asphalt in the parking stall at the southwest corner of the building of which there is minimal drainage. This criteria meets the requirement of the International Building Code for drain around a building. The new building finish floor is to be set at an elevation of 2482.50 feet. The new building will be protected from the 100 year storm event.

The original study's have been reviewed and I accept the findings. These reports are the basis of this update report pertaining to the new building finish floor elevation.

Attached are the original site basins and grading plan from DS# 4685 for information purposes and grading plans for the classroom building, Sheets G1.00, G1.01 and C2.00.



Nevada By Design

ENGINEERING CONSULTANTS
5795 S Sandhill Rd, Ste C
Las Vegas, NV 89120
Phone: (702) 938-1525
kanderson@nvbydesign.com

VICINITY MAP FIGURE 1

DRAWN BY:	KBA	JOB NO.:	CE18199
DATE:	4/17/2019	SHT.	1 OF 1

SECTION III: SUMMARY

RECOMMENDATIONS

The following recommendations are provided to facilitate safety; both public and private, for the proposed classroom building addition to the site.

1. Final Finish Floor elevation of the Classroom building is to be set at 2482.50 feet with the surrounding grade draining away from the building and foundation as shown on the grading plan.

CONCLUSION

The proposed classroom addition will not adversely impact the surrounding areas due to flooding. The development of this proposed project site is in compliance with the Drainage Design Manual

REFERENCES

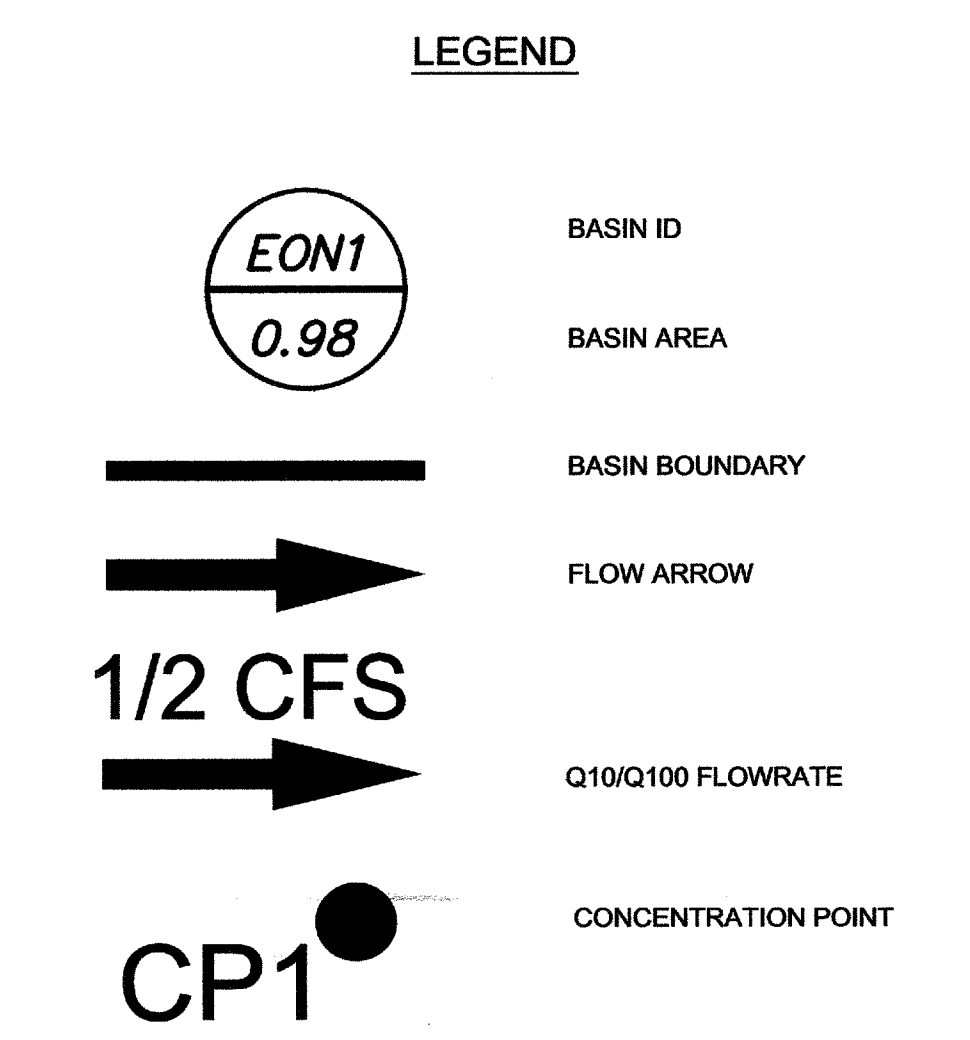
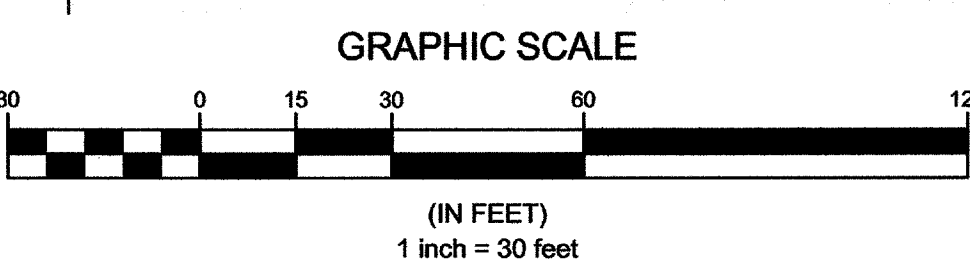
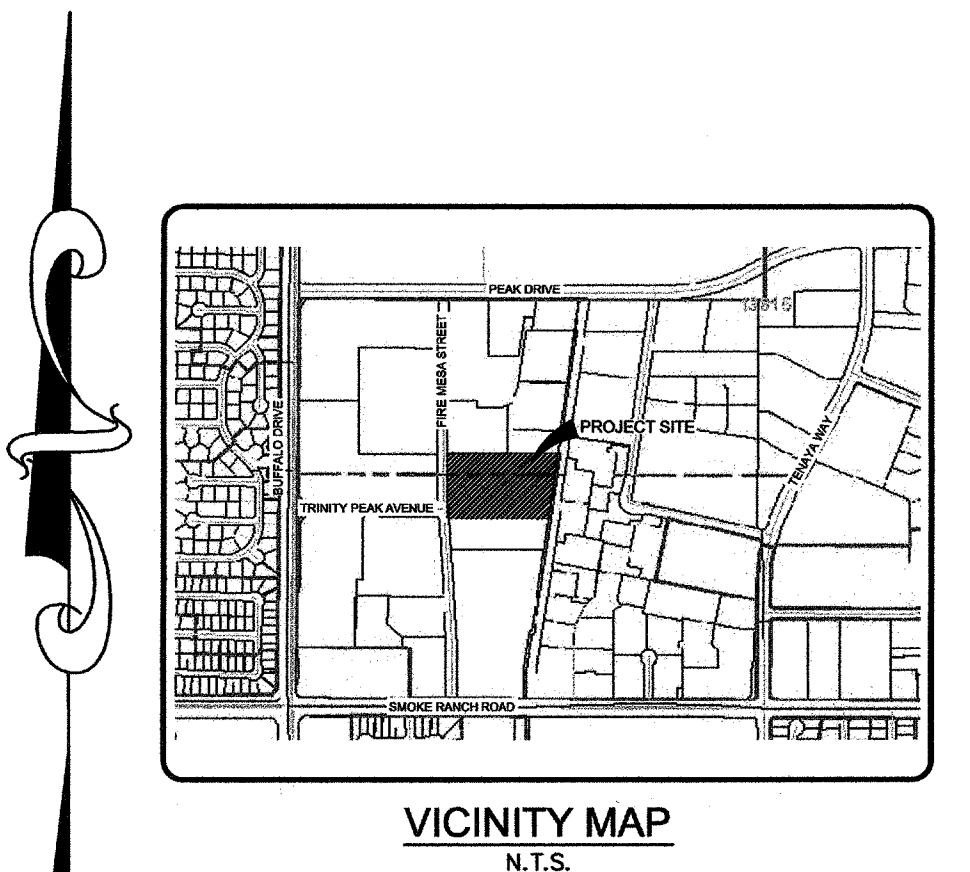
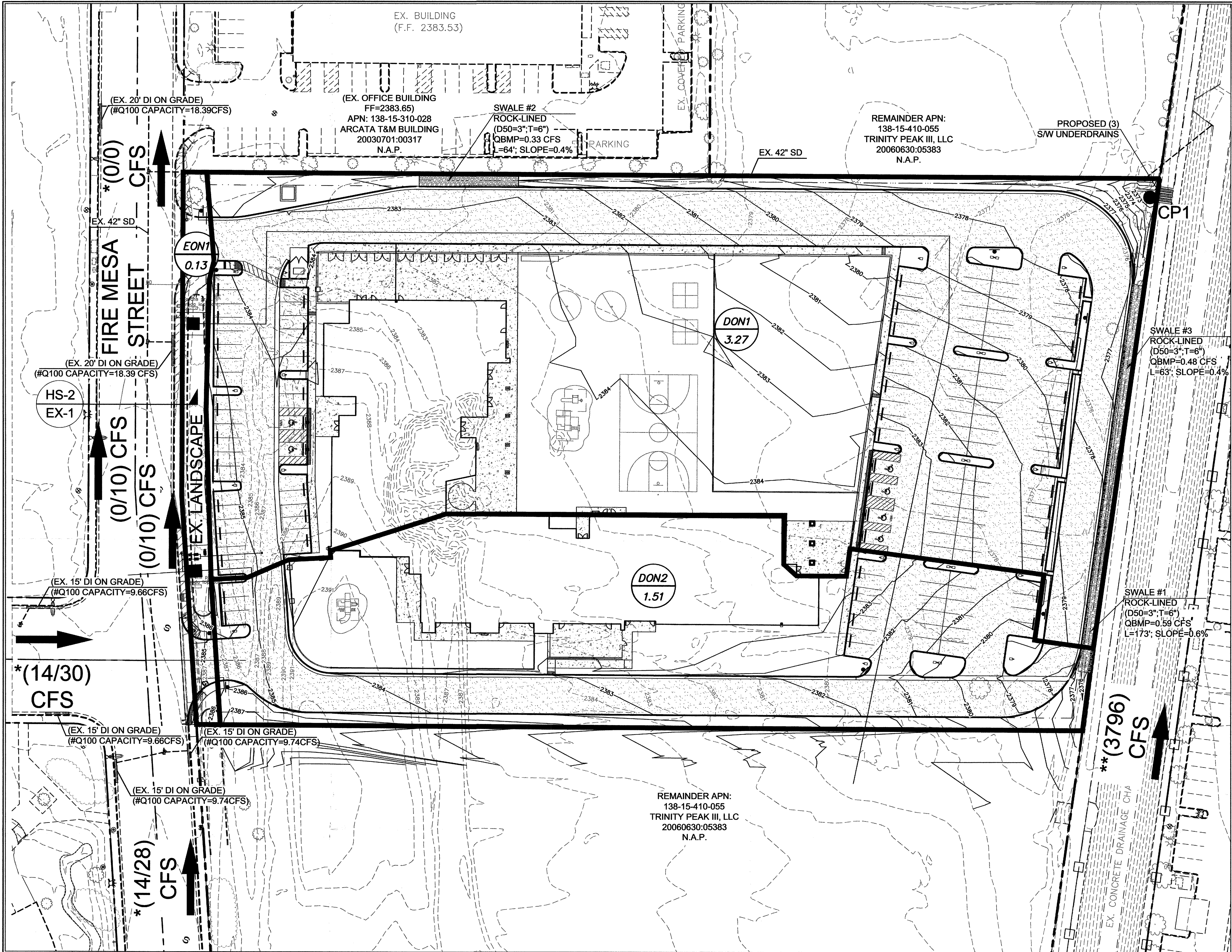
Clark County Regional Flood Control District Hydrologic Criteria and Drainage Design Manual, dated August 1999, prepared by WRC Engineering Incorporated and updated by Montgomery Watson.

Clark County Regional Flood Control District Flood Control Master Plan Update, dated 2002, prepared by Post, Buckley, Schuh & Jernigan, Inc., G.C. Wallace, Inc. and Louis Berger Group.

Clark County Regional Flood Control District Flood Control Master Plan Update, dated 2013, prepared by Post, Buckley, Schuh & Jernigan, Inc. and VTN Nevada.

Flood Insurance Rate Map Number 32003C2135F, effective November 16, 2011, prepared by Federal Emergency Management Agency.

Doral Academy – Fire Mesa Campus Drainage Study, prepared by Walker Engineering, LLC . in June 2014. DS#4685



NOTE

- *EXISTING CONDITION FLOW RATES REFERENCED FROM TECHNICAL DRAINAGE STUDY FOR LAS VEGAS TECHNOLOGY CENTER PHASE II OFFICE BUILDING #L-2. DS#3573
- **EXISTING CONDITION FLOW RATES REFERENCED FROM 2013 LAS VEGAS VALLEY FLOOD CONTROL MASTER PLAN UPDATE FIGURE F-25.
- #EXISTING DROP INLET CAPACITY REFERENCED FROM TECHNICAL DRAINAGE STUDY FOR LAS VEGAS TECHNOLOGY CENTER PHASE 2. DS#2440

FLOW SUMMARY

BASIN	BASIN AREA (ACRES)	10-YEAR FLOW (CFS)	100-YEAR FLOW (CFS)
EON1	0.13	0	0
DON1	3.27	7	12
DON2	1.51	3	6
CP1	-	10	18

HYDRAULIC CALCULATIONS

SECTION NAME	Q10 (CFS)	FLOW DEPTH (FT)	V10 (FPS)	D-V	Q100 (CFS)	FLOW DEPTH (FT)	V100 (FPS)	D-V	DRY LANE?
HS-1 FIRE MESA ST	0	-	-	-	10	0.30	2.34	0.70	N/A
HS-2 FIRE MESA ST (EAST 1/2)	0	-	-	-	10	0.46	2.43	1.12	N/A

WIE

WALKER ENGINEERING, LLC
5765 S. RAINBOW BLVD., SUITE 101
LAS VEGAS, NV 89118
TEL: 702.873.5197
FAX: 702.873.5346

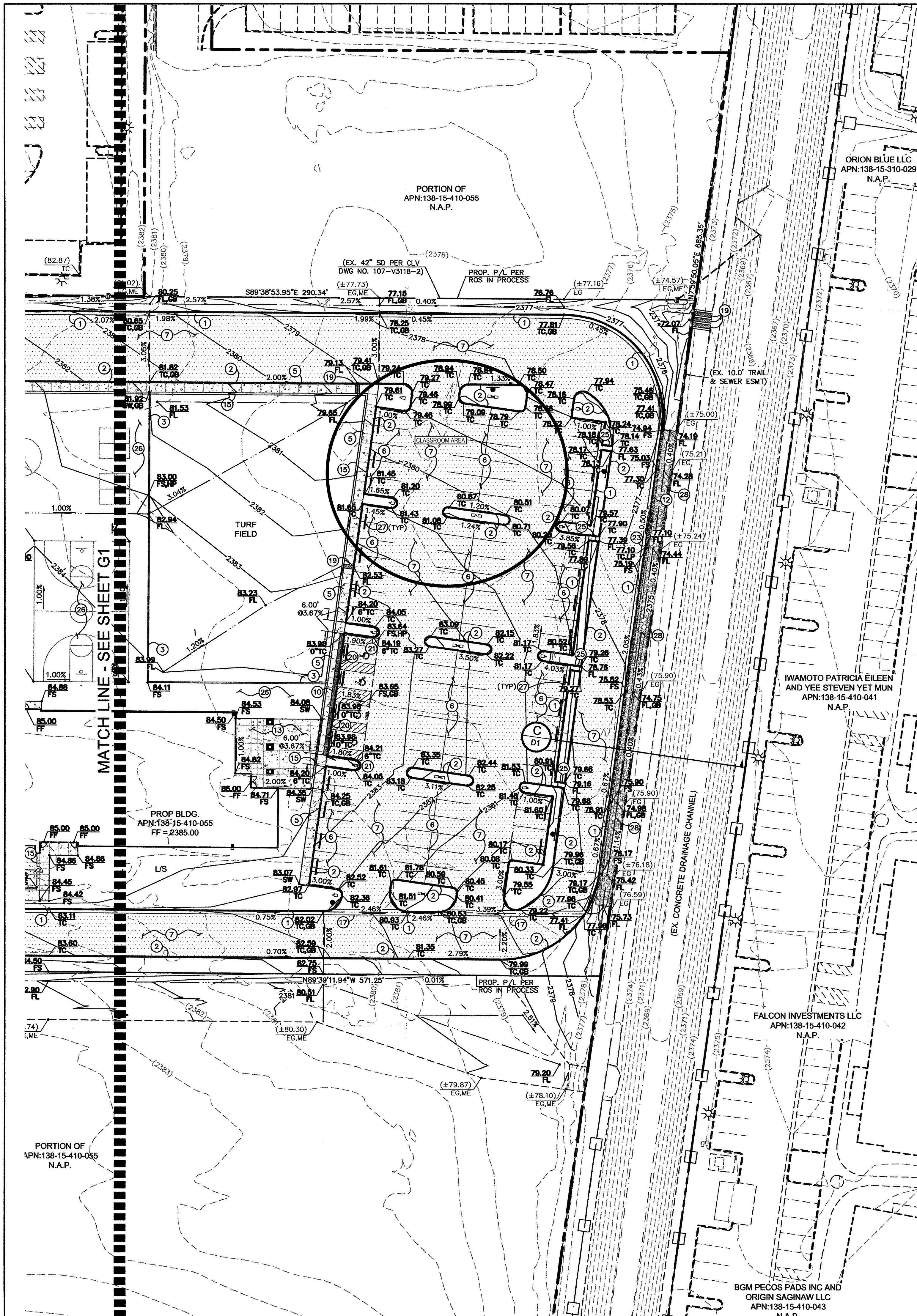
APPROVAL

REVISIONS

SUBMITTAL NO. TDS1
DATE: JUNE 30, 2014
WE PROJECT NO. 1317.00
AGENCY NO. CLV:
SHEET NO. PR-1
1 OF 1 SHEETS

DORAL ACADEMY
FIRE MESA CAMPUS
PROPOSED CONDITION BASIN MAP

DATE REV DESCRIPTION OF REVISION



ACCESSIBILITY NOTES

1. MAXIMUM SLOPE ON THE ACCESSIBLE ROUTE IS 5.0% IN THE DIRECTION OF TRAVEL, 2.0% CROSS SLOPE.
2. MAXIMUM SLOPE IN ACCESSIBLE PARKING STALL LOADING AISLES IS 2.0% IN ANY DIRECTION.
3. PROVIDE ACCESSIBLE PARKING STALL SIGNAGE FOR HANDICAP AND VAN ACCESSIBLE STALLS PER NRS 484.408.
4. HANDICAP STALLS SHALL BE 9'-0" WIDE x 18'-6" LONG (18'-6" WITH PERMITTED OVERHANG). HANDICAP STALL LOADING AISLES ARE 5'-0" WIDE x THE ENTIRE LENGTH OF THE PARKING STALL (8'-0" WIDE FOR VAN ACCESSIBLE SPACES).

ENGINEER'S NOTES:

1. ALL WORK SHALL CONFORM TO THE SOILS REPORT PREPARED BY WESTERN TERRACON CONSULTANTS, INC. DATED JUNE 26, 2014 PROJECT NO. 641459220.
2. ALL OFF-SITE IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST EDITION.
3. FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES SHALL BE ONE-HALF INCH ABOVE THE TOP OF THE GUTTER (INCLUDING OPEN GRADE).
4. CONTRACTOR IS RESPONSIBLE FOR DUST AND EROSION CONTROL DURING CONSTRUCTION.
5. THIS PLAN SHALL NOT, IN PART OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY ALL APPLICABLE GOVERNMENT AGENCIES.
6. ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES IMMEDIATELY.
7. MATCH ELEVATIONS SHOWN TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

LEGEND

- PROPERTY LINE
- STREET CENTERLINE
- PROPOSED RETAINING WALL
- PROPOSED BUILDING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CURB & GUTTER
- PROPOSED CURB
- PROPOSED EDGE OF PAVEMENT
- EXISTING CURB & GUTTER
- EXISTING CURB
- EXISTING BUILDING
- CONSTRUCTION NOTE
- CUT FILL TRANSITION
- SAWCUT LIMITS
- SCARP
- SLOPE
- FLOW LINE
- EASEMENT LINE
- HANDICAP PARKING
- FINISHED SURFACE
- CURB FACE
- CURB BACK
- EDGE OF PAVEMENT
- TOP OF GRATE
- PROPOSED GRADE
- EXISTING GRADE
- PROP. AC PAVEMENT
- PROP. PCC PAVEMENT
- REMOVE & REPLACE EXISTING AC PAVEMENT

FLOODZONE

THE PARCEL DESCRIBED HEREON LIES WITHIN THE FLOOD HAZARD ZONE HAVING A ZONE DESIGNATION OF "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) BY THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT, AS SHOWN ON FIRM MAP NO. 2135F DATED NOVEMBER 16, 2011.

BACK OF CURB CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	52.43	25.00	120°10'00"	43.45
C2	23.58	15.00	89°59'49"	15.00

BACK OF CURB LINE TABLE

LINE	LENGTH	BEARING
L1	2.91	S03°29'40"E

LEGAL DESCRIPTION:

SEE COVER SHEET FOR FULL LEGAL DESCRIPTION

BASIS OF BEARINGS:

NORTH 89°40'51" WEST, BEING THE BEARING OF THE CENTERLINE OF SMOKE RANCH ROAD AND THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 155, PAGE 31 OF SURVEYS, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:

CITY OF LAS VEGAS BM #0LC0016SE6E,
BEING A RIVET PLATE IN THE TOP OF CURB WEST SIDE OF BUFFALO AT TRINITY PEAK AVENUE
ELEVATION: 2401.52 (US SURVEY FEET)
731.98 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

SIGHT VISIBILITY ZONES NOTE

NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM THE TOP OF CURB.

EARTHWORK QUANTITIES

*NOTE: THESE QUANTITIES ARE APPROXIMATE AND ARE RAW VOLUMES ONLY. OVERCUT, UNDERCUT, SHRINKAGE, & BULKING FACTORS ARE NOT TAKEN INTO ACCOUNT.

CUT =	x C.Y.
FILL =	x C.Y.

VICINITY MAP

N.T.S.

GRAPHIC SCALE

(IN FEET)
1 inch = 30 feet

KEY MAP

N.T.S.

CONSTRUCTION NOTES	
NO	ITEM
1	CONSTRUCT "L" TYPE CURB & GUTTER PER STD DWG NO. 216
2	CONSTRUCT "A" TYPE CURB ER STD DWG NO. 219
3	CONSTRUCT NOW CURB PER ARCHITECTURAL PLANS (BY OTHERS)
4	SAWCUT NEAT & MATCH EXISTING
5	CONSTRUCT CONCRETE SIDEWALK PER ARCHITECTURAL PLANS (BY OTHERS)
6	CONSTRUCT 2" STANDARD A.C. PAVEMENT OVER 4" TYPE II AGG. BASE PER SOILS REPORT BY TERRACON CONSULTANTS. SEE DETAIL 1 ON SHEET D2
7	CONSTRUCT 3" HEAVY A.C. PAVEMENT OVER 4" TYPE II AGG. BASE PER SOILS REPORT BY TERRACON CONSULTANTS. SEE DETAIL 2 ON SHEET D2
8	CONSTRUCT 2" PCC OVER 4" TYPE II AGG. BASE PER SOILS REPORT BY TERRACON CONSULTANTS. SEE DETAIL 3 ON SHEET D2
9	CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG NO. 226-S1
10	INSTALL ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 4 ON SHEET D2
11	CONSTRUCT SIDEWALK RAMP PER STD DWG NO. 235 CASE 1
12	CONSTRUCT 4.0' MAX RETAINING WALL DESIGN & PERMITS (BY OTHERS)
13	CONSTRUCT CONCRETE WALKWAY PAVEMENT PER ARCHITECTURAL PLANS (BY OTHERS)
14	INSTALL TRASH ENCLOSURE PER ARCHITECTURAL PLANS (BY OTHERS)
15	INSTALL CHAIN LINK FENCE PER ARCHITECTURAL PLANS (BY OTHERS)
16	INSTALL DECORATIVE WROUGHT IRON FENCE PER ARCHITECTURAL PLANS (BY OTHERS)
17	CONSTRUCT 3.0' WIDE VALLEY GUTTER PER DETAIL 5 ON SHEET D2
18	CONSTRUCT SIDEWALK RAMP PER DETAIL 6 ON SHEET D2
19	CONSTRUCT SIDEWALK DRAIN PER STD DWG NO. 236
20	CONSTRUCT 0" CURB
21	TRANSITION FROM 6" CURB TO 0" CURB PER DETAIL 7 ON SHEET D2
22	INSTALL 4" PVC STORM DRAIN, OUTLET AT CURB FACE
23	CONSTRUCT 2.0' WIDE CURB OPENING PER DETAIL 8 ON SHEET D2
24	MATCH EXISTING
25	CONSTRUCT 2" CONCRETE FLUME PER DETAIL 9 ON SHEET D2
26	CONSTRUCT ASPHALT PLAYGROUND SURFACE PER ARCHITECTURAL PLANS (BY OTHERS)
27	INSTALL PRECAST CONCRETE WHEEL STOP BY JENSEN OR EQUIVALENT PER ARCHITECTURAL PLANS (BY OTHERS)
28	CONSTRUCT CLASS 150 RIP RAP (D50=6", T=12") OVER 8" CLASS 150 BEDDING OVER NON-WOVEN GEOTEXTILE PER NDOT R-1.4.1

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE WITH CITY OF LAS VEGAS FOR THIS PROJECT, DS ---.

TREASEA WOLF, P.E. No. 17879 DATE

LV DRAWING NO. TBD

W E

WALKER ENGINEERING, LLC
5765 S. RAINBOW BLVD.
SUITE 101
LAS VEGAS, NV 89118
TEL: 702.873.5197
FAX: 702.873.5346

STATE OF NEVADA
Professional Engineer
No. 17879
Exp. 12/31/24

APPROVAL	DATE	INITIALS

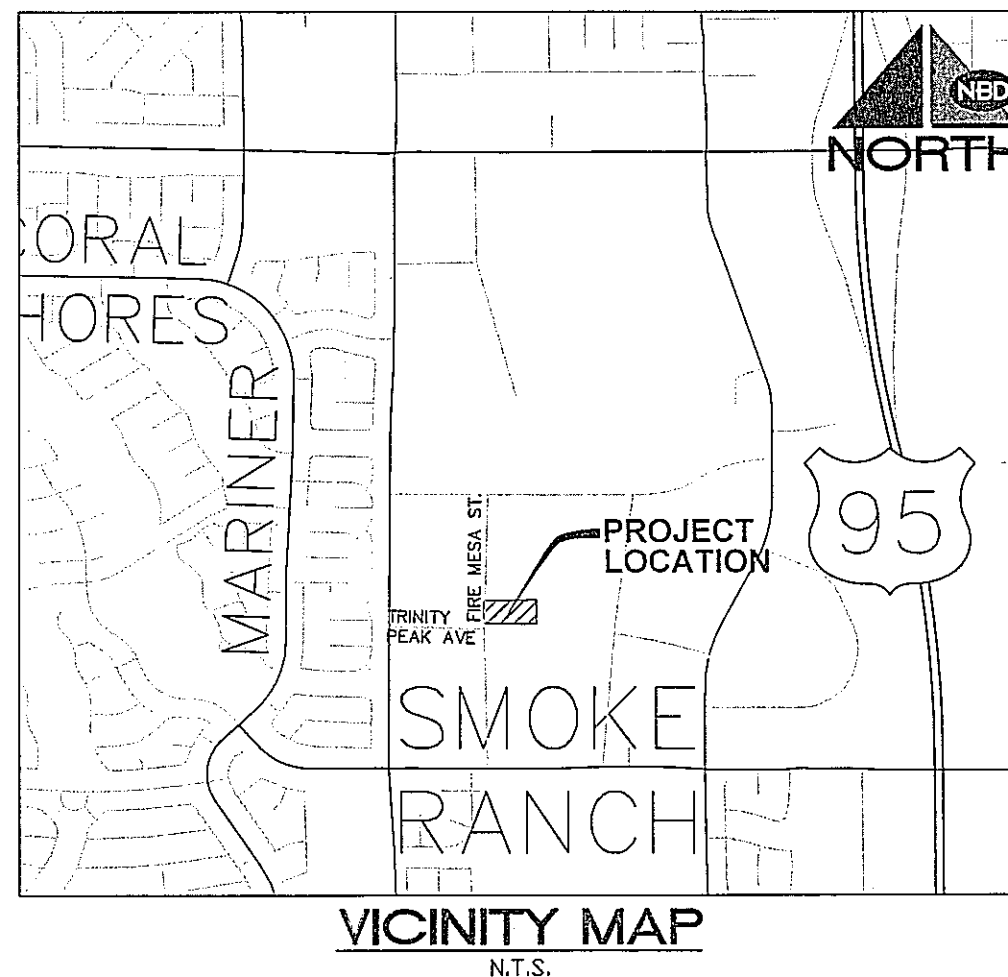
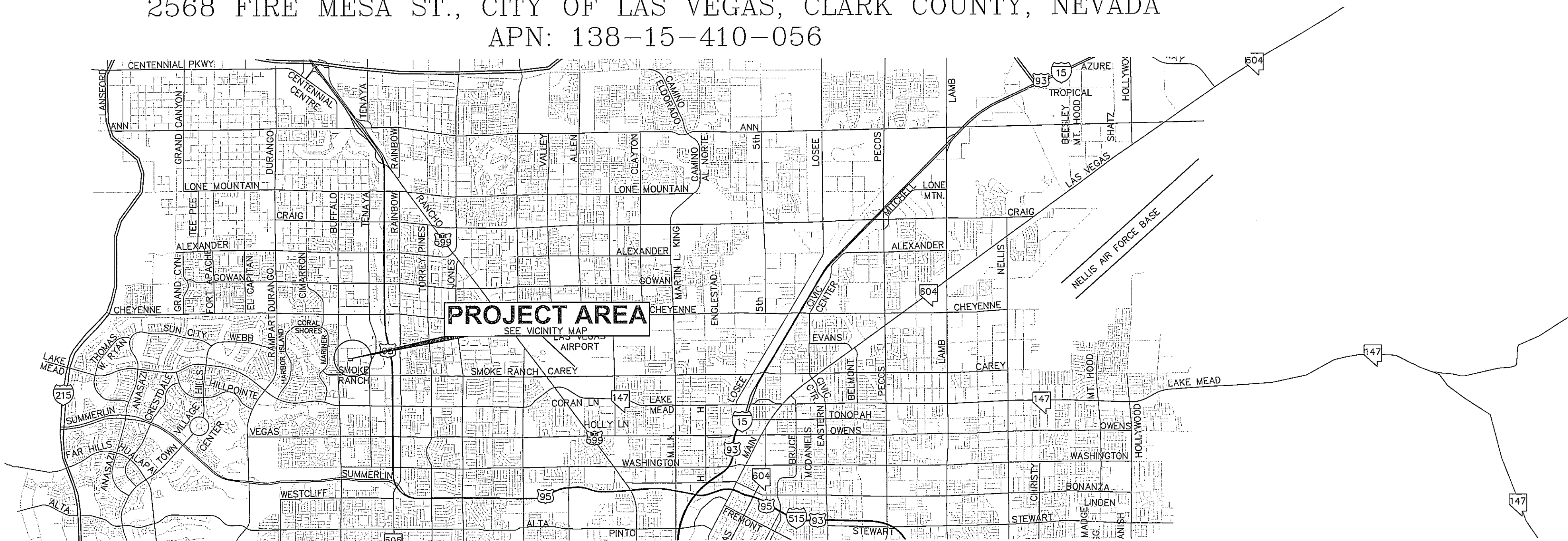
DORAL ACADEMY FIRE MESA CAMPUS

PRECISE GRADING PLAN 2 OF 2

SUBMITTAL NO. TDS
DATE: JULY 02, 2014
WE PROJECT NO.
1317.00
AGENCY NO.
CLV:
SHEET NO.:
G2
8 OF 10 SHEETS

DORAL ACADEMY – FIRE MESA – CLASSROOM ADDITION IMPROVEMENT PLANS

2568 FIRE MESA ST., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA
APN: 138-15-410-056



ABBREVIATIONS:

2	AND	HPS	HIGH PRESSURE SODIUM
3	AT	ID	INSIDE DIAMETER
4	DIAMETER OR ROUND	INV	INVERT
5	NUMBER	IRR	IRRIGATION
AC	ASPHALTIC CONCRETE	LAT	LATERAL
ADP	ASBESTOS CEMENT PIPE	LF	LINEAL FEET
ADJ	ADJUST	LS	LANDSCAPE
AGG	AGGREGATE	LT	LEFT
ALT	ALTERNATE	LVWD	LAS VEGAS VALLEY WATER
AVE	AVENUE	DISTRICT	DISTRICT
BC	BACK OF CURB	MAX	MAXIMUM
BCR	BEGINNING OF CURB RETURN	MH	MANHOLE
BDRY	BOUNDARY	MIN	MINIMUM
BEG	BEGIN	NG	NATURAL GRADE
BM	BENCHMARK	NO	NUMBER
BSW	BACK OF SIDEWALK	NO	NEVADA DEPARTMENT OF
BTWN	BETWEEN	NDOT	TRANSPORTATION
BVC	BEGINNING OF VERTICAL CURVE	OC	ON CENTER
CATV	CABLE TV	OD	OUTSIDE DIAMETER
C & G	CURB AND GUTTER	OD	OVERHEAD POWER
CIP	CAST IRON PIPE	P	POWERLINE
CL	CENTERLINE	PB	PULL BOX
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
CMU	CONCRETE MASONRY UNIT	PCC	POINT OF COMPOUND CURVE
CO	CLEAN OUT	PE	POLYETHYLENE
CONC	CONCRETE	PI	POINT OF INTERSECTION
CONST	CONSTRUCT	PL	PROPERTY LINE
CBC	CITY OF BOULDER CITY	POC	POINT OF CONNECTION
CLV	CITY OF LAS VEGAS	PP	POWER POLE
ONLY	CITY OF NORTH LAS VEGAS	PRC	POINT OF REVERSE CURVE
COH	CITY OF HENDERSON	PROP	PROPOSED
COM	CITY OF MESQUITE	PT	POINT OF TANGENT
CC	CLARK COUNTY	PVC	POLY VINYL CHLORIDE PIPE
CCAUSD	CLARK COUNTY AREA UNIFORM	PVI	POINT OF VERTICAL INTERSECTION
STANDARD DRAWINGS		PVMT	PAVEMENT
CCWRD	CLARK COUNTY WATER RECLAMATION	Q	RATE OF FLOW
DISTRICT		R	RADIUS
CCRFD	CLARK COUNTY REGIONAL FLOOD	RCB	REINFORCED CONCRETE BOX
CONTROL DISTRICT		RCP	REINFORCED CONCRETE PIPE
DC	DEPRESSED CURB	RD	ROAD
DCSWCS	DESIGN AND CONSTRUCTION	RR	RAILROAD
STANDARDS FOR WASTEWATER		RT	RIGHT
COLLECTION SYSTEM		ROW	RIGHT-OF-WAY
DI	DIAMETER	SS	SANITARY SEWER
DIA	DUCTILE IRON PIPE	SD	STORM DRAIN
DIP	DROP MANHOLE	SDWK	SIDEWALK
DMH	DOMESTIC	SHT	SHEET
DOM	DOMESTIC	STA	STATION
DWY	DRIVEWAY	ST	STREET
E	ELECTRIC	STD	STANDARD
EAC	EDGE OF AC	T	TELEPHONE
EC	END OF CURVE	TC	TOP OF CURB
ECR	END OF CURB RETURN	TF	TOP OF FOOTING
ECU	END DRIVEWAY	TMH	TOP OF MANHOLE
EL	ELEVATION	TRANS	TRANSITION
EM	ELECTRIC METER	TS	TRAFFIC SIGNAL
EOP	EDGE OF PAVEMENT	TSC	TRAFFIC SIGNAL CONDUIT
ESMT	EASEMENT	TW	TOP OF WALL
EVC	END OF VERTICAL CURVE	TYP	TYPICAL
EW	EACH WAY	UDACS	UNIFORM DESIGN AND
EX	EXISTING	UG	UNDERGROUND
FF	FINISH FLOOR	VC	VERTICAL CURVE
FG	FINISH GRADE	VCL	VITRIFIED CLAY PIPE
FH	FIRE HYDRANT	VERT	VERTICAL
FLC	FLOW LINE	VG	VALLEY GUTTER
FS	FINISHED SURFACE	VWD	VIRGIN VALLEY WATER DISTRICT
FSR	FIRE SPRINKLER RISER	WL	WATER LINE
G	GAS	WM	WATER METER
GALV	GALVANIZED	W/	WITH
GB	GRADE BREAK	W/O	WITHOUT
GR	GRATE		
H	HIGH OR HEIGHT		
HDPE	HIGH DENSITY POLYETHYLENE		
HOR	HORIZONTAL		
HP	HIGH POINT		

INDEX OF SHEETS:

1. COVER SHEET	G1.00
2. GENERAL NOTES SHEET	G1.01
3. DEMOLITION PLAN	C1.00
4. IMPROVEMENT PLAN	C2.00
5. HORIZONTAL CONTROL - UTILITY PLAN	C3.00

APPROVALS:

ALAN PAVELKA P.E., CITY ENGINEER	DATE
APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARDS DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA.	
CITY OF LAS VEGAS PLANNING DEPARTMENT	DATE
THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT.	
LAS VEGAS FIRE & RESCUE	DATE
NV ENERGY	DATE
NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.	
SOUTHWEST GAS CORPORATION	DATE
COX COMMUNICATIONS LAS VEGAS, INC.	DATE
CENTRAL TELEPHONE CO. DBA CENTURYLINK	DATE
THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.	
APPROVED FOR CONSTRUCTION	
Las Vegas Valley Water District Engineering Services	
Project No. 126366	First Approved Date:
SHEETS: G1.00, G1.01, C1.00 & C4.00	

DEVELOPER/OWNER:

2568 FIRE MESA STREET
LAS VEGAS, NEVADA 89128

LEGAL DESCRIPTION:

A PORTION OF THE LAS VEGAS TECHNOLOGY CENTER BLOCK (5), LOT ONE (1) AS SHOWN UPON THAT CERTAIN PLAT MAP RECORDED AS BOOK 47, PAGE 35 OF PLATS, SAME BEING FURTHER SHOWN AS AREA E ON THAT CERTAIN RECORD OF SURVEY RECORDED AS FILE 155, PAGE 31 OF SURVEYS, CLARK COUNTY OFFICIAL RECORDS SITUATED IN SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EST, M.D.M., CLARK COUNTY, NEVADA.

FURTHER DESCRIBED AS LOT E-2 ON THAT CERTAIN RECORD OF SURVEY ON FILE IN FILE 193, PAGE 36 IN THE OFFICE OF THE CLARK RECORDER, CLARK COUNTY, NEVADA.

CONTAINS 4.91 ACRES MORE OR LESS

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NUMBER 0L0016SEE6, BEING A RIVET PLATE IN THE TOP IF CURB WEST SIDE OF BUFFALO AT TRINITY PEAK AVENUE. (NAVD 88)
ELEVATION= 731.98 METERS 2401.52 FEET

BASIS OF BEARING:

NORTH 89°40'51" WEST, BEING THE BEARING OF THE CENTERLINE OF SMOKE RANCH ROAD AND THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 15, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 155, PAGE 31 OF SURVEYS, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.



DORAL ACADEMY - FIRE MESA CHARTER SCHOOL

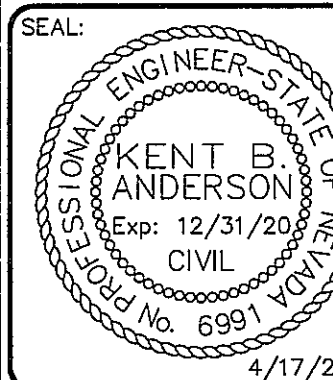
APN: 138-15-410-056

2568 FIRE MESA ST., LAS VEGAS, NV

COVER SHEET

PROJECT:

DRAWING TITLE:



4/17/2019

SHEET NO.:

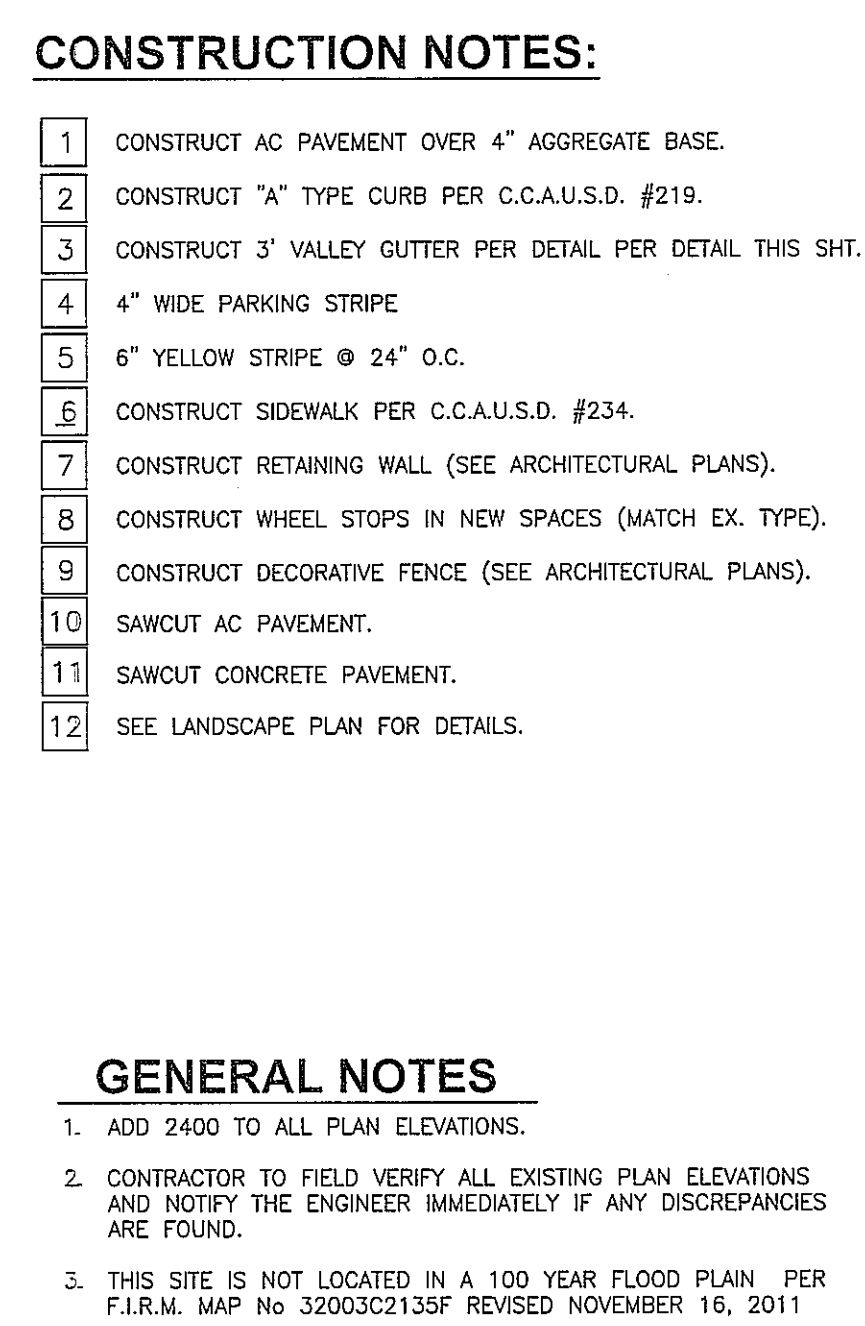
G1.00

SHEET 1 OF 5

DWG. NO.:

SHEET 2 OF 5

DWG. NO.



LEGEND	CL. OR SURVEY LINE	EASEMENT LINE	CONC. P.V.M.T.	MANHOLES & DESCRIPTIONS		CAP	DESCRIPTION:	BO VALVE	CLEAN OUT	FDC	FIRE HYDRANT	GATE VALVE	REDUCER	100W HPS STREETLIGHT	150W HPS STREETLIGHT	200W HPS STREETLIGHT	250W HPS STREETLIGHT	400W HPS STREETLIGHT	5' CONTOUR LINE	1' CONTOUR LINE	EDGE OF P.V.M.T.	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	ELEVATIONS	SIGNS
	PROPERTY LINE	SAWTOOTH LINE	LIGHT AC P.V.M.T.	⊗ = SANITARY SEWER	⊙ = ELECTRICAL	[	EXISTING:	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	---	---	---	---	---	---	---	---	
	ROW LINE	SCARP LINE	HEAVY AC P.V.M.T.	⊗ = STORM DRAIN	⊙ = TELEPHONE	]	PROPOSED:	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	⌵	---	---	---	---	---	---	---	---	