DS #: 4134.2

APN: 139-32-802-022 & -030

PROJECT: Charleston Office Building - Update #2

SUBMITTAL: 5th

SCANNED BY/DATE:

CHECKED BY/DATE:

CITY OF LAS VEGAS NEVADA

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM					DATE: October 3, 2018
TO: **Land Development Services** Department of Public Works					FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Technical Drainage Study for: **Charleston Office Building – Update #2**				**COPIES TO:** JPL Engineering, Inc.
Cross Streets:	NWC of Charleston Blvd. & Strong Ave. (West of Rancho Drive)				Swan Foundation LLC
File Number:	F:\Depot\DSMEMOS\DS4134F.doc				Bart Anderson, P.E., DevCo
Parcel Number:	139-32-802-022 & -030				NDOT
Zoning Action:					
FEMA Flood Zone	YES		NO	**X**	
Proposed Storm Drain	YES		NO	**X**	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Trn. No.
1st Submittal	2/16/2007	3/2/2007	Not Approved	$400.00	63240: $400
2nd Submittal	5/15/2007	5/30/2007	Not Approved	$400.00	69107: $400
3rd Submittal	7/5/2007	7/18/2007	Approved	$400.00	72566: $400
4th Submittal	12/24/2008	12/31/2008	Not Approved	$100.00	112056: $100
Supplement	1/27/2009	1/28/2009	Approved	N/C	N/C
5th Submittal	9/25/2018	10/3/2018	See Comments Below	$100.00	499431: $100
			TOTAL FEES (LDDRS):	**$1,400.00**	**----**

REMARKS:

5th Submittal: Update #2 for minor revision of site layout

4th Submittal & Supplement: Update #1 and Supplement for minor revision of onsite grading and retaining wall

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 NDOT concurrence.

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.

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

END OF REMARKS
AYS

T/R/S: T20S/R61E/32
AREA M-32

JPL
ENGINEERING•ENVIRONMENTAL• SURVEY
DESINGBUILD • CONSTRUCTION MANAGEMEI

September 24, 2018 Transmitted Via E-mail

Albert Y. Sung, P.E.
City Las Vegas
333 N. Rancho Dr
Las Vegas, Nevada, 89106

RE: UPDATE TO TECHNICAL DRAINAGE STUDY FOR CHARLESTON PSNF
APN 139-32-802-036 - CLV DS#4134

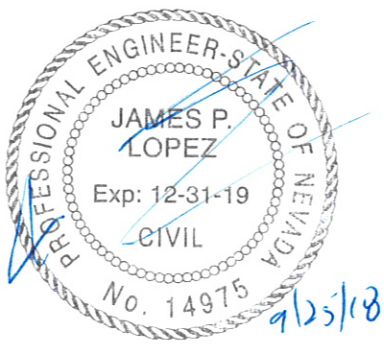
Mr. Albert Sung:

With regard the above referenced project we are updating the Technical Drainage Study for Charleston PSNF based on change to the Grading Plan. The original Grading Plan will be included on the back of this text. The new Grading Plan includes a drop off that reconfigures the west Parking Lot. In addition a handicap parking and concrete pads for medical water and gas tanks and generator tanks have been added per Architectural Plans. There are no other changes within the Charleston ROW. The drainage patterns include the existing valley gutter and sidewalk under drain remains the same. The New Grading Plan will be included on the back of this text.

Please Contact JPL Engineering Inc. if you should have any further questions.

Sincerely,

James Lopez, P.E.
Principal



6725 S. Eastern Ave Unit 5 Las Vegas, Nevada 89119 Telephone: (702) 898-6269 Fax: (702) 650-6260
www.jplengineeringinc.com

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: CHARLESTON PSNF Date: 01-16-2018

Location of Development: a) Descriptive (Cross Streets) North/South: Charleston Blvd

East/West: Strong Dr

b) Section: 32 Township: 20 South Range: 61 East

c) APN : 139-32-802-036

Name of Owner: SWAN FOUNDATION L L C

Telephone No.: 702-650-9695 Fax No.: 702-732-4466 E-Mail Address:

Address: 2496 W. Charleston Blvd, Las Vegas, NV, 89102

Contact Person-Name: James Lopez **Telephone No.:** (702) 898-6269

* **E-Mail Address:** james@jplengineeringinc.com **Fax No.:**

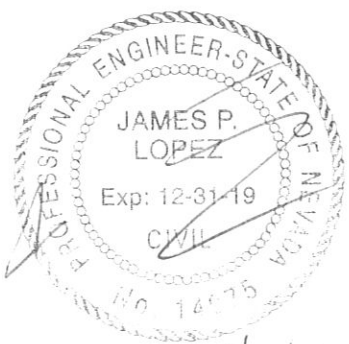
Firm: JPL Engineering, Inc.

Address: 6725 S. Eastern Ave, Ste 5, Las Vegas, NV, 89119

Type of Land Development/Land Disturbance Process:

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

1. Total Owned Land Area: At Site: 1.82 AC +/- Being Developed/Disturbed: 1.82 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: See Plans
6. Has the site drainage been evaluated in the past? ☐ **YES** ☒ **NO** If yes, please identify documentation:
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Charleston Blvd / Strong Dr
8. Briefly describe your proposed schedule for the subject project: ASAP



Engineer's Seal 9/25/18

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.**

Revision	Date

Local Entity File No.

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

Project Name: CHARLESTON PSNF	Map ID:	
Firm Name: JPL Engineering, Inc	Engineer: James Lopez	
Address: 6725 S. Eastern Ave		
City: Las Vegas	State: NV	Zip: 89119
Phone Number: (702) 898-6269	Fax Number:	
Property Owner: SWAN FOUNDATION L L C		
Address: 2497 W CHARLESTON BLVD		
City: Las Vegas	State: NV	Zip: 89102
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	
x		Design Manual **Standard Form 1** with the engineer's seal and signature.
x		Design Manual **Standard Form 4**.
x		2 copies of the 24" x 36" Drainage Plan.
	NA	A notarized letter from the adjacent property owner(s) allowing off-site grading or discharge.

II. MAPS AND EXHIBITS

Yes	No	
x		A copy of a current Flood Insurance Rate Map (FIRM) with the site delineated.
x		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**

DRAINAGE SUBMITTAL CHECKLIST

II. MAPS AND EXHIBITS (Continued)

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

III. DRAINAGE PLAN

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

REFERENCE:	**STANDARD FORM 2**

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes	No	
	NA	Streets with off-set crowns.
x		Proposed contours or spot elevations in sufficient detail to exhibit intended drainage patterns and slopes.
x		Property lines.
x		Right-of-way lines and widths, existing and proposed.
x		Existing improvements and their elevations.
x		Delineation of proposed on-site drainage basins indicating area and 10-year and 100-year storm peak flows at basin concentration points.
x		Concentration points and drainage flow direction with Q_{100} and V_{100} and D_{100} in streets.
x		Cumulative flows, velocity, and direction of flow at upstream and downstream ends of site for the 10-year and 100-year flows.
x		Location and cross-section of street capacity calculations.
x		Cross-sectional detail for channels, including cutoff wall locations.
x		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.
x		Existing and proposed drainage easements and widths shown with sufficient detail. A cross sectional detail must be provided that shows appropriate lining and reinforcement.
	NA	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.
	NA	Location and detail of flood walls illustrating depth of flow, proposed grouting height, etc.
	NA	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.
x		Building and/or lot numbers.
x		Alignment of all existing, proposed, or future Regional Facilities adjacent to the site.
x		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**

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes	No	
_____	NA	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.
_____	NA	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.
_____	NA	Street slopes for perimeter and interior streets. The minimum slope is 0.4 percent.
_____	NA	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.
_____	N/A	Calculation for impervious area for parking lots and LIDs (if required).

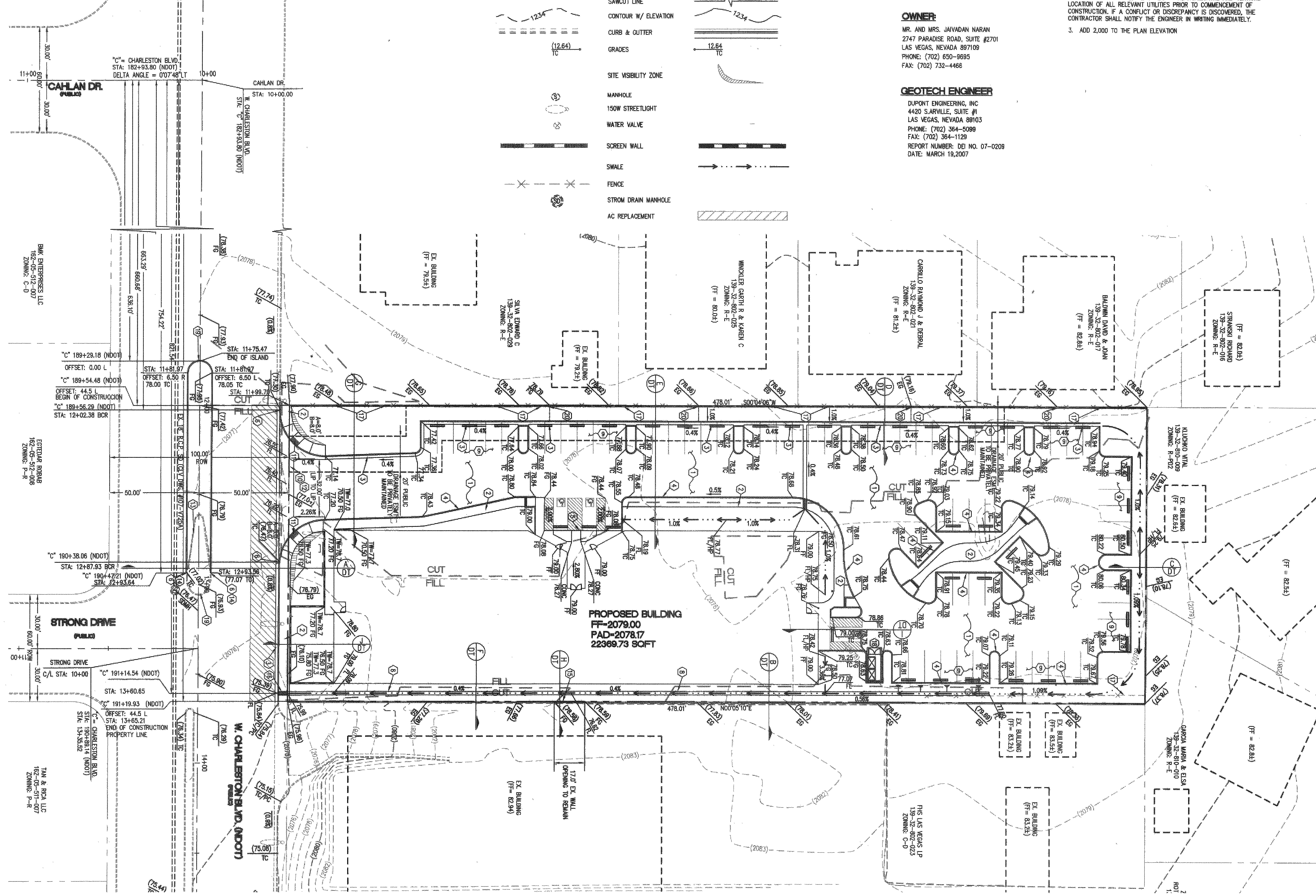
REFERENCE:	STANDARD FORM 2

DRAINAGE SUBMITTAL CHECKLIST

V. HYDRAULIC ANALYSIS

Yes	No	
____	NA	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 x v $\leq$ 8. Q_{10} d x v $\leq$ 6 and 12 foot dry lane for rights-of-way $\geq$ 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.
____	NA	Appropriate hydraulic calculations for block wall openings assuming a 50 percent vertical clogging factor. (Assume the lower half of the opening is plugged.)
____	NA	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.
____	NA	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.
____	NA	A complete water surface profile analysis (HEC-2, HEC-RAS, etc.) for channel flows and FEMA Zone A flood zones. • 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.
____	NA	Provide a 50 percent clogging factor in the capacity calculation for drop inlets.
____	NA	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.
____	NA	Provide BMP type, size and supporting calculations for parking lots and LIDs (if required).

REFERENCE: | **STANDARD FORM 2**



LEGEND

EXISTING		PROPOSED
	CENTERLINE	
	PROPERTY LINE	
	SAWCUT LINE	
1234	CONTOUR W/ ELEVATION	1234
	CURB & GUTTER	
(12.64) TC	GRADES	12.64 TC
	SITE VISIBILITY ZONE	
	MANHOLE	
	150W STREETLIGHT	
	WATER VALVE	
	SCREEN WALL	
	SWALE	
	FENCE	
	STROM DRAIN MANHOLE	
	AC REPLACEMENT	

ENGINEER:

JPL ENGINEERING, INC.
JAMES P. LOPEZ, P.E.
5096 W. POST ROAD
LAS VEGAS, NEVADA 89118
PHONE: (702) 898-6269
FAX: (702) 650-6260

OWNER:

MR. AND MRS. JAIVADAN NARAN
2747 PARADISE ROAD, SUITE #2701
LAS VEGAS, NEVADA 897109
PHONE: (702) 650-9695
FAX: (702) 732-4466

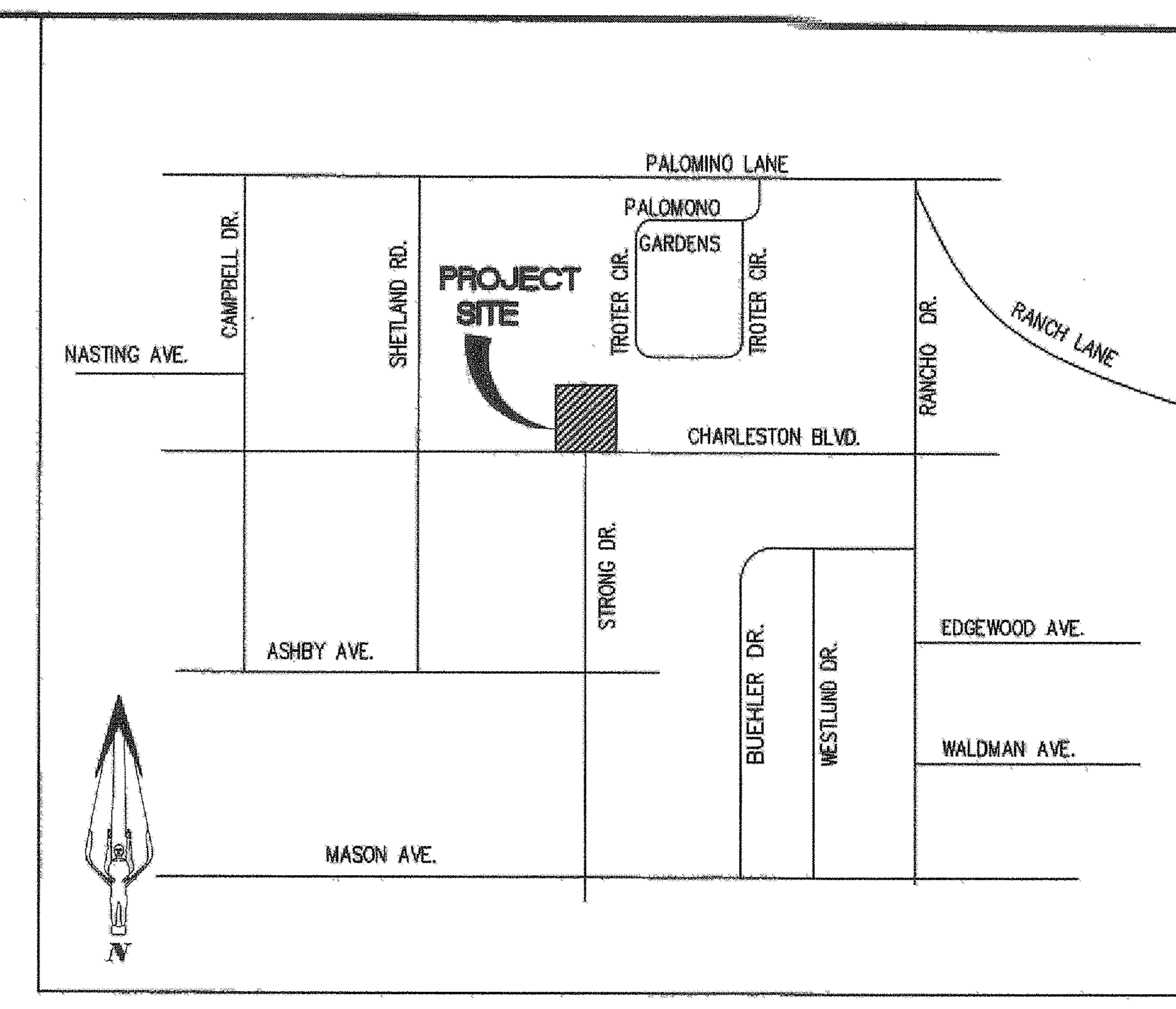
GEOTECH ENGINEER

DUPONT ENGINEERING, INC
4420 S.ARVILLE, SUITE #1
LAS VEGAS, NEVADA 89103
PHONE: (702) 364-5099
FAX: (702) 364-1129

REPORT NUMBER: DEI NO. 07-0209
DATE: MARCH 19,2007

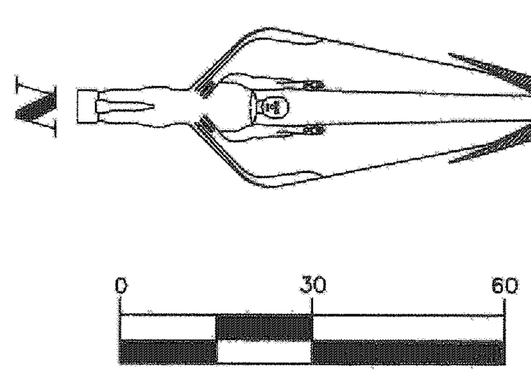
GENERAL NOTES

1. ALL GRADING WORK TO CONFORM TO SOILS REPORT AS PREPARED FOR THIS PROPERTY.
2. JPL ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY BOTH THE HORIZONTAL AND VERTICAL LOCATION OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.
3. ADD 2,000 TO THE PLAN ELEVATION



VICINITY MAP

NTS



SCALE: 1" = 30'

CONSTRUCTION NOTES

1. CONSTRUCT BRICK PAVING OVER 9-1/2" TYPE II BASE ALL BASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY (ASTMD 1557)
2. CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD DWG. NO. 234
3. CONSTRUCT "L" TYPE CURB & GUTTER PER CCAUSD DWG. NO. 216
4. CONSTRUCT "A" TYPE CURB PER CCAUSD DWG. NO. 219
5. CONSTRUCT "O" FACE CURB
6. CONTRACTOR TO VERIFY AND MATCH EXISTING ELEVATION
7. INSTALL PRECAST BUMPER BLOCK PER CCAUSD DWG. NO.238
8. CONSTRUCT 2' VALLEY GUTTER PER DETAIL "1" SHEET DT
9. CONSTRUCT BRICK PAVING OVER 7-1/2" TYPE II BASE ALL BASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY (ASTMD 1557)
10. CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD DWG. NO. 228
11. CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD DWG. NO. 235, CASE 1
12. EX. CURB GUTTER AND SIDEWALK TO BE REMOVED AND CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD NO. 222A AND 228
13. REVISE EXISTING MEDIAN SAWCUT AND REMOVE EX. RAISED MEDIAN , AND INSTALL 12' RAISED MEDIAN PER CCAUSD DWG. NO. 244.1 ALT.
14. SAWCUT AND REMOVE EX. RAISED MEDIAN
15. EXISTING VENTILATION BUILT BY OTHERS
16. CONSTRUCT A SIDEWALK UNDER DRAIN PER CITY CONCORD STYLE PER NDOT
17. EXISTING FENCE TO BE REMOVED
18. TRASH ENCLOSURE, PER ARCHITECTURAL PLANS.
19. CONSTRUCT MEDIAN NOSE MARKINGS PER CCAUSD DWG NO. 248
20. CONSTRUCT 16" x 24" BLOCK WALL OPENING PER DETAIL "4" SHEET DT

LEGAL DESCRIPTION

APN: 139-32-802-036
A PORTION OF THE SOUTHEAST QUARTER (SE ¼), OF THE SOUTHWEST QUARTER (SW ¼), OF THE SOUTHEAST QUARTER (SE ¼), OF SECTION 32, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., CLARK COUNTY, NEVADA, ALSO BEING LOT 1 AND LOT 2 AS SEE IN FILE 51, ON PAGE 28 OF PARCEL MAPS, CLARK COUNTY, NEVADA RECORDS.

BASIS OF BEARING

NORTH 89°39'19" WEST BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE ¼), OF SECTION 32, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., CLARK COUNTY, NEVADA. ALSO BEING THE CENTERLINE OF CHARLESTON BOULEVARD AS SHOWN IN FILE 51, PAGE 28 OF PARCEL MAPS, CLARK COUNTY, NEVADA RECORDS.

BENCHMARK

CLARK COUNTY BM# 7C01 32S4

BEING A RIVET AND SQUARE ALUMINUM PLATE IN THE TOP OF CURB ON THE NORTHEAST CORNER OF CHARLESTON BOULEVARD AND SHETLAND DRIVE, NEAR THE PC OF CHARLESTON BOULEVARD.

ELEVATION:
634.1176 METERS (NAVD 88)
2080.43 FEET (NAVD 88)

FLOOD INFORMATION

THE SUBJECT SITE IS LOCATED IWTHIN FEMA ZONE X, AS SHOWN ON F.I.R.M. COMMUNITY PANEL NUMBER 32003C2567E, EFFECTIVE SEPTEMBER 27, 2002, REVISED TO REFLECT LOMR DATED AUGUST 13, 2003. ZONE X IS DEFINED BY FEMA AS AN AREA OUTSIDE THE 500-YEAR FLOODPLAIN. THE FEMA FLOOD MAP IS INCLUDED AT THE BACK OF THE TEXT.

NOTE:

SECTION 2 OR SECTION 3 OF THE CLARK COUNTY BUILDING OFFICE OPERATIONS DIVISION DRAINAGE COMPLIANCE REPORT MUST BE COMPLETED BY THE ENGINEER.

EARTHWORK QUANTITIES

FILL = 1389 CU.YDS
CUT = 783 CU.YDS
NET = 607 CU.YDS FILL

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY CALL BEFORE YOU DO UNDERGROUND

Call before you UnderGround
1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

UTILITY NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
CALL
811
OR
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7544

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
CALL 1-702-227-2929

JAMES P. LOPEZ, P.E. #14975 — 6/13/08 DATE

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE TO THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT (DS#4134).

REV	DATE	DESCRIPTION	DATE	APPROVAL

JPL ENGINEERING INC.
5096 W. POST ROAD LAS VEGAS, NV 89118
PHONE (702) 898-6269 FAX (702) 650-6260

CHARLESTON OFFICE BUILDING

GRADING PLAN

JUNE 10, 2008

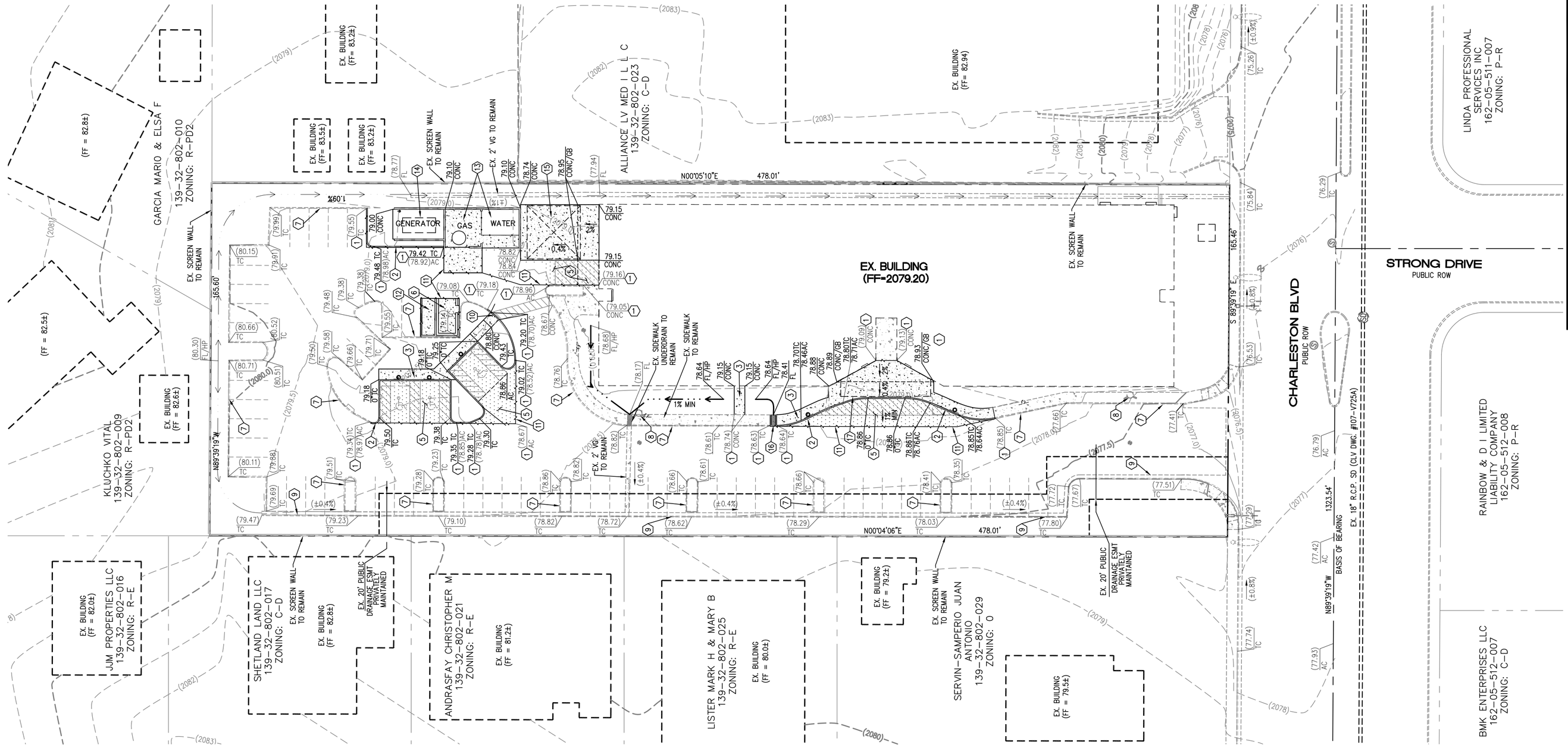
PROFESSIONAL ENGINEER STATE OF NEVADA
JAMES P. LOPEZ
Exp: 12-31-09
CIVIL
No. 14975
6/13/08

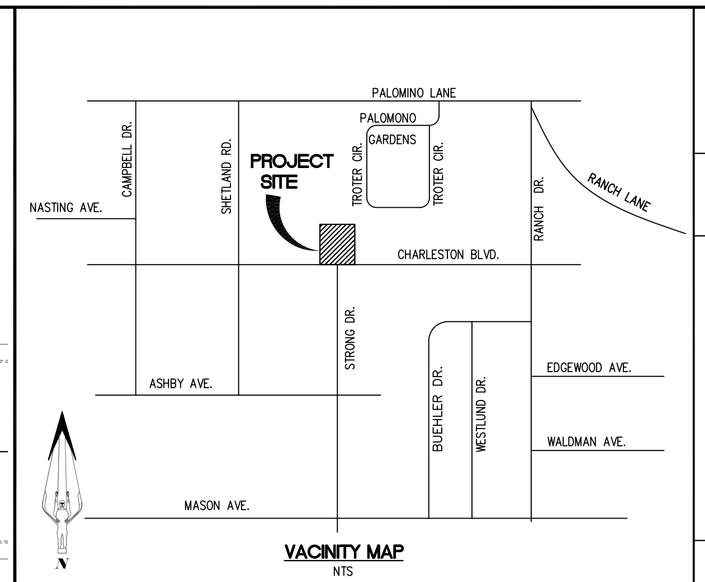
JOB# 06-107

SHEET
GP
4 OF 8

CLV# 107V5103 | H #24764 | 107V5103

steven DWG PATH: Z:\jobs\06107 Charleston Office\Dwgs Civil\Imp\06107-Grading.dwg





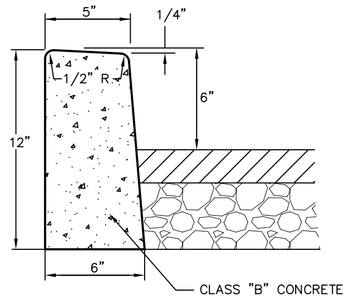
VACINITY MAP
NTS

LEGEND

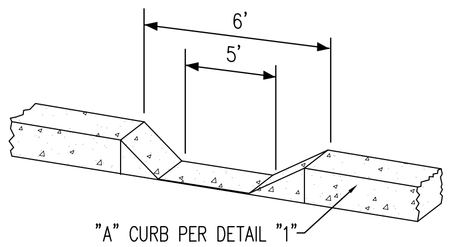
EXISTING		PROPOSED
	CENTERLINE	
	PROPERTY LINE	
	SECTION LINE	
	CURB & GUTTER	
	EDGE OF PAVEMENT	
	CONCRETE	
	SCREEN WALL	
	FIRE HYDRANT	
	WATER VALVE	
	STREET SIGN	
	POWER POLE	
(1234)	CONTOUR W/ ELEVATION	XXXX
(12.64) TC	GRADES	12.64 TC
	FLOW LINE	
	ASPHALT	
	SAWCUT	

ABBREVIATION

C/L	CENTER LINE	FG	FINISH GRADE	PP	POWER POLE
CONC.	CONCRETE	GB	GRADE BREAK	ROW	ROW-OF-WAY
DW	DRIVEWAY	LF	LINEAR FEET	S	SOUTH
E	EAST	MAX.	MAXIMUM	TC	TOP OF CURB
ELEC.	ELECTRIC	MIN.	MINIMUM	TEL	TELEPHONE
ETC	END TOP OF CURB	N	NORTH	TW	TOP OF WALL
EX.	EXISTING	NTS	NOT TO SCALE	W	WEST
FF	FINISH FLOOR	PL	PROPERTY LINE	WL	WALL
				O.R.	OFFICIAL RECORD



1 **TYPE "A" CURB DETAIL #1**
NOT TO SCALE



3 **CURB OPENING DETAIL #3**
NOT TO SCALE

CONSTRUCTION NOTE:

1. CONTRACTOR SHALL VERIFIY EXISTING ELEVATION AND MATCH EXISTING GRADE. IF ANY DISCREPANCIES NOTIFY ENGINEER.
2. INSTALL "A" TYPE CURB PER DETAIL "1" THIS SHEET
3. INSTALL 4" CONCRETE SIDEWALK PER CCAUSD #234
4. INSTALL SIDEWALK RAMP PER CCAUSD #235, CASE I (A&B PER PLAN)
5. INSTALL X" AC OVER X" TYPE II AGREGATE BASE COMPACTED TO 95%
6. PROPOSED TRASH ENCLOSURE PER ARCHITECTURAL PLANS
7. EX. "A" TYPE CURB TO REMAIN PROTECT IN PLACE
8. EXISTING UTILITY TO BE PROTECTED IN PLACE DURING CONSTRUCTION. LIDS/RIM TO BE ADJUSTED TO NEW SURFACE
9. EX. "L" TYPE CURB AND GUTTER TO REMAIN PROTECT IN PLACE
10. INSTALL 5' CURB OPENING PER DETAIL "2" THIS SHEET
11. SAWCUT AND REMOVE EXISTING ASPHALT; MATCH EXISTING GRADE.
12. PROPOSED BIOHAZARD WASTE ENCLOSURE PER ARCHITECTURAL PLANS
13. PROPOSED GAS AND WATER TANKS ENCLOSURE PER ARCHITECTURAL PLANS
14. PROPOSED GENERATOR ENCLOSURE PER ARCHITECTURAL PLANS
15. PROPOSED CONCRETE PAD WITH SHADE COVER PER ARCHITECTURAL PLANS
16. PROPOSED 2' SIDEWALK UNDERDRAIN PER CCAUSD #236
17. PROPOSED CANOPY PER ARCHITECTURAL PLANS

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE TO THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT (DS#4134).

JAMES P. LOPEZ, P.E. #17975 — 9-25-18 DATE

ENGINEER:

CONTACT: JAMES LOPEZ, P.E.
JPL ENGINEERING, INC.
6725 S. EASTERN AVE., STE. 5
LAS VEGAS, NV. 89119
PHONE: (702) 898-6269
FAX: (877) 557-8292

OWNER:

SWAN FOUNDATION LLC
2747 PARADISE ROAD, SUITE #2701
LAS VEGAS, NEVADA 89109
PHONE: (702) 650-9695
FAX: (702) 732-4466

GEOTECH ENGINEER

DUPONT ENGINEERING, INC
4420 S.ARVILLE, SUITE #1
LAS VEGAS, NEVADA 89103
PHONE: (702) 364-5099
FAX: (702) 364-1129
REPORT NUMBER: DEI NO. 07-0209
DATE: MARCH 19,2007

LEGAL DESCRIPTION

APN: 139-32-802-036
A PORTION OF THE SOUTHEAST QUARTER (SE ¼), OF THE SOUTHWEST QUARTER (SW ¼), OF THE SOUTHEAST QUARTER (SE ¼), OF SECTION 32, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., CLARK COUNTY, NEVADA, ALSO BEING LOT 1 AND LOT 2 AS SEE IN FILE 51, ON PAGE 28 OF PARCEL MAPS, CLARK COUNTY, NEVADA RECORDS.

BASIS OF BEARING

NORTH 89°39'19" WEST BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE ¼), OF SECTION 32, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., CLARK COUNTY, NEVADA ALSO BEING THE CENTERLINE OF CHARLESTON BOULEVARD AS SHOWN IN FILE 51, PAGE 28 OF PARCEL MAPS, CLARK COUNTY, NEVADA RECORDS.

BENCHMARK

CLARK COUNTY BM# 7C01 3254

BEING A RIVET AND SQUARE ALUMINUM PLATE IN THE TOP OF CURB ON THE NORTHEAST CORNER OF CHARLESTON BOULEVARD AND SHETLAND DRIVE, NEAR THE PC OF CHARLESTON BOULEVARD.

ELEVATION:
634.1176 METERS (NAVD 88)
2080.43 FEET (NAVD 88)

FLOOD INFORMATION

THE SUBJECT SITE IS LOCATED WITHIN FEMA ZONE X, AS SHOWN ON F.I.R.M. COMMUNITY PANEL NUMBER 32003C2170F, MAP REVISED DATE NOVEMBER 16, 2011. ZONE X IS DEFINED BY FEMA AS AN AREA OUTSIDE THE 500-YEAR FLOODPLAIN. THE FEMA FLOOD MAP IS INCLUDED AT THE BACK OF THE TEXT.

●●HANDICAP PARKING SPACE NOTE:

SLOPE SHALL NOT EXCEED 2% IN ALL DIRECTION OF HANDICAP PARKING SPACES AND LOADING ZONES.

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

UTILITY NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY
CALL 811 OR 1-800-227-2600

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

NOTES:

1. EXISTING IMPROVEMENTS ON SITE TO BE REMOVED AS NOTED
2. NO KNOWN, MAPPED OR OBSERVABLE FAULTS & FISSURES
3. ALL GRADING WORK TO CONFORM TO SOILS REPORT AS PREPARED FOR THIS PROPERTY
4. CONTRACTOR SHALL REMOVE EXCESS DEBRIS PRIOR TO CONSTRUCTION, REPORT DISCREPANCIES
5. JPL ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY BOTH THE HORIZONTAL AND VERTICAL LOCATION OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.
6. ADD 2000 TO GRADE TAGS

emmadawg PATH: P:\Jobs\18011 - Charleston PSNF\Dwgs Civil\dwg\18011-04-GP.dwg

REV	DATE	DESCRIPTION	SHEET #	APPROVAL

JPL ENGINEERING INC.
6725 S. EASTERN AVE., STE. 5, LAS VEGAS, NV 89119
PHONE (702) 898-6269 * FAX (877) 557-8292

APN# 139-32-802-036
CHARLESTON PSNF

ONSITE GRADING PLAN

SEPTEMBER, 2018

PROFESSIONAL ENGINEER STATE OF NEVADA
JAMES P. LOPEZ
Exp: 12-31-19
CIVIL
No. 14275

9-25-18

JOB# 18-011

SHEET
GP
1 OF 1

CLV#