

DS #:

05066

APN:

138.05801-025, 138.05-801-027

PROJECT:

Alexander Juliano

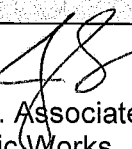
SUBMITTAL:

3rd

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE: October 1, 2019
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: Alexander Juliano		COPIES TO: GCW Engineers Surveyors
Cross Streets:	NEQ of Juliano Road & Alexander Road		DR Horton, Inc.
File Number:	F:\Depot\DSMemos\DS5066B.doc		Bart Anderson, P.E., DevCo
Parcel Number:	138-05-801-025, 138-05-801-027		CCRFCD
Zoning Action:	ANX-74570; ANX-74572; TMP-75979		CCPW
FEMA Flood Zone	YES	NO X	
Proposed Storm Drain	YES X	NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	11/13/2018	11/20/2018 & 11/29/2018	Not Approved	\$400.00	500845: \$400
2 nd Submittal	1/30/2019	2/13/2019	See Comments Below	\$400.00	502877: \$400
3 rd Submittal	8/28/2019	10/1/2019		\$400.00	3545156: \$400
			TOTAL FEES (LDDRS):	\$1200.00	

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.
X	is conditionally approved subject to Clark County Public Works Department concurrence.

1. **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.
2. The site is also adjacent to the jurisdiction of *Clark County* to the west and east. The engineer must coordinate with *Clark County Public Works Department* (CCPW) and incorporate any concerns for boundary conditions along the west and east boundaries. CCPW concurrence is required prior to the final acceptance of the study.

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

WSP/AYS

T/R/S: T20S/R60E/05

AREA L-05

**2nd RESPONSE TO COMMENTS FOR THE
TECHNICAL DRAINAGE STUDY
FOR
ALEXANDER JULIANO**

767-636

August 2019

Prepared for:

**DR Horton, Inc
1081 Whitney Ranch Drive, Suite 141
Henderson, Nevada 89014
Phone: (702) 635-3600**

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Alexander Juliano - Addendum #2 Date: August 2019

Location of Development: a) Descriptive (Cross Streets) North/South: N Juliano Road

East/West: W Alexander Road

b) Section: 5 Township: 20S Range: 60E

c) APN : 138-05-801-025, and 138-05-801-027

Name of Owner: DR Horton, Inc

Telephone No.: (702)635-3600 Fax No.: Not Available E-Mail Address: mcuddy@drhorton.com

Address: 1081 Whitney Ranch Drive, Suite 141, Henderson, Nevada 89104

Contact Person-Name: Cameron Bencini, P.E. Telephone No.: (702) 804-2000

* E-Mail Address: cbencini@gcwengineering.com Fax No.: (702) 804-2126

Firm: GCW, Inc.

Address: 1555 South Rainbow Blvd, Las Vegas, NV 89146

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: +/- 4.2 acres Being Developed/Disturbed: +/- 4.2 acres

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

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

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

5. Approximate upstream land area which drains to the subject site: +/- 2.2 Acres

6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: Alexander Road/Hualapai Way Road Improvements Project

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

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

***New Required Field**

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

	Revision	Date

Local Entity File No. _____

REFERENCE:

STANDARD FORM 1

August 26, 2019

Oh Sang Kwon, P.E.
City of Las Vegas Public Works
333 N. Rancho Drive, 7th Floor
Las Vegas, NV 89106

Subject: Technical Drainage Study for Alexander and Juliano - Addendum #2

Dear Mr. Kwon,

This letter is to certify that all documents provided in the Subject electronic submittal (CD) matches 100% the hardcopy version of the study.

Respectfully submitted,

Cameron Bencini, PE
GCW



**2nd RESPONSE TO COMMENTS FOR THE
TECHNICAL DRAINAGE STUDY
FOR
ALEXANDER JULIANO**

767-636

August 2019

Authored By:

Masih Edalat, PhD, EI

Prepared By:

**GCW, Inc.
1555 S. Rainbow Blvd.
Las Vegas, Nevada 89146
Phone: (702) 804-2000
Fax: (702) 804-2299**

767-636

August 26, 2019

Albert Y. Sung, PE
Flood Control Project Engineer
City of Las Vegas Land Development Services
Department of Public Works
333 N. Rancho Drive – 7th Floor
Las Vegas, NV 89106

Re: 2nd Response to City of Las Vegas Comments on the Technical Drainage Study for Alexander Juliano (DS5066B)

Dear Mr. Sung:

The purpose of this letter is to address your comment letter dated February 13, 2019, regarding the above-referenced project. A copy of the comment letter is provided in Appendix A. The comments have been addressed individually as follows.

Comment 1:

Second Request: Provide a copy of the zoning/planning conditions associated with this site (ANX-74570 & ANX-74572) with the next submittal to verify compliance with conditions. Flood Control will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the City Council). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be re vised and resubmitted.

Response:

A copy of the zoning/planning conditions is provided in the Appendix B.

Comment 2:

The site is adjacent to or crosses an existing or proposed Clark County Regional Flood Control District (CCRFCD) master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.

Response:

The CCRFCD concurrence requirement is acknowledged.

Comment 3:

The site is also adjacent to the jurisdiction of Clark County to the west and east. The engineer must coordinate with Clark County Public Works Department (CCPW) and incorporate any concerns for boundary conditions along the west and east boundaries. CCPW concurrence is required prior to the final acceptance of the study.

Response:

CCPW concurrence requirement is acknowledged.

Comment 4:

FIG 7 (Ultimate Condition Drainage Map): Hydraulic Section 6 basically is receiving flow from onsite basin DON2 with an area of 1.3 acre. However, per the "100-Year Flow Characteristics Table", Hydraulic Section 6 has a 100-year flow of 22cfs which is way out of proportion. Same situation with Hydraulic Sections 4, 5 and 7. Review and revise accordingly.

Response:

The reason that Sections 4, 5, 6, and 7 are showing higher flow rates is that the hump elevations at the entrances are not 6 inch above the water surface elevation in the street, therefore, an emergency hydraulic calculations have been performed (in addition to hydraulic calculations for actual flow rates) at those sections. The purpose is to show if the finished floors are high enough with the assumption that all street runoffs drain into the project site.

$$\begin{aligned}\text{West} &: 18 \text{ cfs (Alexander Rd)} + 1 \text{ cfs (DON1)} + 3 \text{ cfs (DON2)} = 22 \text{ cfs} \\ \text{East} &: 21 \text{ cfs (Alexander Rd)} + 1 \text{ cfs (DON3)} + 3 \text{ cfs (DON4)} = 25 \text{ cfs}\end{aligned}$$

Finished floors have been checked to be 18 inches above the 100-year flow, and to be above the emergency water surface elevations. Please refer to the tables provided in Figure 7 for the 100-year and the emergency flow calculations. See Appendix D for revised and additional hydraulic computations.

Comment 5:

For both the "EAST" and "WEST" developments, now that the discharge fashion has been changed from sheet flow to concentrated flows at the north center point from the "EAST" and the northeast corner from the "WEST". Obtain approval from the adjacent property owner, ie, BLM for the proposed drainage pattern prior to the final approval of the subject drainage study.

Response:

We have been trying to contact adjacent property owners, i.e. BLM and Blackstone Land Development. The response we received from BLM indicates that the BLM has no role in actions on private lands (if there are foreseeable impacts to public lands such as construction activities we would need to get a grant or permit through the BLM for those activities). Additionally, our certified mail to Blackstone Land Development was returned.

Per a meeting with Albert Sung on 8/14/2019, he suggested to show if the concentrated runoff is erosive. According to the hydraulic analysis, even though the discharge fashion has been changed from sheet flow to concentrated flows, the runoff velocities are not erosive (<5 fps), therefore, we are not adversely impact on the downstream properties.

Please refer to the Appendix C for the BLM and Blackstone Land Development documents, and hydraulic calculations.

Comment 6:

The Regional Flood Control District Manual requires 1% minimum slope around the bulb of a cul-de-sac where storm water is drained through per Section 1602. Provide the required slope in the cul-de-sac of Street A in the EAST development.

Response:

The Grading Plans were revised accordingly.

Comment 7:

All drainage easements must be public drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.

Response:

The Grading Plans were revised accordingly.

Comment 8:

The City Council of the City of Las Vegas adopted an amendment to Title 20 of the Municipal Code in which Section 20.10.030 requires all public drainage easements to be concrete lined. Revise the grading plan and Detail Sections FIDT and GIDT and all pertinent plans and construction notes accordingly.

Response:

Per a meeting with Albert Sung on 8/14/2019, all public drainage easements are designed to be concrete lined up to water surface elevation. Note that all drainage easements are designed to be 3 foot concrete U-Channel and hydraulic calculations show that water contains in the U-Channels. See Appendix D for revised and additional hydraulic computations.

Comment 9:

Private streets must be public drainage easements. Provide a note on the grading plans: "Note: All private streets are P.U.E., Public Sewer Easements and Public Drainage Easements to be Privately Maintained by the HOA".

Response:

The Grading Plans were revised accordingly.

Comment 10:

Regarding the permission to grade from the adjacent property owner (Blackstone Land Development LLC), the response stated that it was to no avail. Provide proof of documentation such as receipt of certified mail and emails etc in the next submittal.

Response:

We've attempted to contact Blackstone Land Development LLC through certified mail without any luck. A copy of the certified mail is provided in Appendix C.

If you have any questions or require additional information, please do not hesitate to contact me at 804-2127.

Respectfully,

GCW, INC.



Cameron Bencini, PE
Flood Control Division

APPENDIX A



CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: February 13, 2019
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for: Alexander Juliano	COPIES TO: GCW Engineers Surveyors
Cross Streets:	NEQ of Juliano Road & Alexander Road	DR Horton, Inc.
File Number:	F:\Depot\DSMemos\DS5066B.doc	Bart Anderson, P.E., DevCo
Parcel Number:	138-05-801-025, 138-05-801-027	CCRFC
Zoning Action:	ANX-74570; ANX-74572; TMP-xxxxx	CCPW
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	11/13/2018	11/20/2018 & 11/29/2018	Not Approved	\$400.00	500845: \$400
2 nd Submittal	1/30/2019	2/13/2019	See Comments Below	\$400.00	502877: \$400
TOTAL FEES (LDDRS):				\$800.00	----

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

- Second Request:** Provide a copy of the zoning/planning conditions associated with this site (**ANX-74570 & ANX-74572**) with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be re vised and resubmitted.

It appears that after the annexation approval by the *City of Las Vegas*, the subject project still needs to apply for entitlements such as **TMP, ZON, VAR** etc. The subject drainage study will not be approved until all pertinent entitlements are obtained.

- The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFC) master planned facility. Therefore, CCRFC concurrence is required prior to final approval of the drainage study.
- The site is also adjacent to the jurisdiction of *Clark County* to the west and east. The engineer must coordinate with *Clark County Public Works Department* (CCPW) and incorporate any concerns for boundary conditions along the west and east boundaries. CCPW concurrence is required prior to the final acceptance of the study.

4. **FIG 7 (Ultimate Condition Drainage Map):** *Hydraulic Section 6* basically is receiving flow from onsite basin **DON2** with an area of 1.3 acre. However, per the "**100-Year Flow Characteristics Table**", *Hydraulic Section 6* has a 100-year flow of 22cfs which is way out of proportion. Same situation with *Hydraulic Sections 4, 5 and 7*. Review and revise accordingly.
5. For both the "**EAST**" and "**WEST**" developments, now that the discharge fashion has been changed from sheet flow to concentrated flows at the north center point from the "**EAST**" and the northeast corner from the "**WEST**". Obtain approval from the adjacent property owner, ie, BLM for the proposed drainage pattern prior to the final approval of the subject drainage study.
6. The *Regional Flood Control District Manual* requires 1% minimum slope around the bulb of a cul-de-sac where storm water is drained through per Section 1602. Provide the required slope in the cul-de-sac of *Street A* in the **EAST** development.
7. All drainage easements must be public drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.
8. The *City Council* of the *City of Las Vegas* adopted an amendment to Title 20 of the Municipal Code in which Section 20.10.030 requires all public drainage easements to be concrete lined. Revise the grading plan and *Detail Sections F/DT and G/DT* and all pertinent plans and construction notes accordingly.
9. Private streets must be public drainage easements. Provide a note on the grading plans: "Note: All private streets are P.U.E., Public Sewer Easements and Public Drainage Easements to be Privately Maintained by the HOA".
10. Regarding the permission to grade from the adjacent property owner (*Blackstone Land Development LLC*), the response stated that it was to no avail. Provide proof of documentation such as receipt of certified mail and emails etc in the next submittal.

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
WSP/AYS

T/R/S: T20S/R60E/05
AREA L-05

APPENDIX B





**LAS VEGAS
CITY COUNCIL**

CAROLYN G. GOODMAN
Mayor

MICHELE FIORE
Mayor Pro-Tem

STAVROS S. ANTHONY
CEDRIC CREAR
BRIAN KNUDSEN
VICTORIA SEAMAN
OLIVIA DIAZ

SCOTT D. ADAMS
City Manager

DEPARTMENT
ROBERT SUMMERFIELD
DIRECTOR

**DEVELOPMENT
SERVICES CENTER**

333 N. RANCHO DRIVE
LAS VEGAS, NV 89106
702.229.4830 | VOICE
711 | TTY



cityoflasvegas
lasvegasnevada.gov

July 3, 2019

Ms. Lori Johnson
Johnson Trust
7478 Oasis Island Street
Las Vegas, Nevada 89131

**RE: GPA-75971 [PRJ-75903] - GENERAL PLAN AMENDMENT
RELATED TO ZON-75976, VAR-75977, VAC-75978 AND TMP-75979
CITY COUNCIL MEETING OF JULY 3, 2019**

Dear Ms. Johnson:

The City Council at a regular meeting held on July 3, 2019 voted to **APPROVE** a request for a General Plan Amendment FROM: R (RURAL DENSITY RESIDENTIAL) TO: L (LOW DENSITY RESIDENTIAL) on 2.09 acres on the north side of Alexander Road, approximately 1,640 feet west of Durango Drive (APN 138-05-801-025), Ward 4 (Anthony) [PRJ-75903].

The Notice of Final Action was filed with the Las Vegas City Clerk on July 3, 2019.

Sincerely,

Robert Summerfield, AICP[®]
Director
Department of Planning

RTS:PL:clb

cc: Mr. Michael Cuddy
D.R. Horton, Inc.
1081 Whitney Ranch Drive, Suite #141
Henderson, Nevada 89014

Ms. Brandi Reid
GCW, Inc.
1555 South Rainbow Boulevard
Las Vegas, Nevada 89146



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July 3, 2019

Ms. Lori Johnson
Johnson Trust
7478 Oasis Island Street
Las Vegas, Nevada 89131

**RE: TMP-75979 [PRJ-75903] - TENTATIVE MAP RELATED TO GPA-75971, ZON-75976, VAR-75977 AND VAC-75978
CITY COUNCIL MEETING OF JULY 3, 2019**

Dear Ms. Johnson:

The City Council at a regular meeting held on July 3, 2019 voted to **APPROVE** a request for a Tentative Map FOR A PROPOSED EIGHT-LOT SINGLE FAMILY RESIDENTIAL SUBDIVISION on 2.09 acres on the north side of Alexander Road, approximately 1,640 feet west of Durango Drive (APN 138-05-801-025), R-E (Residence Estates) Zone [PROPOSED: R-1 (Single Family Residential)], Ward 4 (Anthony) [PRJ-75903].

This approval is subject to the following conditions:

Planning

1. A revised tentative map shall be submitted to the Department of Planning prior to the submittal of a Final Map the depiction of a cul-de-sac terminus.
2. Lots Number 4 and 5 shall be single story homes.
3. Approval of the Tentative Map shall be for no more than four (4) years. If a Final Map is not recorded on all or a portion of the area embraced by the Tentative Map within four (4) years of the approval of the Tentative Map, this action is void.
4. Approval of General Plan Amendment (GPA-75971) and Rezoning (ZON-75976); approval of and conformance to the Conditions of Approval for Petition to Vacate (VAC-75978) and Variance (VAR-75977) shall be required, if approved.
5. Street names must be provided in accordance with the City's Street Naming Regulations.
6. Written approval must be submitted prior to the issuance of a building permit from Republic Services for the modified hammerhead configuration.

7. A fully operational fire protection system, including fire apparatus roads, fire hydrants and water supply, shall be installed and shall be functioning prior to construction of any combustible structures.
8. A technical landscape plan, signed and sealed by a Registered Architect, Landscape Architect, Residential Designer or Civil Engineer, must be submitted prior to or at the same time as Final Map submittal. A permanent underground sprinkler system is required, and shall be permanently maintained in a satisfactory manner; the landscape plan shall include irrigation specifications. Installed landscaping shall not impede visibility of any traffic control device. The technical landscape plan shall include the following changes from the conceptual landscape plan:
 - One 24-inch box shade tree with four, five-gallon shrubs for each required tree shall be planted within the landscape buffer areas adjacent to Alexander Road.
9. In conjunction with creation, declaration and recordation of the subject common-interest community, and prior to recordation of the Covenants, Codes and Restrictions ("CC&R"), or conveyance of any unit within the community, the Developer is required to record a Declaration of Private Maintenance Requirements ("DPMR") as a covenant on all associated properties, and on behalf of all current and future property owners. The DPMR is to include a listing of all privately owned and/or maintained infrastructure improvements, along with assignment of maintenance responsibility for each to the common interest community or the respective individual property owners, and is to provide a brief description of the required level of maintenance for privately maintained components. The DPMR must be reviewed and approved by the City of Las Vegas Department of Field Operations prior to recordation, and must include a statement that all properties within the community are subject to assessment for all associated costs should private maintenance obligations not be met, and the City of Las Vegas be required to provide for said maintenance. Also, the CC&R are to include a statement of obligation of compliance with the DPMR. Following recordation, the Developer is to submit copies of the recorded DPMR and CC&R documents to the City of Las Vegas Department of Field Operations.
10. All development is subject to the conditions of City Departments and State Subdivision Statutes.

Public Works

11. A Petition of Vacation, such as VAC-75978, shall record immediately prior to (concurrent with) the recordation of a Final Map for this site to eliminate the U.S. Government Patents Easements adjacent to this site.

12. Dedicate 30 feet of right-of-way on Juliano Road where such does not existing on the Final Map for this site. Additionally, Grant a Multi-Use Non-Equestrian Trail Easement for the required trail that is outside of the Public right-of-way. Street "A" must be granted and labeled on the Final Map for this site as Public Utility Easements (P.U.E.), Public Sewer Easements, and Public Drainage Easements to be privately maintained by the Homeowner's Association.
13. Construct complete half street improvements on Alexander Road and Juliano Road including the required Multi-Use Non-Equestrian Trail meeting current City Standards adjacent to this site concurrent with development of this site. All existing paving damaged or removed by this development shall be restored at its original location and to its original width concurrent with development of this site.
14. Concurrent with development, remove the existing sanitary sewer manhole from the proposed backyard of lot 5.
15. Landscape and maintain all unimproved rights-of-way, if any, adjacent to this site. All landscaping and private improvements installed with this project shall be situated and maintained so as to not create sight visibility obstructions for vehicular traffic at all development access drives and abutting street intersections.
16. Submit a License Agreement for landscaping and private improvements in the Alexander Road and Juliano Road public rights-of-way, if any, adjacent to this site prior to this issuance of permits for these improvements. The applicant must carry an insurance policy for the term of the License Agreement and add the City of Las Vegas as an additionally insured entity on this insurance policy. If requested by the City, the applicant shall remove property encroaching in the public right-of-way at the applicant's expense pursuant to the terms of the City's License Agreement. The installation and maintenance of all private improvements in the public right of way shall be the responsibility of the adjacent property owner(s) and shall be transferred with the sale of the property for the entire term of the License Agreement. Coordinate all requirements for the License Agreement with the Land Development Section of the Department of Building and Safety (702-229-4836).
17. A Drainage Plan and Technical Drainage Study must be submitted to and approved by the Department of Public Works prior to the issuance of any building or grading permits or submittal of any construction drawings, whichever may occur first. Provide and improve all drainageways recommended in the approved drainage plan/study. The developer of this site shall be responsible to construct such neighborhood or local drainage facility improvements as are recommended by the City of Las Vegas Neighborhood Drainage Studies and approved Drainage Plan/Study concurrent with development of this site.

Ms. Lori Johnson
Johnson Trust
TMP-75979 [PRJ-75903] - Page Four
July 3, 2019

17. The approval of all Public Works related improvements shown on this Tentative Map is in concept only. Specific design and construction details relating to size, type and/or alignment of improvements, including but not limited to street, gating, sewer and drainage improvements, shall be resolved prior to approval of the construction plans by the City. No deviations from adopted City Standards shall be allowed unless specific written approval for such is received from the City Engineer prior to the recordation of a Final Map or the approval of subdivision-related construction plans, whichever may occur first. Approval of this Tentative Map does not constitute approval of any deviations. If such approval cannot be obtained, a revised Tentative Map must be submitted showing elimination of such deviations.

The Notice of Final Action was filed with the Las Vegas City Clerk on July 3, 2019.

Sincerely,



Robert Summerfield, AICP ~~az~~
Director
Department of Planning

RTS:PL:clb

cc: Mr. Michael Cuddy
D.R. Horton, Inc.
1081 Whitney Ranch Drive, Suite #141
Henderson, Nevada 89014

Ms. Brandi Reid
GCW, Inc.
1555 South Rainbow Boulevard
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July 3, 2019

Ms. Lori Johnson
Johnson Trust
7478 Oasis Island Street
Las Vegas, Nevada 89131

**RE: VAC-75978 [PRJ-75903] - VACATION RELATED TO GPA-75971,
ZON-75976, VAR-75977 AND TMP-75979
CITY COUNCIL MEETING OF JULY 3, 2019**

Dear Ms. Johnson:

The City Council at a regular meeting held on July 3, 2019 voted to **APPROVE** a request for a Petition to Vacate U.S. Government Patent Easements generally located on the north side of Alexander Road, west of Durango Drive (APN 138-05-801-025), Ward 4 (Anthony) [PRJ-75903].

This approval is subject to the following conditions:

1. The limits of this Petition of Vacation shall be the U.S. Government Patent Easements located on the west, north and east sides of Assessor Parcel Number 138-05-801-025.
2. This Order of Relinquishment shall record immediately prior to and concurrent with a mapping action that subdivides this site.
3. All public improvements, if any, adjacent to and in conflict with this vacation application are to be modified, as necessary, at the applicant's expense prior to the recordation of an Order of Vacation.
4. The Order of Relinquishment of Interest shall not be recorded until all of the conditions of approval have been met provided, however, the conditions requiring modification of public improvements may be fulfilled for purposes of recordation by providing sufficient security for the performance thereof in accordance with the Subdivision Ordinance of the City of Las Vegas. City Staff is empowered to modify this application if necessary because of technical concerns or because of other related review actions as long as current City right-of-way requirements are still complied with and the intent of the vacation application is not changed. If applicable, a five foot wide easement for public streetlight and fire hydrant purposes shall be retained on all

Ms. Lori Johnson
Johnson Trust
VAC-75978 [PRJ-75903] - Page Two
July 3, 2019

vacation actions abutting public street corridors that will remain dedicated and available for public use. Also, if applicable and where needed, public easement corridors and sight visibility or other easements that would/should cross any right-of-way being vacated must be retained.

5. All development shall be in conformance with code requirements and design standards of all City Departments.
6. If the Order of Vacation (or Order of Relinquishment of Interest if a Patent Reservation) is not recorded within one (1) year after approval by the City of Las Vegas or an Extension of Time is not granted by the Planning Director, then approval will terminate and a new petition must be submitted.

The Notice of Final Action was filed with the Las Vegas City Clerk on July 3, 2019.

Sincerely,



Robert Summerfield, AICP[®]
Director
Department of Planning

RTS:PL:clb

cc: Mr. Michael Cuddy
D.R. Horton, Inc.
1081 Whitney Ranch Drive, Suite #141
Henderson, Nevada 89014

Ms. Brandi Reid
GCW, Inc.
1555 South Rainbow Boulevard
Las Vegas, Nevada 89146



**LAS VEGAS
CITY COUNCIL**

CAROLYN G. GOODMAN
Mayor

MICHELE FIORE
Mayor Pro-Tem

STAVROS S. ANTHONY

CEDRIC CREAR

BRIAN KNUDSEN

VICTORIA SEAMAN

OLIVIA DIAZ

SCOTT D. ADAMS
City Manager

DEPARTMENT
ROBERT SUMMERFIELD
DIRECTOR

**DEVELOPMENT
SERVICES CENTER**

333 N. RANCHO DRIVE
LAS VEGAS, NV 89106

702.229.4830 | VOICE
711 | TTY



cityoflasvegas
lasvegasnevada.gov

July 3, 2019

Ms. Lori Johnson
Johnson Trust
7478 Oasis Island Street
Las Vegas, Nevada 89131

**RE: VAR-75977 [PRJ-75903] - VARIANCE REALTED TO GPA-75971,
ZON-75976, VAC-75978 AND TMP-75979
CITY COUNCIL MEETING OF JULY 3, 2019**

Dear Ms. Johnson:

The City Council at a regular meeting held on July 3, 2019 voted to **APPROVE** a request for a Variance TO ALLOW A 1.00 CONNECTIVITY RATIO WHERE 1.30 IS THE MINIMUM REQUIRED; PRIVATE STREETS NOT CONSTRUCTED TO PUBLIC STREET STANDARDS AND WITHOUT AN ACCESS GATE WHERE SUCH IS REQUIRED; AND A MODIFIED STREET TERMINUS WHERE A CUL-DE-SAC OR HAMMERHEAD IS REQUIRED on 2.09 acres on the north side of Alexander Road, approximately 1,640 feet west of Durango Drive (APN 138-05-801-025), R-E (Residence Estates) Zone [PROPOSED: R-1 (Single Family Residential)], Ward 4 (Anthony) [PRJ-75903].

This approval is subject to the following conditions:

Planning

1. Approval of General Plan Amendment (GPA-759671) and Rezoning (ZON-75976); approval of and conformance to the Conditions of Approval for Petition to Vacate (VAC-75978) and Tentative Map (TMP-75979) shall be required, if approved.
2. This approval shall be void two years from the date of final approval, unless exercised pursuant to the provisions of LVMC Title 19.16. An Extension of Time may be filed for consideration by the City of Las Vegas.
3. All necessary building permits shall be obtained and final inspections shall be completed in compliance with Title 19 and all codes as required by the Department of Building and Safety.

Ms. Lori Johnson
Johnson Trust
VAR-75977 [PRJ-75903] - Page Two
July 3, 2019

4. These Conditions of Approval shall be affixed to the cover sheet of any plan set submitted for building permit.
5. All City Code requirements and design standards of all City departments must be satisfied, except as modified herein.

The Notice of Final Action was filed with the Las Vegas City Clerk on July 3, 2019.

Sincerely,

A handwritten signature in black ink that reads "Robert Summerfield". The signature is fluid and cursive, with the first name "Robert" and last name "Summerfield" clearly legible.

Robert Summerfield, AICP *RS*
Director
Department of Planning

RTS:PL:clb

cc: Mr. Michael Cuddy
D.R. Horton, Inc.
1081 Whitney Ranch Drive, Suite #141
Henderson, Nevada 89014

Ms. Brandi Reid
GCW, Inc.
1555 South Rainbow Boulevard
Las Vegas, Nevada 89146



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DIRECTOR

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711 | TTY



cityoflasvegas
lasvegasnevada.gov

July 3, 2019

Ms. Lori Johnson
Johnson Trust
7478 Oasis Island Street
Las Vegas, Nevada 89131

**RE: ZON-75976 [PRJ-75903] - REZONING RELATED TO GPA-75971,
VAR-75977, VAC-75978 AND TMP-75979
CITY COUNCIL MEETING OF JULY 3, 2019**

Dear Ms. Johnson:

The City Council at a regular meeting held on July 3, 2019 voted to **APPROVE** a request for a Rezoning FROM: R-E (RESIDENCE ESTATES) TO: R-1 (SINGLE FAMILY RESIDENTIAL) on 2.09 acres on the north side of Alexander Road, approximately 1,640 feet west of Durango Drive (APN 138-05-801-025), Ward 4 (Anthony) [PRJ-75903].

The Notice of Final Action was filed with the Las Vegas City Clerk on July 3, 2019.

Sincerely,


Robert Summerfield, ALP
Director
Department of Planning

RTS:PL:clb

cc: Mr. Michael Cuddy
D.R. Horton, Inc.
1081 Whitney Ranch Drive, Suite #141
Henderson, Nevada 89014

Ms. Brandi Reid
GCW, Inc.
1555 South Rainbow Boulevard
Las Vegas, Nevada 89146

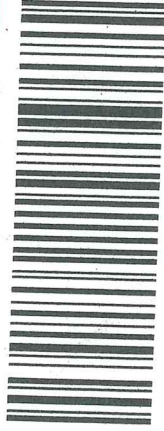
APPENDIX C



DR-HORION
NYSE
America's Builder

ATTN: Erik Peters
1081 Whitney Ranch Drive
Henderson, NV 89014

CERTIFIED MAIL®



7015 0640 0002 1603 9934

LAS VEGAS

NV890

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01/14/2019
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US POSTAGE \$003.92⁰⁰



ZIP 89014
011E11674044

Blackstone Land Dev., LLC
1332 Berkeley Street #1
Santa Monica, CA 90404

NIXIE

911 FE 1

2001/24/19

RETURN TO SENDER
ATTEMPTED - NOT KNOWN
UNABLE TO FORWARD

ANK

BC: 89014307481

9008890625074

*0879-00420-15-39

Said Mohammed

From: Benavides, Eric <ebenavides@blm.gov>
Sent: Monday, February 25, 2019 06:55 AM
To: Said Mohammed
Cc: Kirby Adams; Steve Jones; Masih Edalat
Subject: Re: [EXTERNAL] Drainage Pattern Toward BLM Land (APN: 138-05-701-052)

Thank you for your inquiry. The BLM has no role in actions on private lands. If there are foreseeable impacts to public lands such as construction activities you would need to get a grant or permit through the BLM for those activities. I would suggest reaching out to the local municipality and possibly the SNWA for further direction.

On Thu, Feb 21, 2019 at 2:47 PM Said Mohammed <SMohammed@gcwengineering.com> wrote:

Dear Mr. Benavides,

It was very nice to talk to you this morning regarding the flow pattern toward BLM land (APN: 138-05-701-052).

This email is to confirm with you the flow pattern toward the BLM land.

Currently, GCW Engineering, Inc. preparing an Improvement plan and drainage study for DR Horton to build a single family residential development on 4.2 acres on property APN:138-05-801-025 and 027.

In existing condition, both properties with 2.09 and 2.11 acres drain toward the above mention BLM land.

In the Developed condition, the south portion of both properties drains toward Alexander Road, only the north portion of the properties drain the same as in existing condition towards the BLM land.

Flows from the site 1.4 fps and not erosive. Please see the attached Fig 7 Cross Section 6 and 7. The erosive flow velocity is considered 5 fps, so the development does not adversely affect the BLM land.

Sincerely,



[Said A. Mohammed, P.E., Ph.D., CFM](#)

Project Manager.

O 702.804.2000 **D** 702.804.2131

F 702.804.2299 **C** 702.327.8821

1555 South Rainbow Boulevard



Las Vegas, Nevada 89146

Sending us a large file? Use the [GCW File Transfer Site](#)

Note - Any files contained within are to be used for information ONLY.
Accuracy or design information to be verified from approved original
Plans. Use of electronic media is at the sole risk of the user.

--

Best regards,

Eric Benavides
Realty Specialist

[4701 North Torrey Pines Dr](#)
[Las Vegas, NV 89130](#)

Office: 702-515-5144
Fax: 702-515-5010
Email: ebenavides@blm.gov

APPENDIX D



Project Description

Input Data

Station (ft)	Elevation (ft)
--------------	----------------

Roughness Segment Definitions

(0+00.00, 0.38)	(0+38.00, 0.38)	0.016
-----------------	-----------------	-------

Options

Results

Bentley Systems, Inc. Bentley FlowMaster V8i (SELECTseries 1) [08.11.01.03]

Worksheet for SECTION 4 - 100 YEAR

Results

Flow Area	0.98	ft ²
Wetted Perimeter	13.30	ft
Hydraulic Radius	0.07	ft
Top Width	13.14	ft
Normal Depth	0.22	ft
Critical Depth	0.27	ft
Critical Slope	0.00829	ft/ft
Velocity	3.05	ft/s
Velocity Head	0.14	ft
Specific Energy	0.36	ft
Froude Number	1.97	
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	0.22	ft
Critical Depth	0.27	ft
Channel Slope	3.46	%
Critical Slope	0.00829	ft/ft

Cross Section for SECTION 4 - 100 YEAR

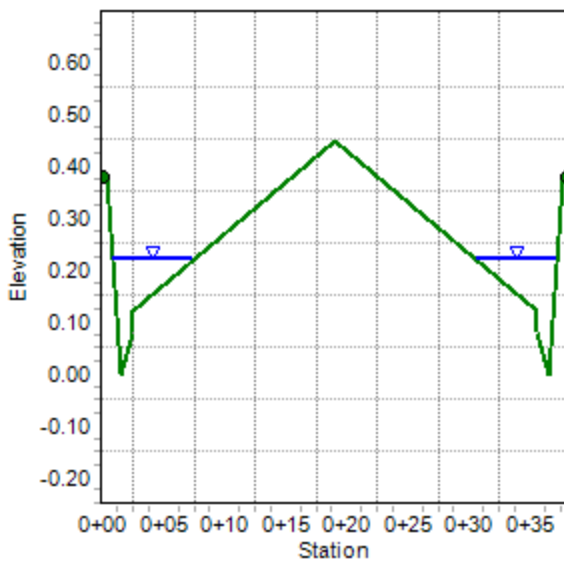
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	3.46	%
Normal Depth	0.22	ft
Discharge	3.00	ft ³ /s

Cross Section Image



Project Description

Input Data

Station (ft)	Elevation (ft)
--------------	----------------

Roughness Segment Definitions

(0+00.00, 0.38)	(0+38.00, 0.38)	0.016
-----------------	-----------------	-------

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

Normal Depth	0.38	ft
Elevation Range	0.00 to 0.45 ft	

Worksheet for SECTION 4 - 100 YEAR (Emergency)

Results

Flow Area	4.60	ft ²
Wetted Perimeter	31.59	ft
Hydraulic Radius	0.15	ft
Top Width	31.36	ft
Normal Depth	0.38	ft
Critical Depth	0.49	ft
Critical Slope	0.00629	ft/ft
Velocity	4.78	ft/s
Velocity Head	0.36	ft
Specific Energy	0.74	ft
Froude Number	2.20	
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	0.38	ft
Critical Depth	0.49	ft
Channel Slope	3.46	%
Critical Slope	0.00629	ft/ft

Cross Section for SECTION 4 - 100 YEAR (Emergency)

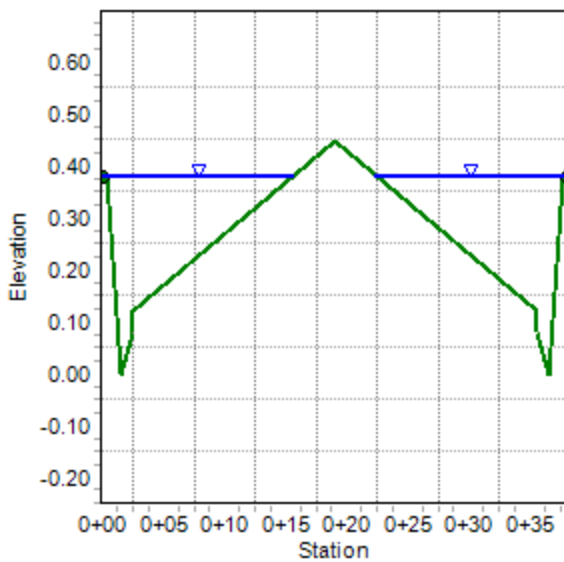
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	3.46	%
Normal Depth	0.38	ft
Discharge	22.00	ft ³ /s

Cross Section Image



Worksheet for SECTION 4 (Weir) - 100 YEAR Emergency

Project Description

Solve For Headwater Elevation

Input Data

Discharge	22.00	ft ³ /s
Crest Elevation	0.00	ft
Weir Coefficient	3.00	US
Crest Length	38.00	ft

Results

Headwater Elevation	0.33	ft
Headwater Height Above Crest	0.33	ft
Flow Area	12.69	ft ²
Velocity	1.73	ft/s
Wetted Perimeter	38.67	ft
Top Width	38.00	ft

Project Description

Solve For Headwater Elevation

Discharge	22.00	ft³/s
Headwater Elevation	0.33	ft
Crest Elevation	0.00	ft
Weir Coefficient	3.00	US
Crest Length	38.00	ft

Diagram of a horizontal beam with a triangular load. The beam has a total length of 38.00 ft. A triangular load is applied, with its peak value of 0.33 ft indicated at the right end of the beam.

V: 1  H: 1

Worksheet for SECTION 5 - 100 YEAR

Project Description

Friction Method

Manning Formula

Solve For	Normal Depth
-----------	--------------

Input Data

Channel Slope	1.33	%
---------------	------	---

Discharge	3.00	ft ³ /s
-----------	------	--------------------

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.38
0+00.38	0.38
0+01.50	0.00
0+02.50	0.08
0+02.50	0.12
0+19.00	0.45
0+35.50	0.12
0+35.50	0.08
0+36.50	0.00
0+37.63	0.38
0+38.00	0.38

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.38)	(0+38.00, 0.38)	0.016

Options

Current Roughness Weighted Method

Open Channel Weighting Method Pavlovskii's Method

Closed Channel Weighting Method	Pavlovskii's Method
$W_{\text{CC}} = \frac{1}{N} \sum_{i=1}^N \frac{1}{\sigma_i^2}$	$W_{\text{P}} = \frac{1}{N} \sum_{i=1}^N \frac{1}{\sigma_i^2}$

Results

Normal Depth 0.25 ft

Elevation Range 0.00 to 0.45 ft

Worksheet for SECTION 5 - 100 YEAR

Results

Flow Area	1.43	ft ²
Wetted Perimeter	16.54	ft
Hydraulic Radius	0.09	ft
Top Width	16.37	ft
Normal Depth	0.25	ft
Critical Depth	0.27	ft
Critical Slope	0.00829	ft/ft
Velocity	2.09	ft/s
Velocity Head	0.07	ft
Specific Energy	0.32	ft
Froude Number	1.25	
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	0.25	ft
Critical Depth	0.27	ft
Channel Slope	1.33	%
Critical Slope	0.00829	ft/ft

Cross Section for SECTION 5 - 100 YEAR

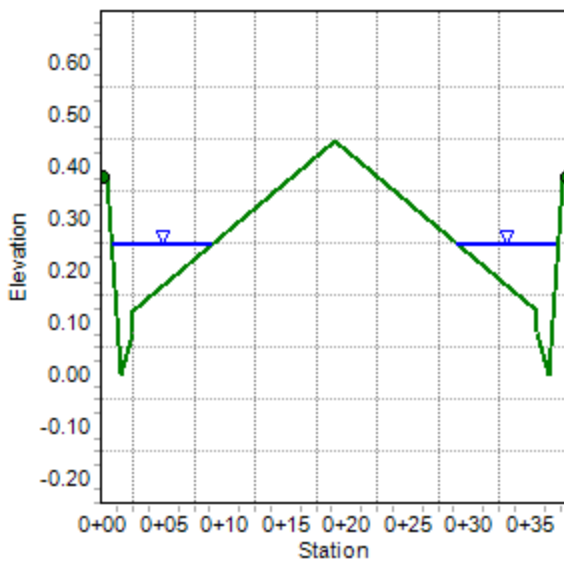
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.33	%
Normal Depth	0.25	ft
Discharge	3.00	ft ³ /s

Cross Section Image



Worksheet for SECTION 5 - 100 YEAR (Emergency)

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 1.33 %
Discharge 25.00 ft³/s
Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.38
0+00.38	0.38
0+01.50	0.00
0+02.50	0.08
0+02.50	0.12
0+19.00	0.45
0+35.50	0.12
0+35.50	0.08
0+36.50	0.00
0+37.63	0.38
0+38.00	0.38

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.38)	(0+38.00, 0.38)	0.016

Options

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

Results

Normal Depth 0.46 ft
Elevation Range 0.00 to 0.45 ft

Worksheet for SECTION 5 - 100 YEAR (Emergency)

Results

Flow Area	7.16	ft ²
Wetted Perimeter	38.37	ft
Hydraulic Radius	0.19	ft
Top Width	38.00	ft
Normal Depth	0.46	ft
Critical Depth	0.51	ft
Critical Slope	0.00612	ft/ft
Velocity	3.49	ft/s
Velocity Head	0.19	ft
Specific Energy	0.65	ft
Froude Number	1.42	
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	0.46	ft
Critical Depth	0.51	ft
Channel Slope	1.33	%
Critical Slope	0.00612	ft/ft

Cross Section for SECTION 5 - 100 YEAR (Emergency)

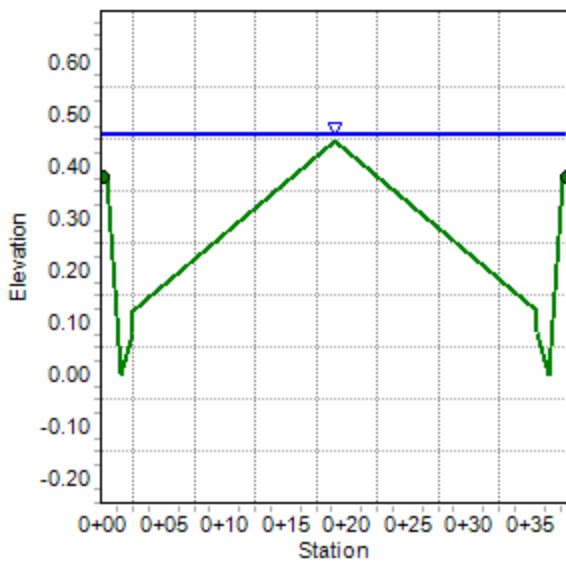
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.33	%
Normal Depth	0.46	ft
Discharge	25.00	ft ³ /s

Cross Section Image



Worksheet for SECTION 5 (Weir) - 100 YEAR Emergency

Project Description

Solve For Headwater Elevation

Input Data

Discharge	25.00	ft ³ /s
Crest Elevation	0.00	ft
Weir Coefficient	3.00	US
Crest Length	35.00	ft

Results

Headwater Elevation	0.38	ft
Headwater Height Above Crest	0.38	ft
Flow Area	13.45	ft ²
Velocity	1.86	ft/s
Wetted Perimeter	35.77	ft
Top Width	35.00	ft

Worksheet for Section 6 U Channel (Emergency)

Results

Critical Depth	1.04	ft
Critical Slope	0.00415	ft/ft
Velocity	7.47	ft/s
Velocity Head	0.87	ft
Specific Energy	1.66	ft
Froude Number	1.72	
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	0.79	ft
Critical Depth	1.04	ft
Channel Slope	1.25	%
Critical Slope	0.00415	ft/ft

Cross Section for Section 6 U Channel (Emergency)

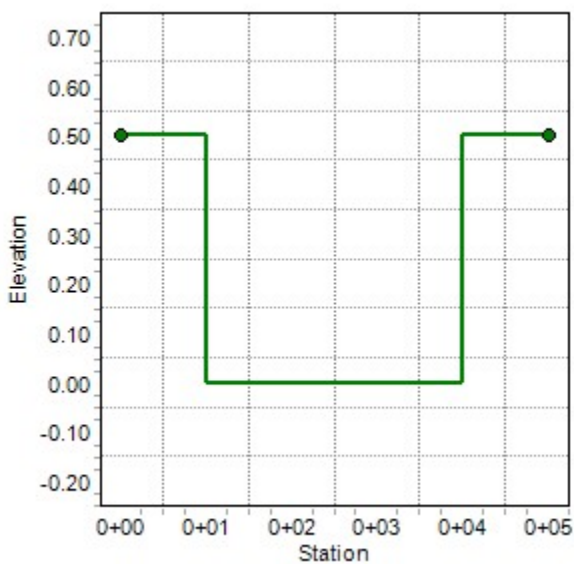
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.25	%
Normal Depth	0.79	ft
Discharge	22.00	ft ³ /s

Cross Section Image



Worksheet for Section 6 U Channel

Project Description

Friction Method	Manning Formula
-----------------	-----------------

Solve For Normal Depth

Input Data

Channel Slope	1.25	%
---------------	------	---

Discharge	3.00	ft ³ /s
-----------	------	--------------------

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.50
0+01.00	0.50
0+01.00	0.00
0+04.00	0.00
0+04.00	0.50
0+05.00	0.50

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.50)	(0+05.00, 0.50)	0.013

Options

Current Roughness Weighted Method Pavlovskii's Method

Open Channel Weighting Method Pavlovskii's Method

Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 0.23 ft

Elevation Range 0.00 to 0.50 ft

Flow Area	0.69	ft ²
-----------	------	-----------------

Wetted Perimeter	3.46	ft
------------------	------	----

Hydraulic Radius	0.20	ft
------------------	------	----

Top Width	3.00	ft
-----------	------	----

Normal Depth 0.23 ft

Worksheet for Section 6 U Channel

Results

Critical Depth	0.31	ft
Critical Slope	0.00467	ft/ft
Velocity	4.36	ft/s
Velocity Head	0.30	ft
Specific Energy	0.52	ft
Froude Number	1.60	
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	0.23	ft
Critical Depth	0.31	ft
Channel Slope	1.25	%
Critical Slope	0.00467	ft/ft

Cross Section for Section 6 U Channel

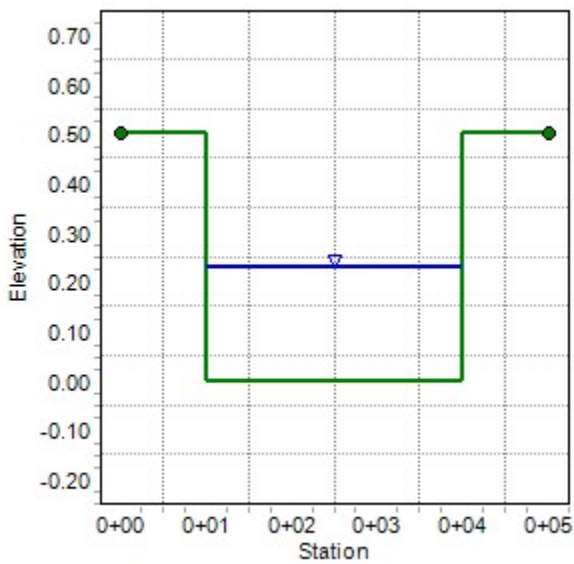
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.25	%
Normal Depth	0.23	ft
Discharge	3.00	ft ³ /s

Cross Section Image



Worksheet for Section 7 U-Channel (Emergency)

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.99 %
Discharge 25.00 ft³/s
Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.50
0+01.00	0.50
0+01.00	0.00
0+04.00	0.00
0+04.00	0.50
0+05.00	0.50

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.50)	(0+05.00, 0.50)	0.013

Options

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

Results

Normal Depth 0.89 ft
Elevation Range 0.00 to 0.50 ft
Flow Area 3.45 ft²
Wetted Perimeter 6.78 ft
Hydraulic Radius 0.51 ft
Top Width 5.00 ft
Normal Depth 0.89 ft

Worksheet for Section 7 U-Channel (Emergency)

Results

Critical Depth	1.12	ft
Critical Slope	0.00415	ft/ft
Velocity	7.25	ft/s
Velocity Head	0.82	ft
Specific Energy	1.71	ft
Froude Number	1.54	
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	0.89	ft
Critical Depth	1.12	ft
Channel Slope	0.99	%
Critical Slope	0.00415	ft/ft

Cross Section for Section 7 U-Channel (Emergency)

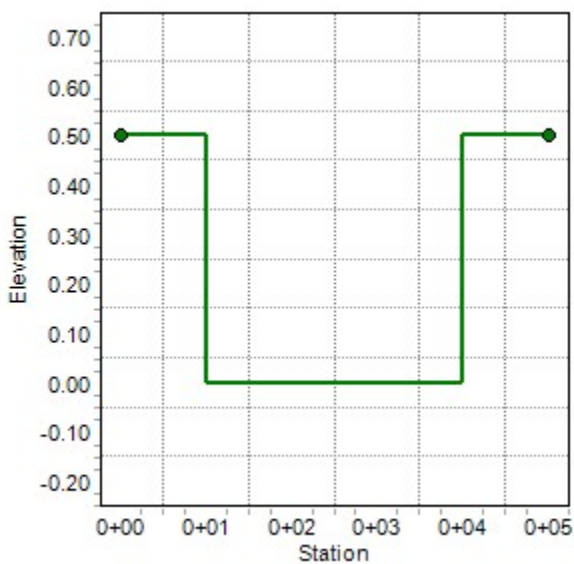
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.99	%
Normal Depth	0.89	ft
Discharge	25.00	ft ³ /s

Cross Section Image



Worksheet for Section 7 U-Channel

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.99	%
Discharge	3.00	ft ³ /s
Section Definitions		

Station (ft)	Elevation (ft)
0+00.00	0.50
0+01.00	0.50
0+01.00	0.00
0+04.00	0.00
0+04.00	0.50
0+05.00	0.50

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.50)	(0+05.00, 0.50)	0.013

Options

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

Results

Normal Depth	0.25	ft
Elevation Range	0.00 to 0.50	ft
Flow Area	0.74	ft ²
Wetted Perimeter	3.49	ft
Hydraulic Radius	0.21	ft
Top Width	3.00	ft
Normal Depth	0.25	ft

Worksheet for Section 7 U-Channel

Results

Critical Depth	0.31	ft
Critical Slope	0.00467	ft/ft
Velocity	4.05	ft/s
Velocity Head	0.25	ft
Specific Energy	0.50	ft
Froude Number	1.44	
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	0.25	ft
Critical Depth	0.31	ft
Channel Slope	0.99	%
Critical Slope	0.00467	ft/ft

Cross Section for Section 7 U-Channel

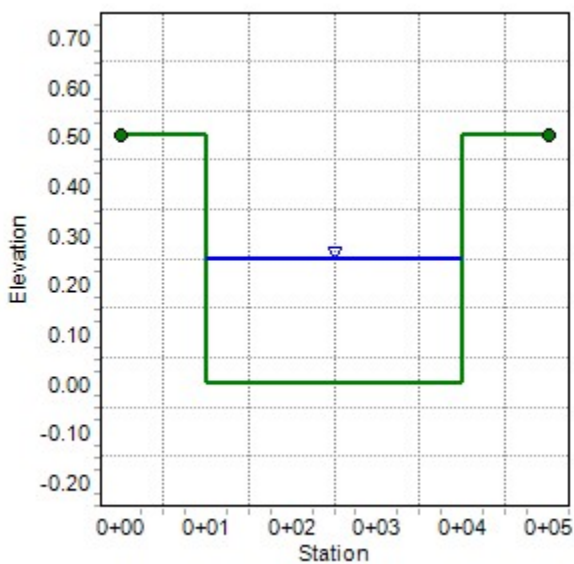
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.99	%
Normal Depth	0.25	ft
Discharge	3.00	ft ³ /s

Cross Section Image



Worksheet for Section 8 U Channel

Project Description

Friction Method	Manning Formula
-----------------	-----------------

Solve For Normal Depth

Input Data

Channel Slope	1.14	%
---------------	------	---

Discharge	3.00	ft ³ /s
-----------	------	--------------------

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.50
0+01.00	0.50
0+01.00	0.00
0+04.00	0.00
0+04.00	0.50
0+05.00	0.50

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.50)	(0+05.00, 0.50)	0.013

Options

Current Roughness Weighted Method Pavlovskii's Method

Open Channel Weighting Method Pavlovskii's Method

Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 0.24 ft

Elevation Range 0.00 to 0.50 ft

Flow Area	0.71	ft ²
-----------	------	-----------------

Wetted Perimeter	3.47	ft
------------------	------	----

Hydraulic Radius	0.20	ft
------------------	------	----

Top Width	3.00	ft
-----------	------	----

Normal Depth 0.24 ft

Worksheet for Section 8 U Channel

Results

Critical Depth	0.31	ft
Critical Slope	0.00467	ft/ft
Velocity	4.23	ft/s
Velocity Head	0.28	ft
Specific Energy	0.51	ft
Froude Number	1.53	
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	0.24	ft
Critical Depth	0.31	ft
Channel Slope	1.14	%
Critical Slope	0.00467	ft/ft

Cross Section for Section 8 U Channel

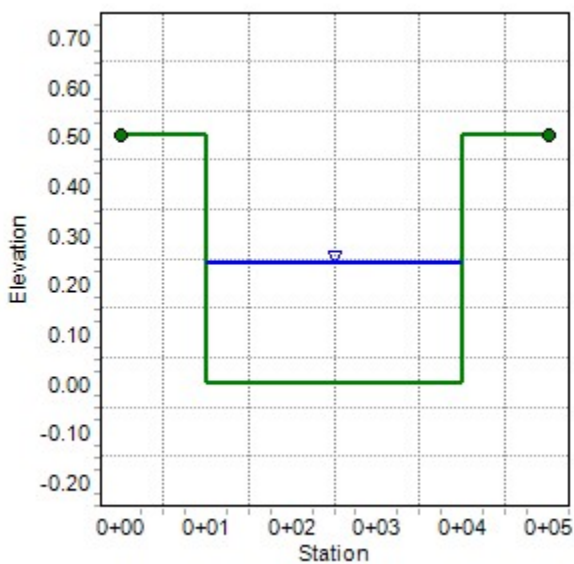
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.14	%
Normal Depth	0.24	ft
Discharge	3.00	ft ³ /s

Cross Section Image



Worksheet for Section 9 U Channel

Project Description

Friction Method	Manning Formula
-----------------	-----------------

Solve For Normal Depth

Input Data

Channel Slope	1.25	%
---------------	------	---

Discharge	3.00	ft ³ /s
-----------	------	--------------------

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.50
0+01.00	0.50
0+01.00	0.00
0+04.00	0.00
0+04.00	0.50
0+05.00	0.50

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.50)	(0+05.00, 0.50)	0.013

Options

Current Roughness Weighted Method Pavlovskii's Method

Open Channel Weighting Method Pavlovskii's Method

Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 0.23 ft

Elevation Range 0.00 to 0.50 ft

Flow Area	0.69	ft ²
-----------	------	-----------------

Wetted Perimeter	3.46	ft
------------------	------	----

Hydraulic Radius	0.20	ft
------------------	------	----

Top Width	3.00	ft
-----------	------	----

Normal Depth 0.23 ft

Worksheet for Section 9 U Channel

Results

Critical Depth	0.31	ft
Critical Slope	0.00467	ft/ft
Velocity	4.36	ft/s
Velocity Head	0.30	ft
Specific Energy	0.52	ft
Froude Number	1.60	
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	0.23	ft
Critical Depth	0.31	ft
Channel Slope	1.25	%
Critical Slope	0.00467	ft/ft

Cross Section for Section 9 U Channel

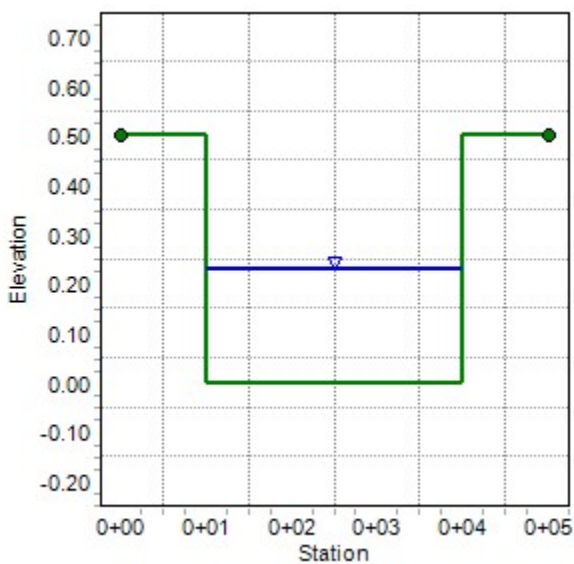
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.25	%
Normal Depth	0.23	ft
Discharge	3.00	ft ³ /s

Cross Section Image



APPENDIX E

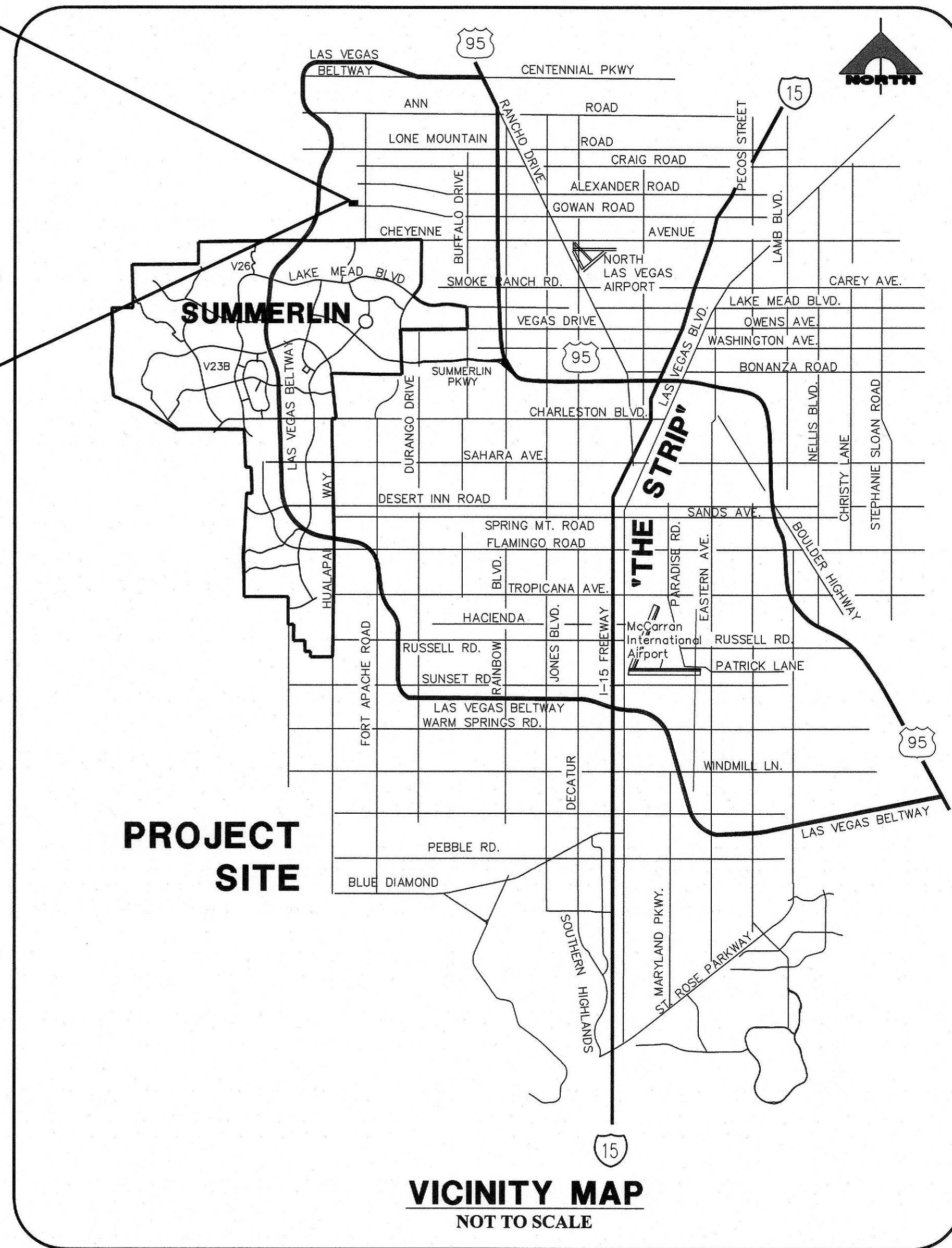
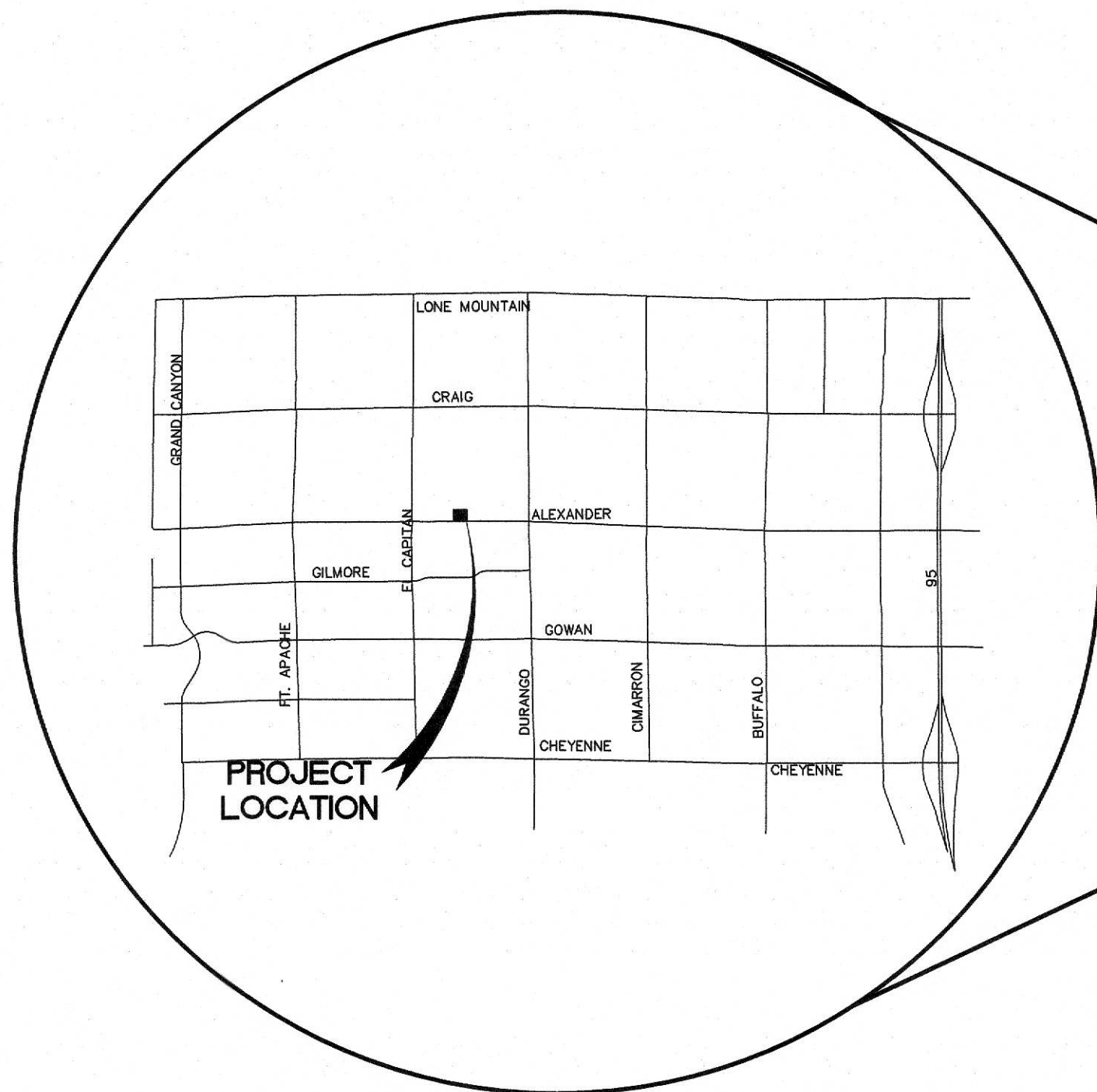


GROSS ACREAGE: 2.09
NO. OF LOTS: 8
DENSITY(UNIT/AC): 3.83

IMPROVEMENT PLAN OF ALEXANDER JULIANO - WEST APN # 138-05-801-025

LEGAL DESCRIPTION

THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) IN SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.B.&M.,
EXCEPTING THEREFROM THAT PORTION OF LAND CONVEYED TO THE CITY OF LAS VEGAS BY PERSONAL REPRESENTATIVE'S DEED RECORDED APRIL 10, 2003 IN BOOK 20030410 AS INSTRUMENT NO. 02522 OF OFFICIAL RECORDS.



LEGEND	
F.F. = 00.0 PAD = 00.0 F.F. = (00.0) PAD = (00.0)	FINISH FLOOR ELEVATION PAD ELEVATION EX. FINISH FLOOR ELEV. EX. PAD ELEVATION
SCARP	
EXISTING CONTOUR (5' INTERVAL)	
EXISTING CONTOUR (1' INTERVAL)	
CONCRETE DRIVEWAY	
SVZ - SIGHT VISIBILITY ZONE, NO STRUCTURES/ LANDSCAPING TALLER THAN 24"	
FIRE HYDRANT	
SEWER MANHOLE	
EXIST. SEWER MANHOLE	
SEWER LATERAL	
WATER LATERAL	
BACKFILL & AC PAVEMENT RESTORATION PER GEOTECH REPORT NO. 37030-1	
LOT NUMBER	
830	
[54.10] TC or FG	FUTURE ELEVATION
56.22 TC or FG	PROPOSED ELEVATION
(56.21) TC or FG	EXISTING ELEVATION
(56.21)* TC or FG	EX. ASBUILT ELEVATION
TC or FG	RIGHT-OF-WAY
---	PROPERTY LINE
---	CENTER LINE
---	EDGE OF PAVEMENT
---	EX. EDGE OF PAVEMENT
---	RETAINING WALL
---	CUT-OFF WALL
---	DITCH OR SWALE
---	PROPOSED 8" SEWER
---	PROPOSED 8" WATER
---	CUT-FILL LINE

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

Call
811
OR
1-800-227-2600

CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929

FAST

Call
before you
Underground
1-702-432-5300

PREMIER AND ARTISAN
SYSTEM OF TRANSPORTATION

ABBREVIATIONS	
AC	ASPHALTIC CONCRETE
BCR	BEGIN CURB RETURN
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT
CONC	CONCRETE
EP/EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EX	EXISTING
(F.A.S.T.)	FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FIRE HYDRANT
FL	FLOW LINE
FLT	FUTURE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT ELEVATION
LF	LINEAR FEET
LS, L/S	LANDSCAPE
NVE	NEVADA ENERGY
P.U.E.	PUBLIC UTILITY EASEMENT
RET.	RETAINING WALL
R.O.W., R/W	RIGHT OF WAY
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
SW	SIDEWALK
STLT	STREETLIGHT
TC	TOP OF CURB
TF	TOP OF FOOTING
TRW	TOP OF RETAINING WALL
TW	TOP OF WALL
TB	TOP OF BERM
UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
USDCGA	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

INDEX OF DRAWINGS		
SHEET NUMBER	SHEET NAME	SHEET TITLE
1	C1	COVER SHEET
2	C2	GENERAL NOTES AND QUANTITIES
3	G	GRADING PLAN
4	DT1	GRADING SECTIONS AND DETAILS 1
5	P1	JULIANO RD STA. 10+00.00 TO STA. 13+00.00 PLAN AND PROFILE
6	P2	STA. 9+25.00 TO STA. 13+30.51 PLAN AND PROFILE
7	R1	JULIANO STA. 10+70.00 TO STA. 13+00.00 ROADWAY
8	R2	STREET A STA. 9+25.00 TO STA. 13+30.51 ROADWAY
9	U	UTILITY PLAN
10	T	TRAFFIC AND HORIZONTAL CONTROL PLAN

BASIS OF BEARING:
NORTH 89°42'13" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA AS SHOWN IN BOOK 152, PAGE 17 OF PLATS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK:
CITY OF LAS VEGAS VERTICAL CONTROL POINT 0LV0055EE6, BEING RIVET & PLATE IN TOP OF CURB ON THE WEST SIDE OF ISLAND IN DURANGO AT +/-320 SW OF HICKAM AV. & DURANGO.
ELEVATION: 2396.77(FEET)
730.537 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88)

OWNER
JOHNSON TRUST AND JOHNSON DAVID T &
LORI J TRS
7478 OASIS ISLAND STREET
LAS VEGAS, NV 89131
(702) 261-0053

DEVELOPER
D.R. HORTON
1081 WHITNEY RANCH DR
HENDERSON, NV 89014
(702) 635-3600

ENGINEER
GCW, INC.
1555 SOUTH RAINBOW BLVD.
LAS VEGAS, NEVADA 89146
(702) 804-2000
(702) 804-2299 (FAX)

UTILITY/AGENCY APPROVALS

COX COMMUNICATIONS LAS VEGAS, INC. DATE

CENTRAL TELEPHONE COMPANY, DBA CENTURY LINK DATE

THE AFFIXED CENTRAL TELEPHONE COMPANY, DBA CENTURY LINK 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.

NV ENERGY DATE

NEVADA POWER COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NEVADA POWER COMPANY 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.

NV ENERGY - TRANSMISSION ENGINEERING DATE

SOUTHWEST GAS CORP. DATE

ALLEN PAVELKA, PE# 9029
CITY ENGINEER/ACTING
CITY OF LAS VEGAS, NEVADA

APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS, EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.

CLV PLANNING DEPARTMENT
THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE CITY OF LAS VEGAS PLANNING DEPARTMENT

PLANNING DEPARTMENT DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS FIRE AND RESCUE, FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136486 FIRST APPROVED DATE: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

LVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS MUST BE RESUBMITTED FOR REVIEW AND APPROVAL.

STATE OF NEVADA
CLARK COUNTY
ENGINEER
GIA DI NGUYEN
No. 14918
Exp. 12/31/2018
DATE: 8/27/19

PROJECT NO.	767-636
DESIGN	
DRAWN	
CHECK	
PLOT DATE	08-26-19
PLOT TIME	08:31:26

1555 S. RAINBOW BLVD
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

ENGINEERS / SURVEYORS

F: PROJECTS \ 700 \ 767-636 \ VMS \ PRODUCTION \ 636-CV.DWG
FRANCIS MORELLI

DR HORTON

ALEXANDER JULIANO WEST

COVER SHEET

DRAWING

1 OF 10 SHTS

CLV #XX-XXXXX

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 REVISED EDITION; THE "SUDRUM IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; 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 CLV 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 BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT 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 SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES AS TO SAFELY 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, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED SATISFACTORILY TO THE SATISFACTION OF 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 CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE 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' UP IN EXTRUDED-TYPE CURB.

8. AC PAVEMENT TO BE ONE-1/4" INCH (3/8") ABOVE' UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

9. CURB AND GUTTER FOUNT 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 235. EXISTING 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 AS SHOWN ON PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE NEVADA GEOTECHNICAL SOCIETY, CIVIL ENGINEER, PERMIT NUMBER SA-18-060, DATED MAY 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 A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS 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 18, APPENDIX D.

15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, 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 REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING 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 INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEARS, 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 SPECIFICATION OF 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 RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE OFFSITE INSPECTION 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. AFTER LAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN STRUCTURES, THE CONTRACTOR SHALL PROVIDE AN OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITY TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN STRUCTURES, TRANSITION STRUCTURES, AND DETAILS AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SATISFACTORILY LOCATE THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SATISFACTORILY LOCATE THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.

OR

(MAY BE USED ONLY ON PROJECTS ASSOCIATED WITH A TENTATIVE MAP CONTAINING 5 LOTS OR MORE)

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 PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AS LOCATED BY COORDINATES AND DETAILS AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SATISFACTORILY LOCATE THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SATISFACTORILY LOCATE THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SATISFACTORILY LOCATE THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.

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 EDITION.

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

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 SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION, ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR 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 OBTAIN ALL NECESSARY PERMITS AND TO REQUIREMENTS OF THE PROJECT STORM 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"±	+0.1' TO -0.1'	SEE SOILS REPORT

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE. COMPACTION SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER.
7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. 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.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT- OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PROJECT. UNDESIRABLE MATERIAL DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT, ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, SUCH ITEM SHALL BE PROVIDED, AS DIRECTED BY THE CITY ENGINEER, AT NO EXPENSE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 4/15/10

1. 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. ALL SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. 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.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. 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 CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" "S" SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVWMD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. 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.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERIFIED 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 REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLAN, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
4. ALL EMPT CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD NO. 320A WHERE LIFE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.
8. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE IDENTIFIED AND RESOLVED BEFORE THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.

FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 32003C1745E, MAP REVISED SEPTEMBER 27, 2002 INDICATED THAT THE SUBJECT PROPERTY LIES IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. [IFC SECTION 105.7.12]
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC SECTION 3310, SECTION 3312]
5. TO IDENTIFY FIRE HYDRANT LOCATIONS, CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS [IFC SECTION 507.5.7.3]
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC SECTION 106.3]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC SECTION 507.2.1]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC SECTION 507]
9. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED. [IFC SECTION 507]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC SECTION 507]
11. FIRE HYDRANTS SPACING SHALL BE AS FOLLOWS: [IFC SECTION C102]
RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED
COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.

LVMD PROJECT # 136486 (REVISED 08/01/2017)

WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVMD. LOCAL WATER PLANS FOR APPROVAL, NOTICE SHALL BE GIVEN TO THE LVMD COMMUNICATION SUPPORT CENTER (259-7171) 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 LVMD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.

1. WORK SHALL CONFORM TO LVMD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND SPECIFICATIONS FOR STREETS AND HIGHWAYS (UDAS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.

1. 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 DESIGN AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, PARK QUARRY AREA.

SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVMD.

1. SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K DUCTILE IRON PIPE. LARGER DIAMETER LATERALS SHALL BE TYPE K DUCTILE IRON PIPE.

1. WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

1. VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.

1. WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.

1. WATER FACILITIES AND APPURTENANCES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVMD DISTRIBUTION SYSTEM.

1. CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM THE LVMD CENTRAL STORES. TELEPHONE 259-3152 OR 259-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.

1. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 314.01, AND APPROVED BY THE LVMD INSPECTION DIVISION PRIOR TO ANY SHUTDOWNS. WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.

1. WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVMD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

1. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2620.

1. INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVVMD) MUNICIPAL WATER MAINS, STREETS, AND DRIVEWAYS SHALL BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY PAIR WORK DONE BY THE LVVMD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

1. 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 EXISTS, OR THE AGENCY HAVING JURISDICTION. DECORATIVE PAVING SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVMD DURING THE REPAIR OR OPERATION OF THESE FACILITIES, WILL BE REPAIRED BY LVVMD WITH AN APPROPRIATELY SIZED PLANT MATERIAL. THE LVVMD WILL NOT RESTORE AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVMD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

1. LEAD COMPLIANCE NOTE:

1. IN COMPLIANCE WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS AND COMPONENTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE RE-USED.

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL AN ADVANCED WARNING SIGN FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ALERTED TO THE EXISTENCE OF THE WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW SIGNS SHALL BE FABRICATED WITH GUARD RAILS, VISO GLASS, AND REFLECTIVE SHEETING OR THE EQUIVALENT. NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3" SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY PLAM. STREET NAME SIGNS SHALL HAVE 3" SERIES 1160 OR APPROVED EQUIVALENT PROTECTIVE OVERLAY PLAM. SERIES NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDIS IS LOCATED WITHIN FIVE (5') FEET OF ANY

SOUTHWEST GAS CONSTRUCTION NOTES

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION GENERAL NOTES ON THE NOTES SHEET AS INDICATED BELOW:

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC
3. FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2089

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION HIGH PRESSURE NOTES ON THE NOTES SHEET AND ALL SHEETS DEPICTING HIGH PRESSURE NATURAL GAS MAINS AS INDICATED BELOW:

CAUTION HIGH PRESSURE GAS!

CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATION OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION

NORTH 89°42'13" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE
SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF
SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY,
NEVADA AS SHOWN IN BOOK 152, PAGE 17 OF PLATS ON FILE AT THE CLARK
COUNTY, NEVADA RECORDER'S OFFICE.

CITY OF LAS VEGAS VERTICAL CONTROL POINT 0LV005566, BEING RIVET & PLATE IN TOP OF CURB ON THE WEST SIDE OF ISLAND IN DURANGO AT
+/-320 SW OF HICKAM AV. & DURANGO.

ELEVATION: 2396.77(FEET)
730.537 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88)

SOUTHWEST GAS CORPORATION DATE

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136486 FIRST APPROVED DATE:

NOTE: CONTRACTOR TO VERIFY QUANTITIES FOR BIDDING PURPOSES
STREET IMPROVEMENTS

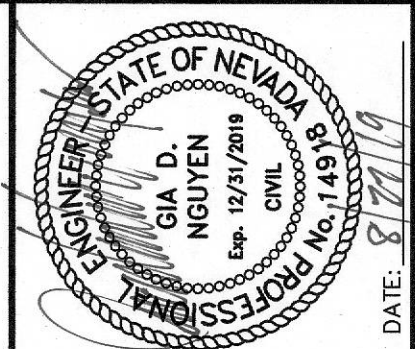
DESCRIPTION	(PUBLIC)		(PRIVATE)	
	UNIT	TOTAL	UNIT	TOTAL
2" AC PAVEMENT	SY	—	SY	1,068
4.5" AC PAVEMENT	SY	847	SY	—
TYPE II AGGREGATE BASE MATERIAL	CY	216	CY	200
1" CURB AND GUTTER	LF	80	LF	—
30" ROLL CURB AND GUTTER	LF	—	LF	493
CONCRETE VALLEY GUTTER	SF	—	SF	247
5-INCH SIDEWALK	SF	4,043	SF	1,199
WATER SERVICE TO LOTS	EA	—	EA	8
POWER TO LOTS	EA	—	EA	8
ADA RAMPS	EA	—	EA	2

DESCRIPTION	UNIT	TOTAL
6" PVC WATER LINE	LF	122
8" PVC WATER LINE	LF	158
8" X 6" REDUCER	EA	1
CAP & 2" B.O. PER UDACS PLATE NO. 36	EA	1
FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	1
1" WATER SERVICE WITH 3/4" METER PER UDACS PLT. NO. 3	EA	8
1" WATER SERVICE WITH 3/4" METER (JRR) AND 1" RPPA PER UDACS PLATE NO. 4 & 8 CURB STOP.	EA	1

DESCRIPTION	UNIT	TOTAL
8" C900 SANITARY SEWER PIPE	LF	255
4" C900 SANITARY SEWER LATERAL (PRIVATE)	LF	291
48" DIA. SANITARY SEWER MANHOLE	EA	2

DESCRIPTION	UNIT	TOTAL
CONCRETE DRAINAGE EASEMENT	SF	-
3' CUT-OFF WALL	LF	-

DESCRIPTION	UNIT	TOTAL
STREET SIGN	EA	3

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PROJECT NO.

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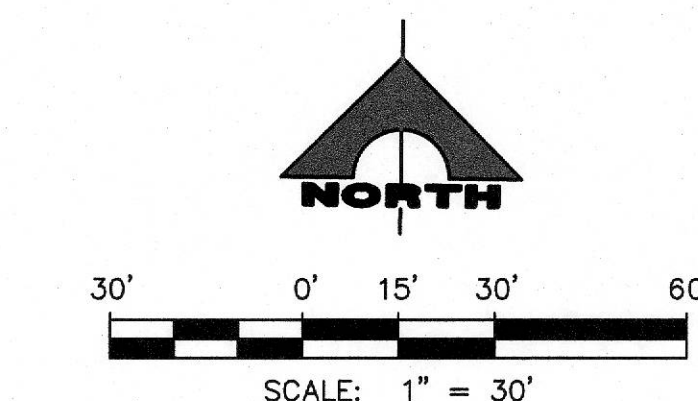
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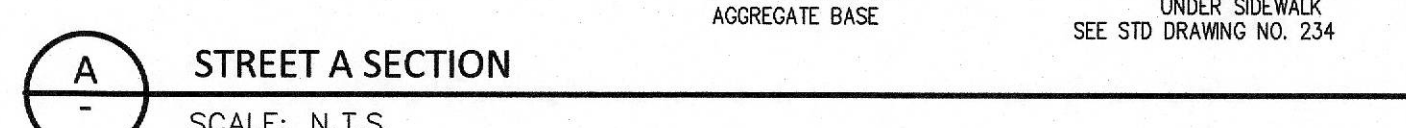
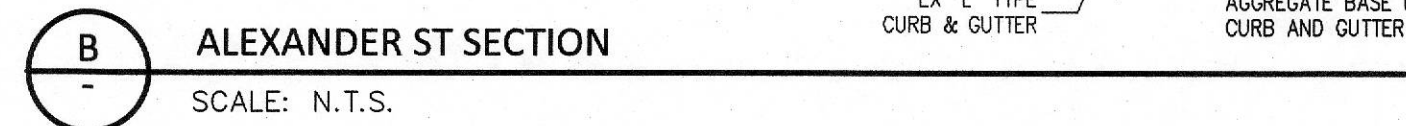
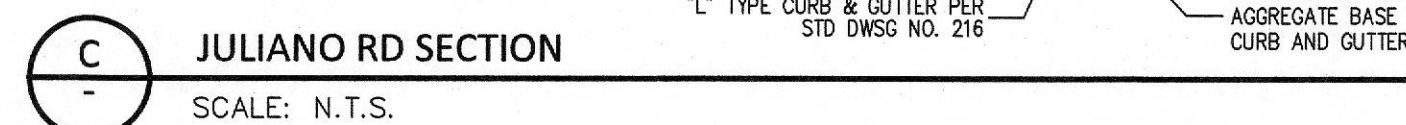
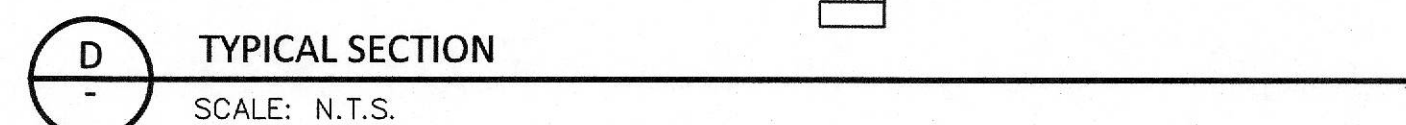
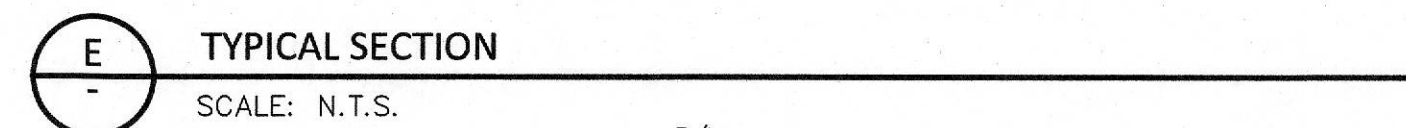
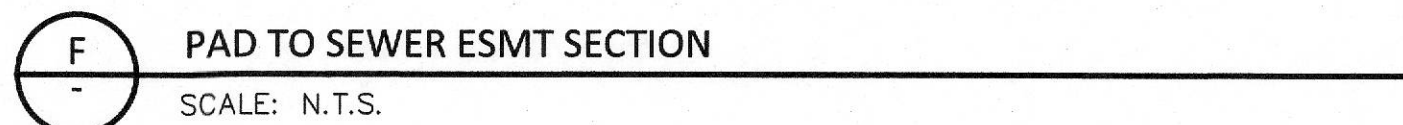
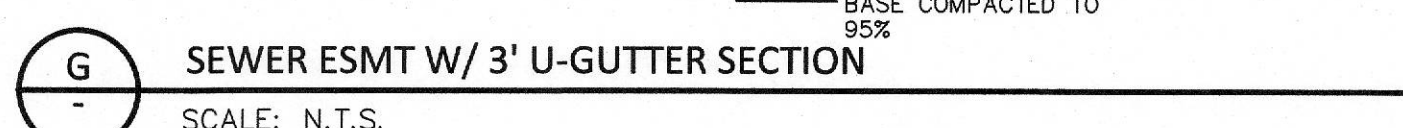
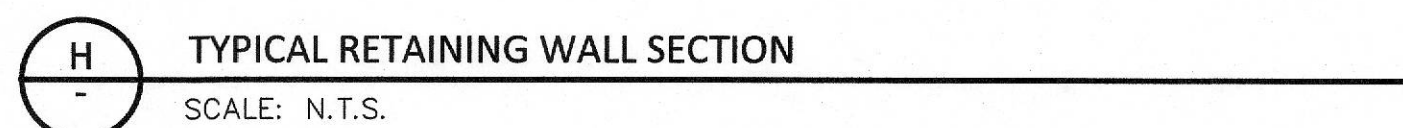
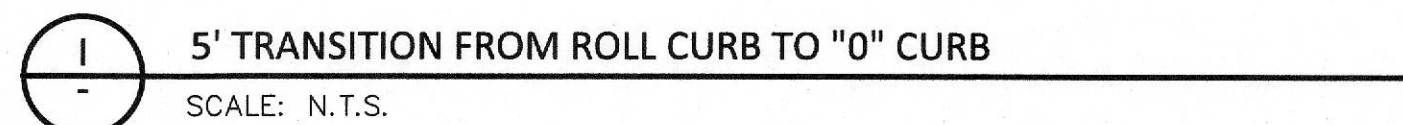
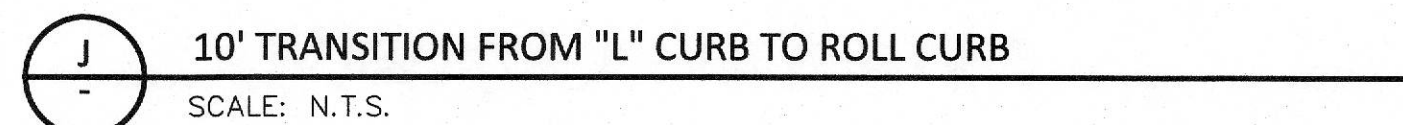
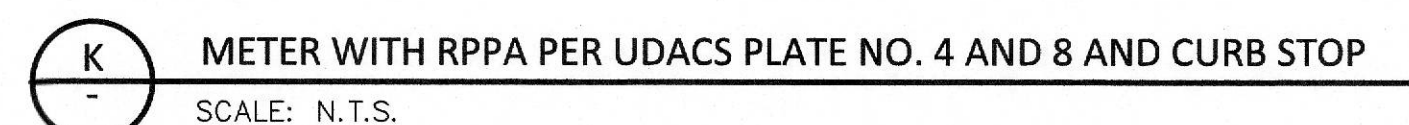
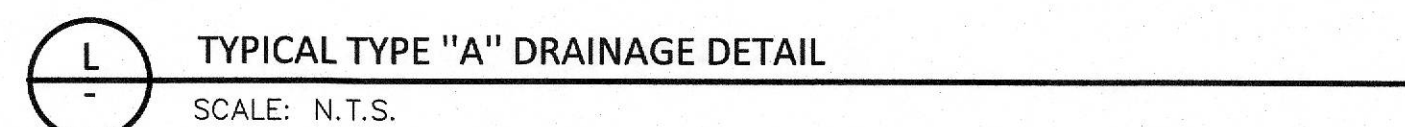
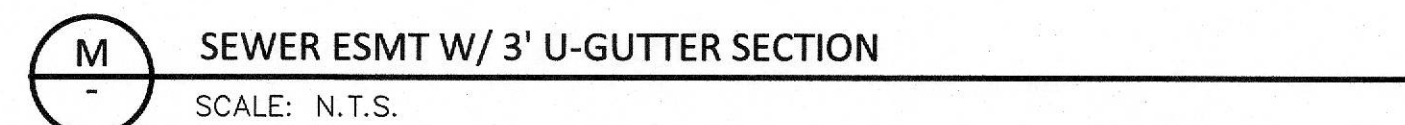
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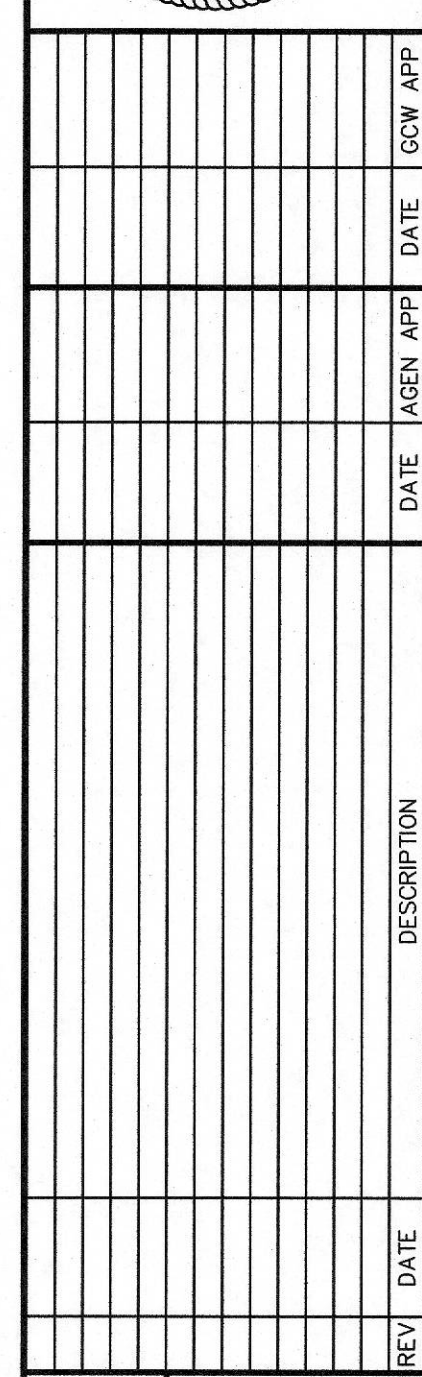


- (1) CONSTRUCT 5 FT. x 5" THICK CONCRETE SIDEWALK PER USDOCA NO. 234.
- (2) CONSTRUCT 6" VALLEY GUTTER PER CCAUSD NO. 228 & 229.
- (3) CONSTRUCT ROLL CURB PER USDOCA NO. 217.2.S1.
- (4) CONSTRUCT "L" CURB PER USDOCA NO. 216.
- (5) CONSTRUCT 2" AC OVER 6" TYPE II BASE OR PER APPROVED GEOTECHNICAL REPORT.
- (6) CONSTRUCT HANDICAP RAMP PER USDOCA NO. 235 & S.I. SEE PLAN FOR "A" & "B" DIMENSION.
- (7) CONSTRUCT 7" CONCRETE U-GUTTER OVER COMPACTED SUBGRADE PER DETAIL "M" SHEET D71.
- (8) CONSTRUCT 10' TRANSITION FROM "L" CURB TO ROLL CURB PER DETAIL "O" SHEET D71.
- (9) MATCH EXISTING SIDEWALK TO CURB & SIDEWALK. CONTRACTOR SHALL VERIFY EXISTING LOCATION & PAYMENT PRIOR TO CONSTRUCTION.
- (10) CONNECT TO EX. SIDEWALK.
- (11) CONSTRUCT CUL-DE-SAC PER USDOCA NO. 212.
- (12) CONNECT TO EX. CURB AND GUTTER.
- (13) SAWCUT & MATCH EXISTING PAVEMENT.
- (14) CONSTRUCT 5' TRANSITION FROM "ROLL" CURB TO "O" CURB PER DETAIL "I" SHEET D71.
- (15) INSTALL 5'X5' RIP RAP PAD D50=6"
- (16) CONSTRUCT 10 FT. x 5" THICK CONCRETE SIDEWALK PER USDOCA NO. 234.

DAT



LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136486 FIRST APPROVED DATE:



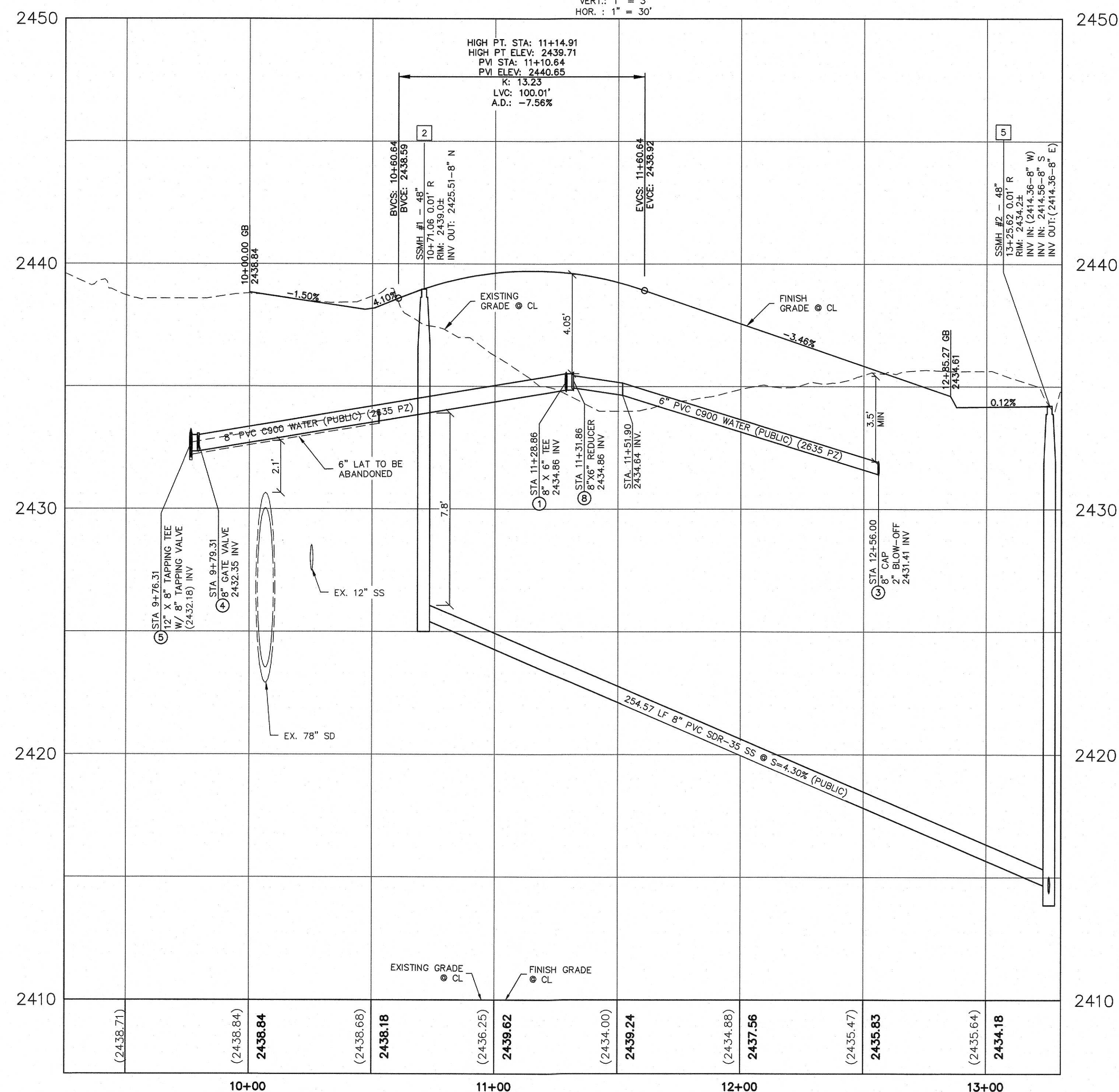
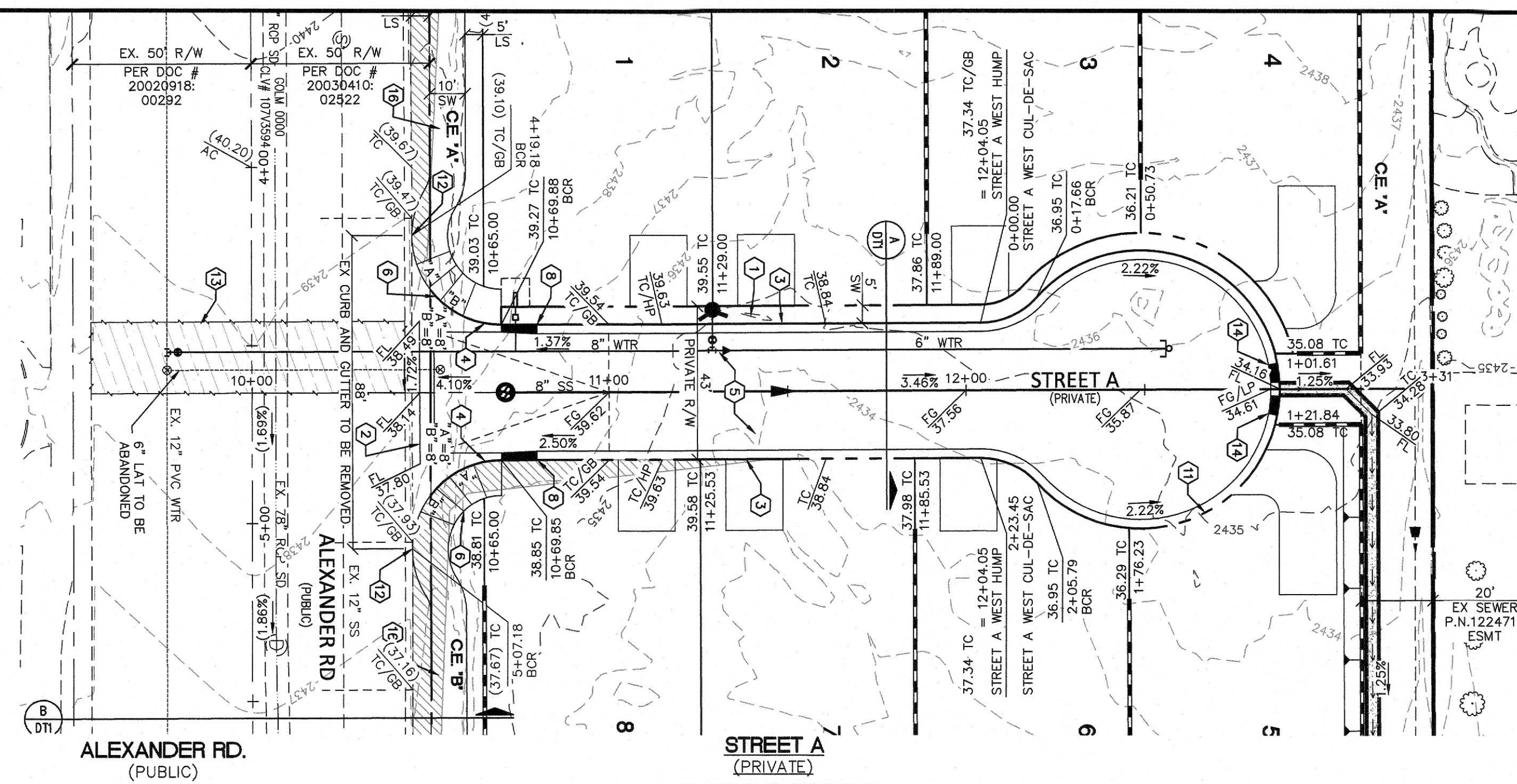
GCV
ENGINEERS \ SURVEYORS

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

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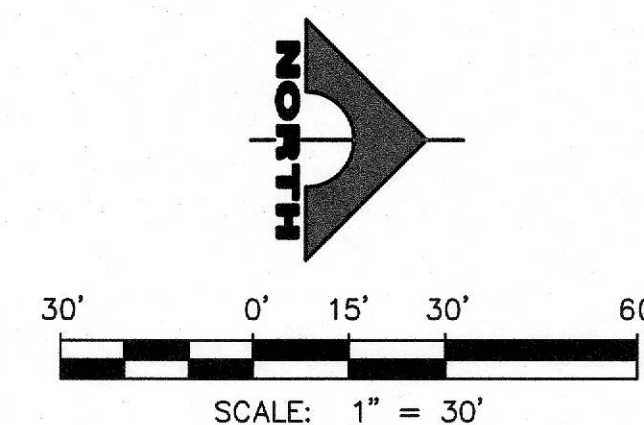
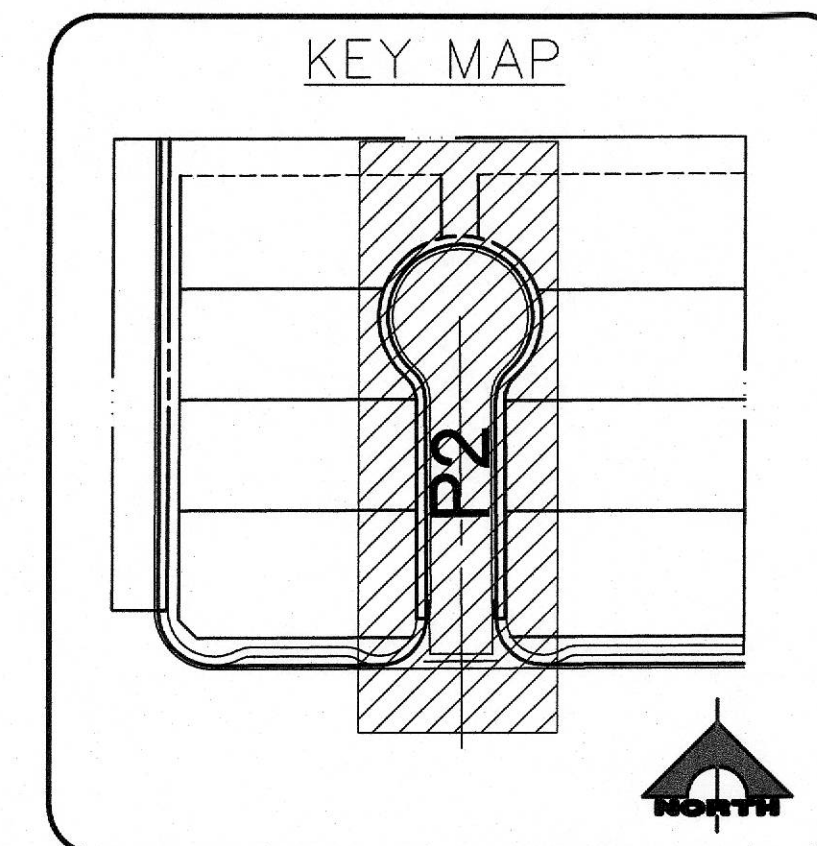
DRAWING		
DT		
4 OF 10 SHTS		

CLV #XX-XXXX



NOTES TO CONTRACTOR

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 OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.



CONSTRUCTION NOTES

- ⑦ CONSTRUCT 5 FT, 5" THICK CONCRETE SIDEWALK PER USDOCA NO. 234.
- ⑧ CONSTRUCT 8' VALLEY GUTTER PER CAUSD# NO. 228 & 229.
- ⑨ CONSTRUCT ROLL CURB PER USDOCA NO. 217.2.SI.
- ⑩ CONSTRUCT "L" CURB PER USDOCA NO. 216.
- ⑪ CONSTRUCT 2" AC OVER 6" TYPE II BASE OR PER APPROVED GEOTECHNICAL REPORT.
- ⑫ CONSTRUCT HANDICAP RAMP PER USDOCA NO. 235 CASE 1. SEE PLAN FOR "A" & "B" DIMENSION.
- ⑬ NOT USED
- ⑭ CONSTRUCT 10' TRANSITION FROM "L" CURB TO ROLL CURB PER DETAIL "O" SHEET DTI.
- ⑮ SAWCUT & MATCH TO EXISTING CURB & SIDEWALK.
- ⑯ CONTRACTOR SHALL VERIFY EXISTING LOCATION & PAYEMENT PRIOR TO CONSTRUCTION.
- ⑰ CONNECT TO EX. SIDEWALK.
- ⑱ CONSTRUCT CUL-DE-SAC PER USDOCA NO. 212.
- ⑲ CONNECT TO EX. CURB AND GUTTER.
- ⑳ SAWCUT & MATCH EXISTING PAYEMENT.
- ㉑ CONSTRUCT 5' TRANSITION FROM "ROLL" CURB TO "O" CURB PER DETAIL "I" SHEET DTI.
- ㉒ INSTALL 5'x5' RIP RAP PAD D50=6"
- ㉓ CONSTRUCT 10 FT, 5" THICK CONCRETE SIDEWALK PER USDOCA NO. 234.

WATER CONSTRUCTION NOTES

- ① INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 40.
- ③ INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36. (SIZE PER PLAN)
- ④ INSTALL 8" GATE VALVE. SEE UDACS PLT. NO. 30 & 39.
- ⑤ WET TAP EXISTING 12" WATER W/ 12"x 8" TEE AND 8" TAPPING VALVE PER UDACS PLATE 17, 19, 34, 39 & AND SECTION 2.24.01B.
- ⑧ INSTALL 8"x6" REDUCER PER UDACS PLT NO. 31.

SEWER CONSTRUCTION NOTES

- 2 INSTALL 48" DIA. SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-4, AND SD-9 WITH PRECAST BASE.
- 5 INSTALL 48" DIA. SEWER MANHOLE ON EXISTING SEWER PER DCSWCS SD-1A, & SD-7

BASIS OF BEARING:

NORTH 89°42'13" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA AS SHOWN IN BOOK 152, PAGE 17 OF PLATS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK:

CITY OF LAS VEGAS VERTICAL CONTROL POINT 0LV005SEE6, BEING
RIVET & PLATE IN TOP OF CURB ON THE WEST SIDE OF ISLAND
IN DURANGO AT +/-320 SW OF HICKAM AV. & DURANGO.

ELEVATION: 2396.77(FEET)
730.537 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136486 FIRST APPROVED DATE:

[illegible]

PROJECT NO.
767-636

DESIGN: _____
 DRAWN: _____
 CHECK: _____
 PLOT DATE: 08-26-19
 PLOT TIME: 08:32:10

NBOW BLVD.
S, NV 89146
2000
2299
ring.com

1555 S. RAIN
LAS VEGAS
T: 702.804.2222
F: 702.804.2222
gcwengineer@
ACTION\636-PP.DWG

CLT
SURVEYORS
7-636\DWG\PRODU

GO
ENGINEERS
PROJECTS 700\76
ANCIS MORELLI

[illegible]

WEST
+30.51
E

HORTON
ER JULIANC
STREET A
00 TO STA. 13
AND PROFI

DR
ALEXANDEE
STA. 9+25.00
PLAN

	A	

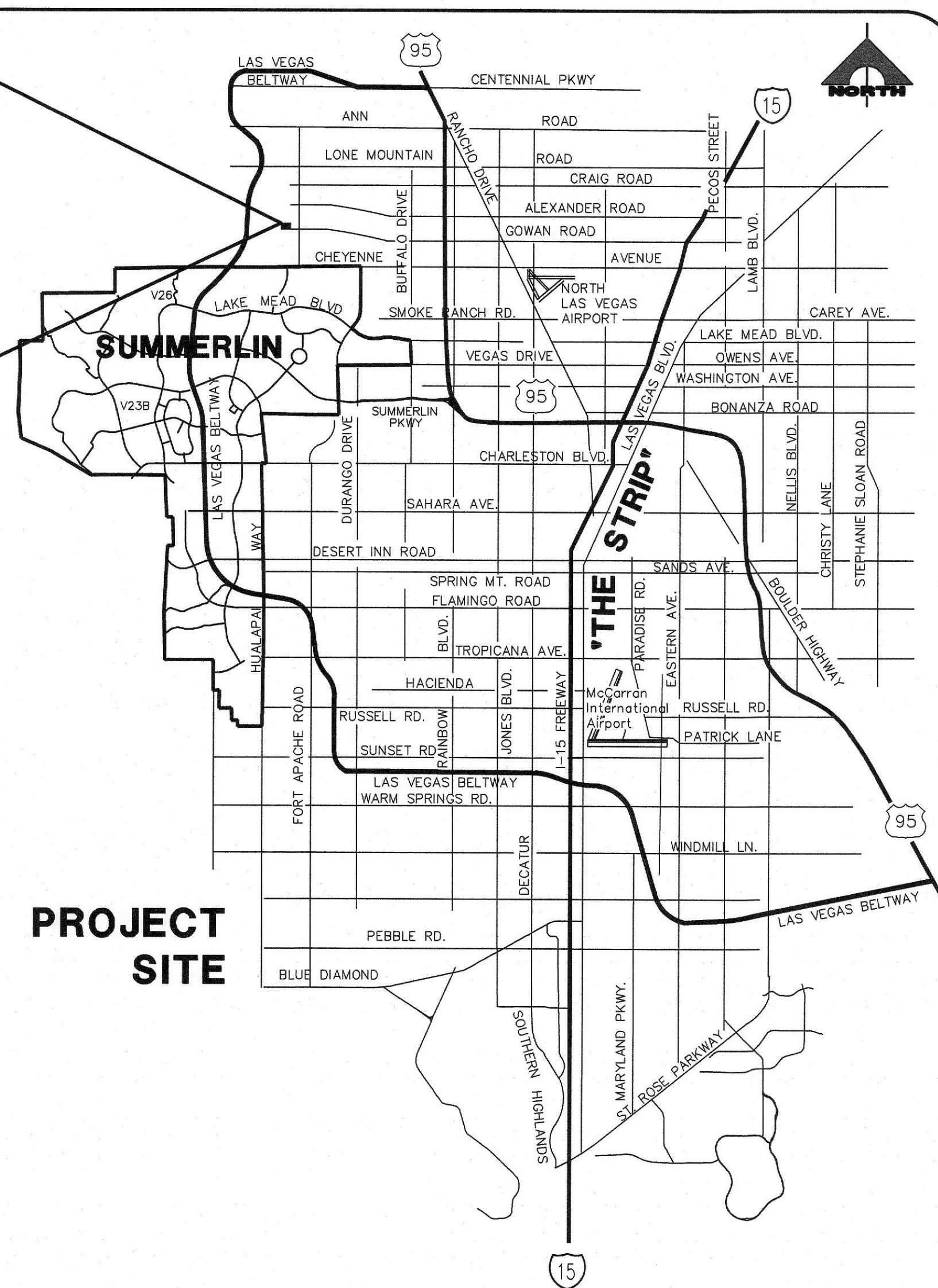
DRAWING		
P2		
6 OF 10 SHTS		

CLV #XX-XXXXX

IMPROVEMENT PLAN
OF
ALEXANDER JULIANO - EAST
APN # 138-05-801-027

PARCEL 027:
THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER
(SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST,
M.D.M.

A map of the Cheyenne area showing the project location. The map includes labels for Grand Canyon, Lone Mountain, Craig, Alexander, Gilmore, Elberta, Cowan, Cheyenne, Durango, Cimarron, Ft. Apache, and Buffalo. A black arrow points to the intersection of Elberta and Cheyenne, labeled "PROJECT LOCATION".



VICINITY MAP
NOT TO SCALE

F.F. = (00.0) PAD = (00.0) F.F. = (00.0) PAD = (00.0)		FIN. FLOOR ELEVATION PAD ELEVATION
		SCARP
		EXISTING CONTOUR (5' INTERVAL)
		EXISTING CONTOUR (1' INTERVAL)
		CONCRETE DRIVEWAY
		SVZ - SIGHT VISIBILITY ZONE, NO STRUCTURES/ LANDSCAPING TALLER THAN 24"
		FIRE HYDRANT
		SEWER MANHOLE
		EXIST. SEWER MANHOLE
		SEWER LATERAL
		WATER LATERAL
		BACKFILL & AC PAVEMENT RESTORATION PER GEOTECH REPORT NO. 37031
830 [54.10] TC or FG 58.22 TC or FG (58.21) TC or FG (58.21)* TC or FG		FUTURE ELEVATION PROPOSED ELEVATION EXISTING ELEVATION EX. ASBLUT ELEVATION
		RIGHT-OF-WAY
		PROPERTY LINE
		CENTER LINE
		EDGE OF PAVEMENT
		EX. EDGE OF PAVEMENT
		RETAINING WALL
		CUT-OFF WALL
		DITCH OR SWALE
		PROPOSE STORM DRAIN
		PROPOSED 8" SEWER
		PROPOSED 8" WATER
		CUT-FILL LINE

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

NORTH 89°42'13" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE
SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF
SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA
AS SHOWN IN BOOK 152, PAGE 17 OF PLATS ON FILE AT THE CLARK COUNTY,
NEVADA RECORDER'S OFFICE.

CITY OF LAS VEGAS VERTICAL CONTROL POINT OL0055EE6, BEING RIVET & PLATE IN TOP OF CURB ON THE WEST SIDE OF ISLAND IN DURANGO AT +/-320 SW OF HICKAM AV. & DURANGO.

ELEVATION: 2396.77(FEET)
730.537 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88)

SCOTT FAMILY TRUST ETAL AND SCOTT SHANE KASS
& LIZA TRS
1150 N VALPARAISO ST
KEWANNA, IN 46939
(###) ###-####

D.R. HORTON
1081 WHITNEY RANCH DR
HENDERSON, NV 89014
(702) 635-3600

GCW, INC.
1555 SOUTH RAINBOW BLVD.
LAS VEGAS, NEVADA 89146
(702) 804-2000
(702) 804-2299 (FAX)

COX COMMUNICATIONS LAS VEGAS, INC.

CENTRAL TELEPHONE COMPANY, DBA CENTURY LINK

CENTRAL TELEPHONE COMPANY, DBA CENTURY LINK

THE AFFIXED CENTRAL TELEPHONE COMPANY, DBA CENTURY LINK 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.

NV ENERGY

NEVADA POWER COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NEVADA POWER COMPANY 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.

NV ENERGY – TRANSMISSION ENGINEERING

SOUTHWEST GAS CORP.

ALLEN PAVELKA, PE# 9029
CITY ENGINEER/ACTING
CITY OF LAS VEGAS, NEVADA

APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS, EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.

THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE CITY OF LAS VEGAS PLANNING DEPARTMENT

PLANNING DEPARTMENT

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136487 FIRST APPROVED DATE: _____
 LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL _____
 MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM _____

LIVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS MUST BE RESUBMITTED FOR REVIEW AND APPROVAL.

AC	ASPHALTIC CONCRETE
BCR	BEGIN CURB RETURN
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT
CONC	CONCRETE
EP/ETOP	EDGE OF PAVEMENT
EASEMT	EASEMENT
EVC	END VERTICAL CURVE
EX	EXISTING
(F.A.S.T.)	FREWAY AND ARTERIAL SYSTEM OF TRANSPORTATION
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FLUID HYDRANT
FL	FLOW LINE
FUT.	FUTURE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT ELEVATION
LF	LINEAR FEET
LS, L/S	LANDSCAPE
NVE	NEVADA ENERGY
P.U.E.	PUBLIC UTILITY EASEMENT
RET	RETAINING WALL
R/W, R/W	RIGHT OF WAY
SDM	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
SI	SIDEWALK
STLT	STREETLIGHT
TC	TOP OF CURB
TF	TOP OF FOOTING
TRW	TOP OF RETAINING WALL
TW	TOP OF WALL
TB	TOP OF BERM
UNICGS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
USCCA	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

SHEET NUMBER	SHEET NAME	SHEET TITLE
1	C1	COVER SHEET
2	C2	GENERAL NOTES AND QUANTITIES
3	G	GRADING PLAN
4	DT1	GRADING SECTIONS AND DETAILS 1
5	P1	ALEXANDER JULIANO ST STA. 9+00.00 TO STA. 14+00.00 PLAN AND PROFILE
6	P2	STREET A STA. 9+25.00 TO STA. 13+30.96 PLAN AND PROFILE
7	R1	STREET A STA. 10+70.00 TO STA. 13+30.96 ROADWAY
8	U	UTILITY PLAN
9	T	TRAFFIC AND HORIZONTAL CONTROL PLAN

[illegible]

PROJECT NO.
767-636A

DESIGN: _____
DRAWN: _____
CHECK: _____
PLOT DATE: 08-26-19
PLOT TIME: 09:04:07

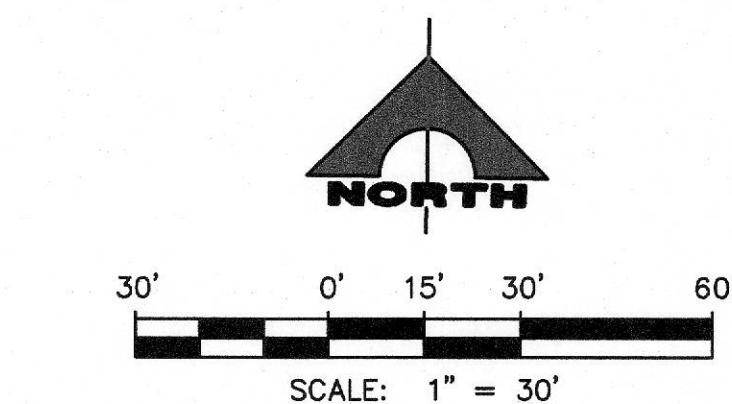
GCW
ENGINEERS\ SURVEYORS

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gownengineering.com

PROJECTS\7007\767-636A DWG\PRODUCTION\3.56A-CV.DWG
FRANCIS MORELLI

DR HORTON
ALEXANDER JULIANO EAST
COVER SHEET

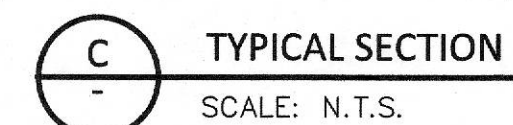
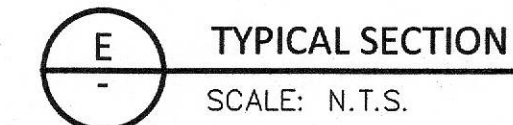
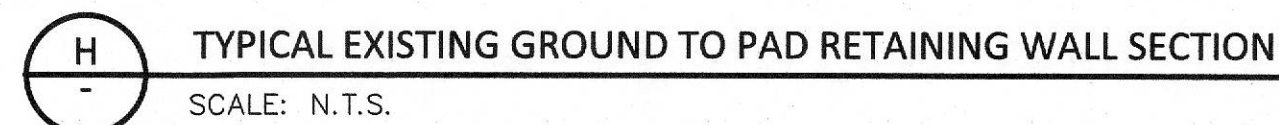
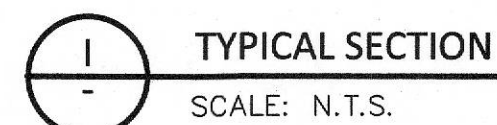
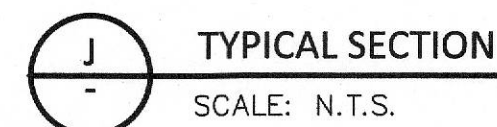
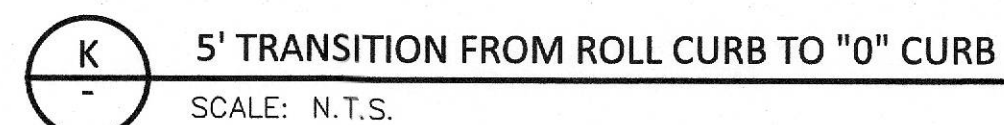
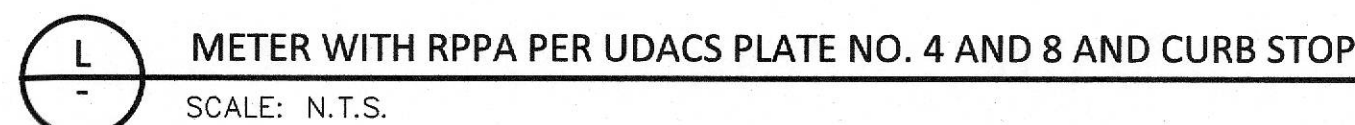
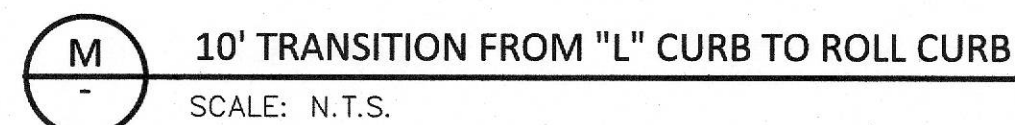
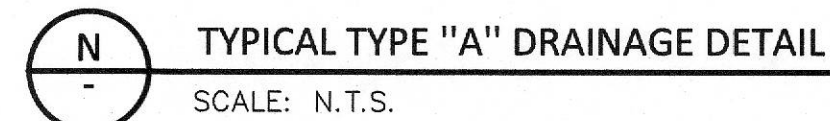
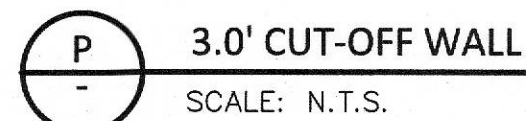
DRAWING		
C1		
1 OF 9 SHTS		
CLV #XX-XXXXX		



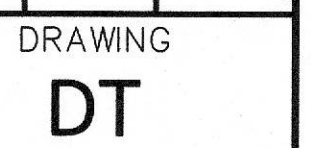
- (1) CONSTRUCT 5 FT, 5" THICK CONCRETE SIDEWALK PER USDOCA NO. 234.
- (2) CONSTRUCT 8' VALLEY GUTTER PER CCAUSD NO. 228 & 234.
- (3) CONSTRUCT ROLL CURB PER USDOCA NO. 217.21.5.
- (4) CONSTRUCT "L" CURB PER USDOCA NO. 216.
- (5) CONSTRUCT 2" AC OVER 6" TYPE II BASE OR PER APPROVED GEOTECHNICAL REPORT.
- (6) CONSTRUCT HANDICAP RAMP PER USDOCA NO. 235
- (7) CONSTRUCT 1' x 1' x 4" PLAN FOR 4" & "6" DIMENSION.
- (8) CONSTRUCT 3" CONCRETE U-GUTTER OVER COMPACTED SUBGRADE, PER DETAIL "T" SHEET DT1.
- (9) CONSTRUCT 10" TRANSITION FROM ROLL CURB TO "L" CURB PER DETAIL "K" SHEET DT1.
- (10) SAWCUT & MATCH EXISTING GUTTER & SIDEWALK. CONTRACTOR SHALL VERIFY EXISTING LOCATION & PAVEMENT PRIOR TO CONSTRUCTION.
- (11) CONNECT TO EX. SIDEWALK
- (12) CONSTRUCT CUL-DE-SAC PER USDOCA NO. 212.
- (13) CONNECT TO EX. CURB AND GUTTER.
- (14) SAWCUT & MATCH EXISTING PAVEMENT.
- (15) CONSTRUCT 5" TRANSITION FROM "ROLL" CURB TO "O" CURB PER DETAIL "K" SHEET DT1.
- (16) INSTALL 5/8" X15' RAP RAP PAD D50=6"
- (17) CONSTRUCT 10" x 5" THICK CONCRETE SIDEWALK PER USDOCA NO. 234.

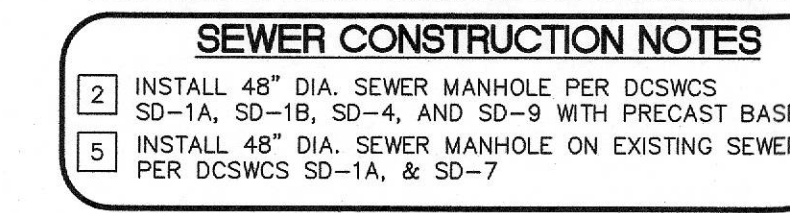
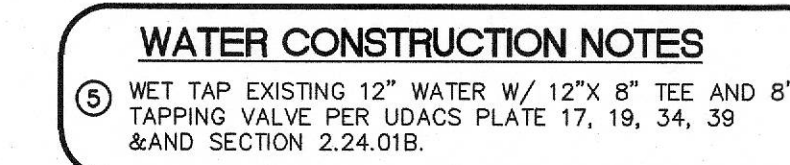
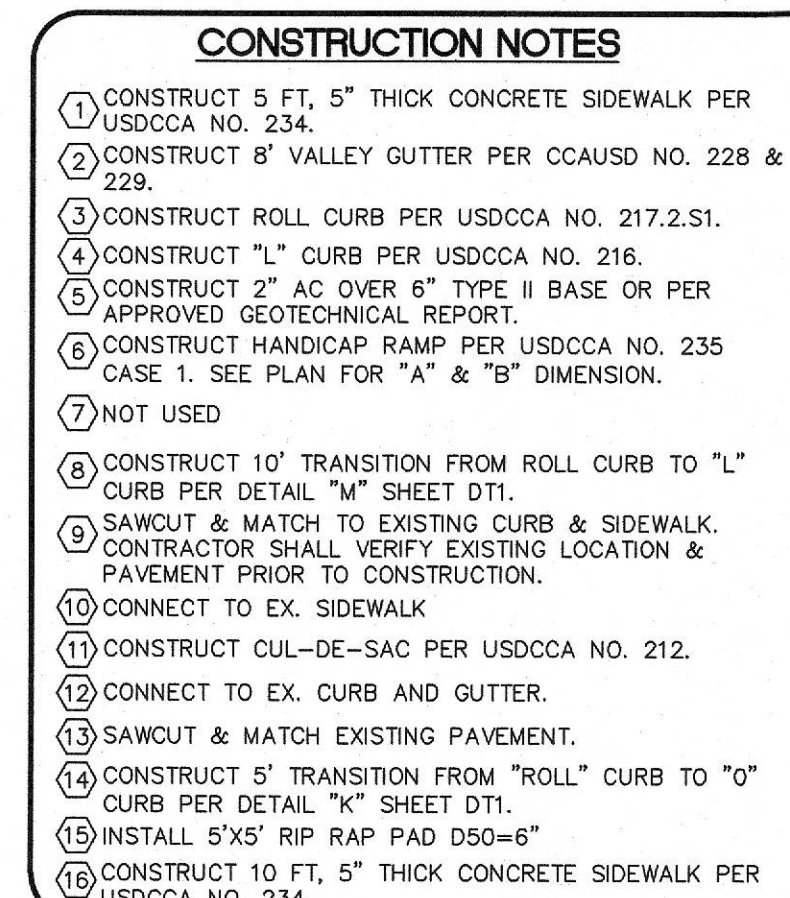
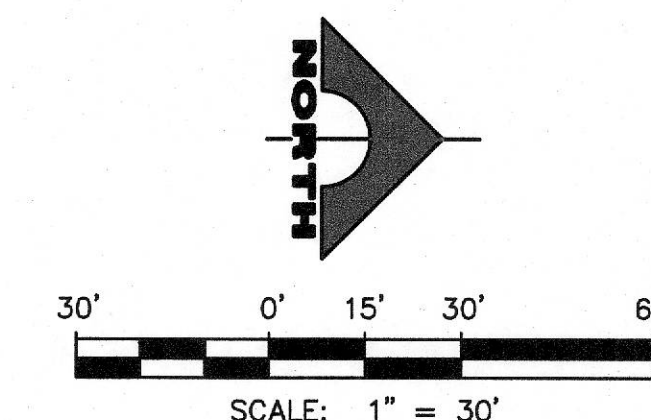
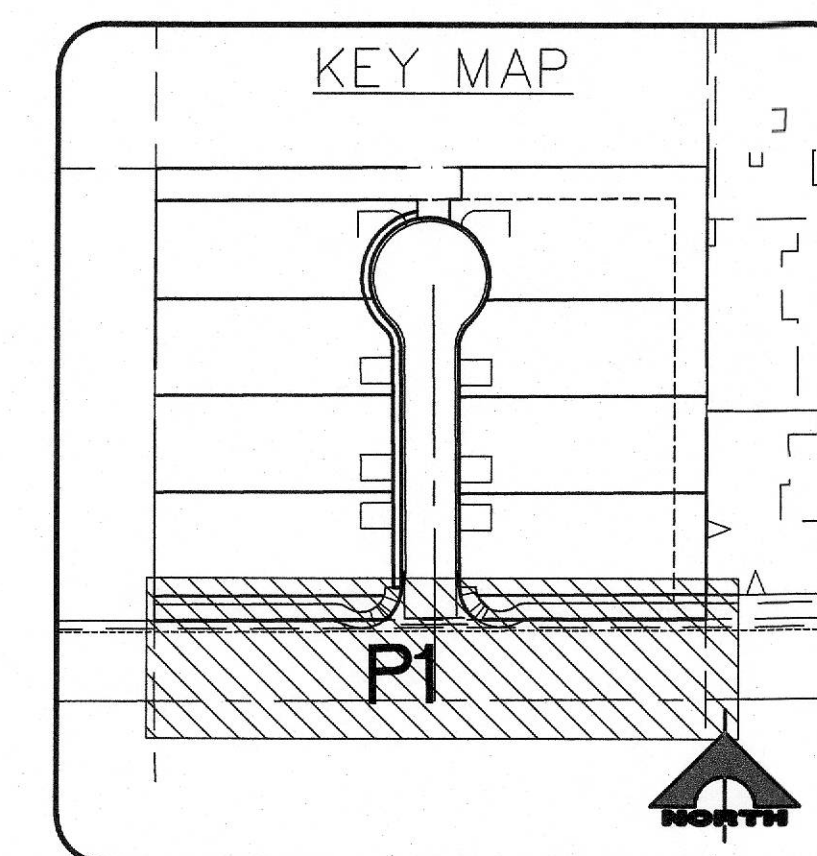
DATE _____

SITE LOCATED ON PANEL 32003C2135F DATED NOVEMBER 16, 2011. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE X AND NOT LOCATED WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA.



LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136487 FIRST APPROVED DATE: _____





BASIS OF BEARING:

NORTH 89°42'13" EAST, BEING THE BEARING OF THE SOUTH LINE, T13, SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 5, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA AS SHOWN IN BOOK 152, PAGE 17 OF 17 OF PLATS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK:

CITY OF LAS VEGAS VERTICAL CONTROL POINT 01V005566, BEING RIVET & PLATE IN TOP OF CURB ON THE WEST SIDE OF ISLAND IN DURANGO AT +/-320 SW OF HICKAM AV. & DURANGO.

ELEVATION: 2396.77(FEET)
730.537 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88)

AVOID HITTING OVERHEAD
POWER LINES. IT'S COSTLY

**CALL BEFORE
YOU DO
OVERHEAD**

1-702-227-2929

[illegible]

