

DS #: 05240

APN: 126-12-501-004

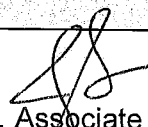
PROJECT: Sloye Canyon Phase 3B/3C Mass Grading

SUBMITTAL: 1st

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		February 24, 2020
TO: Land Development Services Department of Building & Safety		FROM: Jennifer Shinn, P.E.  Flood Control, Engr. Associate Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
	Skye Canyon Phase 3B/3C Mass Grading	Westwood Professional Services
Cross Streets:	Skye Village Road & Skye Canyon Park Drive	Century Communities of Nevada, Inc.
File Number:	F:\Depot\DSMemos\DS05240A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	126-12-501-004	CCRFCD
Zoning Action:		
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	1/30/2020	2/20/2020	See Comments Below	\$400.00	3723993: \$400
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

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

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

- This drainage study is acceptable in concept;** however, *City of Las Vegas* will not formally accept the study until the *Clark County Regional Flood Control District (CCRFCD)* has issued a letter of concurrence. The engineer should contact the CCRFCD to confirm that they have begun their review.
- Sites with a grade difference of 2 feet above or below existing grades are required to have approval from the *City of Las Vegas Planning and Development Department*. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the *City Planning Department (229-6301)*. The engineer must provide *City Planning* approval prior to final acceptance of the drainage study.
- The study assumes that all necessary roadway and drainage infrastructure improvements associated with Phase 3B/3C are in place and functioning prior to the proposed mass grading.
- It is noted that the Skye Canyon Master Drainage Study Update #6 has been conditionally approved by the City.
- This drainage study addresses the Interim Condition of the Phase 3B/3C area utilizing the more conservative Ultimate Condition flow values.
- Technical drainage studies are required for future development of each of the Pods.

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

JKS

T/R/S: T19S/R59E/S12

AREA F-12



Westwood

Technical Drainage Study
Skye Canyon Phase 3B/3C
Mass Grading

City of Las Vegas, NV
January 2020

Prepared For:

Century Communities of Nevada, LLC.
6345 South Jones Boulevard
Las Vegas, NV 89118

TECHNICAL DRAINAGE STUDY
Skye Canyon
Phase 3B/3C Mass Grading

City of Las Vegas, Nevada

Job No.: CEN2001.000

Date: January 2020

Prepared By:

Westwood Professional Services, Inc.
5740 S. Arville Street, Suite 216
Las Vegas, Nevada 89118
Phone: 702-284-5300 • Fax: 702-284-5399

Prepared For:

Century Communities of Nevada, LLC.
6345 South Jones Boulevard
Las Vegas, NV 89118
Phone: 702-873-5338



Lant Leavitt, P.E.
NV Professional Engineer No. 18287

Assisted by: Gabrielle Squillante

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Skye Canyon Phase 3B/3C Mass Grade Date: January 2020
 Location of Development: a) Descriptive (Cross Streets): North/South: Skye Village Road
East/West: Skye Canyon Park Drive
 b) Section: 12 Township: 19 South Range: 59 East
 c) APN: 126-12-501-004

Name of Owner: Century Communities of Nevada, LLC
 Telephone No.: 702-873-5338 Fax No.: 702-220-6566 E-mail Address: Todd.Winner@centurycommuni
 Address: 6345 S. Jones Boulevard Las Vegas NV 89118

Contact Person – Name: Lant Leavitt, P.E. Telephone No.: (702) 284-5300
 *E-mail Address: Lant.Leavitt@westwoodps.com Fax No.: (702) 284-5399
 Firm: Westwood Professional Services, Inc.
 Address: 5740 S. Arville #216 Las Vegas NV 89118

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: 157 Acres +/- Being Developed/Disturbed: 152 Acres +/-

2. Is a portion or all of the subject property located in a 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.): Mass Grading for Single-Family Residential

5. Approximate upstream land area which drains to the subject site: 0 acre +/-

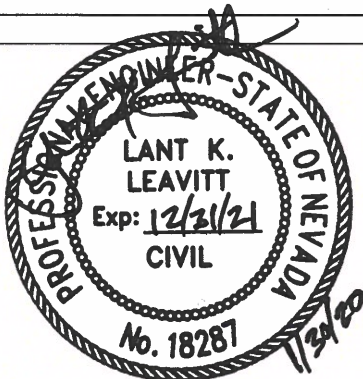
6. Has the site drainage been evaluated in the past? ☒ Yes** ☐ No If yes, please identify documentation: _____

Skye Canyon II Phase 3B/3C (SHG, DS 4953); Master Drainage Study for Skye Canyon (Westwood, DS5229)

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

Through storm drain facilities within the perimeter streets

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



Engineer's Seal

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.

***Newly 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



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 (CCRFCD) 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 CCRFCD Hydrologic Criteria and Drainage Design Manual (Design Manual).

An appointment must be made to preview this checklist in conjunction with CCRFCD 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.
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. Note: Proposed top of curb elevations must be provided for both sides of roadways even if only half street construction is required.
X	-	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.
X	-	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.
X	-	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.
X	-	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.

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

Project Name: Skye Canyon Phase 3B/3C Mass Grade	Map ID:
Firm Name: Westwood Professional Services, Inc.	Engineer: Lant Leavitt, P.E.
Address: 5740 S. Arville #216	
City: Las Vegas	State: NV Zip: 89118
Phone Number: (702) 284-5300	Fax Number: (702) 284-5399
Property Owner: Century Communities of Nevada, LLC	
Address: 6345 S. Jones Boulevard	
City: Las Vegas	State: NV Zip: 89118
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 (CCRFCDD) 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	
<u>X</u>	<u>-</u>	Design Manual Standard Form 1 with the engineer's seal and signature.
<u>X</u>	<u>-</u>	Design Manual Standard Form 4 .
<u>X</u>	<u>-</u>	2 copies of the 24" x 36" Drainage Plan.
<u>-</u>	<u>N/A</u>	A notarized letter from the adjacent property owner(s) allowing off-site grading or discharge.

II. MAPS AND EXHIBITS

Yes	No	
<u>X</u>	<u>-</u>	A copy of a current Flood Insurance Rate Map (FIRM) with the site delineated.
<u>X</u>	<u>-</u>	A copy of the current CCRFCDD 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	
<u>X</u>	<u>-</u>	Off-site drainage basin maps for existing, interim and future conditions showing the existing topography, basin boundaries, concentration points, and flows in cfs.
<u>X</u>	<u>-</u>	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.
<u>X</u>	<u>-</u>	Vicinity Map with local and major cross streets identified and a north arrow.

III. DRAINAGE PLAN

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

REFERENCE:

STANDARD FORM 2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE SUBMITTAL CHECKLIST

III. DRAINAGE PLAN (Continued)

Yes	No	
-	N/A	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.
-	N/A	Existing and proposed drainage easements and widths shown with sufficient detail. A cross sectional detail must be provided that shows appropriate lining and reinforcement.
-	N/A	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.
-	N/A	Location and detail of flood walls illustrating depth of flow, proposed grouting height, etc.
-	N/A	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.
-	N/A	Building and/or lot numbers.
X	-	Alignment of all existing, proposed, or future Regional Facilities adjacent to the site.
-	N/A	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	
☐	☐ N/A	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.
☐	☐ N/A	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.
☐	☐ N/A	Location and detail of best management practice (BMP) for parking lots and low impact development (LID) (if required).

IV. HYDROLOGIC ANALYSIS

referenced

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.
☐	☐ N/A	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	
-	N/A	Flow split calculations and supporting documentation or reference for the method of flow split calculations used.
-	N/A	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.
-	N/A	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.
-	N/A	Appropriate hydraulic calculations for block wall openings assuming a 50 percent vertical clogging factor. (Assume the lower half of the opening is plugged.)
-	N/A	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.
-	N/A	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.
-	N/A	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.
-	N/A	Provide a 50 percent clogging factor in the capacity calculation for drop inlets.
-	N/A	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.
-	N/A	Provide BMP type, size and supporting calculations for parking lots and LIDs (if required).

REFERENCE:

STANDARD FORM 2

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Project Overview & Study Purpose	1
1.2	Description of Project	2
1.3	Summary of Prior Relevant Drainage Studies	2
1.4	FEMA Flood Zone Designation	2
1.5	CCRFGD Facility Information	2
2	METHODOLOGY	3
2.1	Compliance	3
2.2	Hydrologic Modeling.....	3
2.3	Hydraulic Modeling & Criteria.....	3
3	EXISTING DRAINAGE CONDITION	3
3.1	Definition of Existing Condition	3
3.2	Discussion of Existing Condition	3
4	PROPOSED DRAINAGE CONDITION.....	4
4.1	Definition of Proposed Condition.....	4
4.2	Discussion of Proposed Condition.....	4
4.3	Summary of Proposed Condition Flows.....	4
5	ULTIMATE DRAINAGE CONDITION.....	5
5.1	Definition of Ultimate Condition.....	5
6	CONCLUSIONS & RECOMMENDATIONS.....	5
7	REFERENCES	5

LIST OF APPENDICES

Appendix A Drainage Exhibits

- Exhibit A – Location Map
- Exhibit B – FEMA FIRM Map
- Exhibit C – MPU Facility Map
- Exhibit D – Proposed Condition Drainage Map

Appendix B Hydraulic Analysis

- Ditch Sections

Appendix C Reference Material

Master Drainage Study Update #6 for Skye Canyon (DS 5229)

- Ultimate Condition Onsite Drainage Map
- Ultimate Condition Onsite Drainage Facilities Map

Appendix D Reference Material

Geotechnical Report for Skye Canyon Phases 3A, 3B and 3C

- Geotechnical Boring Excerpts

Appendix E CD of Electronic Files

1 INTRODUCTION

1.1 Project Overview & Study Purpose

Century Communities of Nevada, LLC is proposing to mass grade approximately 152-acres of undeveloped land within the Skye Canyon Phase 3B/3C portion of the Skye Canyon master planned community. The Phase 3B/3C site has been technically designed with roadway and drainage infrastructure improvements which are intended to support future private developments. The Phase 3B/3C mass grading site is comprised of seven (7) separate private parcels within the Phase 3B/3C site, and generally bound by Skye Canyon Park Drive to the south, Shaumber Road to the west, Skye Village Road to the east, and Iron Mountain Road to the north. The overall Skye Canyon master planned community encompasses approximately 1,033 acres within the City of Las Vegas, Nevada.

The Skye Canyon property has been master planned and a *Master Drainage Study for Kyle Canyon* (SHG, DS4420) has been approved by the City of Las Vegas. In addition, four (4) updates to the master drainage study have been processed:

- Skye Canyon Master Drainage Study - Update #1 to Kyle Canyon Master Drainage Study addressed changes in land use plan for the Phase 1, Phase 2 and detention basin areas of the site and was approved by the City of Las Vegas on March 05, 2015.
- Skye Canyon Master Drainage Study - Update #2 addressed downstream drainage impacts resulting from the changes in land use plan for the Phase 1, Phase 2 and detention basin areas and was approved by the City of Las Vegas on November 23, 2015.
- Skye Canyon Master Drainage Study - Update #3 addressed changes in the land use plan, re-alignment of Sheep Mountain Parkway, introduction of the Kyle Canyon Interchange Project, and relocation of the Skye Canyon downstream MPU facility to Log Cabin Way. This study was approved by the City of Las Vegas on August 15, 2016.
- Skye Canyon Master Drainage Study - Update #4 addressed a change in the Skye Canyon downstream MPU facility alignment from Log Cabin Way to Moccasin Road. This study was conditionally approved by the City of Las Vegas on October 10, 2017.

In addition to the above listed study updates, land east of US 95 was sold to a separate developer and renamed as Sunstone. A 5th Update was submitted to address changes to the Sunstone land use plan east of US 95. Due to the east side of US 95 being downstream, these changes do not affect the current Skye Canyon development area and are not applicable to this study. A 6th Update to Skye Canyon was submitted to City of Las Vegas (City) on December 5th, 2019. This study is still under review by the City.

The Phase 3B/3C area has been technically analyzed and designed by the *Technical Drainage Study for Skye Canyon Infrastructure Phase 3B/3C* (SHG, DS4953; hereinafter referred to as the Phase 3B/3C study), which was proposed within the framework set forth by the aforementioned Master Drainage Study Updates. Therefore, it is the objective of this technical study to show conformance to the flow patterns and flow rates set forth in the Phase 3B/3C study, which will also show conformance to the drainage patterns set forth in the Master Updates, specifically Master Update #6.

1.2 Description of Project

The Phase 3B/3C mass grading project site is located within Township 19 South, Range 59 East and Section 12, on APN 126-12-501-004. A location map identifying the site in relation to the surrounding streets has been prepared as Exhibit A, included in Appendix A.

Each of the seven parcels will be mass graded to match the proposed drainage patterns established by the Phase 3B/3C study, and the mass grading will tie into the existing interim condition drainage channels for capture and conveyance of runoff by existing storm drain infrastructure. Since all roadway and drainage infrastructure within the Phase 3B/3C area has been designed and installed with the Phase 3B/3C study, no additional infrastructure is proposed by this mass grade study.

1.3 Summary of Prior Relevant Drainage Studies

Various drainage studies for the Skye Canyon master planned property with direct impact to the subject Phase 3A area have been summarized below. Some of the studies have been approved and different stages of review are on-going for others.

- *Technical Drainage Study for Skye Canyon Phase 3B/3C Infrastructure – Update #1*, prepared by Slater Hanifan Group was conditionally approved by the City of Las Vegas on September 26, 2019. This study addresses the roadway and drainage infrastructure within/surrounding the Phase 3B/3C area.
- *Skye Canyon Master Drainage Study – Update #6*, prepared by Westwood Professional Services was submitted to the City of Las Vegas on December 5, 2019. This study addresses the developed condition hydrologic analysis of the Phase 3B/3C area based on the most current master land use plan.
- *Technical Drainage Study for Skye Canyon Detention Basin 2*, prepared by Slater Hanifan Group was conditionally approved by the City of Las Vegas on January 11, 2018. This study addresses the upstream detention basin facility that provides flood protection to Skye Canyon Phase 3B/3C. The Detention Basin 2 outfall discharges down Lone Mountain Road in Phase 3B/3C infrastructure.

1.4 FEMA Flood Zone Designation

The Phase 3B/3C mass grade site boundaries have been delineated on current FEMA FIRM Panel Map 32003C1750E, dated September 27, 2002. Per the FIRM Panel, the project site is located within a FEMA designated Zone 'X' (unshaded). Zone 'X' (unshaded) is described by FEMA as *areas determined to be outside the 0.2% annual chance floodplain*. Exhibit B, identifying the project site on the FEMA FIRM Maps, has been included in Appendix A for reference.

1.5 CCRFCD Facility Information

The project site has been delineated on the current 2018 Clark County Regional Flood Control District (CCRFCD) Las Vegas Valley Flood Control Master Plan Update (2018 MPU, Reference 1) facility figures as Exhibit C, included in Appendix A. Per the 2018 MPU, CCRFCD Facility Moccasin – Hualapai Branch (MOHU) 0036 is adjacent to two of the mass graded parcels within Skye Village Road.

2 METHODOLOGY

2.1 Compliance

The methodologies utilized in the preparation of this study are in compliance with the Clark County Regional Flood Control District's Hydrologic Criteria and Drainage Design Manual (CCRFCD Manual, Reference 2).

2.2 Hydrologic Modeling

No hydrologic basins were analyzed with this study. The proposed mass grading is represented by a land use of "newly graded" which produces a lower curve number and corresponding flow rate than the referenced ultimate drainage condition from the Master Study which utilized a land use of "Residential Low" and "Residential Medium-Low". Therefore, the curve number and corresponding flow rate referenced from the Master Study are considered valid and conservative for use in this mass grade study. The referenced land use, curve number, and lag time data are from the Master Study. The Ultimate Condition Onsite Drainage Map and Facilities Maps from the Master Study have been provided in Appendix C for reference.

2.3 Hydraulic Modeling & Criteria

All drainage and roadway infrastructure associated with the Phase 3B/3C area has been designed and proposed with the Phase 3B/3C Study; therefore, no drainage or roadway infrastructure are proposed with this mass grade study.

3 EXISTING DRAINAGE CONDITION

3.1 Definition of Existing Condition

The existing condition considers the Skye Canyon Phase 3A drainage and roadway infrastructure in place and functioning along with upstream Skye Canyon Detention Basin 1 (DB1) and Skye Canyon Detention Basin 2 (DB2). DB1 is already substantially complete and DB2 is constructed but hasn't yet been officially acknowledged as substantially complete. It is the intention of the developer to progress the Phase 3B/3C onsite parcel designs so that they can be constructed immediately after substantial completion of DB2. The drainage patterns and flow rates for the existing condition have been analyzed with the Master Study. Ultimate condition flow rates and facilities were proposed with the Master Study to ensure existing drainage patterns are followed and downstream criteria met. This mass grading follows the patterns established in the Master Study.

3.2 Discussion of Existing Condition

The seven onsite parcels within the Phase 3B/3C area are comprised of mostly undisturbed desert land which generally convey flows in an easterly direction through well-defined washes. Several interim condition drainage ditches exist within the onsite parcels to route interim onsite flows toward existing Phase 3B/3C storm drain facilities, preventing onsite runoff from discharging into the surrounding streets as surface flow, and conforming to ultimate condition drainage patterns.

4 PROPOSED DRAINAGE CONDITION

4.1 Definition of Proposed Condition

The proposed condition considers the parcels within the Phase 3B/3C area to be graded per the recommendations in this study along with existing ditch grading and storm drain facilities constructed per the Phase 3B/3C Study. As presented in Section 2.2, the hydrology used to analyze the grading proposed in this study has been conservatively taken from the Master Study.

4.2 Discussion of Proposed Condition

Refer to Exhibit D, included in Appendix A, for a detailed illustration of the proposed condition drainage patterns. Except as discussed below, all proposed mass graded drainage patterns generally match the basin and subbasin delineations established by the Master Study, as shown on referenced Exhibit E from the Master Study, included in Appendix C.

The referenced Master Study has the boundary between subbasins WML5 and WML6 to be further to the west than what is proposed with this mass grading. However, both these subbasins drain into the existing arroyo running west to east through the development, and therefore no downstream infrastructure is impacted by an adjustment of this boundary to the east. Prorated subbasin flows have been calculated to determine the correct flow rate to design the proposed ditch along the adjusted boundary location.

The Master Study also assumed a roughly 50/50 split of the area in subbasins WML7A and WML7B. Based on preferred grading of the site, the boundary between these two subbasins has shifted to the south. However, the boundary shift has been compensated for by draining additional area from the west. Subbasin WML7B contributes a 100-yr flow of 31 cfs, and the revised grading contributes a flow of 29 cfs (prorated subbasins WML7B-S and WML6-S.) For the purposes of this mass grading, this is considered to be in acceptable conformance with the drainage patterns established in the Master Study.

The proposed grading is in conformance with the Master Study, and therefore flows discharged from the site will be intercepted by existing storm drain infrastructure in Skye Village Road and Iron Mountain Road, as per the Master Study.

Proposed ditch calculations have been performed and are included in Appendix B. All proposed ditch flows are below 5 fps with the exception of Section BD-1 on Grading Sheet G-1. The velocity in this ditch is 5.7 fps. However, per the geotechnical report for the project, included in Appendix D, the soil borings taken in this location show the existing ground to be cemented sand and gravel with a hard consistency. Therefore, the maximum permissible velocity for this ditch is expected to be approximately 6.0 fps per CCRFCD HCDDM Table 703 for shales and hardpans (CCRFCD Manual, Reference 2).

4.3 Summary of Proposed Condition Flows

A summary of proposed condition flow rates, as referenced from the Master Study, have been provided on the Proposed Condition Drainage Map (Exhibit D) in Appendix A. The referenced Master Study hydrologic computation results are included on the Ultimate Condition Onsite Drainage Map included in Appendix C.

5 ULTIMATE DRAINAGE CONDITION

5.1 Definition of Ultimate Condition

The ultimate condition considers the subject Phase 3B/3C area fully developed with residential subdivisions. The ultimate condition of the Phase 3B/3C area was conceptually analyzed by Skye Canyon Master Drainage Study Update #6 based on the current master land use plan. The Master Study included an ultimate condition drainage map (Exhibit E, Appendix C) which provided basins and flow rates for the ultimate condition. The mass grading proposed with this study follows the patterns established in the Master Study, and therefore the mass grading proposed with this study is in conformance with the master planned ultimate condition drainage patterns.

6 CONCLUSIONS & RECOMMENDATIONS

1. This project is in compliance with the applicable drainage laws as recognized by the state of Nevada. This project is in compliance with the CCRFCD *“Hydrologic Criteria and Drainage Design Manual”* (Reference 2).
2. The project site is not located within a FEMA designated Special Flood Hazard Area (SFHA). The site and the proposed improvements are located within a FEMA flood Zone “X” (unshaded). Therefore, FEMA notification will not be required.
3. The design of this project and the proposed drainage patterns are in conformance with the most current Skye Canyon Master Drainage Study Update. The storm flows discharging from the Skye Canyon Phase 3B/3C property are in conformance with the master planned drainage patterns and do not exceed allowable discharges established in the Master Study. Therefore, there are no adverse impacts to downstream properties or facilities as a result of the proposed improvements.
4. This study assumes that all necessary roadway and drainage infrastructure improvements associated with Phase 3B/3C are in place and functioning prior to the proposed mass grading.
5. This study only proposes interim grading on the Phase 3B/3C parcels; therefore, no roadway or storm drain infrastructure is proposed, nor are any buildings with finished floors. Future Technical Drainage Studies for the individual respective parcels will be provided to support the ultimate condition developments.
6. The grading plans and detail sheets have been included and support the drainage patterns and conclusions detailed in this study.

7 REFERENCES

1. *Las Vegas Valley Flood Control Master Plan Update*. Clark County Regional Flood Control District, 2018.
2. *Hydrologic Criteria and Drainage Design Manual*. Clark County Regional Flood Control District, 1999.

APPENDIX A

Drainage Exhibits

j:\cen2001-000 skye canyon west mass grading\drainage\technical study\figures\cen2001 tds exhibit a location map.dwg 1/30/2020 9:42 AM Lant Leavitt

IRON MOUNTAIN ROAD

PROJECT SITE

SHAUMBER STREET

SKYE CANYON BOUNDARY

PULI DRIVE

SHAUMBER RD.

GRAND TETON DRIVE

HUALAPAI WAY

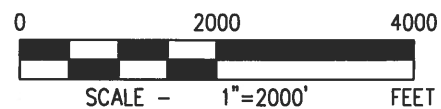
SKYE VILLAGE ROAD

SKYE PARK DRIVE

GRAND CANYON DRIVE

US 95

FORT APACHE ROAD



Westwood

Phone (702) 284-5300 5740 S. Arville Street
Fax (702) 284-5399 Suite 216
Las Vegas, NV 89118

westwoodpa.com

Westwood Professional Services, Inc.

CENTURY COMMUNITIES

**SKYE CANYON PH 3B/3C MASS GRADING
LOCATION MAP**

DATE: JAN 2020

DRAFTER:

DESIGNER:

CHECKED: LKL

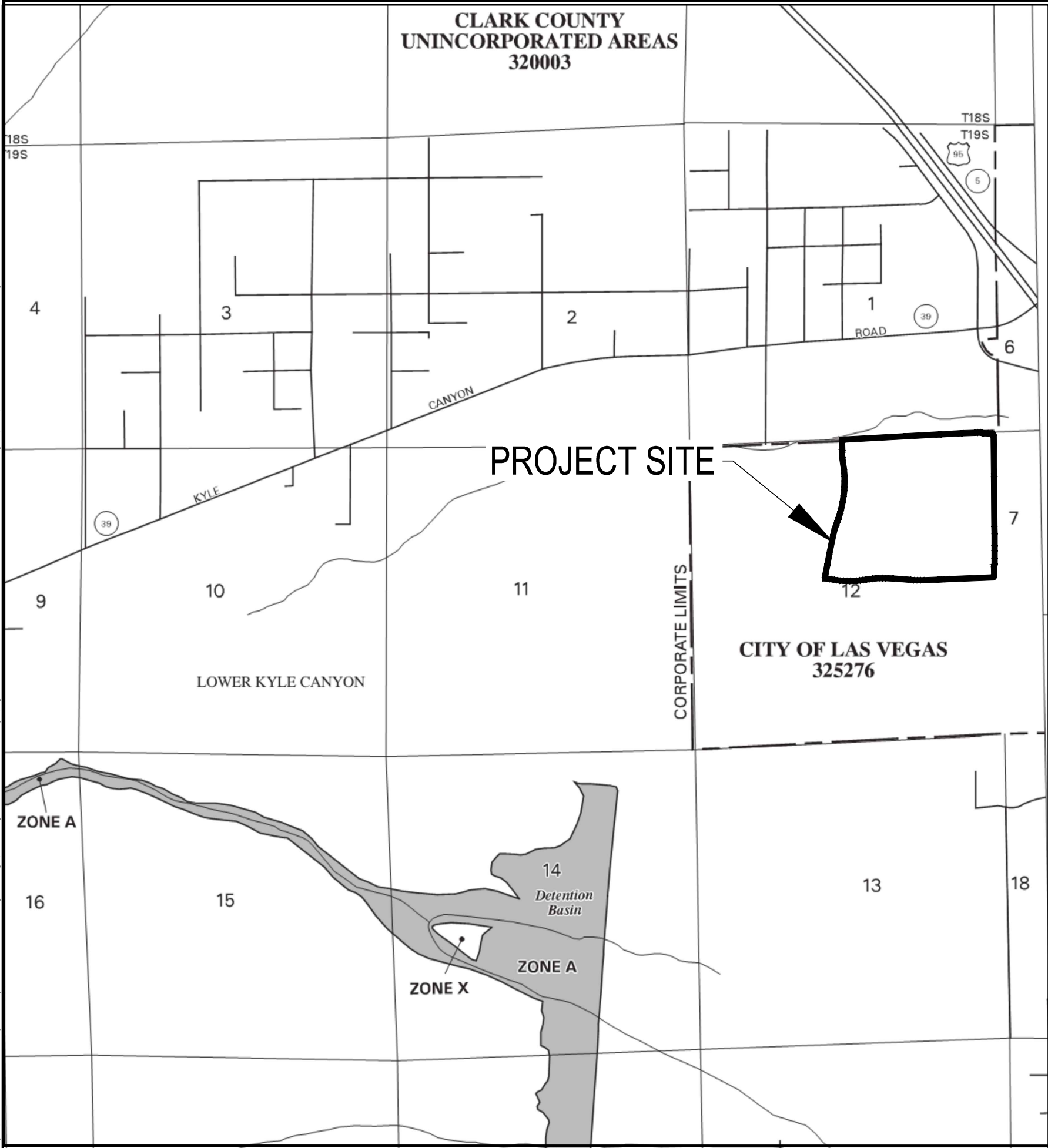
PROJECT NO.

CEN2001.000

EXHIBIT A

SHEET 1 OF 1

j:\cen2001-000 skye canyon west mass grading\drainage\technical_study\figures\cen2001 tds exhibit a-c up fronts.dwg 1/30/2020 9:52 AM Gabby Squillante



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1750 E

FIRM
FLOOD INSURANCE RATE MAP
CLARK COUNTY,
NEVADA AND
INCORPORATED AREAS

PANEL 1750 OF 4090
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:	COMMUNITY	NUMBER	PANEL	SUFFIX
	LAS VEGAS, CITY OF	325276	1750	E
	CLARK COUNTY, UNINCORPORATED AREAS	320003	1750	E

FEDERAL EMERGENCY MANAGEMENT AGENCY

MAP NUMBER
32003C1750 E

MAP REVISED:
SEPTEMBER 27, 2002

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

ZONE A

No base flood elevations determined.

ZONE AE

Base flood elevations determined.

ZONE AH

Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO

Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR

Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood event.

ZONE A99

Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no base flood elevations determined.

ZONE V

Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.

ZONE VE

Coastal flood zone with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X

Areas determined to be outside the 0.2% annual chance floodplain.

OTHER AREAS

ZONE D

Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain Boundary

Floodway Boundary

Zone D Boundary

Coastal Barrier Boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or velocities.

Base Flood Elevation line and value; elevation in feet *

Base Flood Elevation value where uniform within zone; elevation in feet *

*Referenced to the North American Vertical Datum of 1988

Cross Section Line

Transect Line

97°07'30", 32°22'30"

4276000M

600000 FT

1000-meter Universal Transverse Mercator grid values, zone 11

5000-foot grid ticks

DX5519

M1.5

Bench mark (see explanation in Notes to Users section of this FIRM panel).

River Mile

MAP REPOSITORY

Refer to Repository Listing on Index Map

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

AUGUST 16, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

September 27, 2002: to update corporate limits, to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to delete special flood hazard areas, to change zone designations, to add roads and road names, to incorporate previously issued letters of map revision, to incorporate previously issued letters of map amendment, and to change floodway.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

500 0 2000 4000 METERS

Westwood

5740 S. Aville Street
Suite 216
Las Vegas, NV 89118
Phone (702) 284-5300
Fax (702) 284-5399
www.westwood.com

DATE: JAN 2020

DRAFTER: GNS

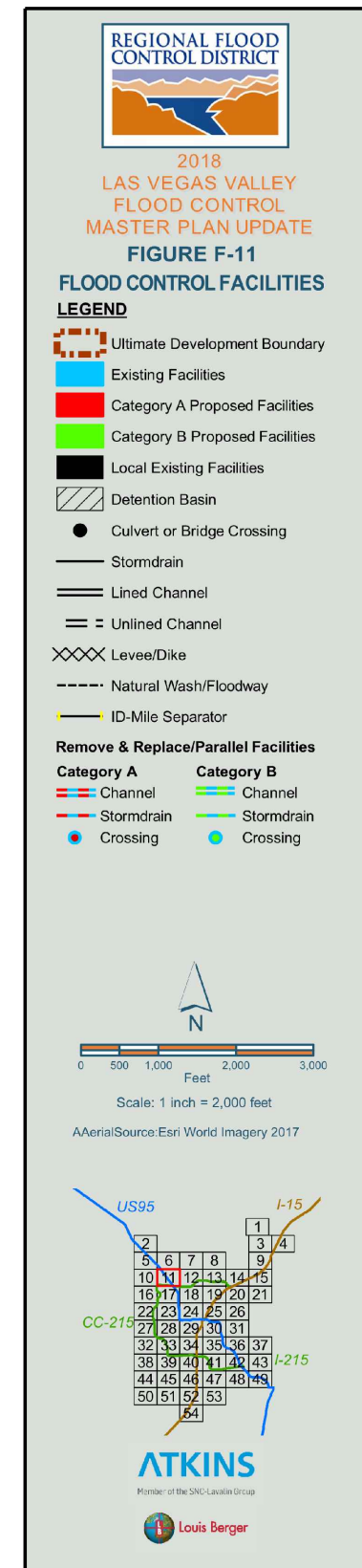
DESIGNER: GNS

CHECKED: LL

PROJECT NO.
CEN2001.000

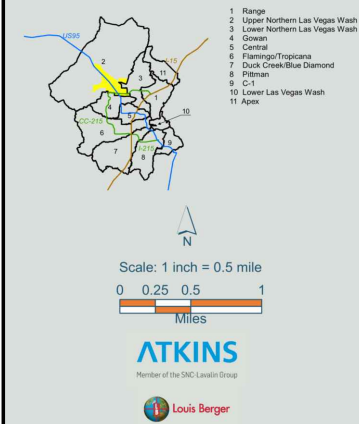
EXHIBIT B
SHEET 1 OF 1

CENTURY COMMUNITIES
SKYE CANYON PH 3B/3C MASS GRADING
2018 CCRFCD FEMA FIRM PANEL MAP



j:\cen2001-000 skye canyon west mass grading\drainage\technical_study\figures\cen2001 tds exhibit a-c up fronts.dwg 1/30/2020 9:56 AM Gabby Squillante

ID / Mile	Status	Facility Description	Length (ft.)	Flow (cfs)	HEC-1 Node	HEC-1 Model	Tributary Area (sq.mi.)	Channel Slope (%) **
BCHU								
0000	E	BELTWAY CHANNEL - HUALAPAI	853	206	DBA3-C	WEST3	0.84	1.11
0017	E	6' X 5' RCAP	1216	218	CBA3-C	WEST3	0.84	1.33
0040	E	66" RCP	60	57	DNW26-C	WEST3	0.51	1.04
0042	E	60" RCP	615	57	DNW26-C	WEST3	0.51	1.42
0054	E	54" RCP	615	57	DNW26-C	WEST3	0.51	1.23
BRDB								
0000	E	36" RCP WITH 18" ORIFICE PLATE	2170	36	BRD3	WEST3	2.37	0.40
0031	E	45,080 CFS PMF SPILLWAY		45080	CBRDB	WEST3	2.37	
0032	E	450 AC-FT SOUTH ENVIRONMENTAL ENHANCEMENT AREA		1685	CBRDB	WEST3	2.37	
0033	E	ENERGY DISSIPATOR	100	1052	CNW147W	WEST3	1.75	
0043	E	20' X 7' RCBC	135	1052	CNW147W	WEST3	1.75	0.50
0045	E	CONC CHNL 12W 7D 2:1 SS	983	1052	CNW147W	WEST3	1.75	2.00
0058	E	12' X 6' RCB	1688	951	CNW113-C	WEST3	1.47	1.81
0107	P	8' X 6' RCB	2660	951	CNW113-C	WEST3	1.47	2.40
0157	P	12' X 7' RCB	2660	621	CNW96-C	WEST3	0.84	0.25
CN95								
0000	E	CENTENNIAL PKWY CHANNEL WEST / U.S 95 BRANCH						
0068	E	20' X 7' RCB	3335	2778	CNWEBB3-C	WEST3	3.35	2.00
0068	E	20' X 7' RCB	2300	2725	CNW103-C	WEST3	3.04	2.10
0102	E	CONC CHNL 20W 9D 0:1 SS	375	2548	2CNW69-C	WEST3	2.65	1.77
0104	E	2- 12' X 10' RCB	300	2548	2CNW69-C	WEST3	2.65	1.10
0167	E	16' X 8' RCB	3521	2548	2CNW69-C	WEST3	2.65	1.58
0199	E	15' X 9' RCB	407	1467	2CNW72-C	WEST3	1.13	0.41
0218	E	15' X 9' RCB	1227	1467	2CNW72-C	WEST3	1.13	0.82
0257	E	TRANSITION STRUCTURE	59	1467	2CNW72-C	WEST3	1.13	0.77
0259	E	15' X 9' RCB	284	599	CNW74-C	WEST3	0.40	0.77
0313	E	10' X 6' RCB	2680	599	CNW74-C	WEST3	0.40	2.50
0318	E	TRANSITION STRUCTURE	60	599	CNW74-C	WEST3	0.40	1.50
0333	E	5' X 5' RCB	670	259	NW62-S	WEST3	0.16	1.50
CNFR								
0000	P	CENTENNIAL PKWY CHANNEL WEST / FARM ROAD						
0000	P	6' X 6' RCB	8350	776	CNW89-C	WEST3	1.05	2.00
CNGT								
0000	E	CENTENNIAL PKWY CHANNEL WEST / GRAND TETON BRANCH						
0020	E	10' X 5' RCB	2376	543	CNW71-E	WEST3	0.47	2.58
0020	E	10' X 5' RCB	1570	543	CNW71-E	WEST3	0.47	3.50
0043	E	6' X 6' RCB	2470	543	CNW71-E	WEST3	0.47	3.60
0116	E	6' X 5' RCAP	5472	349	KYLEDET	KYLED6	58.61	3.72
CNKC								
0000	E	CENTENNIAL PKWY CHANNEL WEST / KYLE CANYON BRANCH						
0000	E	12' X 4' RCB	377	954	CNW72-C	WEST3	0.74	4.58
0007	E	10' X 5' RCB	874	954	CNW72-C	WEST3	0.74	3.28
0024	E	8' X 5' RCB	1385	954	CNW72-C	WEST3	0.74	2.40
0050	E	72" RCP	2757	437	NW45-S	WEST3	0.31	3.60
CNWE								
0195	E	CENTENNIAL PKWY CHANNEL WEST						
0195	E	CONC CHNL 36W 9D 0:1 SS	1130	3771	CNW363-C	WEST3	5.64	0.60
0200	E	CONC CHNL 36W 9D 0:1 SS	1340	3523	CNW204-C	WEST3	5.14	1.00
0226	E	2- 18' X 8.5' RCBC @ RIO VISTA	100	3523	CNW204-C	WEST3	5.14	0.51
0241	E	CONC CHNL 36W 9.5D 0:1 SS	405	3523	CNW204-C	WEST3	5.14	0.51
0251	E	CONC CHNL 36W 9D 0:1 SS	575	3234	CNW203-C	WEST3	4.64	0.51
0271	E	CONC CHNL 32W 10D 0:1 SS	229	3234	CNW203-C	WEST3	4.64	0.51
0274	E	32' X 10' RCBC @ TENAYA	142	3234	CNW203-C	WEST3	4.64	0.51
0277	E	CONC CHNL 32W 9D 0:1 SS	579	3234	CNW203-C	WEST3	4.64	0.64
0287	E	CONC CHNL 32W 8D 0:1 SS	865	2992	CNW262-C	WEST3	3.83	1.59
0301	E	2- 15' X 7' RCB	1738	2992	CNW262-C	WEST3	3.83	1.30
0304	E	22' X 7' RCB	3410	2992	CNW262-C	WEST3	3.83	1.85
0314	F	22' X 7' RCB	703	2822	CNW82-N	WEST3	3.45	1.94
EKBU								
0000	E	ELKHORN SPRINGS AND BUFFALO						
0000	E	60" RCP	1046	255	NW134-C	WEST3	0.46	0.89
EKDB								
0000	E	ELKHORN SPRINGS DETENTION BASIN						
0000	E	GRASS CHNL 15W 5.8D 3.5:1 SS	2575	221	CNW150-C	WEST3	1.41	0.39
0025	E	4' X 3' RCB	160	106	ELKBASIN	WEST3	0.84	0.50
0026	E	48" RCP	1270	106	ELKBASIN	WEST3	0.84	1.23
0049	E	60" RCP	1055	106	ELKBASIN	WEST3	0.84	0.13
0070	E	48 AC-FT ELKHORN SPRINGS DETENTION BASIN		456	CNW133-C	WEST3	0.84	
EKHU								
0003	E	ELKHORN AND HUALAPAI						
0003	E	6' X 4' RCAP	980	393	CNW26-C	WEST3	0.51	3.61
0020	E	6' X 5' RCAP	150	393	CNW26-C	WEST3	0.51	3.61
0023	E	6' X 5' RCAP	1200	393	CNW26-C	WEST3	0.51	0.60
GOEC								
0176	P	GOWAN NORTH - EL CAPITAN BRANCH						
0176	P	78" RCP	1320	190	CCPFR-C	GOW3A	0.46	1.15
GONO								
0511	P	GOWAN NORTH SYSTEM						
0511	P	6' X 5' RCB	1320	326	CCPHW-C	GOW3A	0.60	1.14
LYMD								
2507	E	LAS VEGAS WASH - MIDDLE						
2507	E	2- 13' X 9' RCB	2831	1808	CNW168-C	CWEST3	4.43	0.36
2525	E	24' X 8' RCB	1140	1598	CNW159-C	CWEST3	3.92	0.40
2550	E	24' X 8' RCB	1445	1312	CD161-C	CWEST3	3.42	0.40
2574	E	24' X 8' RCB	1430	1312	CD161-C	CWEST3	3.42	0.41
2599	E	CONC CHNL 24W 7D 2:1 SS	1577	1288	CNW162-C	CWEST3	3.10	0.51
2632	E	16' X 5' RCB	1443	695	CNW138-C	WEST3	1.16	0.47
2661	E	16' X 5' RCB	3003	695	CNW138-C	WEST3	1.16	0.78
2711	E	10' X 5' RCB	2440	560	CNW139-C	WEST3	0.93	2.00
2737	E	8' X 5' RCB	265	560	CNW139-C	WEST3	0.93	2.25
2763	E	6' X 5' RCB	1565	560	CNW139-C	WEST3	0.93	2.41
2789	E	6' X 5' RCB	910	560	CNW139-C	WEST3	0.93	2.00
MOHU								
0000	P0	MOCCASIN-HUALAPAI BRANCH						
0026	P0	13' X 6' RCB	1476	924	2CNW33-C	LOWER3	2.08	1.80
0026	P0	11' X 6' RCB	1654	560	CNW45-N	LOWER3	1.25	0.50
0061	P0	9' X 6' RCB	779	560	CNW45-N	LOWER3	1.25	0.50
0076	P0	60" RCP	1000	263	CNW45-C	LOWER3	1.03	3.00
0095	P0	NATURAL WASH	865	263	CNW45-C	LOWER3	1.03	3.00
0111	P0	6' X 5' RCBC @ EGAN CREB DR	164	263	CNW45-C	LOWER3	1.03	6.10
0116	P0	NATURAL WASH	1900	263	CNW45-C	LOWER3	1.03	3.00
0151	P0	54" RCP @ SHAUMBER	438	72	MODB1	LOWER3	0.86	2.00
MOIR								
0000	P0	MOCCASIN - IRON MOUNTAIN BRANCH						
0000	P0	60" RCP	1060	410	CNW33-C	LOWER3	0.83	4.50
0020	P0	54" RCP	1161	71	MODB2	LOWER3	0.56	3.20
0041	P0	42" RCP	1236	71	MODB2	LOWER3	0.56	5.00
0065	P0	60" RCP	1099	71	MODB2	LOWER3	0.56	0.40
MOKC								
0000	P0	MOCCASIN AND KYLE CANYON						
0000	P0	6' X 6' RCB	6140	1072	CNW35-C	LOWER3	2.69	3.40
MOLC								
0000	P0	MOCCASIN - LOG CABIN BRANCH						
0000	P0	20' X 10' RCB	2206	2285	2CNW64	LOWER3	6.06	0.65
0072	P0	12' X 8' RCB	4493	2285	2CNW64	LOWER3	6.06	2.66
0149	E	13' X 8' RCB	520	1817	CNW62-N	LOWER3	4.88	2.00
0157	P	13' X 8' RCB	288	1817	CNW62-N	LOWER3	4.88	1.40
0162	P0	13' X 6' RCB	435	1817	CNW62-N	LOWER3	4.88	1.80
MSNV								
0000	E	MOUNTAIN SPAVISTA RANCH						
0000	E	6- 12' X 5' RCBC @ GRAND TETON	273	639	CNW163-C	CWEST3	1.69	0.40
0005	E	GRASS CHNL 100W 4.5D 10:1 SS	6325	259	CNW155-C	WEST3	4.46	0.40
0125	E	GRASS CHNL 100W 4.5D 10:1 SS	1300	96	CNW147E	WEST3	1.55	0.40
RACO								
0000	E	RACEL STREET COLLECTOR						
0000	E	14' X 7' RCB BAFFLED ENERGY DISSIPATOR	87	424	CNW111S	WEST3	0.55	0.29
0001	E	78" RCP	3245	424	CNW111S	WEST3	0.55	2.46
0064	E	78" RCP	2650	347	DNW111S	WEST3	0.44	2.09
RCBC								
0000	E	RANCHO ROAD SYSTEM - BELTWAY CHANNEL						
0000	E	6' X 5' RCB	1062	173	FADB	WEST3	1.54	1.04
0002	E	54" RCP OUTLET WITH 41" ORIFICE	503	173	FADB	WEST3	1.54	2.38
0003	E	2,341 CFS PMF SPILLWAY		2341	FADBIN	WEST3	1.54	
0004	E	76 AC-FT FORT APACHE DETENTION BASIN		658	FADBIN	WEST3	1.54	
0007	E	ENERGY DISSIPATOR	100	658	FADBIN	WEST3	1.54	
0009	E	12' X 6' RCBC @ FORT APACHE DETENTION BASIN	133	658	FADBIN	WEST3	1.54	1.79
0012	E	CONC CHNL 12W 6-7D 0:1 SS	1937	658	FADBIN	WEST3	1.54	3.15
0048	E	12' X 6' RCBC @ GRAND CANYON	140	559	CMNA1	WEST3	1.27	3.15
0051	E	CONC CHNL 12W 6-8D 0:1 SS	2660	559	CMNA1	WEST3	1.27	3.44
0066	E	1- 10' X 6' AND 1- 6' X 6' RCBC @ HUALAPAI WAY	190	559	CMNA1	WEST3	1.27	1.93
0100	E	CONC CHNL 12W 5.5D 0:1 SS	2085	475	CDMNA1	WEST3	0.43	2.88
RCBC								
0140	E	RANCHO ROAD SYSTEM - BELTWAY CHANNEL						
0140	E	CONC CHNL 10W 5D 0:1 SS						



CENTURY COMMUNITIES SKYE CANYON PH 3B/3C MASS GRADING 2018 CCRFCD WATERSHED MAP		NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.	
DATE: JAN 2020								
DRAFTER: GS								
DESIGNER: GS								
CHECKED: LL								
PROJECT NO. CEN2001.000								
EXHIBIT C3								
SHEET 1 OF 1								

APPENDIX B

Hydraulic Analysis

Worksheet for SHT G-1 SEC BD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025
Channel Slope	3.40000 %
Left Side Slope	8.24 %
Right Side Slope	4.14 %
Discharge	65.00 ft ³ /s

Results

Normal Depth	0.78 ft
Flow Area	11.10 ft ²
Wetted Perimeter	28.43 ft
Hydraulic Radius	0.39 ft
Top Width	28.38 ft
Critical Depth	0.96 ft
Critical Slope	0.01167 ft/ft
Velocity	5.86 ft/s
Velocity Head	0.53 ft
Specific Energy	1.32 ft
Froude Number	1.65
Flow Type	Supercritical

GVF Input Data

Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.78 ft
Critical Depth	0.96 ft
Channel Slope	3.40000 %
Critical Slope	0.01167 ft/ft

Worksheet for SHT G-2 SEC DD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025
Channel Slope	0.50000 %
Left Side Slope	33.30 %
Right Side Slope	33.30 %
Discharge	73.00 ft ³ /s

Results

Normal Depth	2.33 ft
Flow Area	16.26 ft ²
Wetted Perimeter	14.73 ft
Hydraulic Radius	1.10 ft
Top Width	13.98 ft
Critical Depth	2.06 ft
Critical Slope	0.00968 ft/ft
Velocity	4.49 ft/s
Velocity Head	0.31 ft
Specific Energy	2.64 ft
Froude Number	0.73
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	2.33 ft
Critical Depth	2.06 ft
Channel Slope	0.50000 %
Critical Slope	0.00968 ft/ft

Worksheet for SHT G-3 SEC BD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025	
Channel Slope	0.37000	%
Left Side Slope	3.76	%
Right Side Slope	4.35	%
Discharge	54.00	ft³/s

Results

Normal Depth	0.98	ft
Flow Area	23.99	ft²
Wetted Perimeter	48.81	ft
Hydraulic Radius	0.49	ft
Top Width	48.77	ft
Critical Depth	0.78	ft
Critical Slope	0.01246	ft/ft
Velocity	2.25	ft/s
Velocity Head	0.08	ft
Specific Energy	1.06	ft
Froude Number	0.57	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.98	ft
Critical Depth	0.78	ft
Channel Slope	0.37000	%
Critical Slope	0.01246	ft/ft

Worksheet for SHT G-4 SEC DD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025
Channel Slope	0.50000 %
Left Side Slope	33.30 %
Right Side Slope	33.30 %
Discharge	64.00 ft ³ /s

Results

Normal Depth	2.22 ft
Flow Area	14.74 ft ²
Wetted Perimeter	14.02 ft
Hydraulic Radius	1.05 ft
Top Width	13.30 ft
Critical Depth	1.95 ft
Critical Slope	0.00985 ft/ft
Velocity	4.34 ft/s
Velocity Head	0.29 ft
Specific Energy	2.51 ft
Froude Number	0.73
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	2.22 ft
Critical Depth	1.95 ft
Channel Slope	0.50000 %
Critical Slope	0.00985 ft/ft

Worksheet for SHT G-6 SEC BD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025	
Channel Slope	0.37000	%
Left Side Slope	3.76	%
Right Side Slope	7.72	%
Discharge	122.00	ft ³ /s

Results

Normal Depth	1.45	ft
Flow Area	41.78	ft ²
Wetted Perimeter	57.57	ft
Hydraulic Radius	0.73	ft
Top Width	57.49	ft
Critical Depth	1.19	ft
Critical Slope	0.01086	ft/ft
Velocity	2.92	ft/s
Velocity Head	0.13	ft
Specific Energy	1.59	ft
Froude Number	0.60	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.45	ft
Critical Depth	1.19	ft
Channel Slope	0.37000	%
Critical Slope	0.01086	ft/ft

Worksheet for SHT G-7 SEC DD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025	
Channel Slope	0.50000	%
Left Side Slope	33.30	%
Right Side Slope	33.30	%
Discharge	72.00	ft³/s

Results

Normal Depth	2.32	ft
Flow Area	16.09	ft²
Wetted Perimeter	14.65	ft
Hydraulic Radius	1.10	ft
Top Width	13.90	ft
Critical Depth	2.04	ft
Critical Slope	0.00970	ft/ft
Velocity	4.47	ft/s
Velocity Head	0.31	ft
Specific Energy	2.63	ft
Froude Number	0.73	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.32	ft
Critical Depth	2.04	ft
Channel Slope	0.50000	%
Critical Slope	0.00970	ft/ft

Worksheet for SHT G-10 SEC DD-1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.025
Channel Slope	0.50000 %
Left Side Slope	33.30 %
Right Side Slope	33.30 %
Discharge	29.00 ft ³ /s

Results

Normal Depth	1.65 ft
Flow Area	8.13 ft ²
Wetted Perimeter	10.42 ft
Hydraulic Radius	0.78 ft
Top Width	9.89 ft
Critical Depth	1.42 ft
Critical Slope	0.01095 ft/ft
Velocity	3.56 ft/s
Velocity Head	0.20 ft
Specific Energy	1.84 ft
Froude Number	0.69
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	1.65 ft
Critical Depth	1.42 ft
Channel Slope	0.50000 %
Critical Slope	0.01095 ft/ft

APPENDIX C

Reference Material

- MDS Update #6 for Skye Canyon (DS 5229)

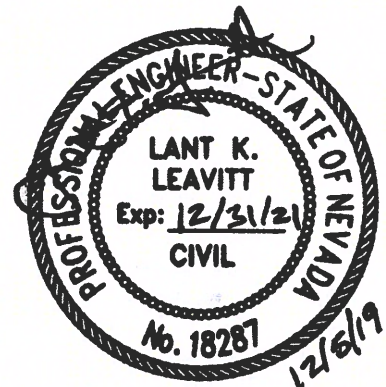
MASTER DRAINAGE STUDY UPDATE #6

Skye Canyon
City of Las Vegas, Nevada

Job No.: CEN1908.000
Date: December 2019

Prepared By:
Westwood Professional Services, Inc.
5740 S. Arville Street, Suite 216
Las Vegas, Nevada 89118
Phone: 702-284-5300 • Fax: 702-284-5399

Prepared For:
Century Communities of Nevada, LLC.
6345 South Jones Boulevard
Las Vegas, NV 89118
Phone: 702-873-5338

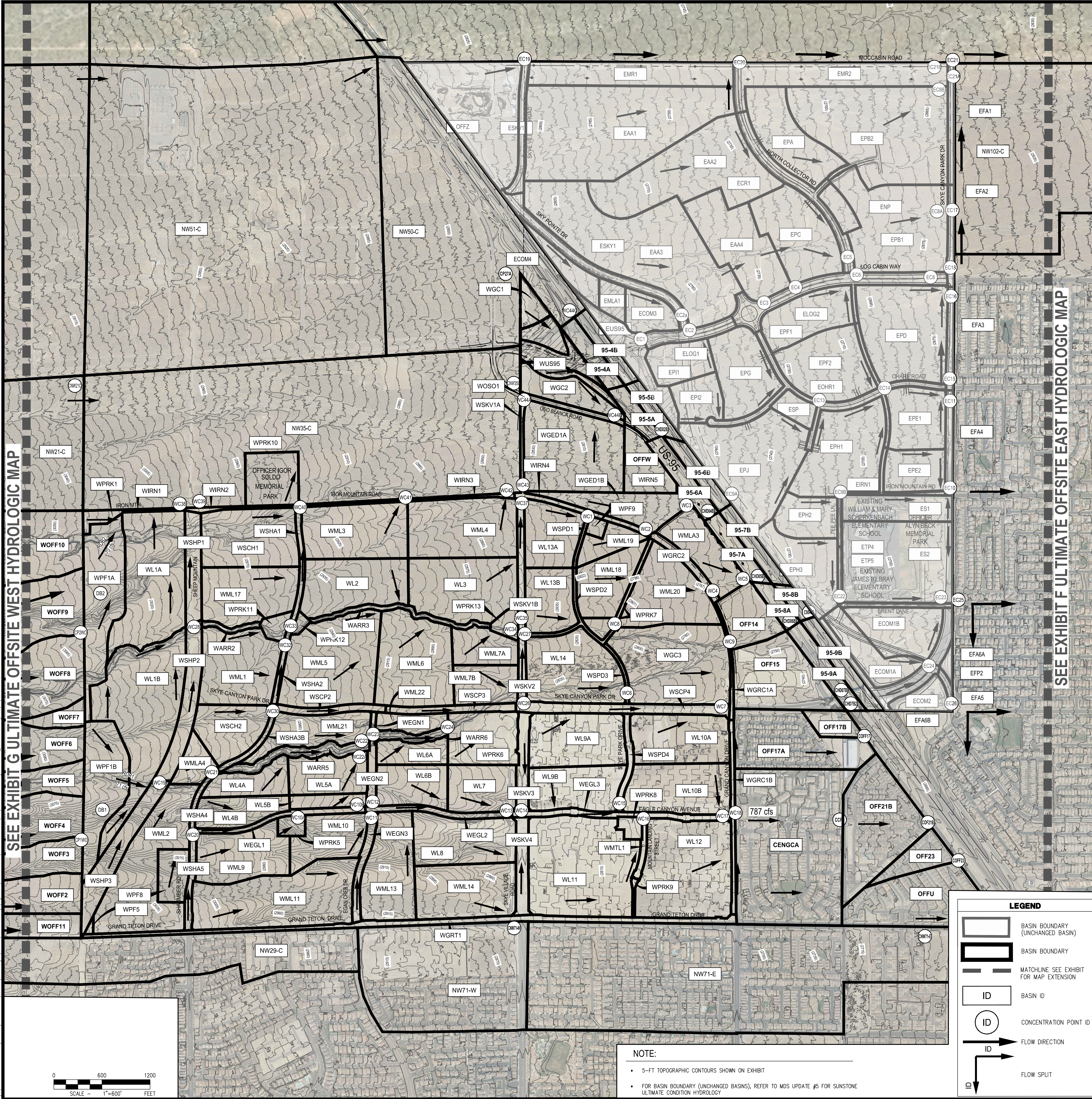


Lant Leavitt, P.E.
NV Professional Engineer No. 18287

Assisted By: Jonathan Rocha, E.I.
Abhusan Achhami

\\cent1908-000_skye_canyon_mds_update\drainage\conceptual_study\figures\cent1908_ufc_exhibit_e_processed\drainage_analyt_recover.dwg 12/5/2019 12:39 PM Jonathan Rocha

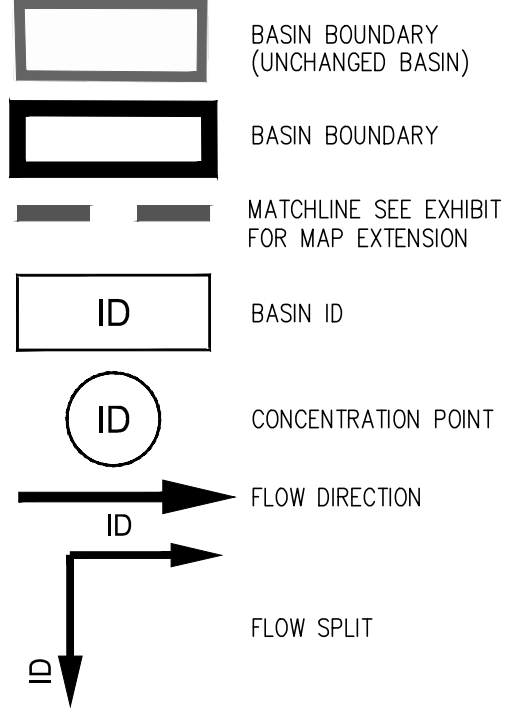
SEE EXHIBIT G ULTIMATE OFFSITE WEST HYDROLOGIC MAP



NOTE:

- 5-FT TOPOGRAPHIC CONTOURS SHOWN ON EXHIBIT
- FOR BASIN BOUNDARY (UNCHANGED BASINS), REFER TO MDS UPDATE #5 FOR SUNSTONE ULTIMATE CONDITION HYDROLOGY

LEGEND



Ultimate Condition Flow Rate Summary
Skye Canyon West Concentration Points

Basin/Concentration Point ID	Area (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)
WARR2	1.1	4	1
WARR3	3.3	9	3
WARR5	8.0	18	8
WARR6	2.4	6	2
WGC1	6.8	17	7
WGC2	8.4	21	9
WGC3	30.4	85	47
WGEDI1A	28.5	74	32
WGEDI1B	11.9	35	17
WL10A	17.1	46	21
WL10B	18.3	49	22
WL11	36.7	99	45
WL12	31.4	84	38
WL13A	12.3	34	15
WL13B	11.2	31	14
WL14	22.2	60	27
WL1A	30.0	82	38
WL1B	36.2	103	36
WL2	19.0	54	25
WL3	23.2	64	30
WL4A	8.0	23	10
WL4B	8.9	27	12
WL5A	10.9	32	15
WL5B	3.8	12	5
WL6A	6.2	19	9
WL6B	10.6	30	14
WL7	11.5	34	16
WL8	17.4	48	22
WL9A	18.2	49	22
WL9B	14.4	39	18
WML1	20.1	53	31
WML10	11.6	38	19
WML11	28.7	81	38
WML13	16.4	45	25
WML14	19.2	59	29
WML17	18.3	59	29
WML18	12.0	36	18
WML19	5.3	17	8
WML20	18.7	54	27
WML21	12.3	40	20
WML22	2.5	16	8
WML2	28.3	71	33
WML3	20.5	65	33
WML4	23.0	73	37
WML5	28.9	81	46
WML6	24.2	73	37
WML7A	8.1	28	14
WML7B	9.0	31	16
WML9	16.4	55	28
WMLA3	12.1	37	18
WMLA4	4.8	17	9
WPF1A	20.3	59	29
WPF1B	17.4	58	31
WPF5	0.4	1	0
WPF8	5.6	11	4
WPF9	1.3	4	2
WPRK1	1.9	4	2
WPRK10	10.0	19	7
WPRK11	2.2	6	2
WPRK12	0.8	2	1
WPRK13	2.2	5	2
WPRK5	2.0	5	2
WPRK6	13.2	28	10
WPRK7	3.0	6	2
WPRK8	1.7	4	1
WPRK9	0.5	1	0
WSCH1	19.9	60	48
WSCH2	12.0	37	16

WEST ROADWAY BASINS

WEG1	3.4	12	6
WEG2	3.3	12	7
WEG3	4.8	16	9
WEGM1	0.5	2	1
WEGM2	2.1	2	1
WEGN3	3.3	10	6
WGRCA1	1.3	4	2
WGRCA1B	3.2	10	5
WGRCA2	2.6	9	5
WGR1	11.7	30	16
WRN1	0.8	2	1
WRN2	2.2	7	4
WRN3	1.3	5	3
WRN4	2.7	9	5
WRN5	0.7	3	2
WML1	1.3	5	2
WML2	2.1	8	4
WML3	3.0	11	6
WML4	3.5	13	7
WML5	7.8	25	14
WML6	2.4	8	4
WML7	1.5	6	3
WML8	1.6	6	3
WML9	1.4	6	3
WML10	2.4	8	5
WML11	6.4	19	9
WML12	9.3	27	13
WML13	10.4	29	13
WML14	1.2	4	2
WML15	3.5	11	6
WML16	2.0	7	3
WML17	4.2	14	7
WML18	4.5	15	8
WML19	0.7	3	1
WML20	2.1	7	4
WML21	0.8	3	2
WML22	2.3	8	4
WML23	8.0	26	15

Ultimate Condition Flow Rate Summary
Skye Canyon West Concentration Points

Basin/Concentration Point ID	Area (sq. mi)	Q ₁₀₀ (cfs)
WC1	0.02	37
Q = WC1 + WPRK1	0.03	68
Q = WC1 + WPRK2 + WML19 + WPRK3	0.05	106
Q = WC1 + WPRK4 + WML19 + WPRK5	0.06	105
Q = WC1 + WPRK6 + WML19 + WPRK7	0.08	142
Q = WC1 + WPRK8 + WML19 + WPRK9	0.04	62
Q = WC1 + WPRK10 + WML19 + WPRK11	0.10	180
Q = WC1 + WPRK12 + WML19 + WPRK13	0.02	38
Q = WC1 + WPRK14 + WML19 + WPRK15	0.17	315
Q = WC1 + WPRK16 + WML19 + WPRK17	0.03	60
Q = WC1 + WPRK18 + WML19 + WPRK19	0.05	99
Q = WC1 + WPRK20 + WML19 + WPRK21	0.07	127
Q = WC1 + WPRK22 + WML19 + WPRK23	0.12	226
Q = WC1 + WPRK24 + WML19 + WPRK25	0.18	352
Q = WC1 + WPRK26 + WML19 + WPRK27	0.25	485
Q = WC1 + WPRK28 + WML19 + WPRK29	0.03	46
Q = WC1 + WPRK30 + WML19 + WPRK31	0.06	108
Q = WC1 + WPRK32 + WML19 + WPRK33	0.38	895
Q = WC1 + WPRK34 + WML19 + WPRK35	0.43	787
Q = WC1 + WPRK36 + WML19 + WPRK37	0.90	83
Q = WC1 + WPRK38 + WML19 + WPRK39	0.06	30
Q = WC1 + WPRK40 + WML19 + WPRK41	0.95	174
Q = WC1 + WPRK42 + WML19 + WPRK43	0.04	67
Q = WC1 + WPRK44 + WML19 + WPRK45	1.00	247
Q = WC1 + WPRK46 + WML19 + WPRK47	1.02	287
Q = WC1 + WPRK48 + WML19 + WPRK49	1.04	326
Q = WC1 + WPRK50 + WML19 + WPRK51	1.09	404
Q = WC1 + WPRK52 + WML19 + WPRK53	1.09	411
Q = WC1 + WPRK54 + WML19 + WPRK55	0.07	127
Q = WC1 + WPRK56 + WML19 + WPRK57	0.03	60
Q = WC1 + WPRK58 + WML19 + WPRK59	0.06	128
Q = WC1 + WPRK60 + WML19 + WPRK61	0.14	264
Q = WC1 + WPRK62 + WML19 + WPRK63	0.27	527
Q = WC1 + WPRK64 + WML19 + WPRK65	1.36	919
Q = WC1 + WPRK66 + WML19 + WPRK67	1.41	990
Q = WC1 + WPRK68 + WML19 + WPRK69	0.62	139
Q = WC1 + WPRK70 + WML19 + WPRK71	0.63	157
Q = WC1 + WPRK72 + WML19 + WPRK73	0.06	127
Q = WC1 + WPRK74 + WML19 + WPRK75	0.73	343
Q = WC1 + WPRK76 + WML19 + WPRK77	0.76	418
Q = WC1 + WPRK78 + WML19 + WPRK79	2.17	1339
Q = WC1 + WPRK80 + WML19 + WPRK81	2.17	1343
Q = WC1 + WPRK82 + WML19 + WPRK83	4.93	1983
Q = WC1 + WPRK84 + WML19 + WPRK85	0.18	227

Ultimate Condition Flow Rate Summary
Skye Canyon Offsite Concentration Points

Basin/Concentration Point ID	Area (sq. mi)	Q ₁₀₀ (cfs)
WEST CONCENTRATION POINTS		
EC1	2.19	986
Q = EC1 + WPRK1	0.80	471
Q = EC1 + WPRK2 + WPRK3 + WPRK4	0.17	204
Q = EC1 + WPRK5 + WPRK6 + WPRK7	1.14	463
Q = EC1 + WPRK8 + WPRK9 + WPRK10	0.31	173
Q = EC1 + WPRK11 + WPRK12 + WPRK13	0.51	917
Q = EC1 + WPRK14 + WPRK15 + WPRK16	0.69	764
Q = EC1 + WPRK17 + WPRK18 + WPRK19	1.70	1654
Q = EC1 + WPRK20 + WPRK21 + WPRK22	2.19	1978
Q = EC1 + WPRK23 + WPRK24 + WPRK25	2.35	1056
Q = EC1 + WPRK26 + WPRK27 + WPRK28	2.69	1291
Q = EC1 + WPRK29 + WPRK30 + WPRK31	0.47	610
Q = EC1 + WPRK32 + WPRK33 + WPRK34	0.24	354
Q = EC1 + WPRK35 + WPRK36 + WPRK37	0.04	66
Q = EC1 + WPRK38 + WPRK39 + WPRK40	0.65	990
Q = EC1 + WPRK41 + WPRK42 + WPRK43	0.01	19
Q = EC1 + WPRK44 + WPRK45 + WPRK46	0.72	606
Q = EC1 + WPRK47 + WPRK48 + WPRK49	1.02	910
Q = EC1 + WPRK50 + WPRK51 + WPRK52	0.88	791
Q = EC1 + WPRK53 + WPRK54 + WPRK55	0.88	71
Q = EC1 + WPRK56 + WPRK57 + WPRK58	0.57	667
Q = EC1 + WPRK59 + WPRK60 + WPRK61	0.57	70
EAST CONCENTRATION POINTS		
EC2	6.34	3288
Q = EC2 + WPRK1	6.48	3349
Q = EC2 + WPRK2 + WPRK3 + WPRK4	0.08	127
Q = EC2 + WPRK5 + WPRK6 + WPRK7	0.15	269
Q = EC2 + WPRK8 + WPRK9 + WPRK10	0.34	610
Q = EC2 + WPRK11 + WPRK12 + WPRK13	0.35	630
Q = EC2 + WPRK14 + WPRK15 + WPRK16	0.39	693
Q = EC2 + WPRK17 + WPRK18 + WPRK19	0.02	47
Q = EC2 + WPRK20 + WPRK21 + WPRK22	1.03	1799
Q = EC2 + WPRK23 + WPRK24 + WPRK25	1.62	2251

Ultimate Condition Flow Rate Summary
Offsite Basins

Basin/Concentration Point ID	Area (sq. mi)	Q ₁₀₀ (cfs)
WEST BASINS		
CENGCA	0.1	152
ES1	0.0	20
ES2	0.1	85
NW1-C	0.3	302
NW7-C	0.5	512
NW21-C	0.2	190
NW29-C	0.1	200
NW35-C	0.3	428
NW71-E	0.2	259
NW71-W	0.1	156
OFF4-1	0.3	273
OFF4-2	0.4	541
OFF5-1	0.3	336
OFF5-2	0.4	493
OFF14	0.0	26
OFF15	0.0	62
OFF17A	0.0	51
OFF17B	0.0	15
OFF21B	0.0	75
OFF23	0.0	17
OFFU	0.0	74
OFFW	0.0	23
OFFZ	0.1	39
WOFF1	0.4	403
WOFF10	0.3	292
WOFF11	0.0	55
WOFF2	0.0	48
WOFF3	0.0	38
WOFF4	0.1	84
WOFF5	0.3	236
WOFF6	0.0	59
WOFF7	0.0	10
WOFF8	0.2	198
WOFF9	0.1	144
EAST BASINS		
NW102-C	0.2	269
NW157	0.3	92

Ultimate Condition Flow Rate Summary
Skye Canyon East Concentration Points

Basin/Concentration Point ID	Area (sq. mi)	Q ₁₀₀ (cfs)
EC1	4.97	2038
Q = EC1 + WPRK1	5.20	2310
Q = EC1 + WPRK2 + WPRK3 + WPRK4	0.22	282
Q = EC1 + WPRK5 + WPRK6 + WPRK7	5.28	2400
Q = EC1 + WPRK8 + WPRK9 + WPRK10	5.31	2440
Q = EC1 + WPRK11 + WPRK12 + WPRK13	0.10	152
Q = EC1 + WPRK14 + WPRK15 + WPRK16	5.43	2902
Q = EC1 + WPRK17 + WPRK18 + WPRK19	5.45	2634
Q = EC1 + WPRK20 + WPRK21 + WPRK22	0.05	60
Q = EC1 + WPRK23 + WPRK24 + WPRK25	0.10	108
Q = EC1 + WPRK26 + WPRK27 + WPRK28	0.04	57
Q = EC1 + WPRK29 + WPRK30 + WPRK31	0.06	86
Q = EC1 + WPRK32 + WPRK33 + WPRK34	0.09	133
Q = EC1 + WPRK35 + WPRK36 + WPRK37	0.11	37
Q = EC1 + WPRK38 + WPRK39 + WPRK40	0.11	136
Q = EC1 + WPRK41 + WPRK42 + WPRK43	0.17	232
Q = EC1 + WPRK44 + WPRK45 + WPRK46	0.29	267
Q = EC1 + WPRK47 + WPRK48 + WPRK49	0.34	287
Q = EC1 + WPRK50 + WPRK51 + WPRK52	5.85	2842
Q = EC1 + WPRK53 + WPRK54 + WPRK55	5.79	2793
Q = EC1 + WPRK56 + WPRK57 + WPRK58	0.05	50
Q = EC1 + WPRK59 + WPRK60 + WPRK61	0.17	187
Q = EC1 + WPRK62 + WPRK63 + WPRK64	5.95	2934
Q = EC1 + WPRK65 + WPRK66 + WPRK67	0.20	212
Q = EC1 + WPRK68 + WPRK69 + WPRK70	8.15	3071
Q = EC1 + WPRK71 + WPRK72 + WPRK73	0.05	94
Q = EC1 + WPRK74 + WPRK75 + WPRK76	0.10	186
Q = EC1 + WPRK77 + WPRK78 + WPRK79	0.04	68
Q = EC1 + WPRK80 + WPRK81 + WPRK82	0.13	236
Q = EC1 + WPRK83 + WPRK84 + WPRK85	0.18	160
Q = EC1 + WPRK86 + WPRK87 + WPRK88	6.35	3288
Q = EC1 + WPRK89 + WPRK90 + WPRK91	6.60	3349

CITY OF LAS VEGAS

DATE

APP

BY

DESCRIPTION

NO.

DATE

APP

BY

DESCRIPTION

NO.

CENTURY COMMUNITIES

SKYE CANYON MASTER DRAINAGE STUDY

ULTIMATE CONDITION ONSITE DRAINAGE MAP

DATE: DEC 2019

DRAFTER: AA

DRAWN: AA

CHECKED: LKL

PROJECT NO. CEN1908.000

EXHIBIT E

SHEET 1 OF 1

Westwood

5740 S. Arville Street
Suite 216
Las Vegas, NV 89118

Phone (702) 284-5300
Fax (702) 284-5399

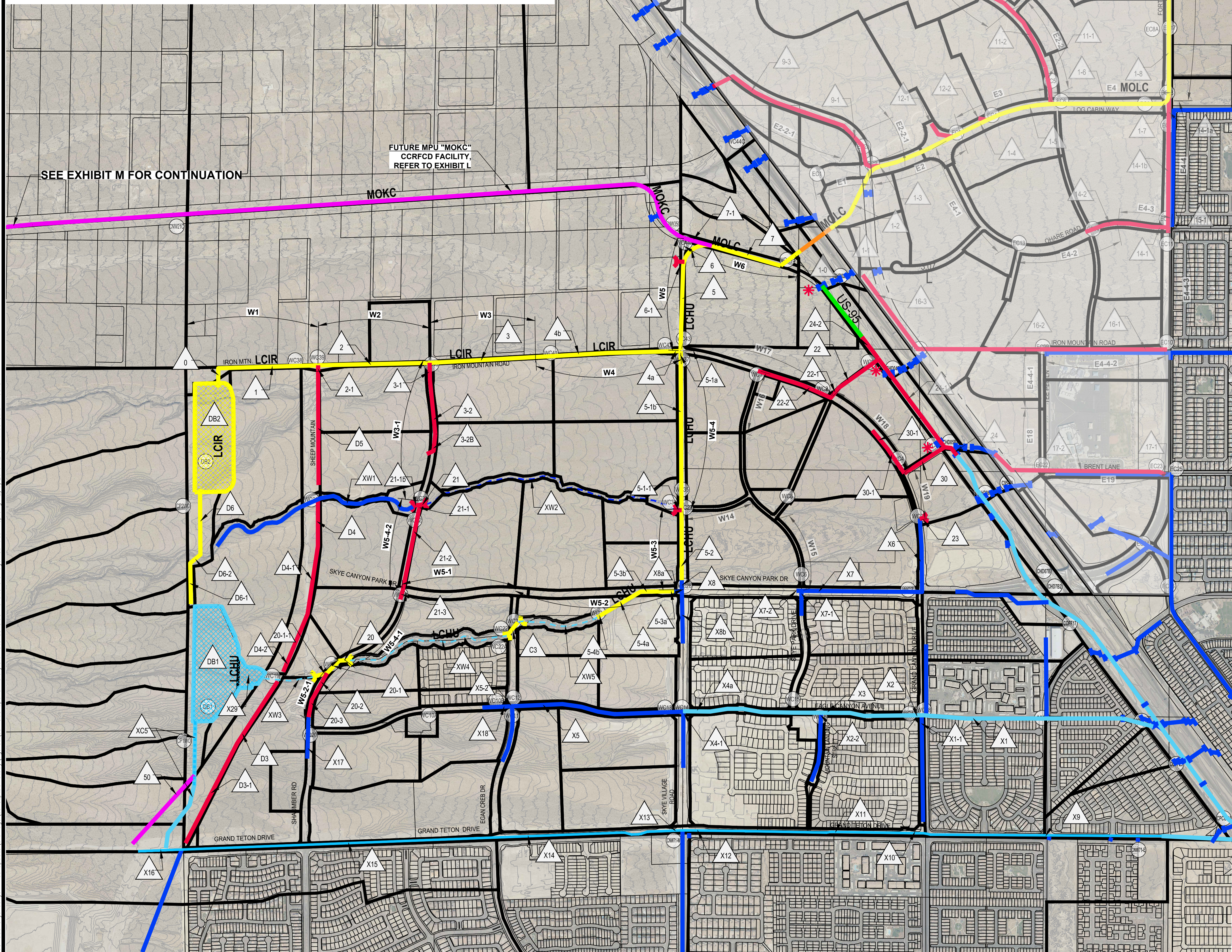
westwoods.com
Westwood Professional Services, Inc.

\\cent1908-000_skye canyon_mds\update\drainage\conceptual_study\figure\cen1908_uof_exhibit_1_ultimate condition onsite drainage facilities map.dwg 12/5/2019 12:37 PM Jonathan Rocha

FACILITY HYDRAULICS SUMMARY TABLE					
NETWORK	STREET ID	FACILITY ID	FACILITY TYPE	DESIGN FLOWRATE	PROPOSED FLOWRATE
EX SD	EAGLE CANYON	X1	8'x8' RCB	800 CFS	787 CFS
EX SD	GRAND CANYON	X1-1	48' RCP	100 CFS	84 CFS
EX SD	EAGLE CANYON	X2	8'x8' RCB	729 CFS	685 CFS
EX SD	MOUNTAIN LANDING	X2-2	48' RCP	110 CFS	106 CFS
EX SD	EAGLE CANYON	X3	72' RCP	728 CFS	685 CFS
EX SD	SKYE VILLAGE	X4-1	42' RCP	117 CFS	140 CFS
EX SD	EAGLE CANYON	X4a	72' RCP	477 CFS	485 CFS
EX SD	EAGLE CANYON	X5	48' RCP	218 CFS	226 CFS
EX SD	EAGLE CREST	X5-2	42' RCP	90 CFS	90 CFS
EX SD	GRAND CANYON DRIVE	X6	6'x5' RCB	197 CFS	197 CFS
EX SD	HORSE	X7	42' RCP	92 CFS	92 CFS
EX SD	SKYE PARK	X7-1	36' RCP	47 CFS	47 CFS
EX SD	HORSE	X7-2	24' RCP	6 CFS	6 CFS
EX SD	SKYE VILLAGE RD	X8	8'x5' RCA	367 CFS	412 CFS
EX SD	SKYE VILLAGE	X8a	60' RCP	334 CFS	412 CFS
EX SD	SKYE VILLAGE	X8b	30' RCP	42 CFS	42 CFS
EX SD	GRAND TETON	X9	10'x5' RCB	690 CFS	690 CFS
EX SD	GRAND TETON	X10	10'x5' RCB	690 CFS	690 CFS
EX SD	GRAND TETON	X11	8'x6' RCB	646 CFS	646 CFS
EX SD	GRAND TETON	X12	8'x6' RCB	584 CFS	584 CFS
EX SD	GRAND TETON	X13	6'x5' RCB	494 CFS	494 CFS
EX SD	GRAND TETON	X14	6'x5' RCB	484 CFS	484 CFS
EX SD	GRAND TETON	X15	6'x5' RCB	488 CFS	488 CFS
EX SD	GRAND TETON	X16	6'x6' RCB	363 CFS	363 CFS
EX SD	SHAMBER	X17	36' RCP	81 CFS	84 CFS
EX SD	EAGLE CANYON	X18	48' RCP	128 CFS	99 CFS
EX SD	DB1 DISCHARGE	X20	60' RCP	71 CFS	71 CFS
EX SD	DB1 COLLECTOR	XC5	CONC TRAP CHNL	471 CFS	471 CFS
ARROYO WASH	EX ARROYO WASH	XW1	NATURAL WASH	120 CFS	120 CFS
ARROYO WASH	EX ARROYO WASH	XW2	NATURAL WASH	404 CFS	404 CFS
ARROYO WASH	EX ARROYO WASH	XW3	NATURAL WASH	94 CFS	94 CFS
ARROYO WASH	EX ARROYO WASH	XW4	NATURAL WASH	308 CFS	308 CFS
ARROYO WASH	EX ARROYO WASH	XW5	NATURAL WASH	385 CFS	385 CFS

DETENTION BASIN HYDRAULIC SUMMARY TABLE					
FACILITY ID	INFLOW	OUTFLOW	100-YR STORAGE	DEBRIS STORAGE	TOTAL STORAGE
DB1	794 CFS	71 CFS	57 AC-FT	6 AC-FT	63 AC-FT
DB2	708 CFS	57 CFS	72 AC-FT	6 AC-FT	78 AC-FT

PMF FLOW COMMENTS
1744 CFS EXISTING DETENTION BASIN 1
5899 CFS PROPOSED DETENTION BASIN 2



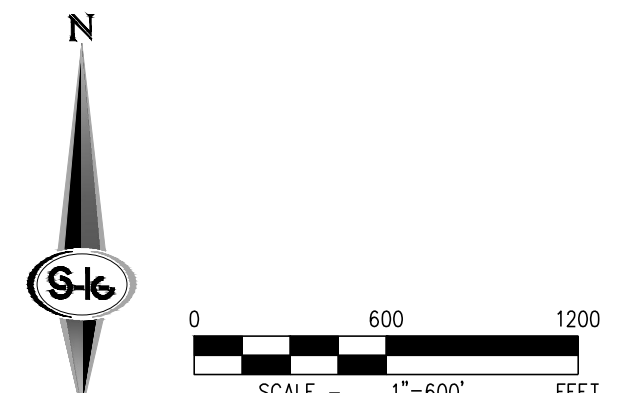
SEE EXHIBIT K FOR CONTINUATION

SEE EXHIBIT M FOR CONTINUATION

FUTURE MPU "MOKC" CCRFCD FACILITY. REFER TO EXHIBIT L

FACILITY HYDRAULICS SUMMARY TABLE - 100-YR					
NETWORK	STREET ID	FACILITY ID	FACILITY TYPE	LENGTH (FT)	SLOPE FLOW (CFS)
WEST SD	DB2 OUTLET	0	60' RCP	800	0.40%
WEST SD	W1	1	60' RCP	1099	0.40%
WEST SD	W2	2	42' RCP	1287	7.80%
WEST SD	INFLOW FROM SHEEP MOUNTAIN CHNL	2-1	18' RCP	66'	4.40%
WEST SD	W3	3	54' RCP	1161'	3.20%
WEST SD	W3-1	3-1	42' RCP	191'	3.00%
WEST SD	W3-1	3-2	42' RCP	599'	1.70%
WEST SD	W3-1	3-2b	36' RCP	150'	1.00%
WEST SD	W4	4a	7x5' RCB	115'	1.50%
WEST SD	W4	4b	60' RCP	1500'	3.00%
WEST SD	W5	5	13'x6' RCB	931'	1.80%
WEST SD	ARROYO WASH INFLOW	5-1-1	7x5' RCB	75'	6.50%
WEST SD	W5-4	5-1a	10'x9' RCA	102'	0.40%
WEST SD	W5-4	5-1b	10'x9' RCA	1654'	0.40%
WEST SD	W5-3	5-2	6'x7' RCA	779'	0.50%
WEST SD	W5-3	5-3a	60' RCP	79'	3.00%
WEST SD	W5-2	5-3b	60' RCP	301'	3.00%
WEST SD	CONVEYS FLOW TO SD 5-3a	5-4a	60' RCP	491'	3.00%
WEST SD	INFLOW FROM ARROYO WASH	5-4b	6'x6' RCB	50'	2.80%
WEST SD	W5	6	13'x6' RCB	445'	1.80%
WEST SD	N/A	6-1	10'x10'x4' RCB	62'	N/A
WEST SD	W6	1-9	13'x8' RCB	274'	N/A
WEST SD	W6	7	13'x8' RCB	723'	1.80%
WEST SD	MPU FACILITY	7-1	9'x6' RCB	309'	5.00%
WEST SD	DISCHARGE TO ARROYO WASH	20	60' RCP	109'	2.00%
WEST SD	W5-2-1	20-1	48' RCP	184'	2.00%
WEST SD	INFLOW FROM DB1	20-1-1	48' RCP	135'	2.20%
WEST SD	W5-2-1	20-2	36' RCP	340'	3.00%
WEST SD	W5-2-1	20-3	36' RCP	193'	3.50%
WEST SD	DISCHARGE TO ARROYO WASH	21	54' RCP	42'	4.00%
WEST SD	W5-4-2	21-1	42' RCP	100'	2.50%
WEST SD	INFLOW FROM ARROYO WASH	21-1b	54' RCP	86'	3.40%
WEST SD	W5-4-2	21-2	36' RCP	863'	3.40%
WEST SD	W5-4-1	21-3	36' RCP	105'	1.30%
WEST SD	N/A	22	36' RCP	426'	2.20%
WEST SD	W17	22-1	36' RCP	146'	2.20%
WEST SD	W17	22-2	24' RCP	860'	2.00%
WEST SD	W19 OUTLET TO WASH	23	36' RCP	59'	3.40%
WEST SD	N/A	24	60' RCP	248'	1.50%
WEST SD	N/A	24-1	36' RCP	1140'	1.50%
WEST SD	N/A	24-2	18' RCP	294'	1.50%
WEST SD	N/A	30	42' RCP	476'	2.50%
WEST SD	W18	30-1	36' RCP	600'	1.20%
WEST SD	DISCHARGE FROM SB	50	CONC TRAP CHNL	1017'	1.50%
WEST SD	ARROYO WASH CULVERT	C3	6'x5' RCB	164'	6.10%
WEST SD	SHEEP MOUNTAIN CHNL	D3	EARTHEN TRAP CHNL	815'	3.80%
WEST SD	SHEEP MOUNTAIN CHNL	D3-1	EARTHEN TRAP CHNL	1239'	1.70%
WEST SD	SHEEP MOUNTAIN CHNL	D4	EARTHEN TRAP CHNL	534'	4.50%
WEST SD	SHEEP MOUNTAIN CHNL	D4-1	EARTHEN TRAP CHNL	757'	1.50%
WEST SD	SHEEP MOUNTAIN CHNL	D4-2	EARTHEN TRAP CHNL	691'	1.00%
WEST SD	SHEEP MOUNTAIN CHNL	D5	EARTHEN TRAP CHNL	1252'	1.20%
WEST SD	CHANNEL TO DB2	D6	CONCRETE TRAP CHNL	723'	3.00%
WEST SD	CHANNEL TO DB2	D6-1	EARTHEN TRAP CHNL	451'	0.90%
WEST SD	CHANNEL TO DB2	D6-2	EARTHEN TRAP CHNL	145'	1.40%

- NOTES:
- REFER TO EXHIBIT M - ULTIMATE CONDITION US-95 HYDRAULICS SUMMARY MAP FOR DETAILED FLOW THRU EXISTING US-95 CULVERTS & RCB FACILITIES
 - REFER TO EXHIBIT K - ULTIMATE CONDITION OFFSITE EAST FACILITIES MAP FOR EXTENSION OF FACILITIES REQUIRED IN MPU ALIGNMENT EAST OF SKYE CANYON.
 - 5-FT TOPOGRAPHIC CONTOURS SHOWN ON EXHIBIT
 - TRANSPARENT ID TAG INDICATES A FACILITY THAT HASN'T CHANGED PER UPDATE #5
 - REFER TO MDS UP #6 FOR BASINS AND FACILITIES EAST OF US-95



LEGEND	
—	PROPOSED LOCAL FACILITIES
—	EXISTING LOCAL FACILITIES
—	FUTURE LOCAL FACILITIES
—	PROP CCRFCD REGIONAL FACILITIES (BY DEVELOPER)
—	PROP CCRFCD REGIONAL FACILITIES (BY DEVELOPER W/ CLV COST SHARING)
—	FUTURE CCRFCD REGIONAL FACILITIES (BY OTHERS)
—	EXISTING CCRFCD REGIONAL FACILITIES
—	MPU AMENDMENT FACILITY ALIGNMENT
—	STREET SEGMENT ID
X9	FACILITY TAG/ID
*	CULVERT TO BE PLUGGED

Westwood
5740 S. Arville Street
Suite 216
Las Vegas, NV 89118
westwoods.com

Phone (702) 284-5300
Fax (702) 284-5599

CITY OF LAS VEGAS

CENTURY COMMUNITIES

SKYE CANYON MASTER DRAINAGE STUDY

ULTIMATE CONDITIONS ONSITE DRAINAGE FACILITIES

DATE: DEC 2019

DRAFTER: AA

DESIGNER: AA

CHECKED: LKL

PROJECT NO. CEN1908.000

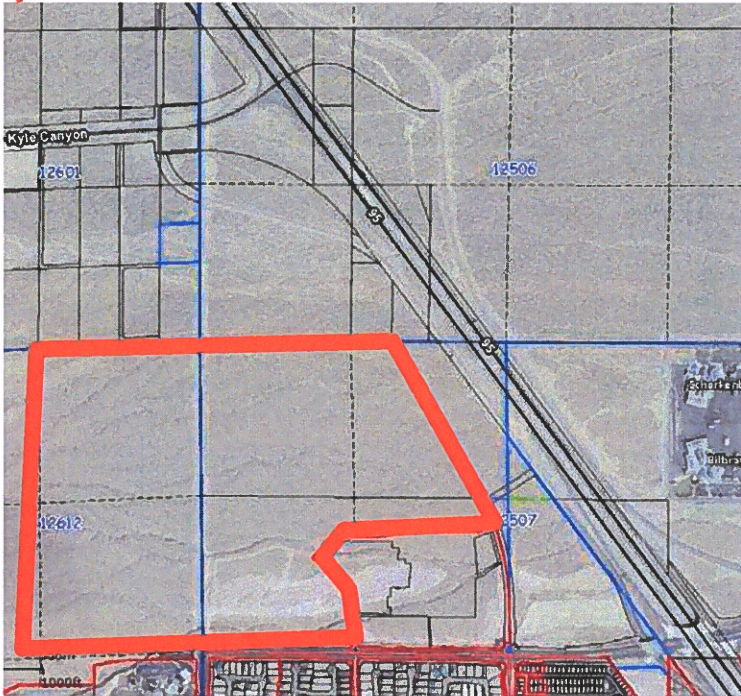
EXHIBIT J

SHEET 1 OF 1

APPENDIX D

Reference Material

- Geotechnical Report Excerpts



BETTER SERVICE

BETTER SOLUTIONS

BETTER PROJECTS

When you choose Southwest Geotechnical, you get a team of experienced and licensed professionals providing you the best service possible to support your fast moving projects. Our team understands the importance of meeting deadlines and being readily available for client support.

We pride ourselves on finding creative solutions for your complex engineering problems. We work hand in hand with our clients to seek out the best possible solutions. We provide designs based on sound engineering principals that also make sense from an economic and timeline perspective.

When our team becomes your team, we have one goal in mind: making your project the best project possible.

Southwest Geotechnical was the first **QAA Special Inspection** firm in Nevada to be accredited by A2LA in accordance with the recognized International Standard ISO/IEC 17020.

Geotechnical Engineering

Environmental

Forensic Studies

Quality Inspections

QAA - Special Inspections

Materials Testing

Concrete Inspections

Masonry Inspections

Wood Inspections

Structural Steel Inspections

GEOTECHNICAL REPORT

SKYE CANYON PHASES 3A, 3B AND 3C

**North of Skye Canyon Park Drive
at Skye Village Road
Las Vegas, Nevada**

October 25, 2017

Project No. 175337

Prepared exclusively for:

**Olympia Companies, LLC
11411 Southern Highlands Parkway
Suite 300
Las Vegas, NV 89141**

Excavation and Removals:

The materials described below are not considered competent to support improvements in their current state. The depths of materials are based on our observations and excavations. Thicknesses of layers below and consequently, depths of removals required, will vary between excavations due to items such as variations in topography and drainage areas which typically required deeper removals.

If the sides of removal areas are steeper than a 5 to 1 to slope (such as in drainage areas or hillsides), the contractor should bench the contact between the native material and the future structural fill. Benches should be no more than 3 feet vertical and be at least 6 feet wide in accordance with local building code requirements. Additionally, fill on one side of a building pad should be no more than 2 times as deep as fill on the other side of the pad to minimize differential settlement.

Materials to be Removed Prior to Placing Structural Fill			
Material to Remove	Depth of Removal	Description	Requirements
Debris and vegetation	N.A.	Vegetation and miscellaneous debris	Remove from areas proposed for structural fill placement and dispose of off-site prior to the start of construction
Uncontrolled fill material	Full depth	If encountered	- Remove prior to placing structural fill - This material may be re-used as structural fill as long as it meets the import requirements below
Loose/soft native surface soil	Up to 1.0 feet	Loose or soft sand	- Remove prior to placing structural fill - This material may be re-used as structural fill

Cemented Materials (eg: caliche):

Cemented materials were encountered as shown below and on logs in Appendix B:

Excavation	Depth (feet)	Description	Consistency
B-1	0.5 to 6.0	Cemented	Hard
	6.0 to 9.0	Partially Cemented	Moderately Hard
	9.0 to 15.0	Cemented	Hard
B-2	0.5 to 5.0	Cemented	Hard
	5.0 to 8.0	Partially Cemented	Moderately Hard
	8.0 to 12.0	Cemented	Hard
	12.0 to 15.0	Partially Cemented	Moderately Hard
B-3	0.5 to 5.0	Cemented	Hard
	5.0 to 11.0	Partially Cemented	Moderately Hard
	11.0 to 15.0	Cemented	Hard

Excavation	Depth (feet)	Description	Consistency
B-4	0.5 to 5.0 5.0 to 8.0 10.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Partially Cemented Cemented	Hard Moderately Hard Moderately Hard Hard
B-5	1.0 to 6.0 6.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-6	0.5 to 3.0 3.0 to 5.0 5.0 to 8.0 8.0 to 11.0 11.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-7	0.5 to 7.0 7.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-8	0.5 to 8.0 8.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-9	1.0 to 4.0 4.0 to 6.0 6.0 to 10.0 10.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-10	0.5 to 8.0 8.0 to 11.0 11.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-11	0.5 to 6.0 6.0 to 8.0 8.0 to 12.0 12.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-12	0.5 to 7.0 7.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-13	0.5 to 6.0 6.0 to 8.0 8.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard

Excavation	Depth (feet)	Description	Consistency
B-14	1.0 to 4.0 4.0 to 7.0 7.0 to 10.0 10.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-15	0.5 to 6.0 6.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-16	0.5 to 5.0 5.0 to 9.0 9.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-17	0.5 to 8.0 8.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-18	0.5 to 4.0 4.0 to 6.0 6.0 to 10.0 10.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-19	1.0 to 4.0 4.0 to 6.0 6.0 to 10.0 10.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-20	0.5 to 7.0 7.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-21	0.5 to 5.0 5.0 to 8.0 8.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-22	0.5 to 4.0 4.0 to 6.0 6.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-23	0.5 to 5.0 5.0 to 7.0 7.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented	Hard Moderately Hard Hard Moderately Hard
B-24	0.5 to 7.0 7.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard

Excavation	Depth (feet)	Description	Consistency
B-25	1.0 to 2.0 2.0 to 8.0 8.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented	Hard Moderately Hard Hard Moderately Hard
B-26	0.5 to 7.0 7.0 to 10.0 10.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented	Hard Moderately Hard Hard Moderately Hard
B-27	0.5 to 4.0 4.0 to 7.0 7.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-28	0.5 to 6.0 6.0 to 8.0 8.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented	Hard Moderately Hard Hard Moderately Hard
B-29	1.0 to 5.0 5.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-30	0.5 to 8.0 8.0 to 11.0 11.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-31	1.0 to 6.0 6.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-32	0.5 to 5.0 5.0 to 7.0 7.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented	Hard Moderately Hard Hard Moderately Hard
B-33	0.5 to 3.0 3.0 to 7.0 7.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-34	0.5 to 4.0 4.0 to 9.0 9.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-35	0.5 to 6.0 6.0 to 9.0 9.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard

Excavation	Depth (feet)	Description	Consistency
B-36	1.0 to 9.0 9.0 to 12.0 12.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-37	1.0 to 5.0 7.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-38	1.0 to 5.0 5.0 to 7.0 7.0 to 9.0 9.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-39	0.5 to 11.0 11.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-40	0.5 to 4.0 4.0 to 6.0 6.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-41	1.0 to 7.0 7.0 to 9.0 9.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-42	0.5 to 8.0 8.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-43	0.5 to 4.0 6.0 to 11.0 11.0 to 13.0 13.0 to 15.0	Cemented Cemented Partially Cemented Cemented	Hard Hard Moderately Hard Hard
B-44	1.0 to 6.0 6.0 to 8.0 8.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-45	0.5 to 4.0 4.0 to 6.0 6.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-46	1.0 to 7.0 7.0 to 9.0 9.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-47	1.0 to 6.0 6.0 to 9.0 9.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard

Excavation	Depth (feet)	Description	Consistency
B-48	1.0 to 8.0 8.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-49	0.5 to 7.0 7.0 to 9.0 9.0 to 12.0 12.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-50	0.5 to 6.0 6.0 to 8.0 8.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-51	1.0 to 8.0 8.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-52	0.5 to 4.0 4.0 to 6.0 6.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-53	0.5 to 15.0	Cemented	Hard
B-54	1.0 to 15.0	Cemented	Hard
B-55	1.0 to 8.0 8.0 to 10.0 10.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
B-56	1.0 to 3.0 3.0 to 5.0 5.0 to 11.0 11.0 to 13.0 13.0 to 15.0	Cemented Partially Cemented Cemented Partially Cemented Cemented	Hard Moderately Hard Hard Moderately Hard Hard
B-57	1.0 to 4.0 4.0 to 7.0 7.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard

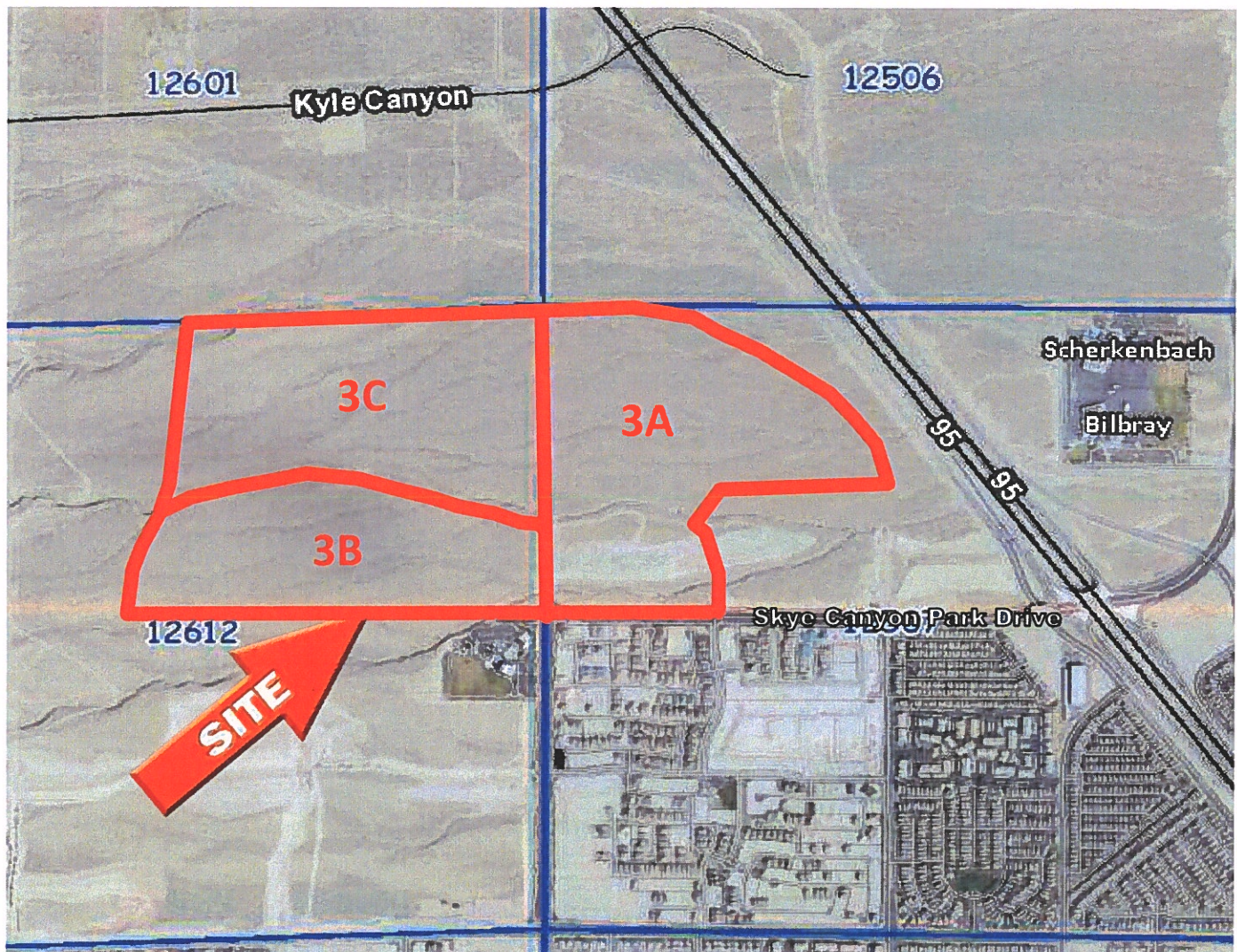
Excavation	Depth (feet)	Description	Consistency
B-58	0.5 to 3.0 3.0 to 5.0 5.0 to 15.0	Cemented Partially Cemented Cemented	Hard Moderately Hard Hard
<u>Excavation difficulty expected:</u> • Moderately Hard: Large earth moving equipment is expected to break through materials with moderate effort. • Hard: Difficult to excavate, even with heavy equipment. Specialized equipment such as rock hammer, headache ball, or blasting expected for layers thicker than 18 inches • Very Hard: Specialized equipment expected			
Foundations may be placed on cemented materials. However, the foundations must either be entirely on cemented materials or entirely on non-cemented materials. If this is not possible, cemented materials must be removed to a depth of at least 12 inches below the bottom of any footing.			

Structural Fill:

Structural fill should be placed in accordance with the following recommendations:

Structural Fill - Depths		
Improvements Requiring Structural Fill Below:	Minimum Depth of Structural Fill Required	Lateral extent of Structural Fill Required (E – Figure below)
Concrete slab on grade floors (A – figure below)	18 inches	5 feet beyond footprint of structure
Building foundations (B – figure below)	6 inches	5 feet beyond footing
Block or retaining wall footings (C – figure below)	6 inches	2 feet beyond footing
Streets, drives, and sidewalks	12 inches	2 feet beyond edge
Note: Contractor may process up to 12 inches of Structural Fill in place if desired.		

FIGURE 1 - AREA MAP

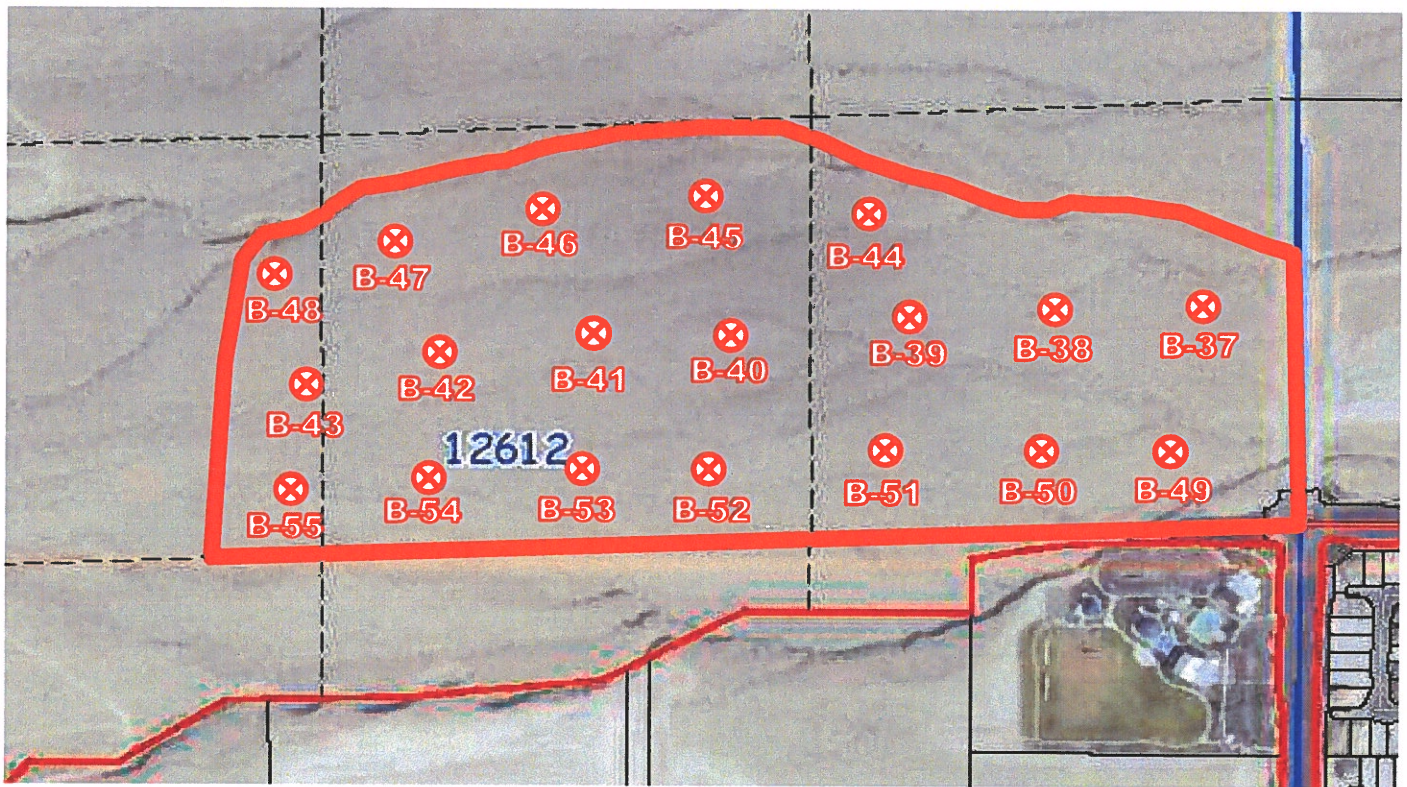


NOT TO SCALE

PROJECT: Skye Canyon Phases 3A, 3B and 3C
CLIENT: Olympia Companies, LLC

PROJECT NO: 175337
DATE: 10/25/2017

FIGURE 3 - SITE MAP (3B)



 **APPROXIMATE BORING LOCATION**

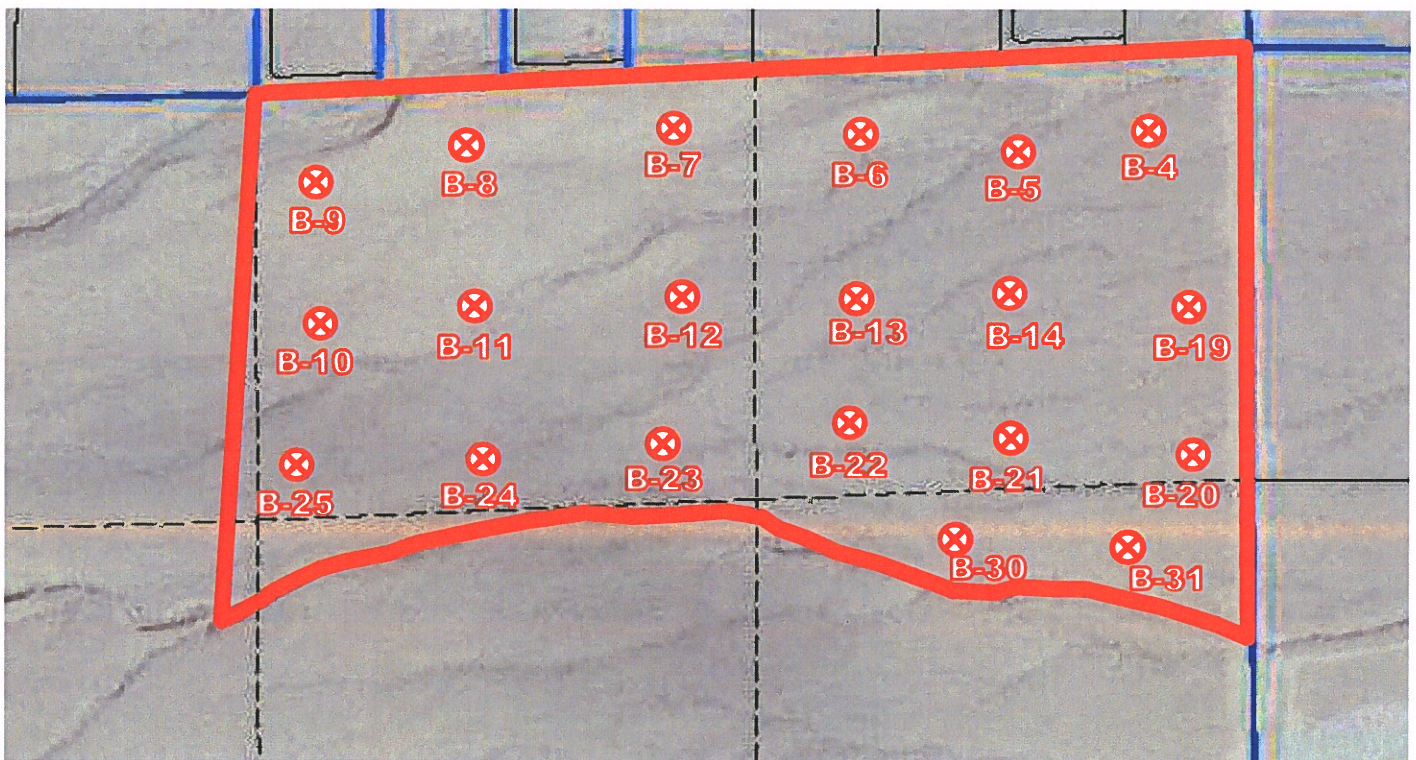
 **APPROXIMATE SITE LOCATION**

NOT TO SCALE

PROJECT: Skye Canyon Phases 3A, 3B and 3C
CLIENT: Olympia Companies, LLC

PROJECT NO: 175337
DATE: 10/25/2017

FIGURE 4 - SITE MAP (3C)



 APPROXIMATE BORING LOCATION

 APPROXIMATE SITE LOCATION

NOT TO SCALE

PROJECT: Skye Canyon Phases 3A, 3B and 3C

CLIENT: Olympia Companies, LLC

PROJECT NO: 175337

DATE: 10/25/2017



SOUTHWEST

GEOTECHNICAL

BORING LOG

EXCAVATION NO: B-7
DATE: 10/12/2017
PROJECT: Skye Canyon Phases 3A, 3B and 3C **PROJECT NO:** 175337
CLIENT: Olympia Companies, LLC **LAT:** 36.3208 **LONG:** -115.3207 **ELEV.** 2897
LOGGED BY: J.A. Johnson **EXCAVATION METHOD:** Air Rotary **BY:** Evans Drilling

Depth	Sample Type	Blows	USCS	Graphic	Color	Soil Description	Moisture	Consistency
1			SM		Brown	Silty SAND with Gravel, Cobbles	Sl. Moist	L
2			CEM		Gray	Cemented Sand and Gravel	Dry	H
3								
4								
5		50/2"						
6								
7			PCEM		Gray	Partially Cemented Sand and Gravel	Dry	MH
8								
9								
10		50/1"	CEM		Gray	Cemented Sand and Gravel	Dry	H
11								
12								
13								
14								
15		50/0"				End of Boring		
16						Groundwater NOT Encountered		
17								
18								
19								
20								



SOUTHWEST

GEOTECHNICAL

BORING LOG

EXCAVATION NO: B-12

DATE: 10/12/2017

PROJECT: Skye Canyon Phases 3A, 3B and 3C PROJECT NO: 175337

CLIENT: Olympia Companies, LLC LAT: 36.3194 LONG: -115.3201 ELEV. 2897

LOGGED BY: J.A. Johnson EXCAVATION METHOD: Air Rotary BY: Evans Drilling

Depth	Sample Type	Blows	USCS	Graphic	Color	Soil Description	Moisture	Consistency
1		50/1"	SM		Brown	Silty SAND with Gravel, Cobbles	Sl. Moist	L
2			CEM		Gray	Cemented Sand and Gravel	Dry	H
3								
4								
5		50/2"						
6								
7			PCEM		Gray	Partially Cemented Sand and Gravel	Dry	MH
8								
9		50/1"						
10			CEM		Gray	Cemented Sand and Gravel	Dry	H
11								
12								
13		50/1"						
14								
15						End of Boring		
16						Groundwater NOT Encountered		
17								
18								
19								
20								



SOUTHWEST GEOTECHNICAL

BORING LOG

EXCAVATION NO: B-23

DATE: 10/13/2017

PROJECT: Skye Canyon Phases 3A, 3B and 3C PROJECT NO: 175337

CLIENT: Olympia Companies, LLC LAT: 36.3182 LONG: -115.3205 ELEV. 2906

LOGGED BY: J.A. Johnson EXCAVATION METHOD: Air Rotary BY: Evans Drilling

Depth	Sample Type	Blows	USCS	Graphic	Color	Soil Description	Moisture	Consistency
1			SM		Brown	Silty SAND with Gravel, Cobbles	Sl. Moist	L
2			CEM		Gray	Cemented Sand and Gravel	Dry	H
3								
4								
5		50/4"	PCEM		Gray	Partially Cemented Sand and Gravel	Dry	MH
6								
7			CEM		Gray	Cemented Sand and Gravel	Dry	H
8								
9								
10		50/4"	PCEM		Gray	Partially Cemented Sand and Gravel	Dry	MH
11								
12								
13								
14								
15		50/3"				End of Boring		
16						Groundwater NOT Encountered		
17								
18								
19								
20								

APPENDIX E

CD of Electronic Files

1/30/2020

Albert Sung, P.E.
City of Las Vegas
333 Rancho Drive (7th Floor)
Las Vegas, NV 89101

Re: Technical Drainage Study for Skye Canyon Phase 3B/3C Mass Grading

Albert:

This letter certifies that all items provided on the Addendum No. 1 to the Technical Drainage Study for Skye Canyon Phase 3B/3C Mass Grading submittal CD match the paper version bound into the study.

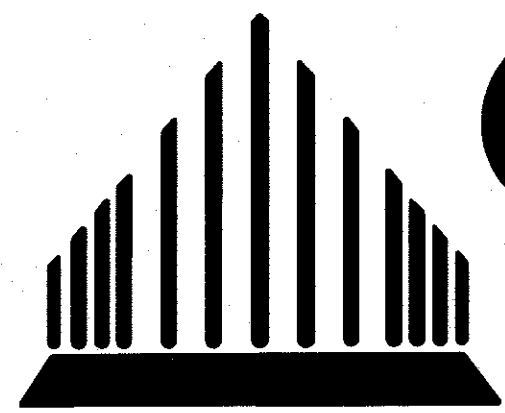
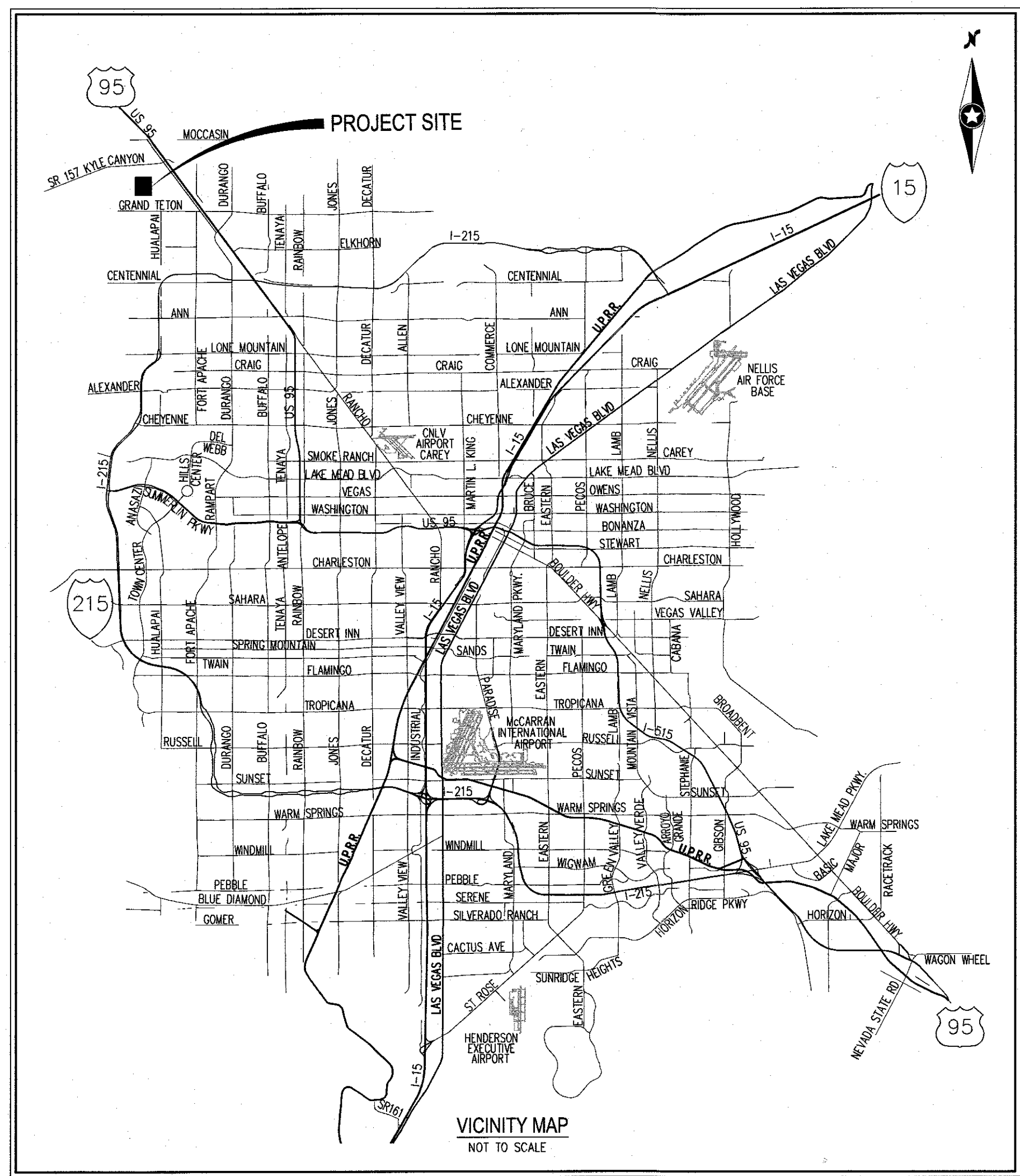
Please contact me if you have any questions.

Sincerely,

WESTWOOD PROFESSIONAL SERVICES



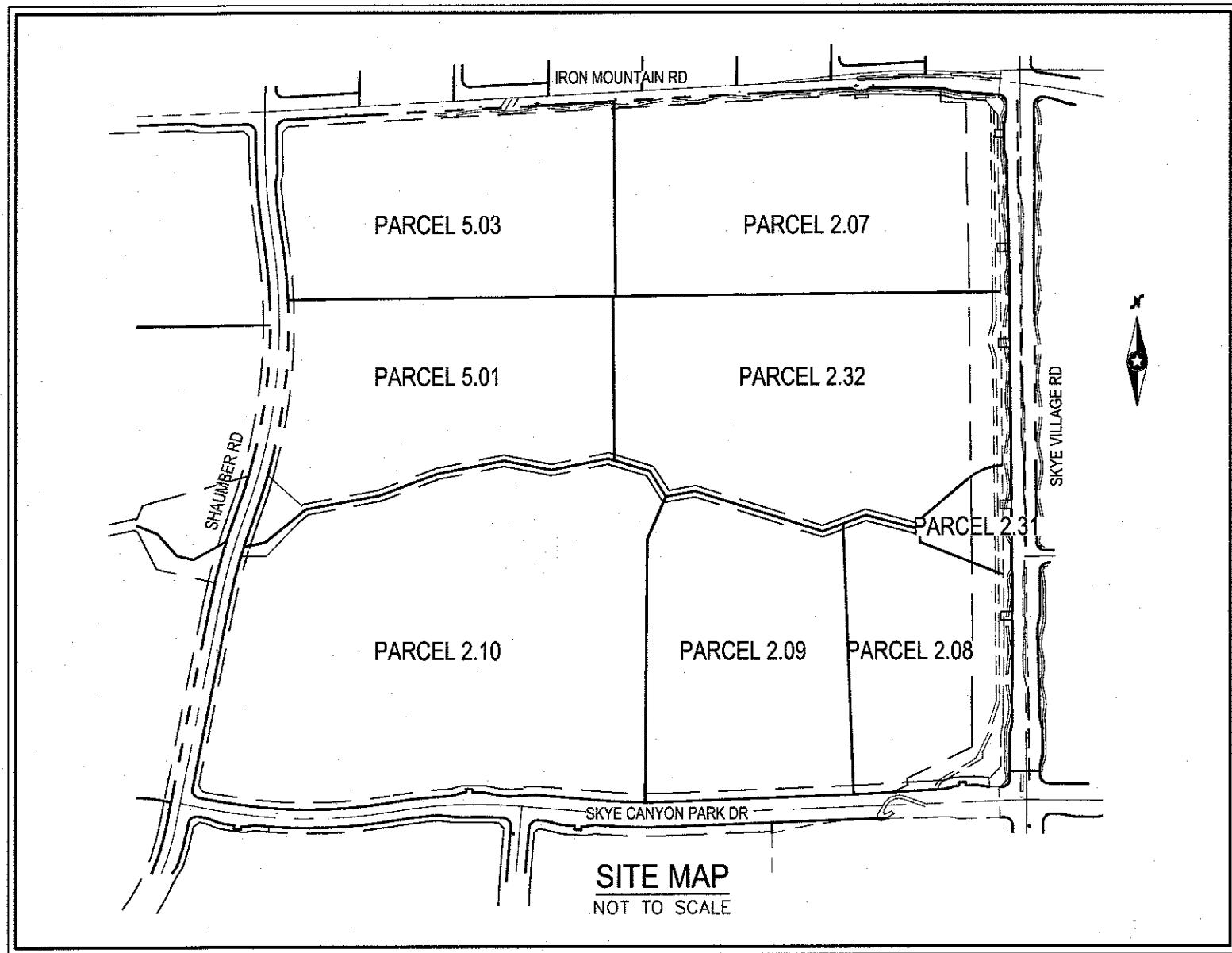
Lant Leavitt, P.E.
Project Manager II



CENTURY COMMUNITIES

GRADING PLANS FOR SKYE CANYON PH 4 MASS GRADING

CITY OF LAS VEGAS, NEVADA
APN: 126-12-501-004



SHEET INDEX		
SHEET #	DESCRIPTION	TITLE
1	C-1	COVER SHEET
2	C-2	STANDARD NOTES & QUANTITIES
3	G-1	GRADING PLAN I
4	G-2	GRADING PLAN II
5	G-3	GRADING PLAN III
6	G-4	GRADING PLAN IV
7	G-5	GRADING PLAN V
8	G-6	GRADING PLAN VI
9	G-7	GRADING PLAN VII
10	G-8	GRADING PLAN VIII
11	G-9	GRADING PLAN IX
12	G-10	GRADING PLAN X
13	D-1	DETAIL SHEET I

APPROVALS	
ACTING CITY ENGINEER—ROSA CORTIZ PE, #17505	DATE
APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY, AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIALLY LISTED UNDER DEVIATIONS FORM STANDARDS. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, CLARK COUNTY AREA, NEVADA.	
LAS VEGAS FIRE AND RESCUE	DATE
CITY OF LAS VEGAS—PLANNING DEPARTMENT	DATE
THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT.	
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. ##### FIRST APPROVED DATE: LVWVD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 20 GPM	
SHEETS: ###	
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

OWNER/DEVELOPER	ENGINEER
CENTURY COMMUNITIES OF NEVADA, LLC 6345 SOUTH JONES BOULEVARD SUITE 400 LAS VEGAS, NEVADA 89118 PH: 702-873-5582	SLATER HANIFAN GROUP, INC. 5740 S. ARVILLE STREET, SUITE 216 LAS VEGAS, NV 89118 PH: (702) 284-5300 FX: (702) 284-5399 CONTACT: TODD J. STEADHAM

LEGAL DESCRIPTION
A COMMON INTEREST COMMUNITY BEING A SUBDIVISION OF PORTIONS OF GOVERNMENT LOTS 1, 2, 3, 6, 7, 8, 9, 10, 11, AND 12 OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA

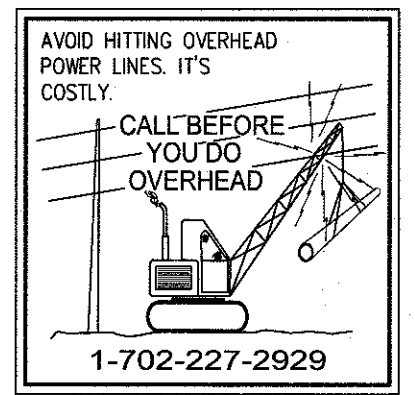
BENCHMARK
BENCHMARK NUMBER: USDA 1934
U.S. DEPARTMENT OF AGRICULTURE BRASS DISC AT THE SOUTHWEST CORNER OF U.S. 95 AND SKYE CANYON ROAD.
ELEVATION = 2817.61 FEET, 858.81 METERS
N.A.Y.D. 88 DATUM
PER CITY OF LAS VEGAS VERTICAL CONTROL WEBSITE

BASIS OF BEARINGS
SOUTH 00°34'18" EAST, BEING THE BEARING OF THE EAST LINE OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 157, PAGE 41 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

FEMA FLOOD ZONE INFORMATION
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE "X" (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

DEVIATIONS FROM STANDARDS
NONE

SWPPP NOTE
NOTE: ALL LAND SURFACE AREA DISTURBANCES OVER 1 ACRE REQUIRE A STORMWATER DISCHARGE PERMIT ISSUED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP). A PHASED CONSTRUCTION UNIT IN A CONTIGUOUS SUBDIVISION IS CONSIDERED UNDER CONSTRUCTION UNTIL ALL STRIPPED SURFACE AREAS HAVE BEEN COVERED BY PAVING, BUILDING CONSTRUCTION OR PLANTING. A STORMWATER DISCHARGE PERMIT APPLICATION AND ASSOCIATED INFORMATION MAY BE DOWNLOADED FROM THE WEB SITE: [HTTP://WWW.STATE.NV.US/BWPC/STORM01.HTM](http://WWW.STATE.NV.US/BWPC/STORM01.HTM) PROJECTS THAT DISTURB MORE THAN ONE ACRE OF LAND MUST SUBMIT TO NDEP A "NOTICE OF INTENT" FOR INCLUSION UNDER STORMWATER PERMIT NO. NVR1000000 ALONG WITH THE APPROPRIATE FILING FEE.



Westwood

5740 S. Arville Street
Suite 216
Las Vegas, NV 89118
Phone (702) 284-5300
Fax (702) 284-5399
westwoodps.com
Westwood Professional Services, Inc.

CENTURY COMMUNITIES

SKYE CANYON PH 4 MASS GRADING
COVER SHEET

CITY OF LAS VEGAS, NV

DATE: 1/30/2020
DRAFTER: LBA
DESIGNER: EMH
CHECKED: TJS
PROJECT NO. CEN2001

PROFESSIONAL ENGINEER - STATE OF NV

TODD J. STEADHAM
Exp. 06/30/2020
CIVIL
Exp. No. 15092 (TJ)

C-1
SHEET 1 OF 13

4. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY. IF ANY NEW OR AS AMENDED SPECIFICATIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
6. CHISEL "S" OR "C" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
7. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
8. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT COMPLY TO CITY STANDARDS AT THE MANHOLE.
9. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE (12") DIAMETER. CONNECTIONS TO LARGER MAINS (18") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
10. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
11. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
12. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR RETURNED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
13. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

LVMDO PROJECT # (REVISED 08/01/2007)

1. NO WORK SHALL BEGUN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVMDO. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVMDO COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVMDO INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVMDO STANDARD PLANS, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVMDO.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVMDO APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB CUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.2.2 OF THE 2010 EDITION OF THE UDACS.
9. ALL WATER FACILITIES AND APPURTEANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVMDO CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVMDO INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVMDO APPROVED PRODUCTS LIST FOR NEW MATERIALS, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
14. THE INSTALLATION OF LVMDO MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVMDO TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ADJACENT A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVMDO DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVMDO WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVMDO WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVMDO WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

A COMMON INTEREST COMMUNITY BEING A SUBDIVISION OF PORTIONS OF GOVERNMENT LOTS, 1, 2, 3, 6, 7, 8, 9, 10, 11, AND 12 OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA

BENCHMARK NUMBER: USDA 1934
U.S. DEPARTMENT OF AGRICULTURE BRASS DISC AT THE SOUTHWEST CORNER OF U.S. 95
AND KYLE CANYON ROAD.
ELEVATION = 2817.61 FEET, 858.81 METERS
N.A.V.D. 88 DATUM
PER CITY OF LAS VEGAS VERTICAL CONTROL WEBSITE

SOUTH 00°34'18" EAST, BEING THE BEARING OF THE EAST LINE OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 12, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 157, PAGE 41 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY OTHER STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRICAL SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND/OR MUNICIPALITIES.
 - A) ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES
3. FOR VALVE ADJUSTMENT CONTACT 702-666-6107 48 HOURS PRIOR TO CONSTRUCTION.
4. IN THE EVENT OF NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND STRUCTURES CONTACT 702-365-2099
5. SOUTHWEST GAS STANDBY CONTACT NUMBER (702)-400-1789

SOUTHWEST GAS CORPORATION

EXISTING	PROPOSED	DESCRIPTION
		5' CONTOUR
		1' CONTOUR
		STRIPING
		SEWER MANHOLE
		CURB AND GUTTER
		SANITARY SEWER PIPE AND FLOW ARROW
		WATER PIPE
		WATER GATE VALVE
		FIRE HYDRANT
		WATER BLOW-OFF
		WATER LATERAL W/ METER
		SANITARY SEWER LATERAL
		STREETLIGHT
		EDGE OF PAVEMENT
		TRAFFIC SIGN
		PAD ELEVATION
		FINISHED FLOOR ELEVATION
		ELEVATION
		RETAINING WALL
		STORM DRAIN W/ MANHOLE
		EXISTING GAS GATE VALVE
		EXISTING UNKNOWN MANHOLE
		EXISTING GAS, SIZE PER PLAN
		EXISTING POWER POLE
		EXISTING TRAFFIC SIGNAL
		EXISTING WALL
		WATER PIPE FITTING
		WATER POINT OF CONNECTION
		SEWER POINT OF CONNECTION
		DAYLIGHT LINE
		STREET CENTERLINE
		RIGHT-OF-WAY
		MATCHLINE
		BOUNDARY LINE
		PHASE LINE
		PROPERTY LINE
		FLOWLINE
		SAWCUT
		CUT/FILL TRANSITION LINE
		SIDEWALK
		EX STRIPING TO BE OBLITERATED
		GRADE BREAK LINE
		REFLECTIVE RAISED PAVEMENT MARKERS
		BACK WATER VALVE
		WROUGHT IRON FENCE
		PONY WALL
		DECORATIVE PERIMETER WALL
		DECORATIVE PERIMETER RETAINING WALL
		PROPOSED CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
		EXISTING CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
		FUTURE CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
		PROPOSED SCARP AREA
		DRIVEWAY
		PROPOSED RIP RAP
		SIGHT VISIBILITY ZONE PER STD DWG NO. 201.2
		HANDICAP RAMP

AC	ASPHALTIC CONCRETE OR ACRE	FL	FLOWLINE	PW	POINT OF VERTICAL INTERSECTION
AGG	AGGREGATE BASE	FT	FEET OR FOOT	QTY	QUANTITY
APN	ASSESSOR PARCEL NUMBER	FUT	FUTURE	R	RADIUS
APR	APPROX OR ~	GRD	GRADE OR GROUND	RCA	REINFORCED CONCRETE ARCH
AVE	AVENUE	GB	GRADE BREAK OR GRADE CHANGE	RCB	REINFORCED CONCRETE BOX
BC	BEAT	GV	GATE VALVE	RCP	REINFORCED CONCRETE PIPE
BCL	BEGIN CURVE OR BACK OF CURB	HDP	HIGH DENSITY POLYETHYLENE	RD	ROAD
BOR	BEGINNING OF CURB RETURN	HDA	HOME OWNERS ASSOCIATION	RDWY	ROADWAY EASEMENT
BWD	BOTTOM OF HEADWALL	HORZ	HORIZONTAL	REQD	REQUIRED
BUILD	BUILDING	HP	HIGH POINT	REV	REVISION
BULD	BUILDING	HRL	HIGH WATER LEVEL	ROGR	ROUGH GRADE
BNM	BENCHMARK	HOWL	HOWL OR HW	RT	RIGHT
BVC	BEGIN VERTICAL CURVE	HYD	HYDRAULIC OR HYDRANT	RW	RIGHT OF WAY
BW	BACK WATER VALVE	ID	INSIDE DIAMETER	RW, R	RIGHT OF WAY
CC	CLARK COUNTY	IN	INCH	S	SLOPE
CCALSD	CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS	INT	INTERSECTION	SCI	SCHEDULE
CCPW	CLARK COUNTY PUBLIC WORKS	INV	INVERT ELEVATION	SD	STORM DRAIN
CCRED	CLARK COUNTY REGIONAL FLOOD DISTRICT	IRK	IRON PIPE	SDD	STORM DRAIN DROP INLET
CCWRO	CLARK COUNTY WATER REGULATION DISTRICT	IRRG	IRRIGATION	SDM	STORM DRAIN MANHOLE
CE	COMMON ELEMENT	LF	LINEAR FEET	SEC	SECTION
CE/LC/CLC	CENTERLINE	LP	LANDSCAPE MAINTENANCE CORPORATION	SFE	SQUARE FEET
CLR	CLEAR OR CLEARANCE	LP	LOW POINT	SH	SHEET
CLSM	CONTROLLED LOW STRENGTH MATERIAL	LT	LEFT	SHI	SIGHT LIGHT & TRAFFIC CONTROL
CLV	CITY OF LAS VEGAS	LVL	LAS VEGAS VALLEY WATER DISTRICT	SNWA	SOUTHERN NEVADA WATER AUTHORITY
CM&LC	CEMENT MORTAR LINED AND COATED	LOW	LOW WATER LEVEL	SPCS	SPECIFICATIONS
CMU	CONCRETE MASONRY UNIT	MAX	MAXIMUM	ST	STREET
OLV	CITY OF NORTH LAS VEGAS	MECH	MECHANICAL	SSMH	SANITARY SEWER MANHOLE
CH	CITY OF HENDERSON	MANH	MANHOLE	STA	STATION
CONC	CONCRETE	MIN	MINIMUM	STD	STANDARD
CT	COURT	MIN	MINIMUM	STD	STANDARD
CY OR CU YD	CUBIC YARD	MISC	MISCELLANEOUS	STIL	STREET LIGHT
DOWCS	DESIGN AND CONSTRUCTION FOR WASTEWATER COLLECTION SYSTEMS	MUN	MUNICIPAL UTILITY EASEMENT	SW	SIDEWALK
DE	DRAINAGE EASEMENT	NEV	NEVADA DEPARTMENT OF TRANSPORTATION	SWR	SOUTHWEST GAS
DET	DETRIMENTAL	NIS	NOT TO SCALE	SNR OR SS	SANITARY SEWER
DI	DUCTILE IRON OR DRAIN INLET	NUE	NONEXCLUSIVE UTILITY EASEMENT	SY	SQUARE YARD
DIA, Ø	DIAMETER	NVE	NON-VEHICLE EASEMENT	TAN	TANGENT
DIM	DIMENSION	OC	ON CENTER	TC	TOP OF CURB
DIA, Ø	DIAMETER	OD	OUTSIDE DIAMETER OR OVERALL DIMENSION	TF	TOP OF FLOOR OR TOP OF FOOTING
DIM	DIMENSION	OFF	OFFSET	TH	THROUGH
DWG(S)	DRAWING	ORG	ORIGINAL	THW	TOP OF HEADWALL
DWY	DRIVEWAY	PAE	PUBLIC OR PEDESTRIAN ACCESS EASEMENT	THP	TOP OF PIPE
EA	EASEMENT	PB	PULL BOX	THW	TOP OF WALL
EGR	END CURB RETURN	PC	POINT OF CURVE	TRW	TOP OF RETAINING WALL
EG	EXISTING GROUND	PCC	POINT OF COMPOUND CURVE	TSW	TOP OF SCREEN WALL
ELEV	ELEVATION	PDE	PUBLIC DRAINAGE EASEMENT	TY	TYPICAL
ESMT	EASEMENT	PL	POINT OF BEGINNING	UDCS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
EP	EDGE OF PAVEMENT	POB	POINT OF BEGINNING	VE	VERTICAL
ERU	EQUIVALENT RESIDENTIAL UNIT	POC	POINT OF CURVATURE	VE	VERTICAL
EVC	END VERTICAL CURVE	PCE	POINT OF ENDING	VUT	UTILITY EASEMENT
EX OR EXIST	EXISTING	PRC	POINT OF REVERSE CURVATURE	VVC	VERTICAL CURVE
FC	FACE OF CURB	PRELIM	PRELIMINARY	VG	VALLEY GUTTER
FF	FINISHED FLOOR	PROP	PROPOSED	VI	WROUGHT IRON
FG	FINISHED GRADE	PRV	PRESSURE REDUCING VALVE	WL	WATER LINE
FGH	FINISHED GRADE, HIGH SIDE	PUE	PUBLIC UTILITY EASEMENT	WP	WATER PRESSURE ZONE
FGL	FINISHED GRADE, LOW SIDE	PT	POINT OF TANGENT OR POINT	WP2	WEIGHT
FIB	FIBER HYDRANT	PVC	POLYVINYL CHLORIDE	WT	WATER LINE

DRAINAGE			
1.	60" TYPE III STORM DRAIN MANHOLE	EA	--
2.	5.0' TYPE "CM2" DROP INLET	EA	--
3.	10.0' TYPE "CM2" DROP INLET	EA	--
4.	12.5' TYPE "CM2" DROP INLET	EA	--
5.	20.0' TYPE "CM2" DROP INLET	EA	--
6.	18" ROP CLASS IV STORM DRAIN	LF	--
7.	24" ROP CLASS IV STORM DRAIN	LF	--
8.	30" ROP CLASS IV STORM DRAIN	LF	--
9.	36" ROP CLASS IV STORM DRAIN	LF	--
10.	RIPRAP D50=8", THK=16"	SF	--
11.	8" WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	SF	--
12.	SIDEWALK UNDER DRAIN	SF	--
13.			
SEWER SYSTEM			
1.	4" PVC SEWER LATERAL (PRIVATE)	LF	--
2.	8" PVC SEWER PIPE (PUBLIC)	LF	--
3.	STANDARD 48" SEWER MANHOLE (PUBLIC)	EA	--
4.	8" SEWER PIPE CAP	EA	--
5.	BACK WATER VALVE	EA	--
6.	8" C-900 WATER QUALITY SEWER PIPE (PUBLIC)	EA	--
7.			
WATER SYSTEM			
1.	FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	--
2.	6" PVC WATER PIPE (CLASS 150)	LF	--
3.	8" PVC WATER PIPE (CLASS 150)	LF	--
4.	8" DIP WATER PIPE (CLASS 53)	LF	--
5.	8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39	EA	--
6.	8" X 6" TEE PER UDACS PLATE NO. 31	EA	--
7.	8" X 8" TEE PER UDACS PLATE NO. 31	EA	--
8.	8" 5 DEGREE BEND WITH RESTRAINED JOINTS	EA	--
9.	8" 11.25 DEGREE BEND PER UDACS PLATE NO. 31	EA	--
10.	8" 22.5 DEGREE BEND PER UDACS PLATE NO. 31	EA	--
11.	8" 45 DEGREE BEND PER UDACS PLATE NO. 31	EA	--
12.	8" 90 DEGREE BEND PER UDACS PLATE NO. 31	EA	--
13.	CAP AND 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE NO. 36	EA	--
14.	1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 2	EA	--
15.	1" COPPER SERVICE W/ 1" METER PER UDACS PLATE NO. 4	EA	--
16.	1" COPPER SERVICE W/ 3/4" METER & 1" RPPA PER UDACS PLATE NO. 4 & 8	EA	--
17.			
STREET IMPROVEMENTS			
1.	2" A.C. PAVEMENT W/ 4" TYPE II OVER 6" TYPE I AGGREGATE BASE	SY	--
2.	STANDARD 18" TYPE "L" ISLAND CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	--
3.	STANDARD 8" TYPE "A" ISLAND CURB W/6" TYPE I AGGREGATE BASE	LF	--
4.	STANDARD 30" TYPE "ROLL" CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	--
5.	4" WIDE CONCRETE SIDEWALK W/4" TYPE II AGGREGATE BASE	SF	--
6.			
7.			
TRAFFIC SIGNALS			
1.	30" STOP SIGN WITH POST (R1-1)	EA	--
2.	9" STREET NAME SIGN (D-3, BROWN W/ WHITE LETTERS)(6) POLES x 2 PER POLE=12)	EA	--
3.	BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER	EA	--
4.	CROSSWALK MARKINGS	LF	--
5.			
6.			
7.			
DRY UTILITIES			
1.	100W H.P.S. LUMINAIRE STREET LIGHT W/DECORATIVE POLE	EA	--
2.	1-1/4" PVC STREET LIGHT CONDUIT WITH (2) #4 AND (1) #8 CONDUCTORS	LF	--
3.	NO. 3-1/2 PULL BOX W/METAL COVER	EA	--
4.	150 AMP SERVICE PEDESTAL (IRR)	EA	--
5.	200 AMP SERVICE PEDESTAL (STLT)	EA	--
6.			
7.			

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SLOPES, FINISH GRADIES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION, ADEQUATE SHORING SHALL BE DESIGNED AND CONSTRUCTION OF SHORING TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE POLLUTION PREVENTION WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

	HORIZONTAL	VERTICAL COMPACTION	
A. PAVEMENT AREA SUBGRADE	0.1"	+0.0' TO -0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5"	+0.0' TO -0.1'	SEE SOILS REPORT

7. COMPACTATION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.
8. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
9. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
10. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ANY CUTS, RIPS OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
11. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION ITEMS DURING CONSTRUCTION SHALL BE MAINTAINED IN A CLEAN AND

1. INDICATED GRADES OTHER THAN T.C., F.G. & GUTTER F.L. ARE ROUGH GRADES.
2. THE ROUGH GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES. THE ROUGH GRADING SHALL BE FINISHED IN CONFORMANCE WITH THE LINES AND GRADES SHOWN ON THE PLANS. THE GRADING QUANTITIES ARE BASED ON THE ELEVATION AND DETAILS SHOWN ON THE PLANS. ANY DEVIATIONS FROM THE PLANS WILL RESULT IN QUANTITY CHANGES.
3. CARE SHALL BE EXERCISED IN GRADING CORNER LOTS.
4. ROUGH PAD ELEVATIONS SHALL BE GRADED TO WITHIN 0.1' OF THE PAD ELEVATIONS SHOWN ON THE PLANS. WHEN GRADING IS COMPLETED PER THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE LOTS CAN BE INSPECTED. AT THAT TIME THE ENGINEER SHALL ALSO DECIDE IF ANY ADDITIONAL DITCHES OR BERMS ARE REQUIRED. THE CONTRACTOR IS REQUESTED NOT TO REMOVE ANY OF HIS ROUGH GRADING EQUIPMENT UNTIL HE RECEIVES GRADING APPROVAL FROM THE ENGINEER.
5. SOILS REPORT PREPARED BY SOUTHWEST GEOTECHNICAL, PROJECT NO. 175337, DATED 10/17/2018.
6. EARTHWORK QUANTITIES (RAW):
 - CUT = 577,785 CUBIC YARDS
 - FILL = 134,953 CUBIC YARDS
 - TOTAL = 442,832 CUBIC YARDS
- A) THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SUBSIDENCE OR SHRINKAGE.
- B) THE ABOVE QUANTITIES DO REFLECT USING NATIVE MATERIAL IN LIEU OF TYPE I GRAVEL BASE MATERIAL FOR STREET SECTIONS.
- C) THE ABOVE QUANTITIES DO NOT REFLECT ANY EARTHWORK WHICH MAY BE REQUIRED BY THE ENGINEER TO CONSTRUCT ADDITIONAL PROTECTIVE DITCHES OR BERMS NOT SHOWN ON THESE DRAWINGS.

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, WASH, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY BE EXPOSED TO THE PUBLIC OR TO AQUIFERS AND TO THE PUBLIC RIGHTS OF WAYS OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED BY THE OWNER AND HIS AGENT IF THE PROJECT HAS EXPOSED AREAS OR PROBLEMS IF OR THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY BEGINS AND EXPOSURE TO THE PUBLIC OR TO AQUIFERS IS PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NW1900000, SECTION II.4.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, WIND, AND/OR EXPOSURE TO WIND-DRIVEN SANDS WEEKLY AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY TO REFLECT CHANGES TO THE DISTURBED AREAS. SUCH APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NW1900000, SECTION II.4.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST EDITION, THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISION EDITION; THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST EDITION; AND THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST EDITION, AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY, THE UNIFORM BUILDING CODE, AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".

2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CIVIL PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE. DAMAGE TO EXISTING UTILITIES OR STRUCTURES OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORILY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

5. TYPE V CURB PAVEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE CURB. CONCRETE TO BE 3000 P.S.I. MINIMUM 28 DAYS. MIX DESIGN TO BE APPROVED BY THE CITY, PRIOR TO BE USED ON THE PROJECT.

6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.

7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTENDED-TYPE CURB.

8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE TOP OF ALL GUTTERS AFTER COMPLETION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

9. CURB AND GUTTER FLOW TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.

10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 216. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.

11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE PROVIDED SHALL BE AS SHOWN ON THESE PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY SOUTHWEST GEOLOGICAL REPORT #17532310 10/17/2018 APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY THE CITY OF LAS VEGAS. EXACT LOCATION OF RAMP IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.

14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 16, APPENDIX.

15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED AT THE END OF DRIVEWAYS, DRIVEWAY APPROX. FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVEALING GRADING RELATIONSHIPS: FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE CITY ENGINEER DEPARTMENT.

17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.

18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING UTILITIES, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.

19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF MDT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.

20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING IRRIGON, ETC., THE CONTRACTOR SHALL SECURE ALL NECESSARY RECORDS AND LOCATING DEVICES AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.

21. SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF THE PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE APPROPRIATE, THE LOCATION OF SEWER SERVICE LATERALS ALONG THE RIGHT-OF-WAY. SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE CITY OF LAS VEGAS NORTH ZONE COORDINATE SYSTEM. THE CITY OF LAS VEGAS (FINAL LOCATION MAP(S) MUST BE SEALED AND CERTIFIED BY A PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINITIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATION ELECTRONIC COMMA SEPARATOR (ECS) FOR THE CITY OF LAS VEGAS MUST BE USED. THE CITY SHALL ALSO ASSIGN THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST ADDITION.

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

IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED WHICH IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY OF LAS VEGAS DEPT. OF PUBLIC WORKS. TEMPORARY CONSTRUCTION ITEMS INCLUDE: PAVEMENT TRANSITIONS, PROTECTIVE DITCHES AND BERMS, ROAD SIGNS AND BARRICADES, ETC.

—QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE INTENDED TO ILLUSTRATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES INVOLVED.

—EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 LOCATIONS. CALL BEFORE YOU DIG: (800) 227-2600.

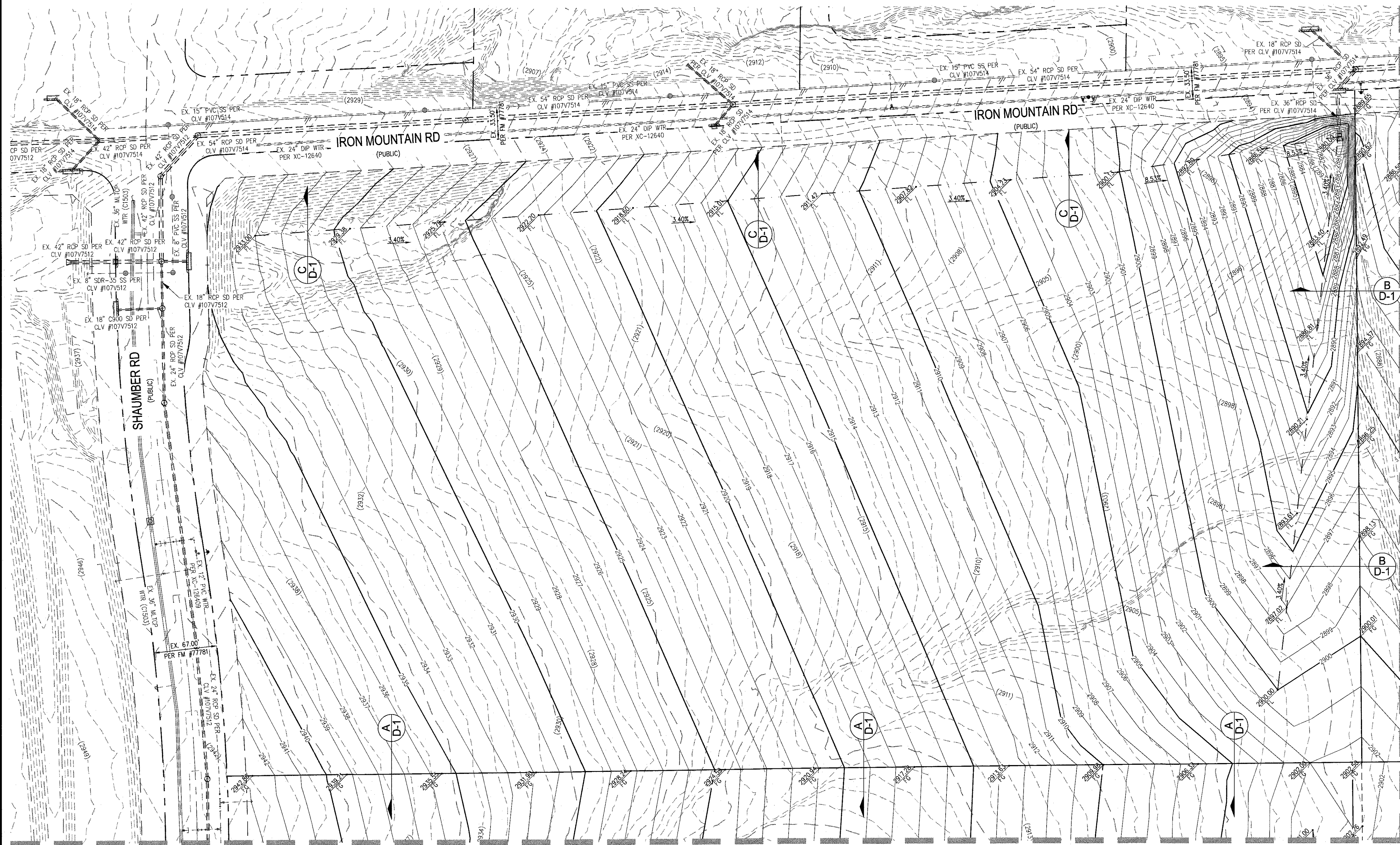
NONE

[illegible]

**SKYE C
STAND**

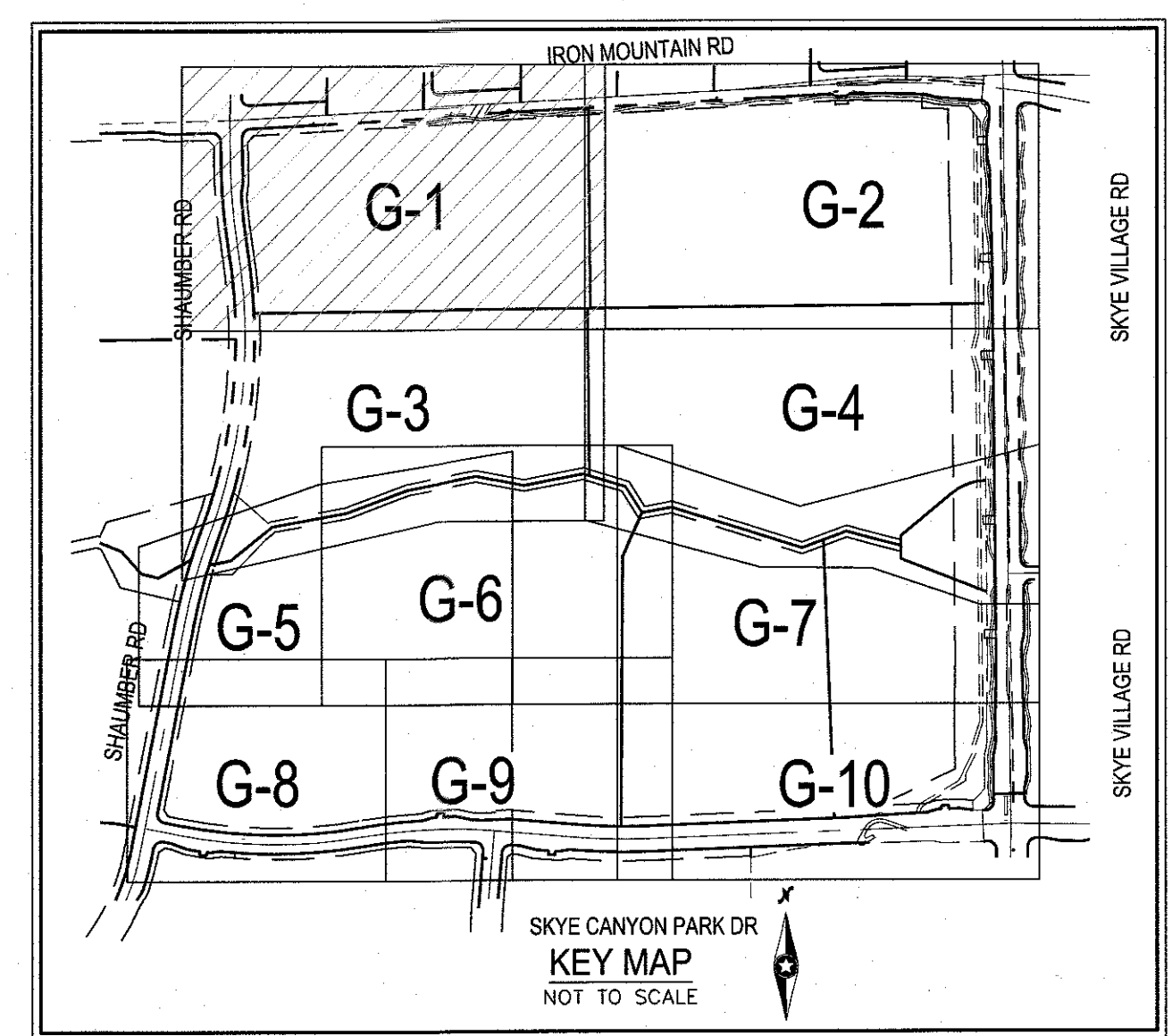
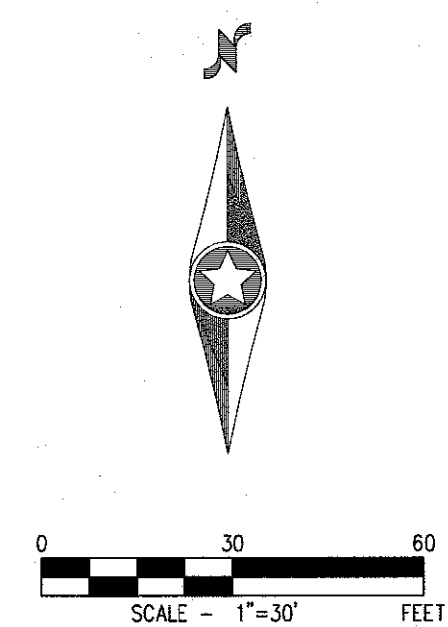
DRAFTER: LBA
DESIGNER: EMH
CHECKED: TJS
PROJECT NO.

C-2
SHEET 2 OF 13



DISTURBED AREA

PARCEL: 5.01/5.03
CUT VOLUME: 94,846 CY
FILL VOLUME: 41,251 CY
TOTAL DISTURBED AREA: 36.00 AC



ELEVATION NOTE
 ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

- ## GRADING NOTES
1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
 2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
 3. MAXIMUM MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
 4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
 5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
 6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
 7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACE FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
 8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC ROYALTIES OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE. ALL SUCH CONSTRUCTION OR POLLUTION-RELATED MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS FEASIBLE AND NO LATER THAN 14 DAYS AFTER THE DATE OF THE CONSTRUCTION ACTIVITY AT THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWRI000000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO ROAD OR VEHICLE TRAFFIC, AND AREAS OF EROSION OR SEDIMENTATION WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS THE USE OF LAND DISTURBANCE PREVENTION PRACTICES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWRI000000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

FLOOD CERTIFICATION

TODD J. STEADHAM, P.E. 15292 DATE

DISCLAIMER NOTE

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAYMENT SCAFFOLD LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED TOP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

FAST

Call before you UnderGround

1-702-432-5300

FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD
POWER LINES. IT'S
COSTLY.

CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.
Call
811
OR
1-800-227-2600

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN
EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBFUSCATED DURING CONSTRUCTION.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

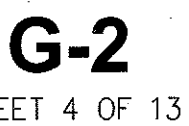


Phone (702) 284-5300
Fax (702) 284-5399

CITY OF LAS VEGAS, NV

**SKYE CANYON PH 4 MASS GRADING
GRADING PLAN II**

DATE:	1/30/2020
DRAFTER:	LBA
DESIGNER:	EMH
CHECKED:	TJS
PROJECT NO.	CEN2001



ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SNIPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.

CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND LOCATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACT WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO REGISTRATION COMMENCING.

NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES ABOVE THE FINISHED GRADE OF THE TOP OF THE ADJACENT CURB IF CURB EXIST(S) WITHIN THE SIGHT VISIBILITY ZONES.

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, WUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO OR ACCUMULATED IN THE PUBLIC RIGHT-OF-WAY OR ADJACENT WATERWAYS. CONSTRUCTION OF THIS FACILITY SHALL BE ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. THE MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED BY THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION OR OTHER CONSTRUCTION RELATED ACTIVITY. THE BEST MANAGEMENT PRACTICES MANAGER SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION TECHNIQUES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE DISTURBED AREAS ACTIVITY HAS COMPLETED. THE TEMPORARY STABILIZATION TECHNIQUES WILL BE PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI000000, SECTION II.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO RAINFALL AND WIND. REPAIRS AND EXIT LOCATIONS AND ALL BMPs WEEKLY, AT LEAST WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE SUGGESTION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI000000, SECTION II.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER THE STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT. EXCESSIVE SEDIMENT SHALL BE REMOVED TO MAINTAIN BMP DESIGN CAPACITY AND BE REDUCED BY 50 PERCENT OR MORE.

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
TECHNICAL DRAINAGE STUDY HTE #8-#### ON FILE AT CITY OF LAS VEGAS FOR
THE SUBJECT PROJECT.

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FOR EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LINE OF CURB AND CROWN ELEVATIONS AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

AVOID HITTING OVERHEAD
POWER LINES. IT'S
COSTLY.

CALL BEFORE
YOU DO
OVERHEAD



1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

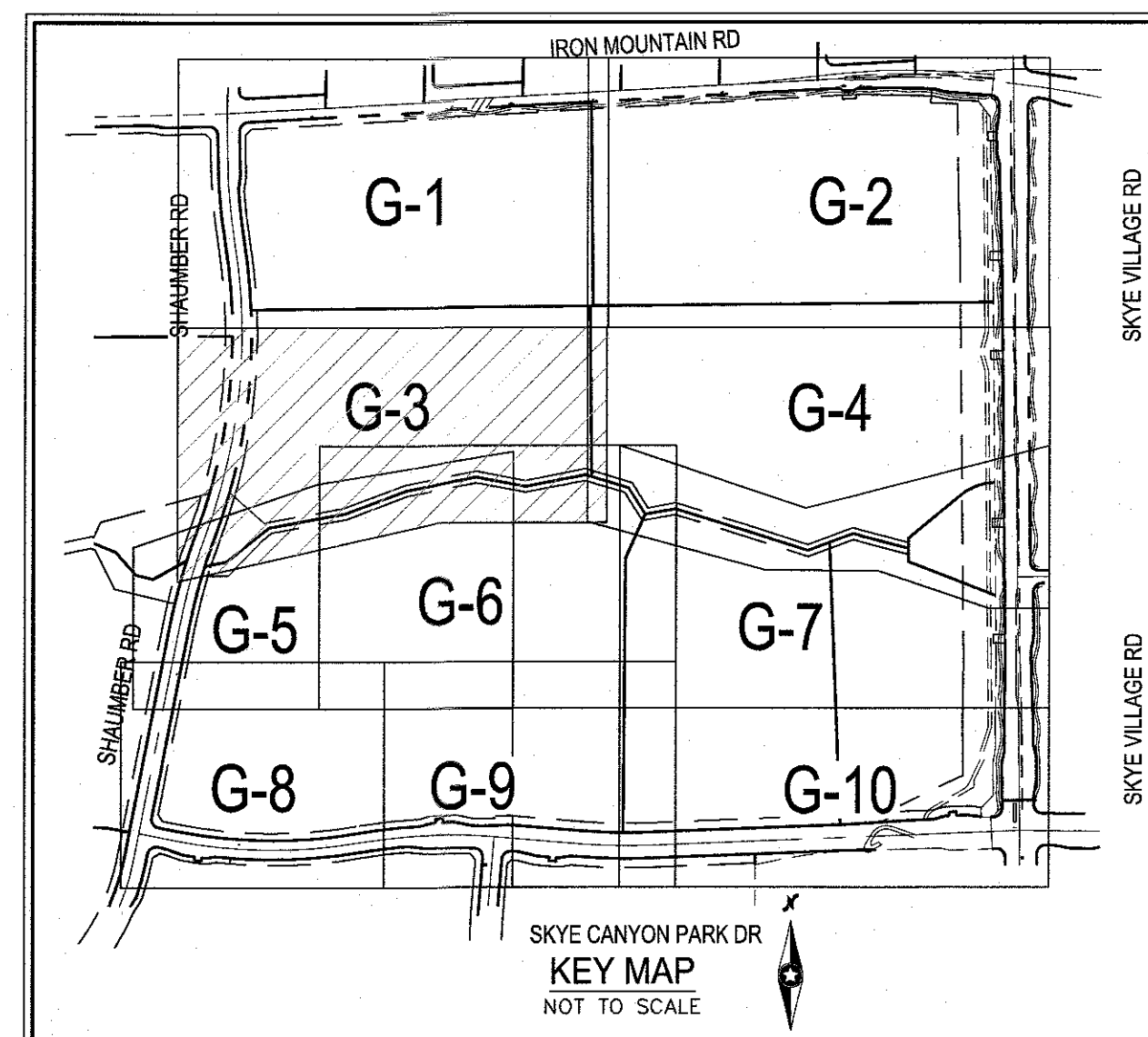
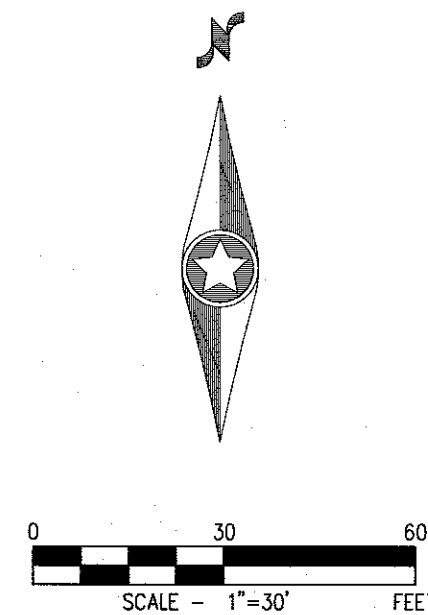
Call



OR

1-800-227-2600

G-2
SHEET 4 OF 13



Westwood

Phone (702) 284-5300 5740 S. Arville Street
Fax (702) 284-5399 Suite 216
Las Vegas, NV 89118
westwoodps.com
Westwood Professional Services, Inc.

[illegible]

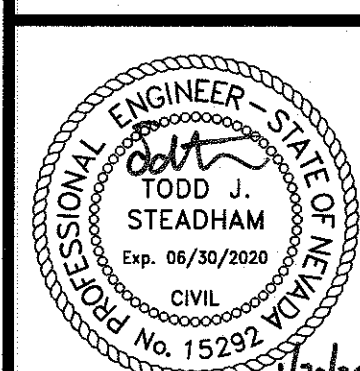
CITY OF LAS VEGAS, NV	
-----------------------	--

CENTURY
COMMUNITIES

**SKYE CANYON PH 4 MASS GRADING
GRADING PLAN III**

S12
T19 S
R59 E

DATE:	1/30/2020
DRAFTER:	LBA
DESIGNER:	EMH
CHECKED:	TJS
PROJECT NO.	CEN2001



G-3
SHEET 5 OF 13

ELEVATION NOTE
ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED BY THE CITY OF LAS VEGAS BEFORE DEPARTURE.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BEFORE DEPARTURE.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES. FILLING OF EXISTING UTILITY STRUCTURES OR ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL NOTIFY OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF EXISTING UTILITY STRUCTURES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY (20) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL REMOVE ALL SEDIMENT, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECT, SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARD SPECIFIED IN CLARK COUNTY TITLE 24-40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES MUST BE INSTALLED ON DISTURBED AREAS WITHIN 14 DAYS OF CONSTRUCTION. NO LATER THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NW0100000, SECTION III.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS FOR EROSION, SEDIMENTATION, AND EXPOSED SOILS, AND FOR EXPOSED PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE, THE CONTRACTOR'S AGENT SHALL UPDATE THE RECORD OF THE STORMWATER POLLUTION PREVENTION PLAN TO REFLECT ANY CHANGES. EXPECTATIONS TO EXCEED INSPECTIONS MAY APPLY. THE SUSPENSION OF LAND DISTURBANCE ACTIVITIES, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NW0100000, SECTION III.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT. SEDIMENT ACCUMULATED IN BMPs SHALL BE REMOVED WHEN BMP DESIGN CAPACITY IS REDUCED BY 50 PERCENT OR MORE.

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
TECHNICAL DRAINAGE STUDY HTE ##-#### ON FILE AT CITY OF LAS VEGAS FOR
THE SUBJECT PROJECT.

TODD J. STEADHAM, P.E. 15292 DATE

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPE FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LINE OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

FAST
Call before you
UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEMS
OF TRANSPORTATION, E.S.T.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1 800 227 2329

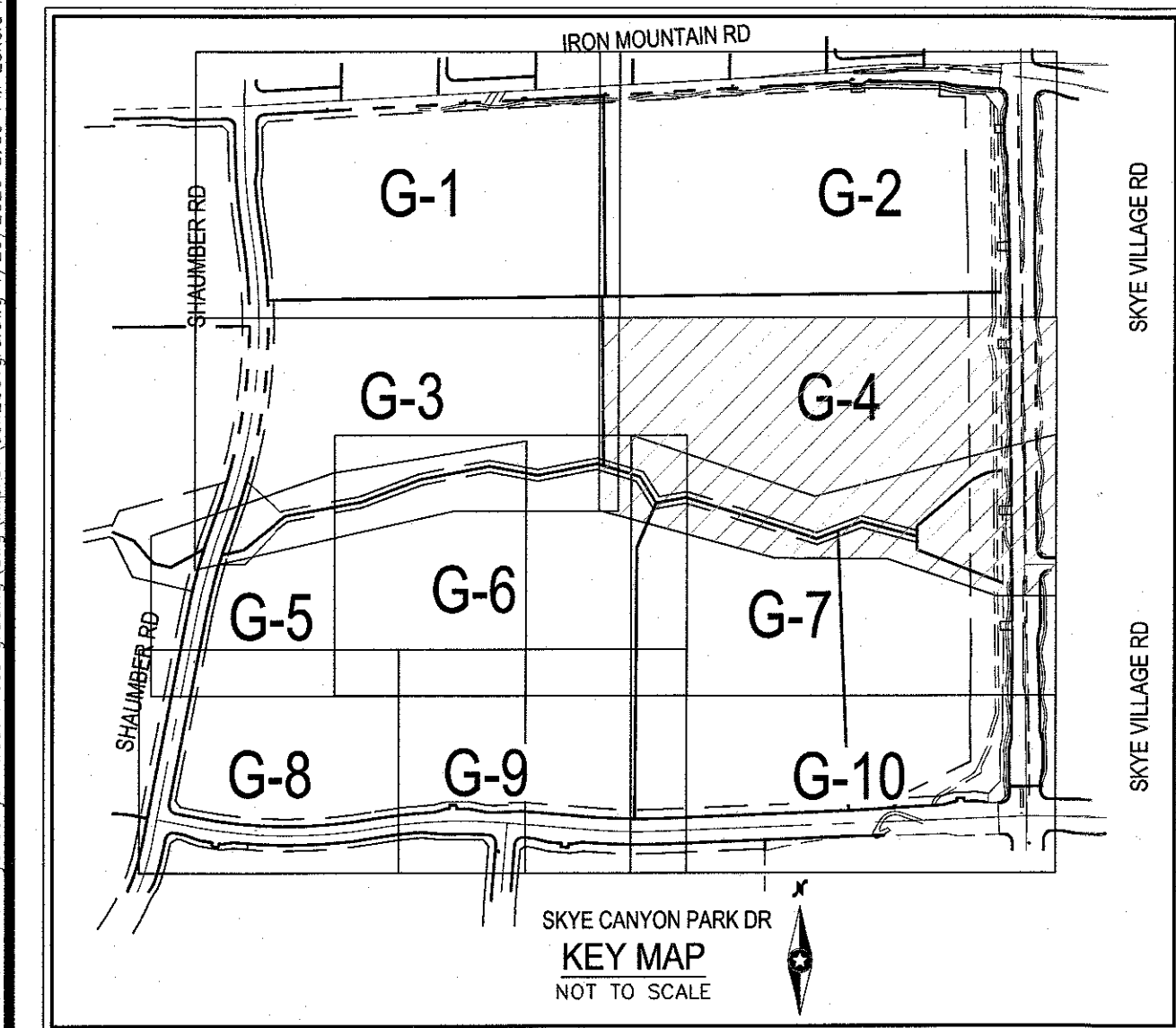
Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call
811
OR
1.800.237.3600

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR CONSUMED DURING CONSTRUCTION.

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.



SEE SHEET G-7 FOR CONTINUATION

PARCEL: 2.07/2.32
CUT VOLUME: 132,964 CY
FILL VOLUME: 153,862 CY
TOTAL DISTURBED AREA: 44.66

SURVEY NOTE
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call

OR
1-800-227-2600

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SHIPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND MANHOLES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
8. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLEF FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
9. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS ADMITTED OVER TWENTY-FOUR (24) INCHES ABOVE THE TOP OF THE ADJACENT CURB IF CURB EXIST.

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

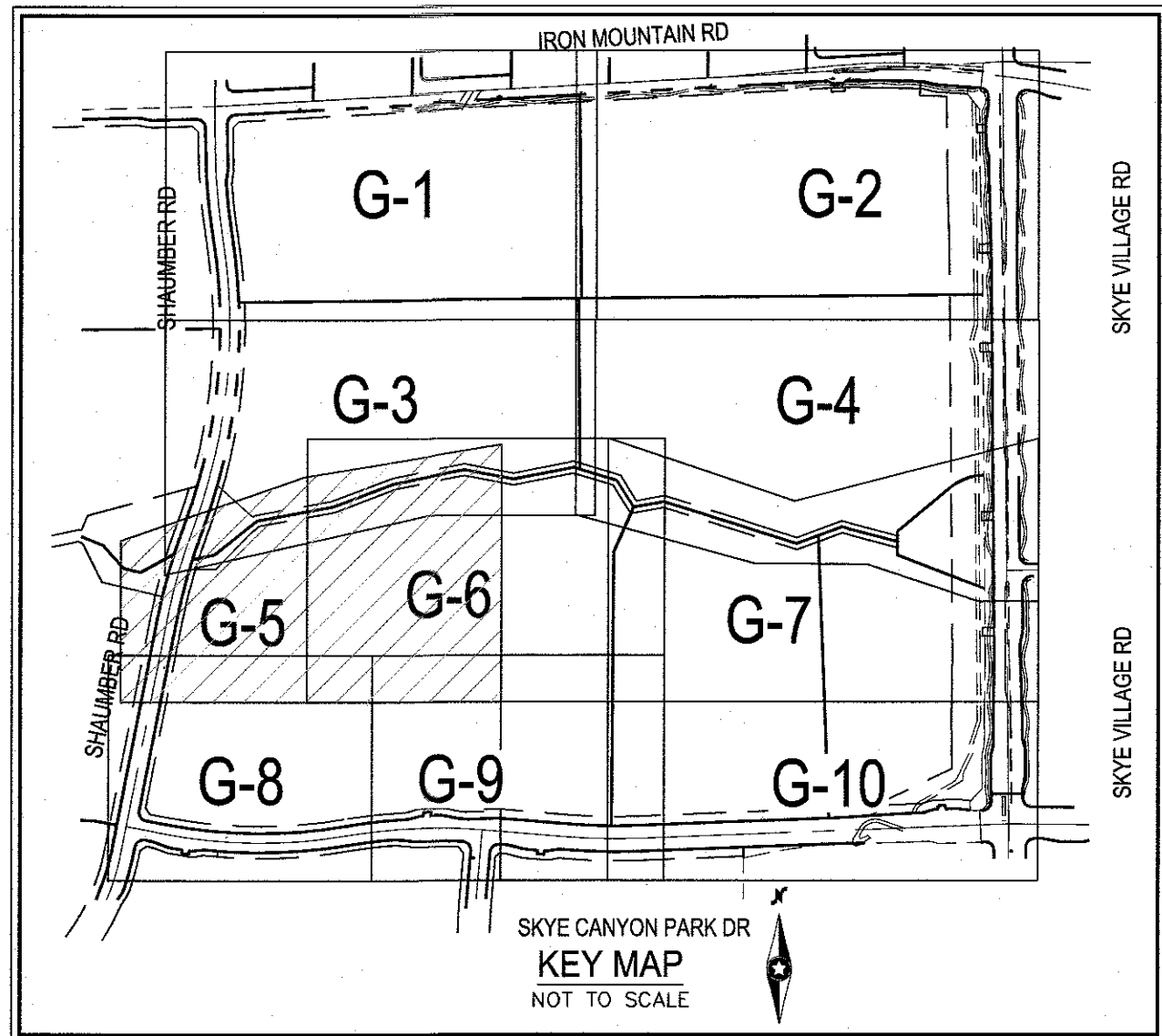
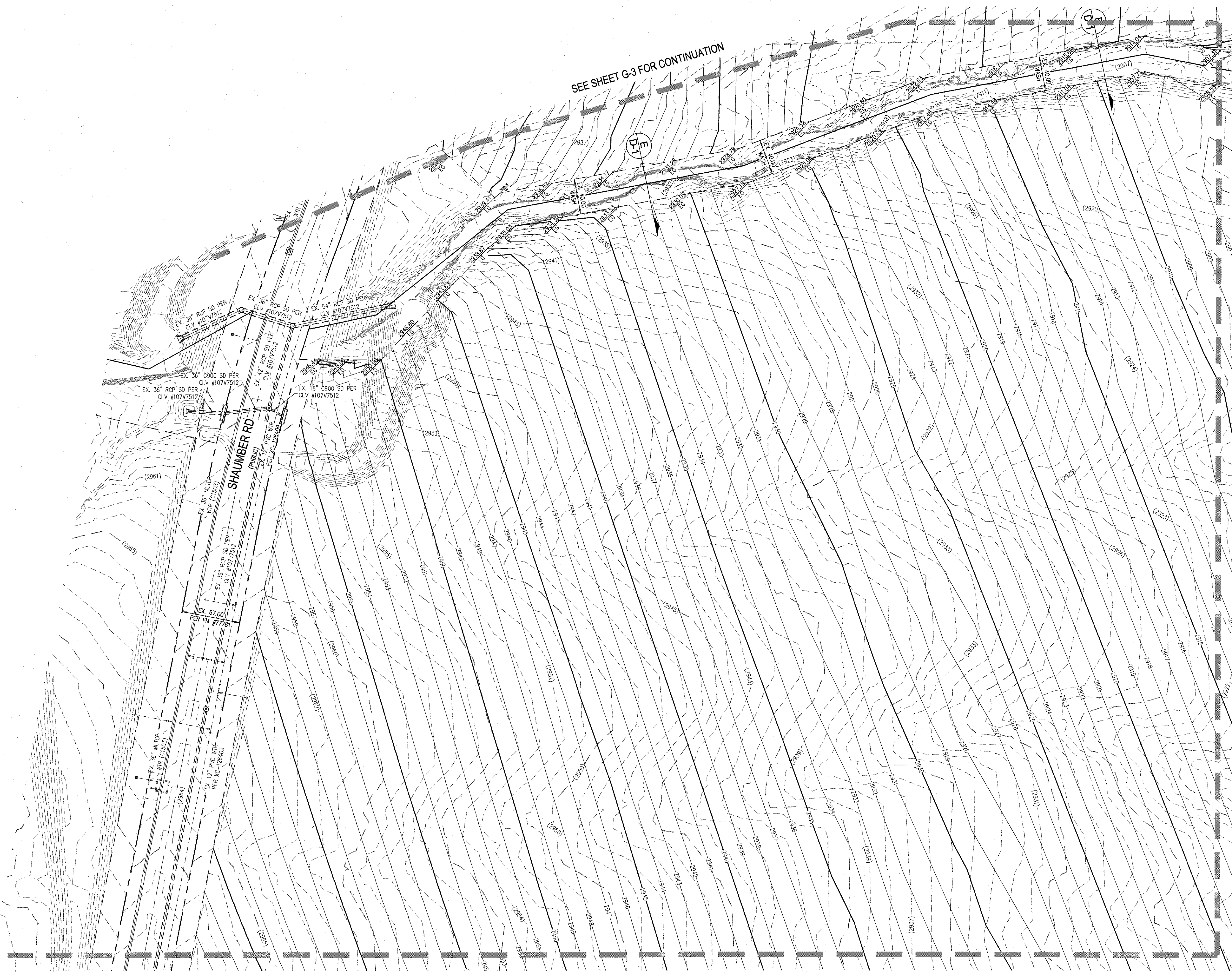
1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHT-OF-WAY OF THE CITY OF LAS VEGAS. PERMITTING ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT, SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION RISK. THE CITY OF LAS VEGAS MAY AS A RESULT PERFORM PERMITTING ACTIVITIES SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE PERMITTING ACTIVITY HAS COMPLETED. IF THE PERMITTING ACTIVITY IS NOT BEING PERMANENTLY CEASED, SOME EXCEPTIONS MAY APPLY, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV1000000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, PRECIPITATION RUNOFF, AND/OR LOCAL AND REMOTE BMPS WEEKLY AND AT LEAST 72 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXEMPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUCH AS SCHEDULING AND DISBURSEMENT. WEEKLY INSPECTIONS MAY REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV1000000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMP'S SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A PRECIPITATION RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
TECHNICAL DRAINAGE STUDY HTE ~~##-####~~ ON FILE AT CITY OF LAS VEGAS FOR
THE SUBJECT PROJECT.

TODD J. STEADHAM, P.E. 15292

DATE _____

\\s02001-000.dwg user: cecilia.lee Date: 1/29/2020 5:09 PM Lokee.dwg



ELEVATION NOTE

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

GRADING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE, AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

FLOOD CERTIFICATION

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

TODD J. STEADHAM, P.E. 15292

DATE

DISCLAIMER NOTE

1. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.
2. FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWOUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.



CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSERVED DURING CONSTRUCTION.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE "X" (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

Westwood

5740 S. Arville Street
Suite 216
Las Vegas, NV 89118
Phone (702) 284-5300
Fax (702) 284-5399
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

CENTURY COMMUNITIES

SKYE CANYON PH 4 MASS GRADING
GRADING PLAN V

DATE: 1/30/2020

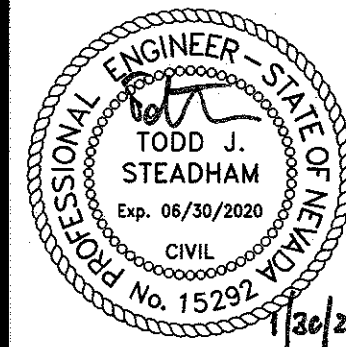
DRAFTER: LBA

DESIGNER: EMH

CHECKED: TJS

PROJECT NO.

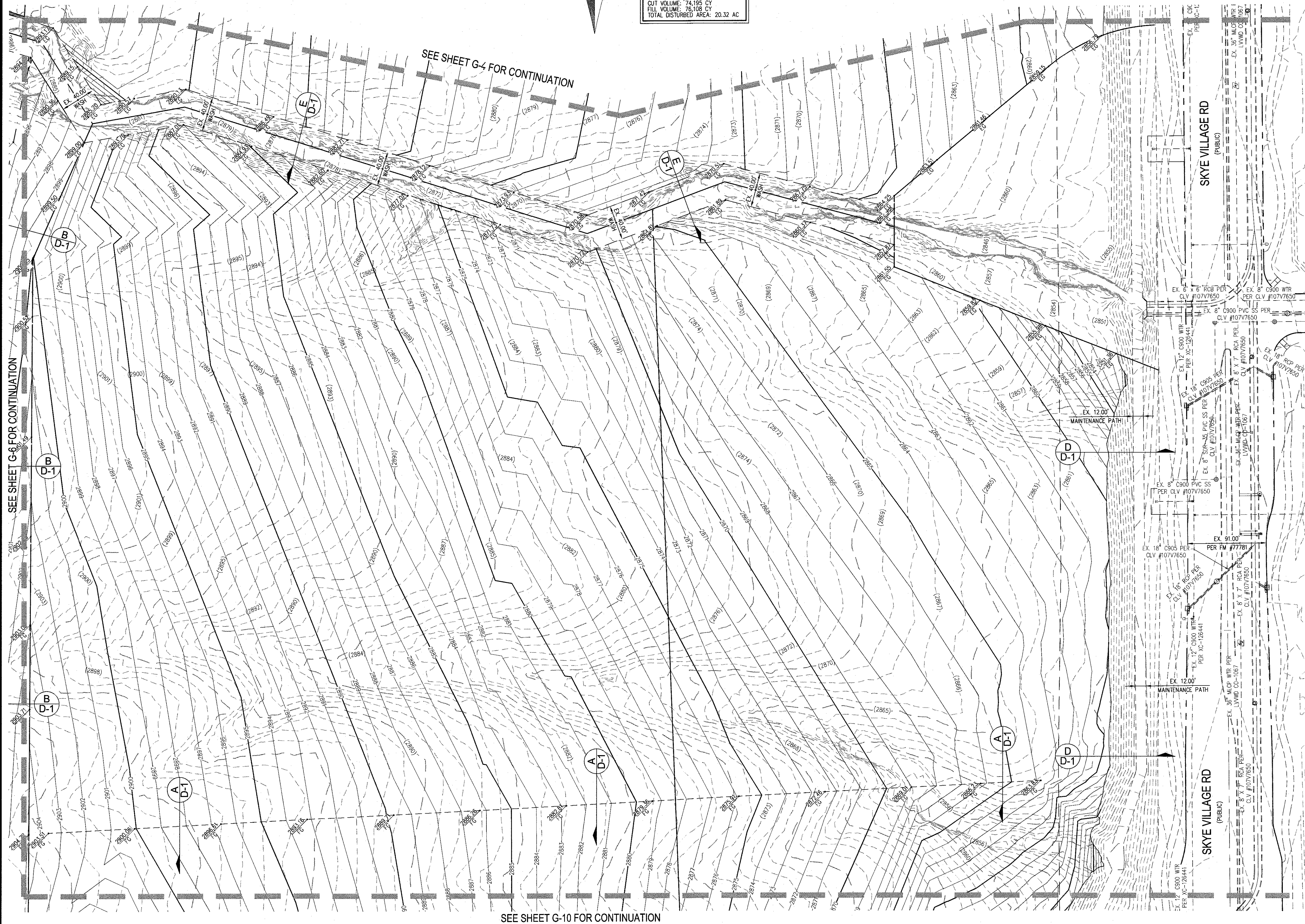
CEN2001



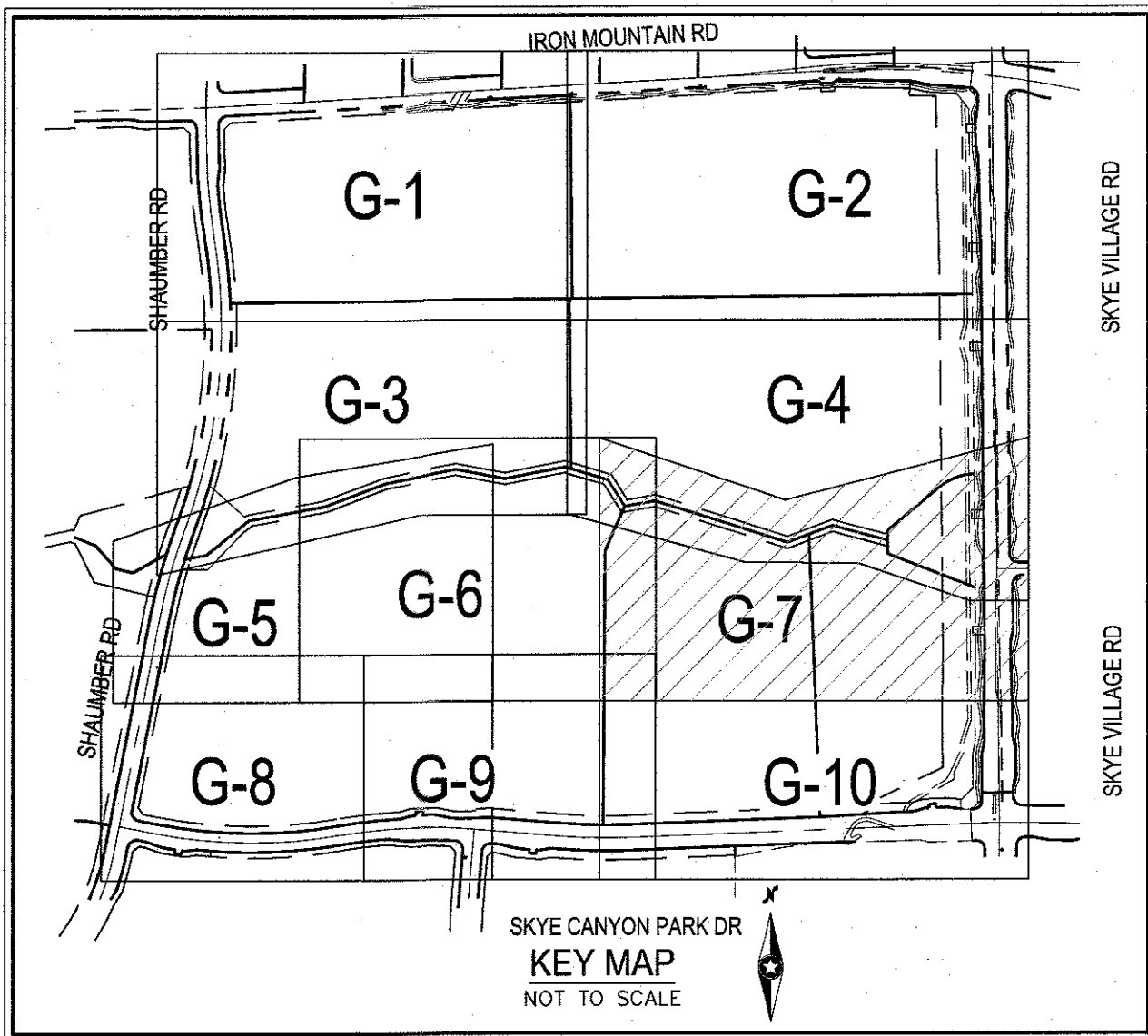
G-5

SHEET 7 OF 13

\\cvs2001-000\ave\corp\west\mass grading\skye\map\skye\2001\red.dwg 1/29/2020 5:03 PM Luke A. Boyd



DISTURBED AREA
PARCEL: 2.08/2.09
CUT VOLUME: 74,195 CY
FILL VOLUME: 76,108 CY
TOTAL DISTURBED AREA: 20.32 AC



ELEVATION NOTE

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

GRADING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCES AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY SITE #111111 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TODD J. STEADHAM, P.E. 15292

DATE

DISCLAIMER NOTE

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

FAST
Call before you dig
UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM
OF TRANSPORTATION (F.A.S.T.)

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

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call
811
OR
1-800-227-2600

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSOLETE DURING CONSTRUCTION.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE "X" (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

Westwood

5740 S. Anville Street
Suite 216
Las Vegas, NV 89118
Phone: (702) 284-5300
Fax: (702) 284-5399
westwoodsps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

CENTURY
COMMUNITIES

**SKYE CANYON PH 4 MASS GRADING
GRADING PLAN VII**

1/29/20

DATE: 1/30/2020

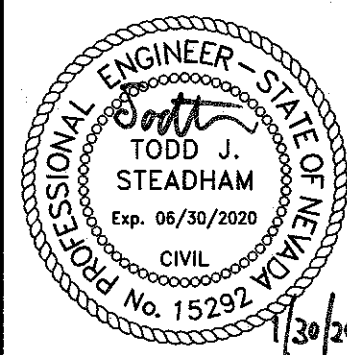
DRAFTER: LBA

DESIGNER: TMH

CHECKED: TJS

PROJECT NO.

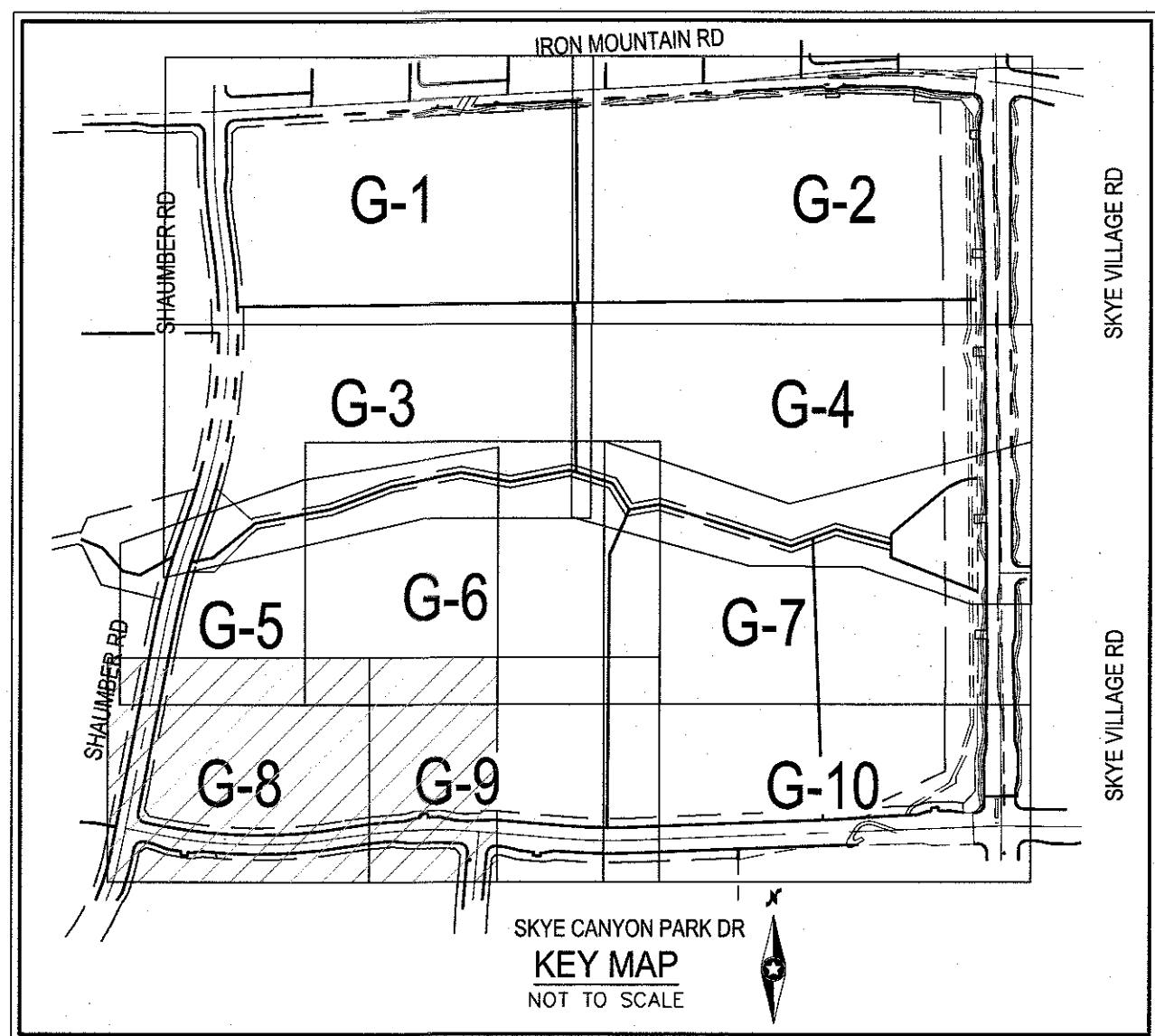
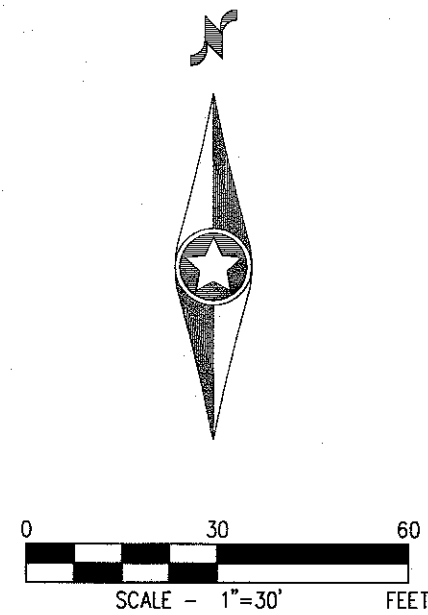
CEN2001



G-7

SHEET 9 OF 13

DISTURBED AREA
PARCEL: 210
CUT VOLUME: 284,468 CY
FILL VOLUME: 15,753 CY
TOTAL DISTURBED AREA: 39.80 AC



ELEVATION NOTE

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

GRADING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24-40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCES AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY LITE ~~11-11111~~ ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TODD J. STEADHAM, P.E. 15292

DATE

DISCLAIMER NOTE

1. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL 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 IN THEIR PROPER LOCATION.
2. FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.



CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSOLETE DURING CONSTRUCTION.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

Westwood

5740 S. Arville Street
Suite 216
Las Vegas, NV 89118
Phone (702) 284-5300
Fax (702) 284-5399
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

CENTURY
COMMUNITIES

**SKYE CANYON PH 4 MASS GRADING
GRADING PLAN VIII**

DATE: 1/30/2020

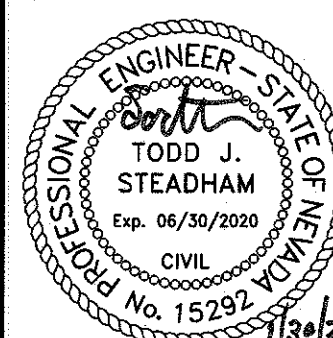
DRAFTER: LBA

DESIGNER: EMH

CHECKED: TJS

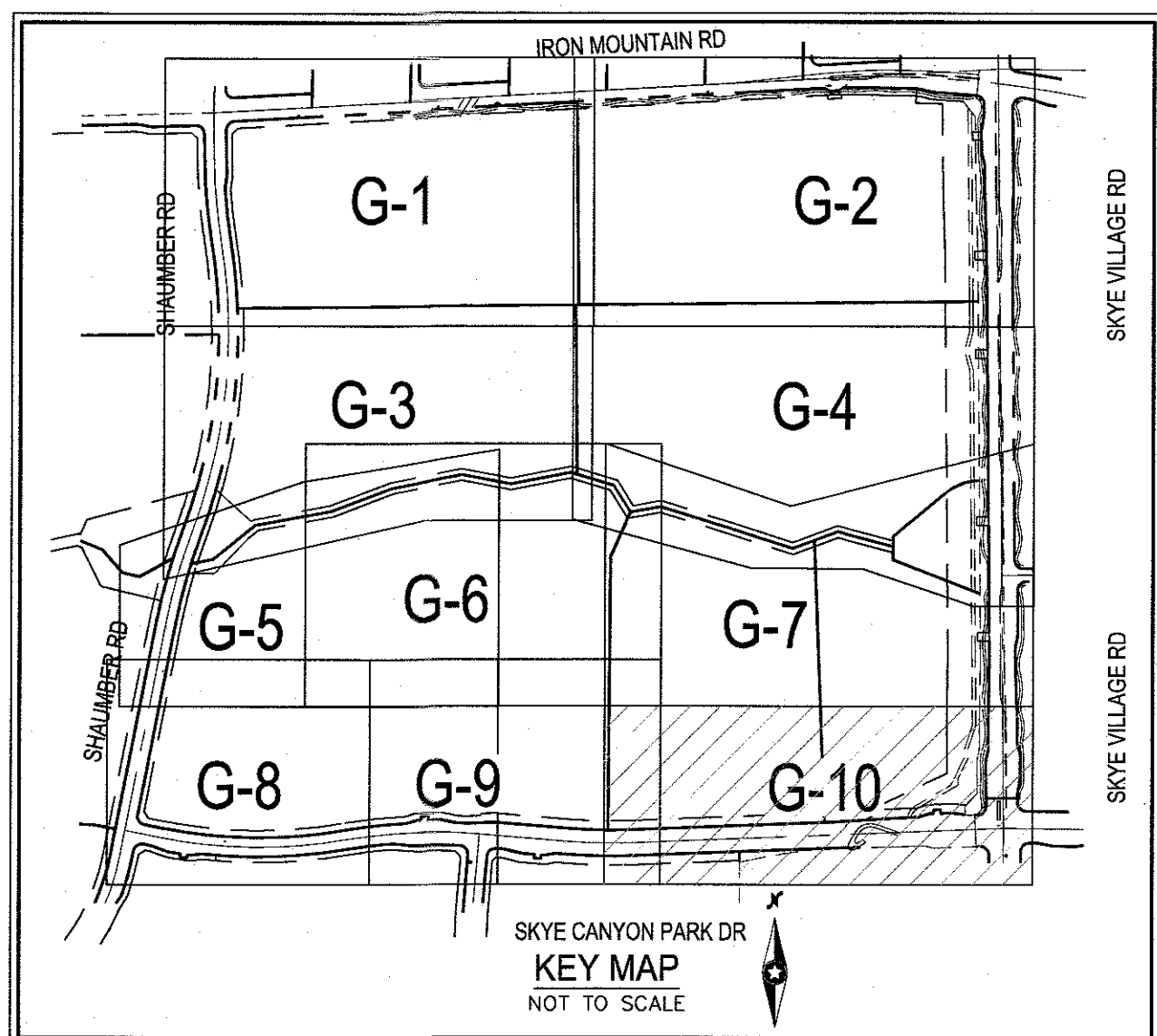
PROJECT NO.

CEN2001



G-8

SHEET 10 OF 13



Westwood

Phone (702) 284-5300
Fax (702) 284-5399

5740 S. Arville Street
Suite 216
Las Vegas, NV 89118
westwoodps.com

Westwood Professional Services, Inc.

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00 AND 101.00 REPRESENTS 2901.00)

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL OF THE CITY OF CHICAGO.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REPAIRING EXISTING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, WUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLICLY OWNED OR CONTROLLED WATERWAYS OF THE STATE OF NEVADA, OR ANY OF ITS AFFILIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED BY THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION OF THE EXISTING CHANNEL BED OR BANKS. ANY SUCH ADDITIONAL BEST MANAGEMENT PRACTICES SPECIFIED IN CLARY COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION STRUCTURES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE START OF ANY TEMPORARY OR PERMANENT EROSION CONTROL MEASURES. TEMPORARY EROSION CONTROL MEASURES WILL BE PERMANENTLY CEASED, SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV0000000, SECTION II.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS WITHIN USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO POTENTIAL PRECIPITATION AND EXT. LOCATIONS, AND BMPS WERE MAINTAINED WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS REQUIRED BY THE EROSION CONTROL AND SEDIMENTATION BEST MANAGEMENT PRACTICES SUSPENSION OF LAND DISTURBANCE ACTIVITIES TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV0000000, SECTION II.A.7.
5. ACCUMULATED SEDIMENT IN BMP'S SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT. EVENT SEDIMENT SHALL BE REMOVED WHEN THE BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
TECHNICAL DRAINAGE STUDY HTE ##-#### ON FILE AT CITY OF LAS VEGAS FOR
THE SUBJECT PROJECT.

TODD J. STEADHAM, P.E. 15292 DATE

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGE DISTURBED, DESTROYED, OR OBTURED DURING CONSTRUCTION.

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE 'X' (AREA OUTSIDE THE 500 YEAR FLOODPLAIN), PER THE FEMA FIRM PANELS 1750 DATED SEPTEMBER 27, 2002.

- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING 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 IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPE FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED JAIL OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.



AVOID HITTING OVERHEAD
POWER LINES. IT'S
COSTLY.

CALL BEFORE
YOU DO
OVERHEAD



1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.
Call

OR
1-800-227-2600

CENTURY
COMMUNITIES

SKYE CANYON PH 4 MASS GRADING

T 19 S
R 59 E

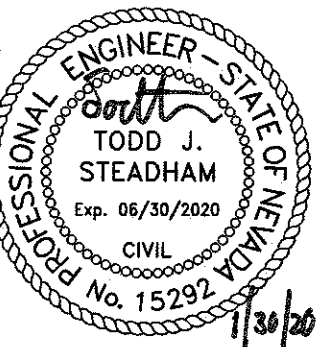
DATE: 1/30/2020

RAFTER: LBA

DESIGNER: EMH

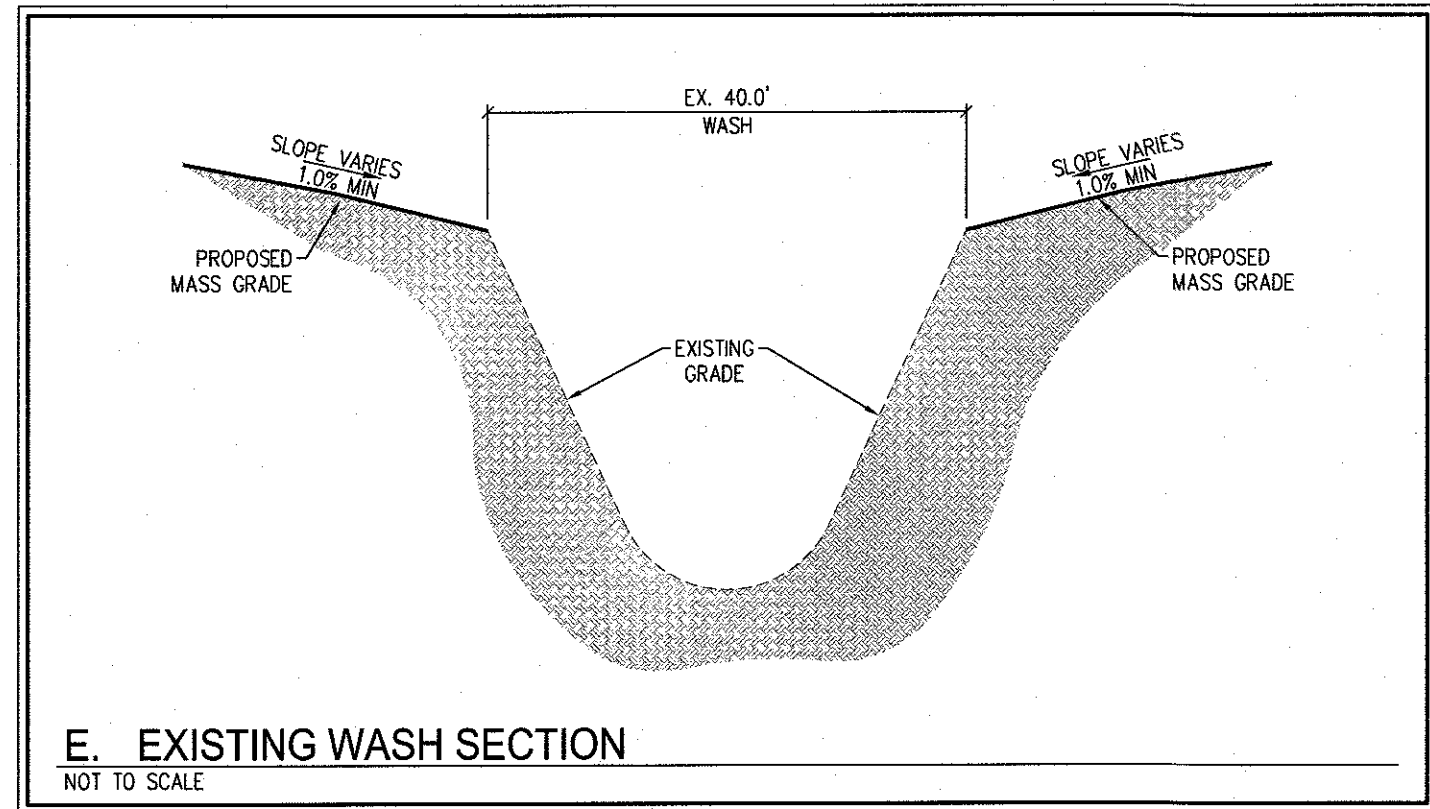
CHECKED: TJS

PROJECT NO. **CEN2001**



G-10

\\cen2001-000\skye\canyon\west\mass grading\dwg\improv\cen2001qrd.dwg 1/29/2020 5:09 PM Lokela Abad



Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call
811
OR
1-800-227-2600