

DS #:

4789-1

APN:

126.25-701.001

PROJECT:

BLM Site 11 - Update for Onsite Residential Development

SUBMITTAL:

6th Submittal

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		December 20, 2016
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:	
	BLM Site 11 – Update for Onsite Residential Development	
Cross Streets:	SWC of Tropical Pkwy & Michelli Crest Way	COPIES TO: Triton Engineering
File Number:	F:\Depot\DSMemos\DS4789F.doc	DR Horton Inc.
Parcel Number:	126-25-701-001	Bart Anderson, P.E., DevCo
Zoning Action:	ZON-62343; VAR-63098; WVR-63099; TMP-63100 & VAR-63259	CCPW
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES	NO X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	3/23/2016	4/12/2016	Not Approved	\$400.00	437883: \$400
2 nd Submittal	5/5/2016	5/31/2016	Not Approved	\$400.00	442871: \$400
3 rd Submittal	6/14/2016 & 8/10/2016	8/16/2016	Conditional Approval	\$400.00	447535: \$400
4 th Submittal	9/7/2016	9/21/2016	Not Approved	\$100.00	457457: \$100
5 th Submittal	10/5/2016	10/19/2016	Not Approved	\$400.00	460530: \$400
6 th Submittal	12/1/2016	12/20/2016	See Comments Below	\$400.00	467559: \$400
TOTAL FEES (LDDRS):				\$2,100.00	----

REMARKS:

4th to 6th Submittals: Update #1 and Addenda #1 & #2 for Onsite Development

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

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

END OF REMARKS

ays

T/R/S: T19S/R59E/25
AREA F-25

 *** FAX TX REPORT ***

TRANSMISSION OK

JOB NO. 2682
 DESTINATION ADDRESS 7022543062
 PSWD/SUBADDRESS
 DESTINATION ID
 ST. TIME 12/20 16:53
 USAGE T 01' 04
 PGS. 2
 RESULT OK

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: December 20, 2016
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REMARKS:**4th to 6th Submittals: Update #1 and Addenda #1 & #2 for Onsite Development**

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



Department of Public Works

500 S Grand Central Pky • Box 554000 • Las Vegas NV 89155-4000
(702) 455-6000 • Fax (702) 455-6040

Denis Cederburg, P.E., Director • E-Mail: dlc@ClarkCountyNV.gov

Drainage Study Approval Letter

Date: November 22, 2016
Firm: Triton Engineering, LLC
Engineer: Kelly J. Wittwer, P.E.
Address: 6757 West Charleston Blvd. Suite B, Las Vegas NV 89146
Phone: (702) 254-1480
Fax: (702) 254-3062
E-mail: kwittwer@tritoneng.com

Subject: Technical Drainage Study for BLM Site 11
Location: SWC & SEC of Tropical Pkwy and Alpine Ridge Way
APN: 126-25-701-001
Sec, Township, Range: S25, T19S, R59E
Flood Zone & Panel: Zone X, 1750E, dated September 27, 2002
Application Number: 16-38647

Submittals	Date Received	Date Returned	Reviewer	Miscellaneous
Concurrence	08/22/2016	09/14/2016	BC	
Addendum #1	10/14/2016	11/16/2016	BC	
Addendum #2	11/17/2016	11/18/2016	BC	
Supplement	11/18/2016	11/22/2016	PR	

Concurrence Required: (Must be obtained prior to permit issuance)		Reason Concurrence is Required
	Boulder City	Adjacent to or Impacts Jurisdiction
	City of Mesquite	Adjacent to or Impacts Jurisdiction
	City of Henderson	Adjacent to or Impacts Jurisdiction
	City of Las Vegas	Adjacent to or Impacts Jurisdiction
	City of North Las Vegas	Adjacent to or Impacts Jurisdiction
	Nevada Department of Transportation	Adjacent to or Impacts NDOT Facility
	Union Pacific Rail Road	Adjacent to or Impacts a UPRR Facility
	US Army Corps of Engineers	Impacts a USACE Facility
	Clark County Regional Flood Control District	Regional Significance, Adjacent to or Impacts CCRFCD MPU Facility or in a SFHA

BOARD OF COUNTY COMMISSIONERS
STEVE SISOLAK, Chairman • LARRY BROWN, Vice Chairman
SUSAN BRAGER • CHRIS GIUNCHIGLIANI • MARILYN KIRKPATRICK • MARY BETH SCOW • LAWRENCE WEEKLY
DONALD G. BURNETTE, County Manager

The referenced **Technical Drainage Study** has been reviewed and is accepted as complying with minimum improvement standards. As set forth in the subject drainage study, the following measures will be taken to mitigate flood hazards.

The site shall be graded with respect to drainage as shown on "**BLM Site 11**", grading plan sheets 1, 2, 2A, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, and 16, signed and sealed by James M. Pearce, P.E., on October 14, 2016, grading plan sheet 14, signed and sealed by James M. Pearce, P.E., on November 17, 2016, and grading plan sheets 25 and 26, signed and sealed by James M. Pearce, P.E., on November 18, 2016 .

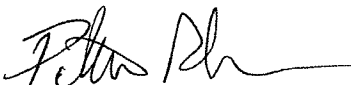
Check appropriate conditions

	Retaining/screen wall combination may be in excess of current Clark County Unified Development Code, Chapter 30.64.050.
	A FEMA Elevation Certificate, completed by a licensed surveyor, must be submitted to and approved by CCPW Development Review Plan Check prior to the issuance of Certificates of Occupancy for those structures.
X	Mylars of the grading plan must be submitted to the CCPW Development Review Plan Check for approval signatures prior to map recordation (residential) or permit issuance (commercial).
	An administrative variance to allow the finished floor elevation(s) to be set below the current Clark County criteria must be approved. The finished floor variance must be submitted to CCPW Development Review front counter after drainage study approval and prior to offsite final review.
	The grading plan will be reviewed by the Building Office Operations Division to ensure compliance with the ADA access requirements. Revisions to the grading plan may be required if the site accessibility design does not comply with the requirements set forth in the Accessibility Chapter of the Clark County Building Code.
	The plans show work is proposed outside of the project boundary. Notarized written permission must be obtained prior to grading plan approval.
X	Right-of-way dedication must be verified.
	Any previously approved drainage easements that are not being used must be vacated.
	Per <i>Regional Flood Control District policies and Procedures manual, Section VIII. D. 13. Uniform Regulations for the Control of Drainage</i> , the Engineer of Record shall provide As-Built plans or record drawings to the District after completion and final inspection of such privately installed flood control facilities that have regional flood control significance.
	Structural calculations are required. The structural calculations, plans, and details must be approved prior to "Offsite" submittal and prior to CCRFCD submittal, if applicable.
X	Plan revisions can be found on the red-lined plans and must be addressed.
	Prepare drainage easement documents as shown on the grading plans.

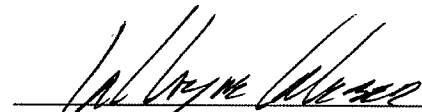
Additional Conditions:

1. The above-referenced project is located within the **City of Las Vegas** adjacent to Clark County unincorporated areas. The drainage study was submitted to the County for concurrence on August 22, 2016. In addition, the County has received the City of Henderson acceptance letter dated August 16, 2016 for the Technical Drainage Study (DS4789C).
2. The County concurs with the acceptance of this Drainage Study by the City of Las Vegas. Please note that the County's review of this development is limited to drainage issues significant to Clark County unincorporated areas.

The County's review is solely based on the information submitted by the Engineer of Record. The County's review is strictly limited to compliance with minimum County Codes and Standards. The Engineer of Record is responsible for researching and addressing situations that may require designs above and beyond the minimum codes for issues of public safety and impacts to upstream, downstream and adjacent properties. The County assumes no liability for information data, designs or conclusions of the Engineer of Record.

 FOR BRIAN CHURCHILL

Brian Churchill, P.E., CFM
Senior Engineer
Development Review
Brian.Churchill@ClarkCountyNV.gov



W. Layne Weber, P.E., CFM
Principal Engineer
Development Review
wlweber@ClarkCountyNV.gov

TRANSMITTAL

Date: December 1, 2016

Project No.: 007.103

To: City of Las Vegas
Attn: Albert Sung
Flood Control
333 N. Rancho Dr.
Las Vegas, NV 89106
Albert Sung

Subject: **BLM SITE 11- TECHNICAL DRAINAGE STUDY**
Add# 2 to Update #1 - DS#4789

The following items are forwarded by: HAND DELIVERY

Description

- 1 Add#2 to Update #1 to the Technical Drainage Study

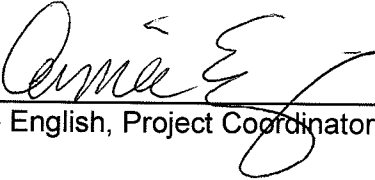
These items are submitted :

- | | | |
|---|--|---|
| ☐ At your request | ☒ For your review & approval | ☐ For your file |
| ☒ For your action | ☒ For your review & comments | ☐ For information only |

Remarks

For your review and approval. If you should require any additional information feel free to call our office.

Thank you!

By: 
Aimee English, Project Coordinator

Received:

Copies to: Mark Jones, DR Horton
File

ADDENDUM #2 TO UPDATE #1
TO THE
TECHNICAL DRAINAGE STUDY
FOR
BLM Site 11
Residential Development

City of Las Vegas, Nevada

Prepared for:

DR Horton

1081 Whitney Ranch Drive, #141

Henderson, NV 89014

Office: (702)635-3600 - Fax: (702)538.0735

Prepared by:

Triton Engineering

6757 W. Charleston Blvd., Suite B

Las Vegas, NV 89146

Office: (702) 254-1480 - Fax: (702) 254-3062

APN 126-25-701-001

December 2016

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Addendum 2 to Update 1 Technical Drainage Study for BLM Site 11 Date: December 2016

Location of Development: a) Descriptive (Cross Streets) North/South: Alpine Ridge
East/West: Tropical

b) Section: 25 Township: 19S Range: 59E

c) APN : 126-25-701-001

Name of Owner: USA BLM, Owners, - DR Horton, Developers

Telephone No.: (702)672-1939 Fax No.: (702) 538-0735 E-Mail Address: MEJones3@DRHorton.com

Address: 1081 Whitney Ranch Drive #141, Henderson, NV 89014

Contact Person-Name: Kelly J. Wittwer, P.E. Telephone No.: (702) 254-1480

* E-Mail Address: KWittwer@tritoneng.com Fax No.: (702) 254-3062

Firm: Triton Engineering, LLC

Address: 6757 West Charleston Boulevard, Suite B, 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: 25 ac Being Developed/Disturbed: 25 ac.

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

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

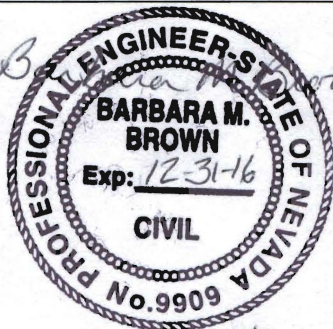
4. Proposed type of development (Residential, Commercial, Etc.): Residential

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

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

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: _____
Discharge to the east to historical flow paths

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



December 1, 2016

Albert Sung, P.E
Land Development Services
333 North Rancho Drive
Las Vegas, NV 89106

**Subject: Addendum #2 to Update #1 to the Technical Drainage Study for
BLM Site 11 Residential Development
DS4789**

Mr. Sung:

Triton Engineering has received the City's review comments for the above-referenced study, dated October 19, 2016 by the City.

The purpose of this addendum submittal is to provide a response to all of the comments, as follows:

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

Upon conditional approval by the City of Las Vegas, this study will be submitted to CCPW for their review and concurrence.

- 2. Previous Comment #4 requested the engineer to show the elevation of existing contours so as to determine the elevation difference between the proposed and existing grades. The purpose was to decide whether approval from City Planning Department would be required for grade difference equal to or greater than two feet. The grading plans submitted in the last submittal, however, totally eliminated the existing contours which was no way for the reviewer to determine whether City Planning review is required. Provide as such in the next submittal.**

The contours shown on the drawings for "existing conditions" represent the contours for the onsite pad grading which was performed in the original study performed on the subject site which applied to offsite improvements. In that study, the onsite area was assumed to be a single lot, with rough grading, while the offsite civil improvements were completed. As a result, the "existing conditions" contours do not represent virgin terrain, but they represent the elevation of the areas that have been rough graded in the previous project. It is noted that coordination with the City's Planning Department was required, and the variance was required and attained; a copy of the documentation is included in this submittal.

- 3. Second Request: The developer/engineer proposed R-curb for interior streets. Note that R-curb is only allowed at driveway locations. Clearly identify all the driveway locations of individual lots on the grading plans for R-curb. Specify the construction of standard L-curb in all interior streets other than the driveway locations.**

The use of the R-curb has been approved by the City Fire Department; a copy of the documentation is included in this submittal.

- 4. Previous Comment: An existing 24-inch storm drain and a 12" bleeder line appears to be within the Clark County jurisdiction. Consult with the Clark County Public Works Department what will need to be done with the bleeder system.**

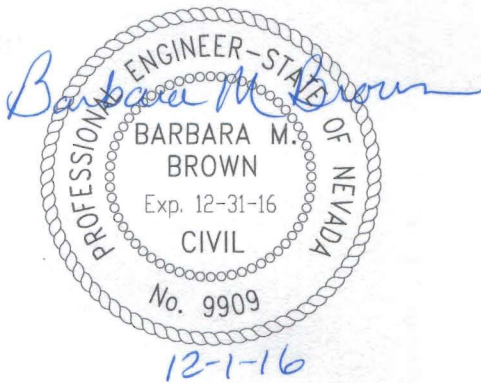
The drainage design and grading plans have been coordinated with Clark County Public Works, and the design of the storm drain system has been revised per their requirements.

- 5. 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.**

The grading plans in the subject submittal have been revised as requested.

We hope that this response satisfies all your issues concerning the project. If you have any questions, please contact me at 702-376-8801, email Momentum1@cox.net.

Sincerely,



Momentum Engineers, Ltd.
Barbara M. Brown, P. E.
Subcontractor for
Triton Engineering, LLC

APPENDIX

COPY OF COMMENT LETTER

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		October 19, 2016
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
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REMARKS:**4th & 5th Submittals: Update #1 & Addendum #1 for Onsite Development**

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END OF REMARKS
ays

T/R/S: T19S/R59E/25
AREA F-25

ZONING/PLANNING DOCUMENTS



May 9 2016

City of Las Vegas -Building and Safety
333 North Rancho Drive
Las Vegas, Nevada 89106
Attn: Linda Hartman

Re: Difference in elevation across boundaries with existing developments
DR Horton – BLM SITE 11 Project
APN: 126-25-701-001

Dear Linda,

Our project is a 25 acre development which is bounded by existing development on virtually all sides. The elevation of our project is set basically by the natural fall of this site and the existing surrounding development. As you can see from the drainage plans that accompanied our letter we have a slope of 3.5% from the northwest corner of the site to the southwest corner of the site.

We must convey storm flows and keep them within their historic path as much as possible. Under these conditions the pad grades shown on the plans are the lowest practical elevations possible. The pads on the existing development to the south of our site were built at grade at the time which makes the difference in pads across the boundary wall about 2 to 3 feet. The pads on the existing development to the west of our site were built above previous existing ground which makes the difference in the pads across the boundary wall about 5 to 6 feet. It should be noted that our site is lower than this existing adjacent development. We have virtually no flexibility with the constraints we have on the project. It should also be noted that we clearly showed the worst case condition on the sections that were part of the Tentative Map (TMP-63100) that was approved on 4/12/16.

If you have any questions or need any additional information feel free to call our office.

Thank you,

A handwritten signature in blue ink, appearing to read "James M. Pearce".

James M. Pearce, PE
Sr. Vice President
Triton Engineering

CC: Albert Sung, CLV Flood Control

PLANS APPROVED
PLANNING
Building & Safety Dept.
City of Las Vegas, Nevada
2-FOOT GRADE DIFFERENCE ONLY
LHM **MAY 12 2016**
subject to the minimum requirements of
LVMC Title 19 applicable Master Plan
development standards and/or Conditions of
Approval. Make No Change Without Approval.
Plan is Not a Permit to Violate Any Ordinance.
R-D



LAS VEGAS CITY COUNCIL
CAROLYN G. GOODMAN
MAYOR

STEVEN D. ROSS
MAYOR PRO TEM

LOIS TARKANIAN
RICKI Y. BARLOW
STRAVOS S. ANTHONY
BOB COFFIN
BOB BEERS

ELIZABETH N. FRETWELL
CITY MANAGER



WILLIAM L. McDONALD
FIRE CHIEF

THOMAS MIRAMONTES
SENIOR DEPUTY FIRE CHIEF

DAVID SLATTERY
ROBERT E. NOLAN
EDDIE VIGIL
DEPUTY FIRE CHIEFS

ROBERT HORTON
JON STEVENSON II
ASSISTANT FIRE CHIEF

LAS VEGAS FIRE & RESCUE
500 N. CASINO CENTER BLVD.
LAS VEGAS, NEVADA 89101

VOICE 702.383.2888
FAX 702.464.5736
TTY 7-1-1

www.lasvegasnevada.gov/fire-rescue

September 20, 2016

To: Kelly J. Wittwer P.E.
Triton Engineering

RE: Use of "R" Curb for submitted ongoing projects within the City of Las Vegas.

Good morning, as discussed in our meeting September 19, 2016, the following D.R. Horton projects can utilize the proposed "R" curb with the reduced flow-line measurements as consideration for any reduction in street width for the proposed curb was not discovered during the preliminary review process for the new curb design by me.

This is a one-time allowance for the reflected projects below and any projects submitted after this date shall comply with the adopted City of Las Vegas Fire Code for emergency access widths.

General project locations requested

1. Ann/Durango
2. Hualapai/Severance
3. Azure/Torrey Pines North
4. Azure/Eula (a.k.a. Bloom 10)
5. BLM 11 East & West
6. Elkhorn/Tenaya (a.k.a Elkhorn 40)

If there are any questions please feel free to call.

David F. Klein
Deputy Fire Marshal | Fire Protection Engineering
Las Vegas Fire & Rescue

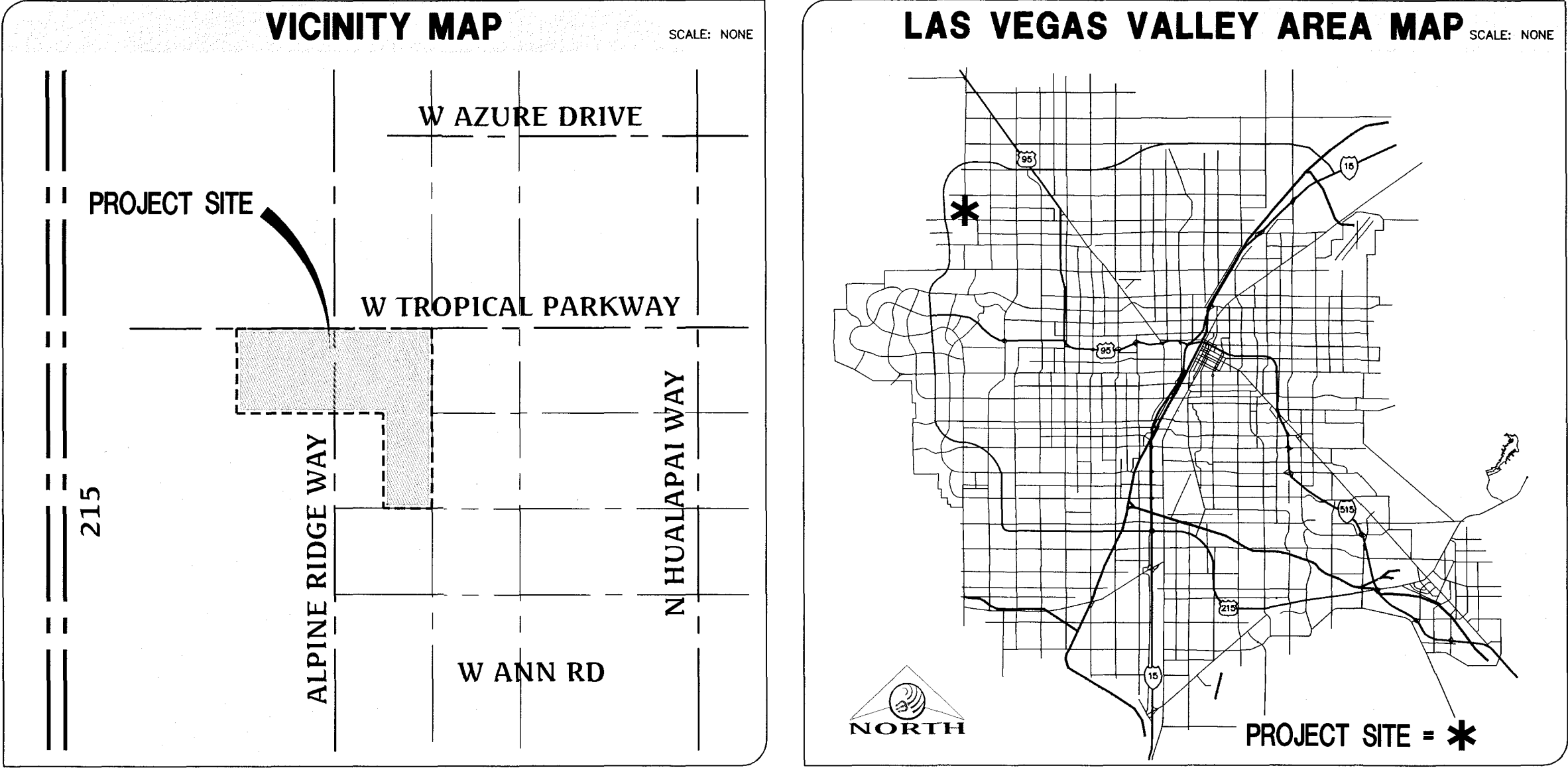
REVISED GRADING PLANS

APN: 126-25-701-001

BLM SITE 11

ON-SITE DRAINAGE PLANS

A RESIDENTIAL SUBDIVISION
CITY OF LAS VEGAS, NEVADA



FOR
DR HORTON
1081 WHITNEY RANCH DRIVE #141
HENDERSON, NEVADA 89014
OFFICE: (702) 635-3600
FAX: (800) 538-0735

BY



Triton
Engineering

6757 W. Charleston Boulevard
Suite B
Las Vegas, Nevada 89146
Office: (702) 254-1480
Fax: (702) 254-3062
www.tritoneng.com

DRAINAGE QUANTITIES		
ITEMS	PUBLIC	PRIVATE
1. 2" ASPHALTIC CONCRETE PAVEMENT	6,829 SY	0 SY
2. TYPE II GRAVEL	2,053 CY	0 CY
3. "R" TYPE CURB AND GUTTER (24")	3,397 LF	0 LF
4. SIDEWALK	8,430 SF	0 SF

SHEET INDEX

- COVER SHEET
- GENERAL NOTES AND LEGEND
- GRADING PLAN I
- GRADING PLAN II
- GRADING PLAN III
- GRADING DETAILS I
- GRADING DETAILS II
- FORTRESS RIDGE COURT (PUBLIC)
PLAN & PROFILE 0+50.00 - 3+74.23
- AMULET RIDGE COURT (PUBLIC)
PLAN & PROFILE 0+50.00 - 5+88.23
- TROPICAL PARKWAY (PUBLIC)
PLAN & PROFILE 10+00.00 - 18+00.00
- ALPINE RIDGE WAY (PUBLIC)
PLAN & PROFILE 8+00.00 - 17+00.00
- TROPICAL PARKWAY (PUBLIC)
PLAN & PROFILE 18+00.00 - 25+50.00
- MICHELLI CREST WAY (PUBLIC)
PLAN & PROFILE 17+00.00 - 24+00.00
- MICHELLI CREST WAY (PUBLIC)
PLAN & PROFILE 9+00.00 - 17+00.00
- EL CAMPO GRANDE AVENUE (PUBLIC)
PLAN & PROFILE 1+00.00 - 5+00.00
- MYSTIC LEDGE COURT (PUBLIC)
PLAN & PROFILE 1+00.00 - 5+00.00
- SCOTLAND RIDGE COURT (PUBLIC)
PLAN & PROFILE 1+00.00 - 5+00.00

DEVELOPER

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ENGINEER

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SURVEYOR

TRI-CORE SURVEYING
6755 W. CHARLESTON BLVD STE A
LAS VEGAS, NV 89146
OFFICE: (702) 524-4085

BASIS OF BEARING

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M. AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

BENCHMARK # 1C9925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)

OWNER

DR HORTON
1081 WHITNEY RANCH DRIVE, SUITE #141
HENDERSON, NEVADA 89014
OFFICE: (702) 635-3600

LEGAL

THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M. AND THE EAST HALF (E 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

LAND USE TABULATION

LAND USE DESIGNATION		
EXISTING CLV ZONING	R-E	
PROPOSED CLV ZONING	R-D	
MINIMUM LOT SIZE (SF)	10,932 SF	

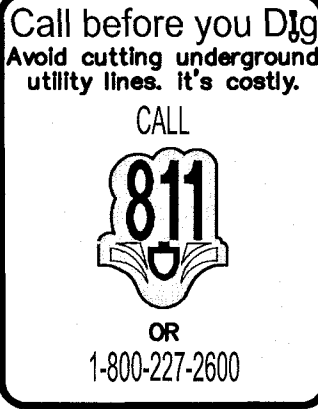
SITE SUMMARY

TOTAL UNITS	49 UNITS
GROSS ACREAGE	25.6 ACRES
GROSS DENSITY	1.9 UNITS/ACRE

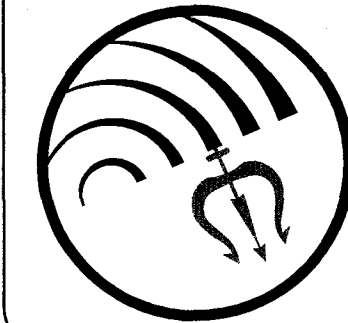
OPEN SPACE REQUIRED	NONE
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ASSESSOR'S PARCEL NUMBER

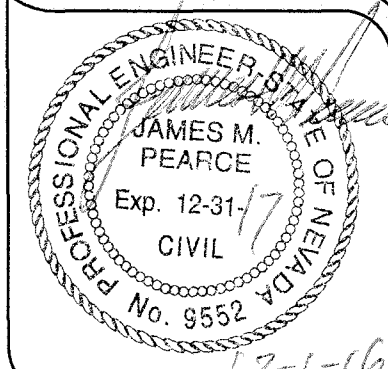
126-25-701-001



Triton
Engineering



DR HORTON
BLM SITE 11
ON-SITE DRAINAGE PLANS
COVER SHEET



SHEET 1 OF 17
C.L.V. DWG.#

Q:\Triton Drawings\007-104 BLM Site 11 East\Drawings\URANAGE\On-sites\007-104_on--drain_02--Notes.dwg dlanovan Thu, 01 Dec 2016 10:54am

ABBREVIATIONS

ABAN - ABANDON	IN - INCH	S - SOUTH/SLOPE
AC - ASPHALTIC CONCRETE	INST - INSTALL	S/C - SAW CUT
AGGR - AGGREGATE	INT - INTERIOR	SCOP - STEEL CYLINDER CONCRETE
A - AND	INV - INVERT	SD - SCHEDULE
APN - ASSESSOR PARCEL NUMBER	IRR - IRRIGATION	SD - STORM DRAIN
APPROX - APPROXIMATE		SDMH - STORM DRAIN MANHOLE
ASST - ASSEMBLY		SDWK - SIDEWALK
AVE - AVENUE		SE - SOUTHEAST
		SEC - SECTION/SECOND
BC - BACK OF CURB	LD OR # - POUND	SEG - SEGMENT
BCR - BACK OF CURVE RETURN	LN OR L - LENGTH OF CURVATURE	SHDR - SHOULDER
BK - BOOK/BACK	LT - LINEAR FOOT	SHT - SHEET
BLDG - BUILDING	LG - LONG	SID - SPECIAL IMPROVEMENT
BLK - BLOCK	LI - LANE	SIDIST - DISTRICT
BLM - BUREAU OF LAND MANAGEMENT	LV - LAS VEGAS VALLEY	SIG - SIGNAL
	LMR - LOWER	SL - SLOPE
BLVD - BOULEVARD		SLV - SLEEVE
BM - BENCHMARK		SNWA - SOUTHERN NEVADA WATER AUTHORITY
BO - BLOW OFF ASSEMBLY	M - METER	SPEC(S) - SPECIFICATION(S)
BOC - BACK OF CURB	MATL - MATERIAL	SO - SQUARE
BOT - BOTTOM	MAX - MAXIMUM	SO FT - SQUARE FOOT/FEET
BOW - BACK OF WALK	MECH - MECHANICAL	SO - SQUARE FOOT/FEET
BRG - BEARING	MFR - MANUFACTURER	SS - SQUARE YARD
BWC - BEGIN VERTICAL CURVE	MG - MILLION GALLONS	SS - SANITARY SEWER
BW - BACK OF WALK	MGD - MILLION GALLONS PER DAY	STA - STREET
BWW - BACK WATER VALVE	MH - MANHOLE	STD - STANDARD
	MIN - MINIMUM	STL - STEEL
	MISC - MISCELLANEOUS	STLT - STREET LIGHT
	MJ - MECHANICAL JOINT	SUR - SURVEY
	MKR - MARKER	SW - SIDEWALK OR SOUTHWEST
	ML - MORTAR LINED	SY - SQUARE YARD
	MLC - MORTAR LINED & COATED	SYM - SYMBOL
	MVC - MIDDLE OF VERTICAL CURVE	SYS - SYSTEM
	N - NORTH	
	N/A - NOT APPLICABLE	
	NAP - NOT A PART	
	NDOT - NEVADA DEPARTMENT OF TRANSPORTATION	
	NE - NORTHEAST	
	NF - NORTH FACE	
	NG - NATURAL GROUND	
	NO. OF # - NUMBER	
	NTS - NOT TO SCALE	
	NW - NORTHWEST	
	O/O - OUT TO OUT	
	OC - ON CENTER	
	OD - OUTSIDE DIAMETER	
	OF - OUTSIDE FACE	
	OH - OVER HEAD POWER	
	OHTEL - OVER HEAD TELEPHONE	
	ORIG - ORIGINAL	
	OVFL - OVERFLOW	
	O/O - OUT TO OUT	
	OC - ON CENTER	
	OD - OUTSIDE DIAMETER	
	OF - OUTSIDE FACE	
	OH - OVER HEAD POWER	
	OHTEL - OVER HEAD TELEPHONE	
	ORIG - ORIGINAL	
	OVFL - OVERFLOW	
	PL OR P - PROPERTY LINE	
	PAVMT - PAVEMENT	
	PB - PULL BOX	
	PC - POINT OF CURVE	
	POC - POINT OF COMPOUND CURVE	
	PE - POLYETHYLENE	
	PED - PEDESTAL	
	PERM - PERMANENT	
	PERP - PERPENDICULAR	
	PH - PHASE	
	PI - POINT OF INTERSECTION	
	PKG - PACKAGE	
	PKWY - PARKWAY	
	PL - PLACE/PLATE/PARCEL LINE	
	PLT - PLATE (DRAWING)	
	POLY - POLYETHYLENE	
	PP - POWER POLE	
	PR - PAIR	
	PRC - POINT OF REVERSE CURVE/	
	PRECAST REINFORCED CONCRETE	
	PRELIM - PRELIMINARY	
	PROP - PROPOSED	
	PRV - PRESSURE REGULATING VALVE	
	PS - PUMP STATION	
	PSF - POUNDS PER SQUARE FOOT	
	PSI - POUNDS PER SQUARE INCH	
	PT - POINT/POINT OF TANGENT	
	PUE - PUBLIC UTILITY EASEMENT	
	PVI - POINT OF VERTICAL INTERSECTION	
	PVC - POLYVINYL CHLORIDE PIPE	
	QTR - QUARTER	
	QTY - QUANTITY	
	R - RADIUS	
	(R) - RADIAL	
	R/W - RIGHT OF WAY	
	RCB - REINFORCED CONCRETE BOX	
	ROP - REINFORCED CONCRETE PIPE	
	RD - ROAD	
	RED - REDUCER	
	REQD - REQUIRED	
	RET - RETURN	
	REV - REVISION OR REVERSE	
	R/W - RIGHT OF WAY	
	RPRA - REDUCED PRESSURE PRINCIPLE ASSMBLY	
	RR - RAILROAD	
	RT - RIGHT	
	HORIZ - HORIZONTAL	
	HP - HIGH POINT	
	HPS - HIGH PRESSURE GAS	
	HT - HEIGHT	
	HWY - HIGHWAY	

CITY OF LAS VEGAS GENERAL NOTES

- 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 ISSUE; THE 'UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA', LATEST REVISED EDITION; THE 'SUMMERLIN 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'.
- THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CIVIL PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S 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 SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
- 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'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
- 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.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
- AC PAVEMENT TO BE ONE-HALF INCH ($\frac{1}{2}$ ") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
- CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
- SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
- 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.
- ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (COMPANY, _ REPORT #, DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
- 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.
- 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.
- 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:

- 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.
- ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
- CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
- MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
- WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO 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.
- 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 AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS, THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINITIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

OR

~~SANITARY SEWER AND STORM DRAIN FACILITIES SHOWN ON THESE PLANS SHALL BE USED TO MEET THE REQUIREMENTS OF MRS 455 AND SHALL SHOW AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. ANY DEVIATIONS FROM THE INFORMATION SHOWN SHALL BE NOTED AND SUBMITTED AS A REVISION TO THE PLANS AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION.~~

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.

REVISED 02/03/15

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

- 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.
- ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
- 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 § 105.7.12]
- 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 ORDE AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 3310, § 3312]
- TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]
- 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 106.3]
- 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 § 507.2.1, NFPA 24]
- 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 § 507]
- PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]
- 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 § 507]
- FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
 - RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
 - COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
- WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 100 FT FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS, WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.12]
- A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.4]
- THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]
- THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]
- TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC § 503.2.3]
- THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC § 503.2.7, § 503.2.8]
- THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. [IFC § 503.2.4]
- VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. [IFC § 503.2.1]
- FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES, NOT LESS THAN 32 FT WIDE, FLOW-LINE TO FLOW-LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD, NOT LESS THAN 24 FT WIDE, FLOW-LINE TO FLOW-LINE, WHERE NO PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [IFC § 503.2.1.1]
- A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [IFC § 503.1.1]
- APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [IFC § 503.1.2]
- ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC § 503.2.5]
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC § 503.3]
- ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC § 503.6 AND IFC APPENDIX M.

EFFECTIVE DATE: MARCH 1ST, 2015

GENERAL LEGEND

	CENTERLINE
	UNIT BOUNDARY
	PROPOSED 1' GRADE CONTOUR
	PROPOSED 5' GRADE CONTOUR
	EXISTING 1' GRADE CONTOUR
	EXISTING 5' GRADE CONTOUR
	PROPOSED PROPERTY LINE
	PROPOSED SETBACK LINE
	PROPOSED HINGE LINE
	PROPOSED SWALE
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	RETAINING WALL
	GARDEN WALL WITH SOLID GROUT
	8' WIDE CMU FLOOD WALL
	EXISTING FENCE
	EXISTING EDGE OF PAVEMENT
	PROPOSED EDGE OF PAVEMENT
	PROPOSED STREETLIGHT CONDUIT
	PROPOSED NO. 3 1/2 CONCRETE PULL BOX W/ METAL COVER
	EXISTING GAS
	EXISTING SEWER MAIN
	PROPOSED SEWER MAIN
	PROPOSED SEWER LATERAL
	EXISTING STORM DRAIN
	PROPOSED STORM DRAIN
	EXISTING WATER MAIN
	PROPOSED WATER MAIN
	PROPOSED FIRE HYDRANT
	LOT NUMBER
	PROPOSED FINISH FLOOR
	EXISTING STREET LIGHT
	PROPOSED 100w HPS STREET LIGHT
	PROPOSED 150w HPS STREET LIGHT
	PROPOSED 200w HPS STREET LIGHT
	PROPOSED 250w HPS STREET LIGHT
	PROPOSED 400w HPS STREET LIGHT
	PROPOSED HANDICAP RAMP
	PROPOSED CONCRETE DRIVEWAY
	0' LIP DRIVEWAY
	2:1 SCARP
	COURSES OF 8' CMU NUMBER OF COURSES
	CUL-DE-SAC BACK OF CURB STATION
	KNUCKLE BACK OF CURB STATION
	SIGHT VISIBILITY ZONE
	PROPOSED RATE & FLOW DIRECTION
	PROPOSED ELEVATION WITH DESCRIPTION
	EXISTING ELEVATION WITH DESCRIPTION

CITY OF LAS VEGAS SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
- 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.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
- 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.
- 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.
- WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
- 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.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A CRITICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF AN INCH 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.
- INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10



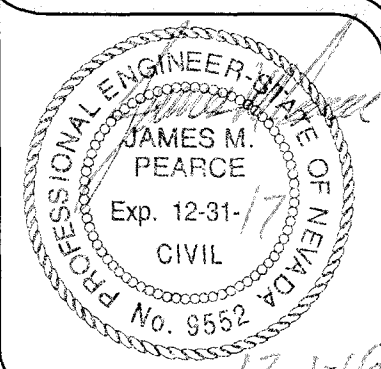
Avoid overhead power line contact. It's costly.
Call before you Overhead
1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

Triton Engineering

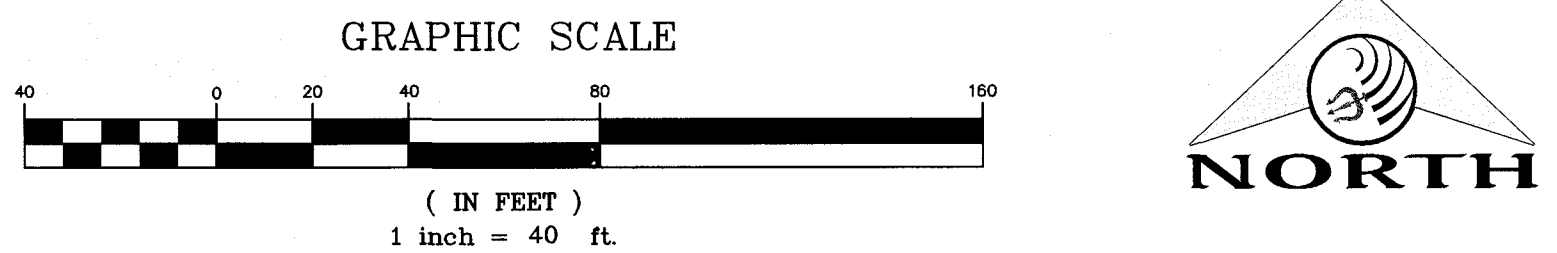
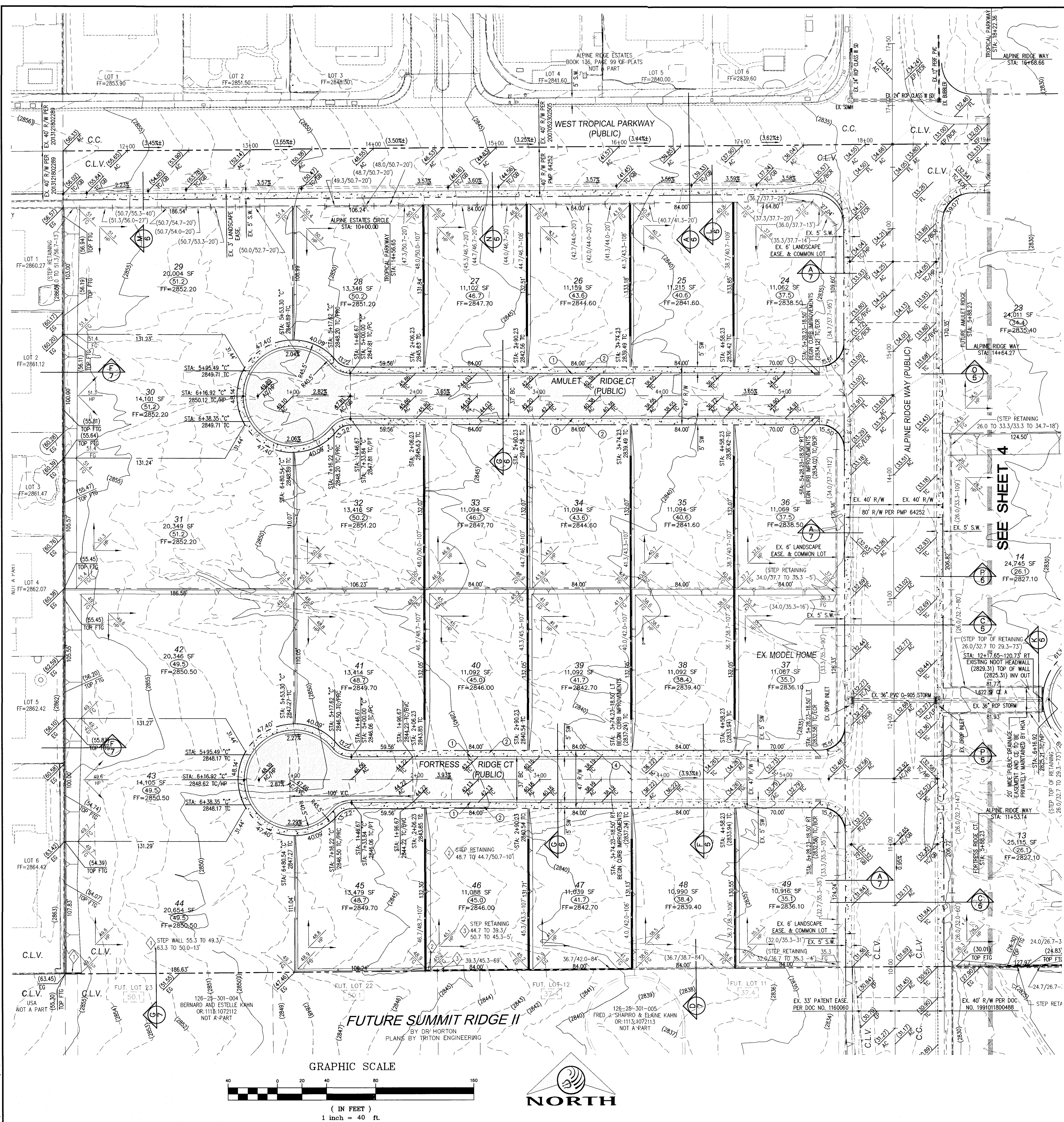


DR HORTON
BLM SITE 11
ON-SITE DRAINAGE PLANS
GENERAL NOTES AND LEGEND



SHEET **2** OF 17
C.L.V. DWG.#

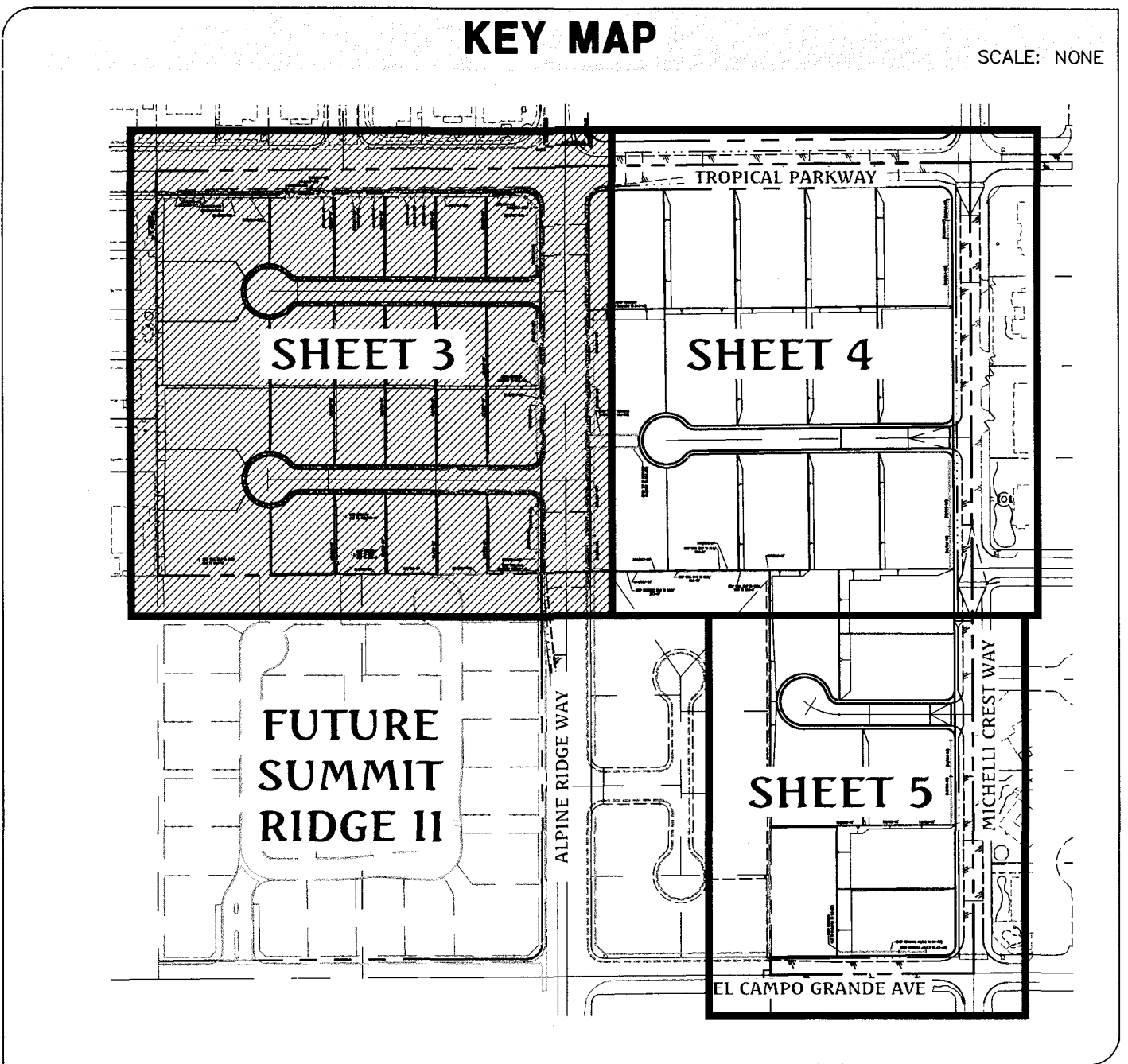
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FAST
Call before you
Underground
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Freeway & Airtrain
System of Transportation

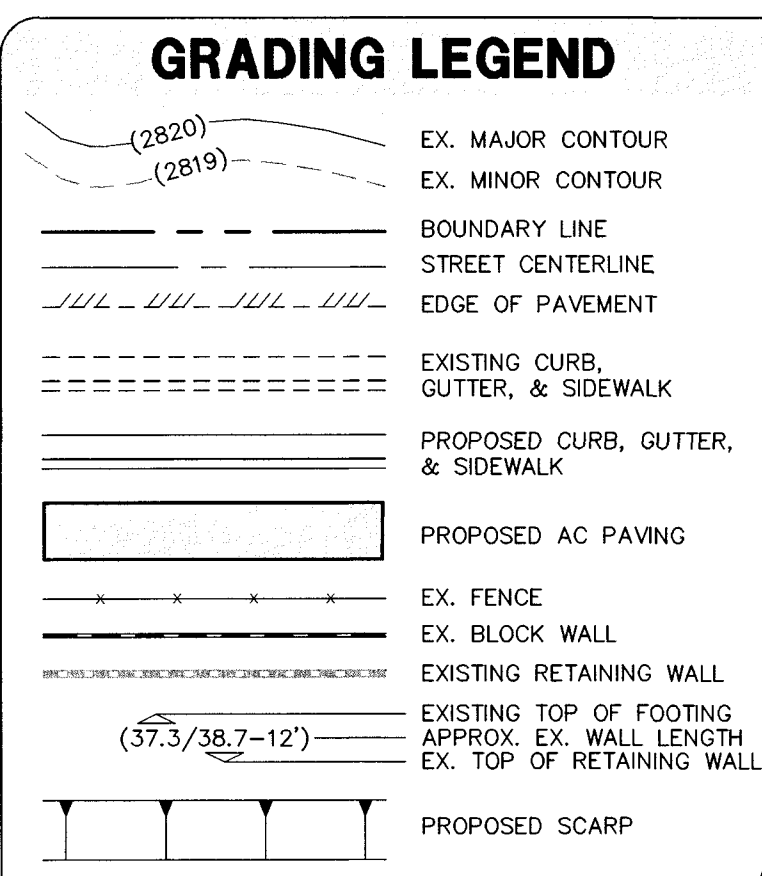
Avoid overhead power
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Call before you
Overhead
1-702-227-2929

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utility lines. It's costly.
CALL
811
OR
1-800-227-2600



- CONSTRUCTION NOTES**
1. CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.52.
 2. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
 3. 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB
 4. SAWCUT AND MATCH EXISTING ASPHALT.
- SOILS INFORMATION**
1. SOILS REPORT BY: GEOTEK RESIDENTIAL, LLC
PROJECT NO. 12699-LVR
DATED: DECEMBER 8, 2015
 2. CUT TOTAL: 54,709 C.Y.
FILL TOTAL: 45,071 C.Y.
NET: 9,638 C.Y. (CUT)

- GRADING NOTES**
1. ALL PROPOSED PAD ELEVATIONS AND SWALE ELEVATIONS ARE ROUGH GRADES. ALL OTHER PROPOSED ELEVATIONS ARE FINISHED GRADES.
 2. THE GRADING PLANS SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
 3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER.
 4. ALL PADS ARE TO BE GRADED WITHIN ±0.3' OF THE ELEVATIONS AS SHOWN ON THE PLANS. GRADING IS NOT COMPLETE UNTIL THE ENGINEER HAS CERTIFIED THAT THE PADS HAVE BEEN GRADED IN SUBSTANTIAL CONFORMANCE TO THE PLANS.
 5. ALL PLACEMENT OF OVERSIZED MATERIALS AND/OR FILL MATERIALS SHALL BE PER THE SOILS REPORT REFERENCED ON THIS PLAN.
 6. ADD 2800 TO ALL SPOT GRADES AND TOP OF CURB, FLOW LINE AND FINISH GRADE ELEVATIONS.
 7. ALL PRIVATE STREETS ARE P.U.E. PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.
 8. ANY CURVED CURB LESS THAN 1/2 MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.



FLOOD ZONE NOTE

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #32003C1750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

BASIS OF BEARING

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, N.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

BENCHMARK # 1C9925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAV88)
ELEVATION = 2,888.33 U.S. FEET (NAVD88)

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.
#DS4789E

JAMES M. PEARCE, PE No. 9552 DATE:

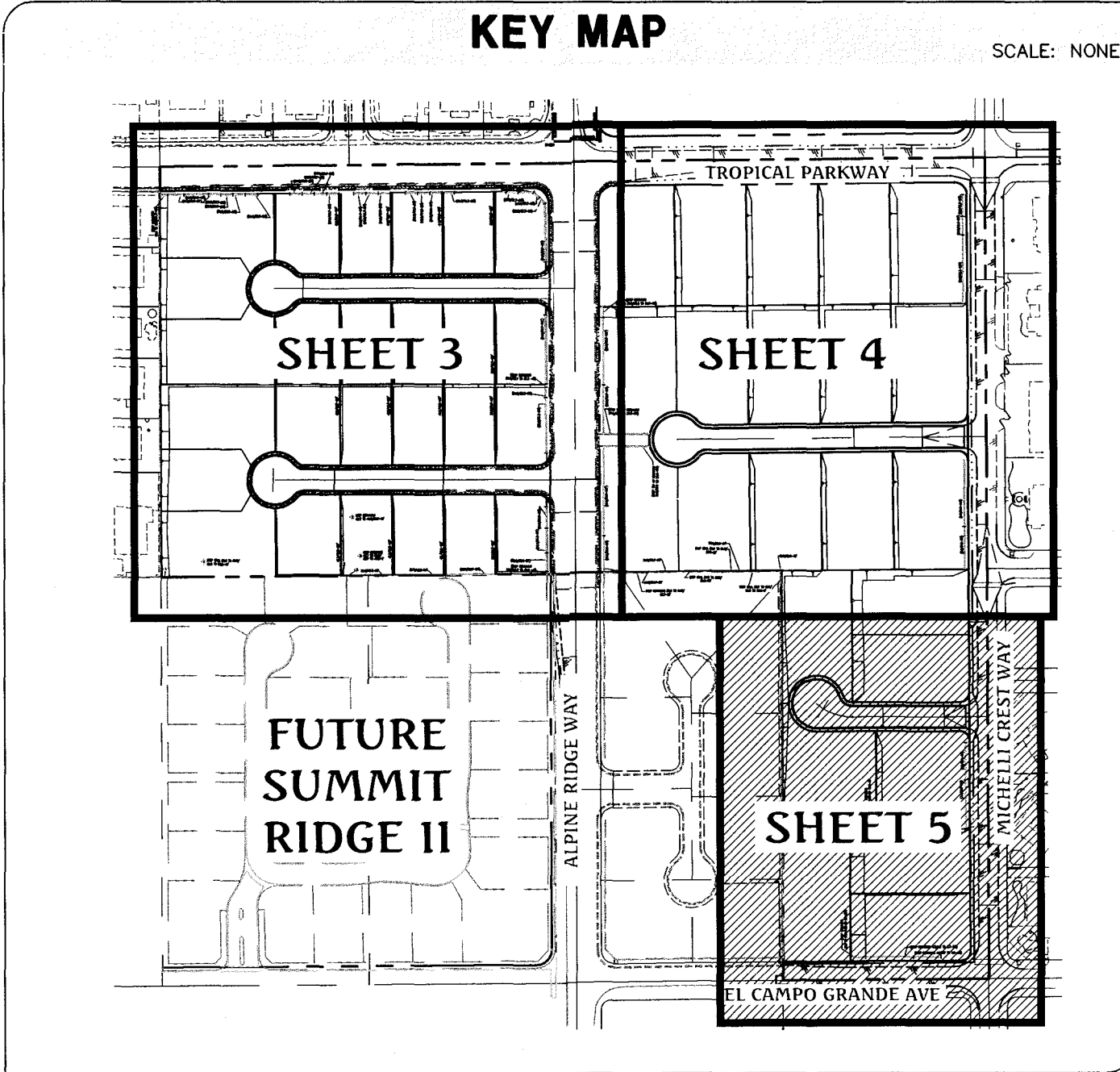
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PM: J. PEARCE			
DRAWN BY:			
DESIGNED BY:			
CHECKED BY:			
ADA CHECKED:			
JOB NO.: 007104			
SCALE: 1" = 40'			

Triton Engineering
Office: (702) 254-1480
6757 W. Charleston Blvd.
Suite B
Las Vegas, Nevada 89146
Fax: (702) 254-3062
www.tritoneng.com

DR HORTON
BLM SITE 11
ON-SITE DRAINAGE PLANS
GRADING PLAN 1

PROFESSIONAL ENGINEER
JAMES M. PEARCE
Exp. 12-31-16
CIVIL
No. 9552

SHEET **3** OF 17
C.L.V. DWG.#



1. ALL PROPOSED PAD ELEVATIONS AND SWALE ELEVATIONS ARE ROUGH GRADES. ALL OTHER PROPOSED ELEVATIONS ARE FINISH GRADES.
2. THE FINISHING GRAD SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
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6. ADD 2800 TO ALL SPOT GRADES AND TOP OF CURB, FLOW LINE AND FINISH GRADE ELEVATIONS.
7. ALL STREETS, DRIVEWAYS, SIDEWALKS, SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.
8. ANY CURVED CURB LESS THAN 1% MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.

- ① CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.S2.
- ② CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
- ③ 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB
- ④ SAWCUT AND MATCH EXISTING ASPHALT.

1. SOILS REPORT BY: GEOTEK RESIDENTIAL, LLC
PROJECT No. 12699-LVR
DATED: DECEMBER 8, 2015

2. CUT TOTAL: 54,709 C.Y.
FILL TOTAL: 45,071 C.Y.
NET: 9,638 C.Y. (CUT)

	EX. MAJOR CONTOUR EX. MINOR CONTOUR
	BOUNDARY LINE
	STREET CENTERLINE
	EDGE OF PAVEMENT
	EXISTING CURB, GUTTER, & SIDEWALK
	PROPOSED CURB, GUTTER, & SIDEWALK
	PROPOSED AC PAVING
	EX. FENCE EX. BLOCK WALL
	EXISTING RETAINING WALL
	EXISTING TOP OF FOOTING
	APPROX. EX. WALL LENGTH EX. TOP OF RETAINING WALL
	PROPOSED SCARP

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #32003C1750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK # 1C9925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF
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END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH
THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF
LAS VEGAS FOR THIS PROJECT.
#DS4789E

JAMES M. PEARCE, PE No. 9552

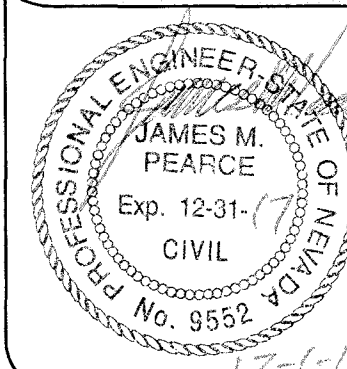
DATE _____

DATE : 12/01/2016			
PM : J. FERRAS			
DRAWN BY :			
DESIGNED BY :			
CHECKED BY :			
ADA CHECKED :			
JOB NO. : 007/04			
SCALE : 1" = 40'			
NO.		DATE	
DESCRIPTION		APP'D	

Triton
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DR HORTON
BLM SITE 11
ON-SITE DRAINAGE PLANS
GRADING PLAN III



SHEET **5** OF 17
C.L.V. DWG.#

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Avoid cutting underground
utility lines. It's costly.

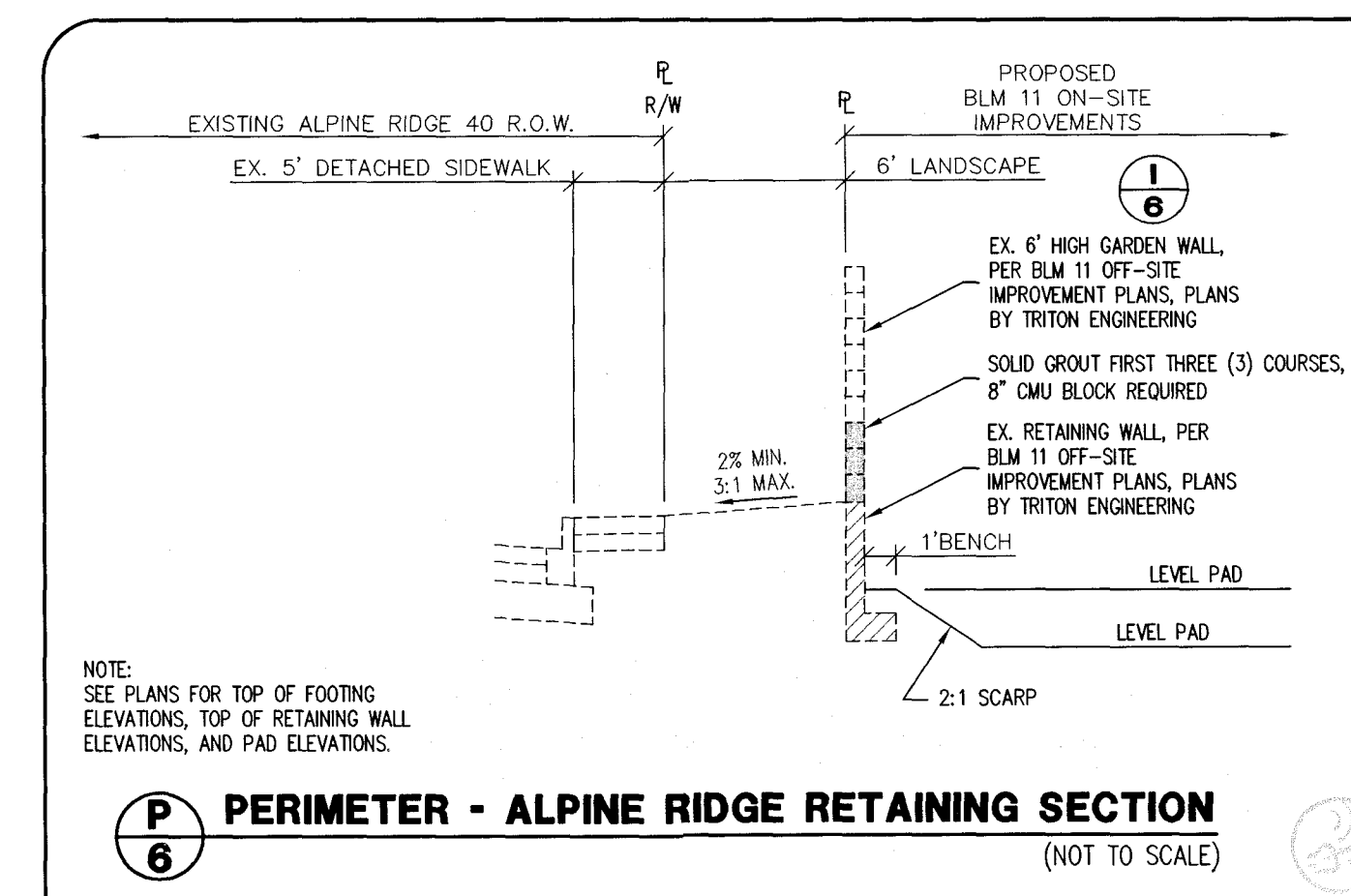
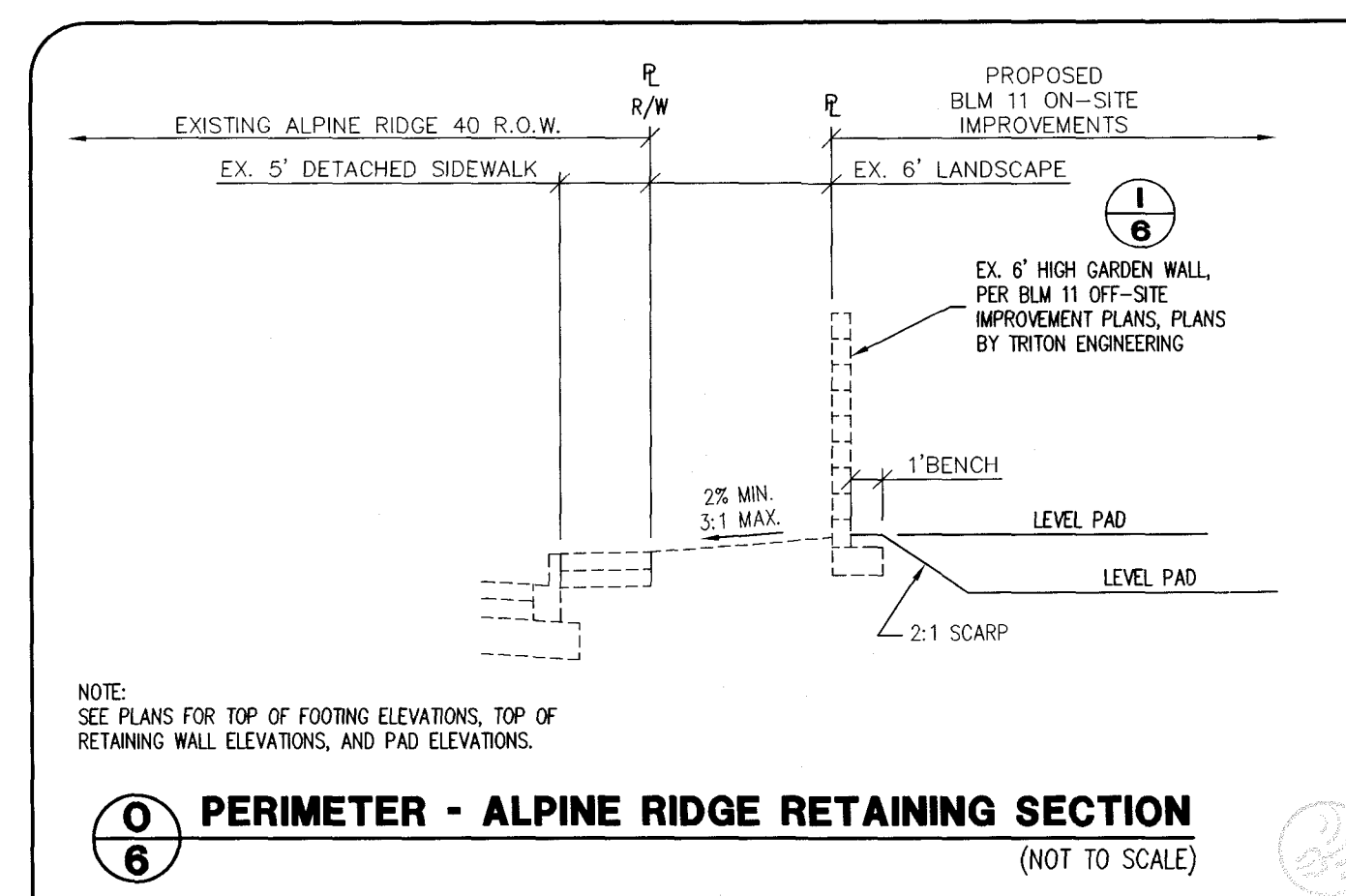
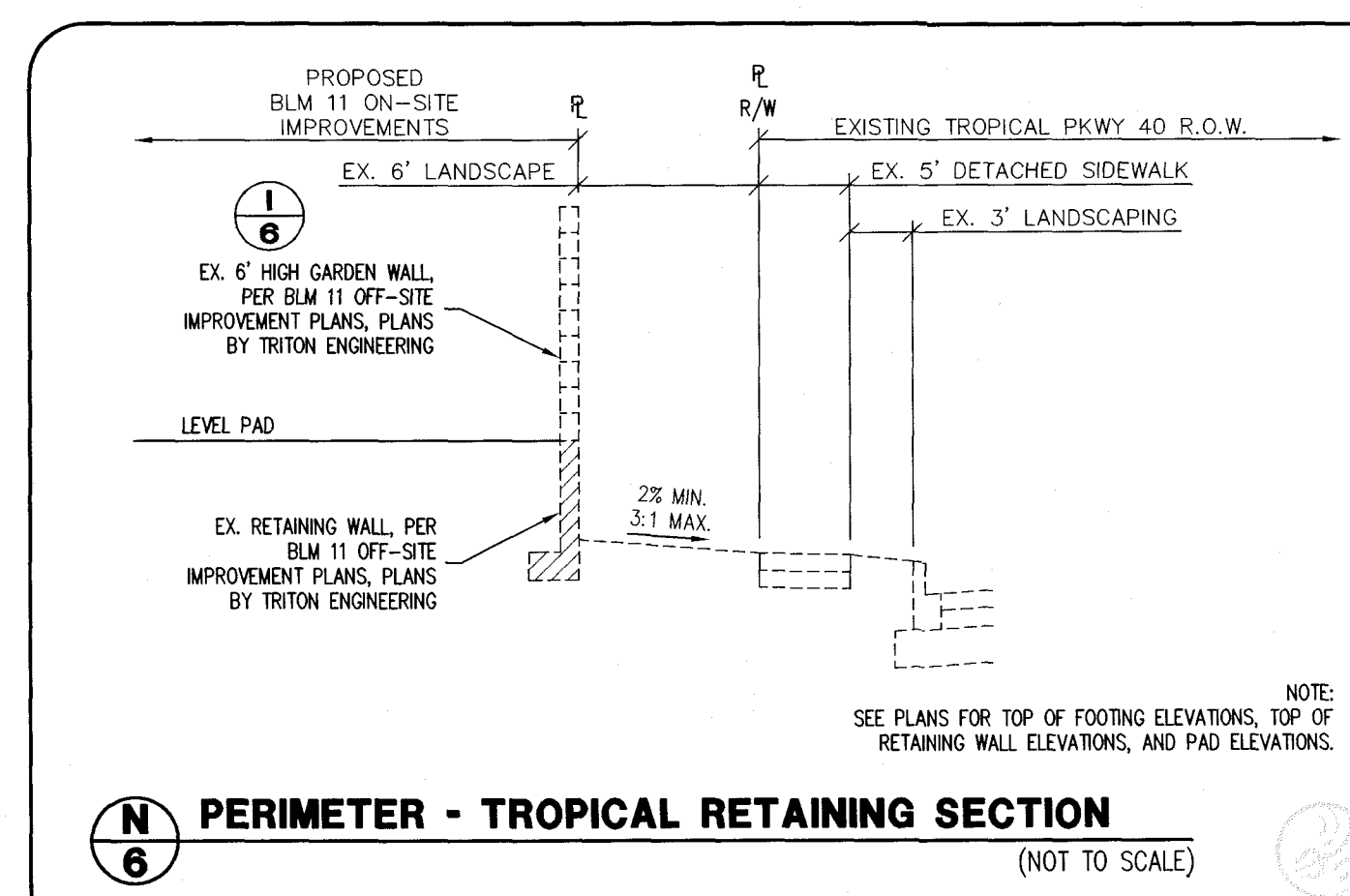
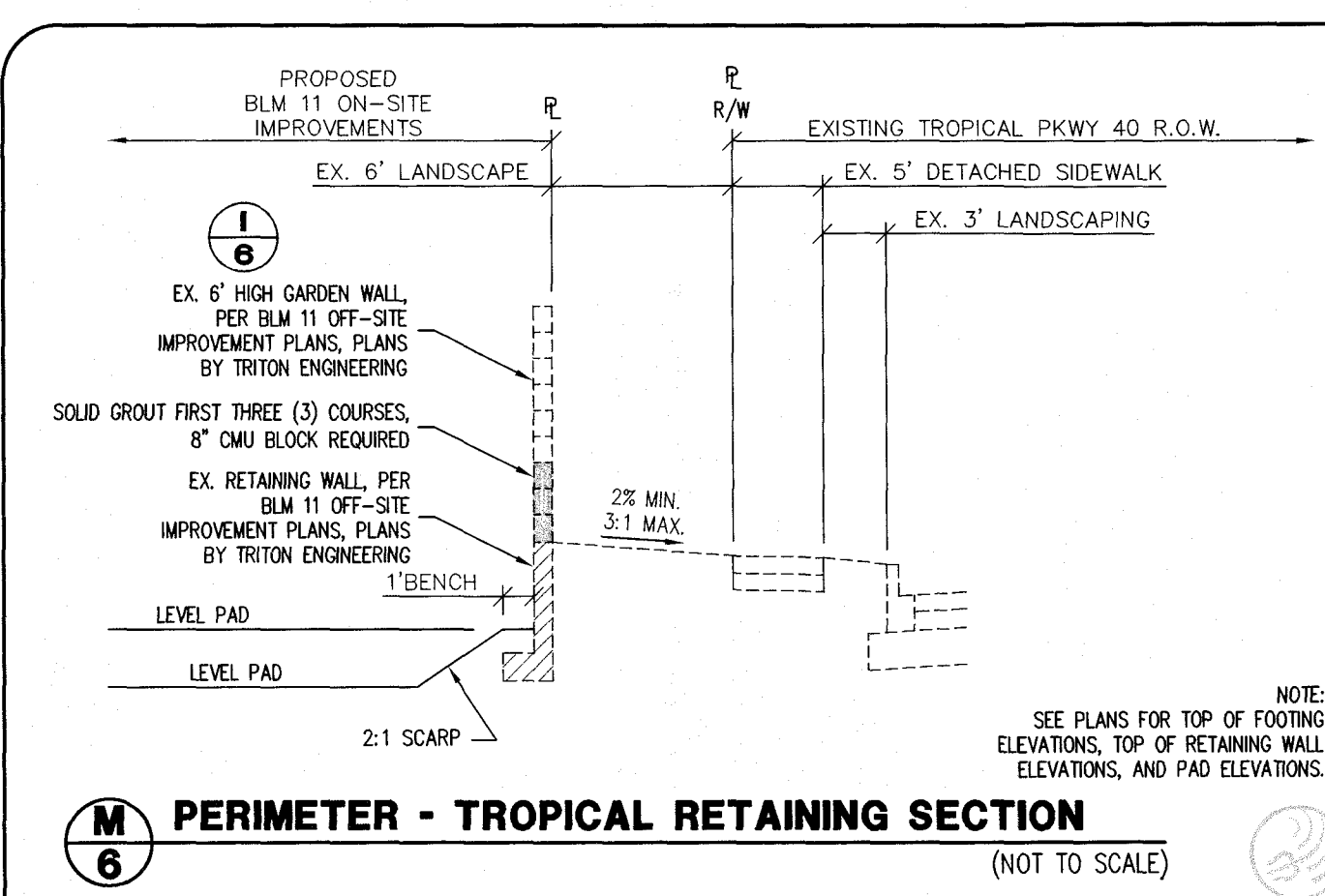
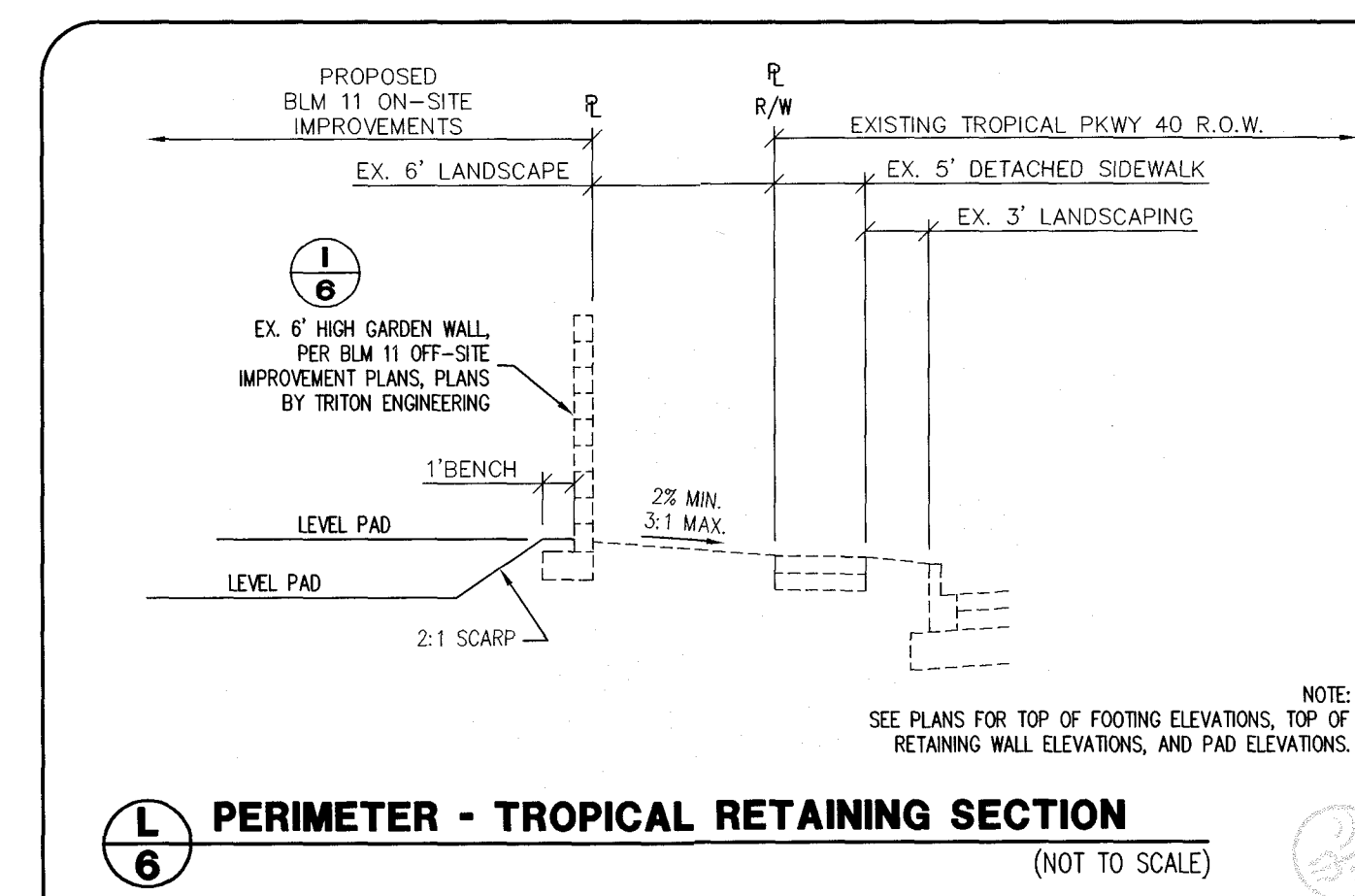
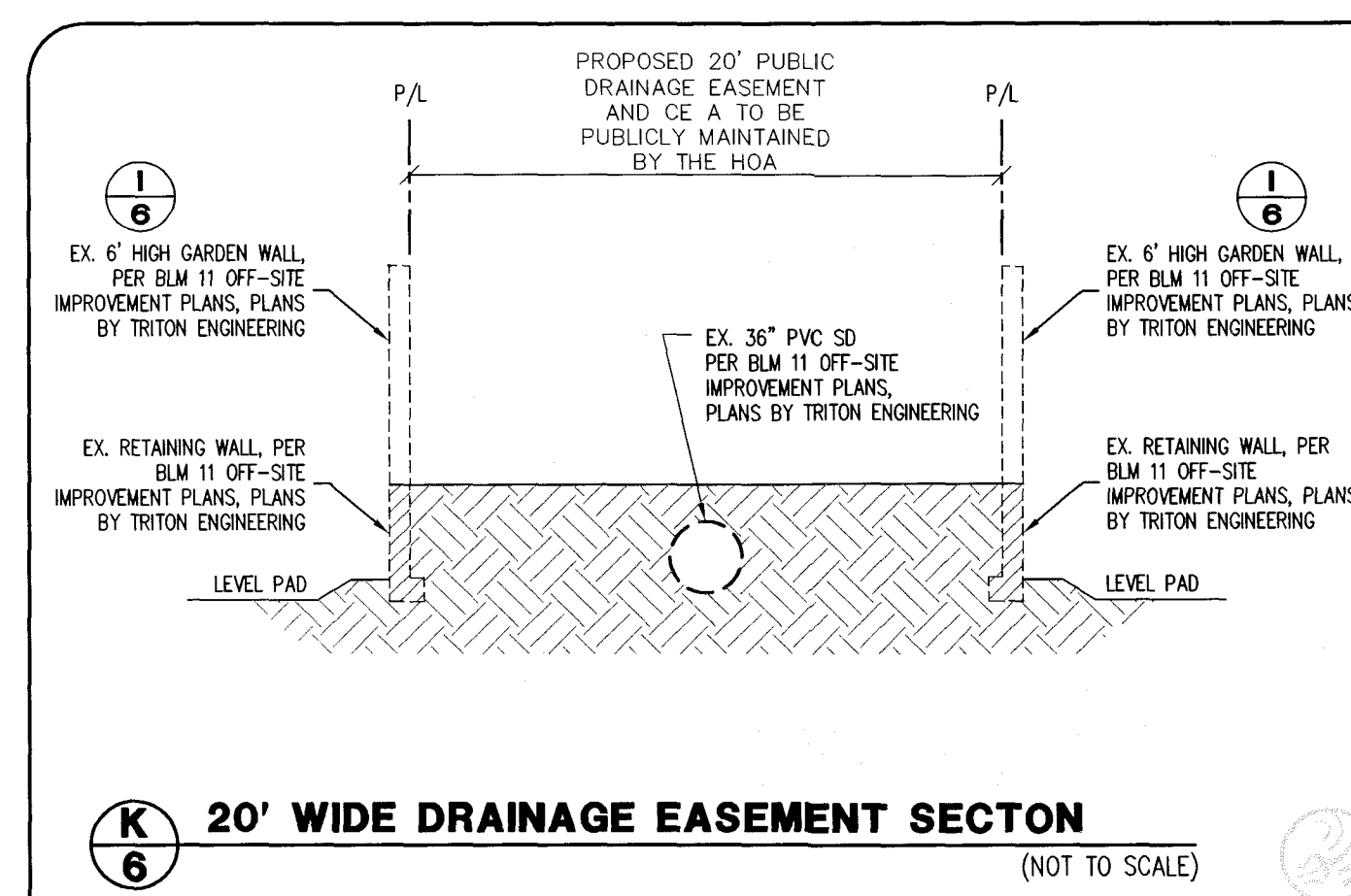
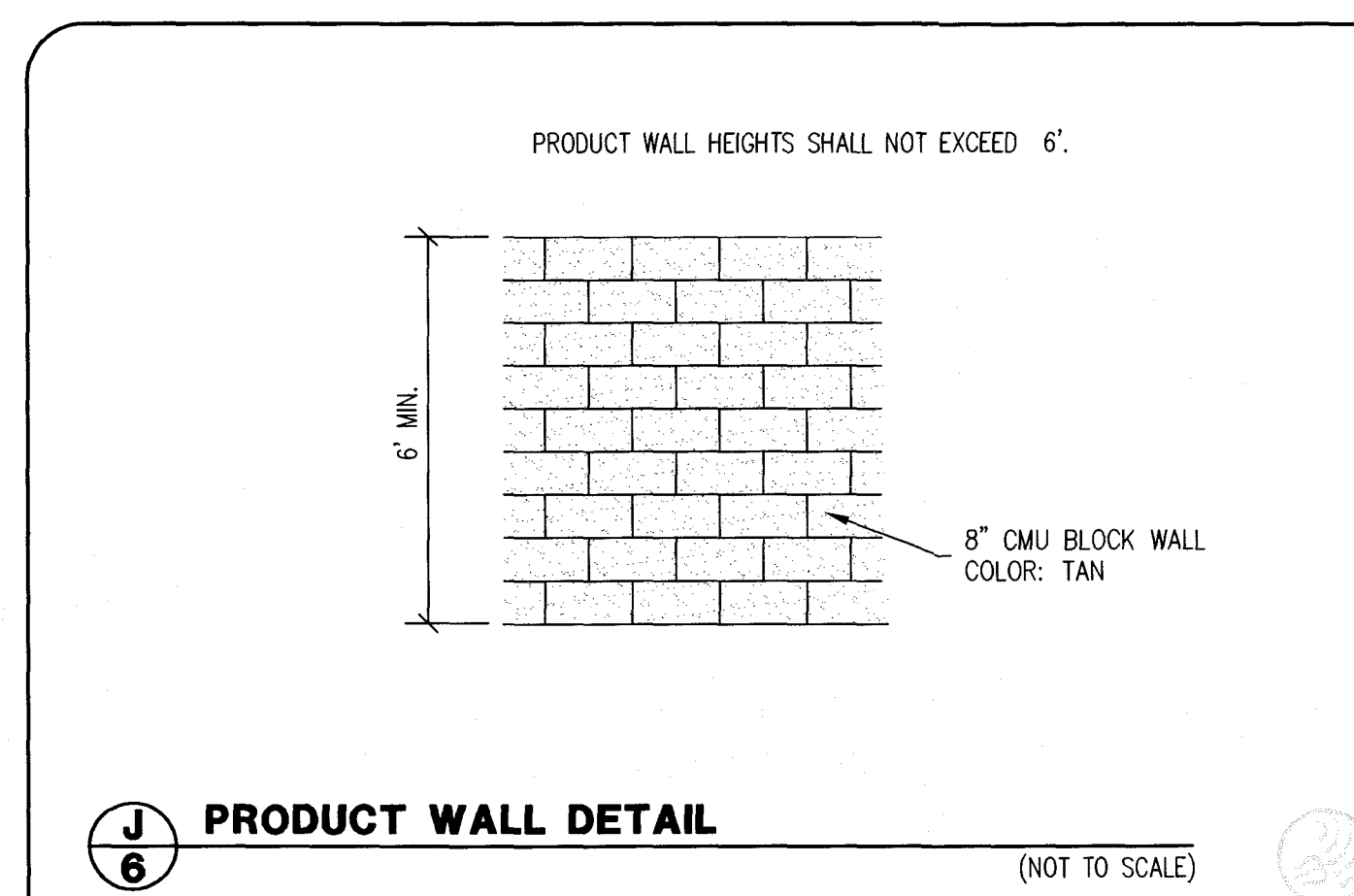
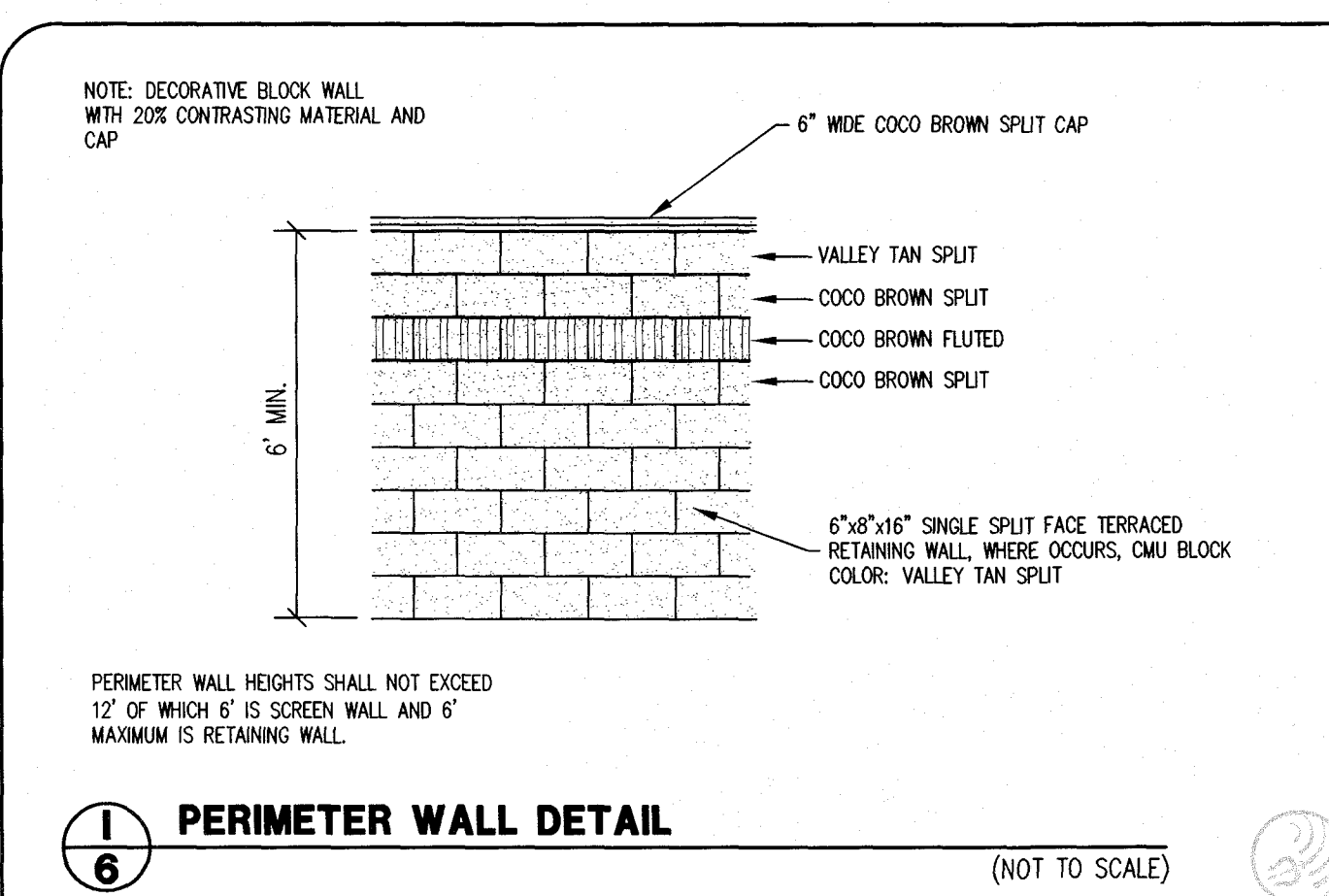
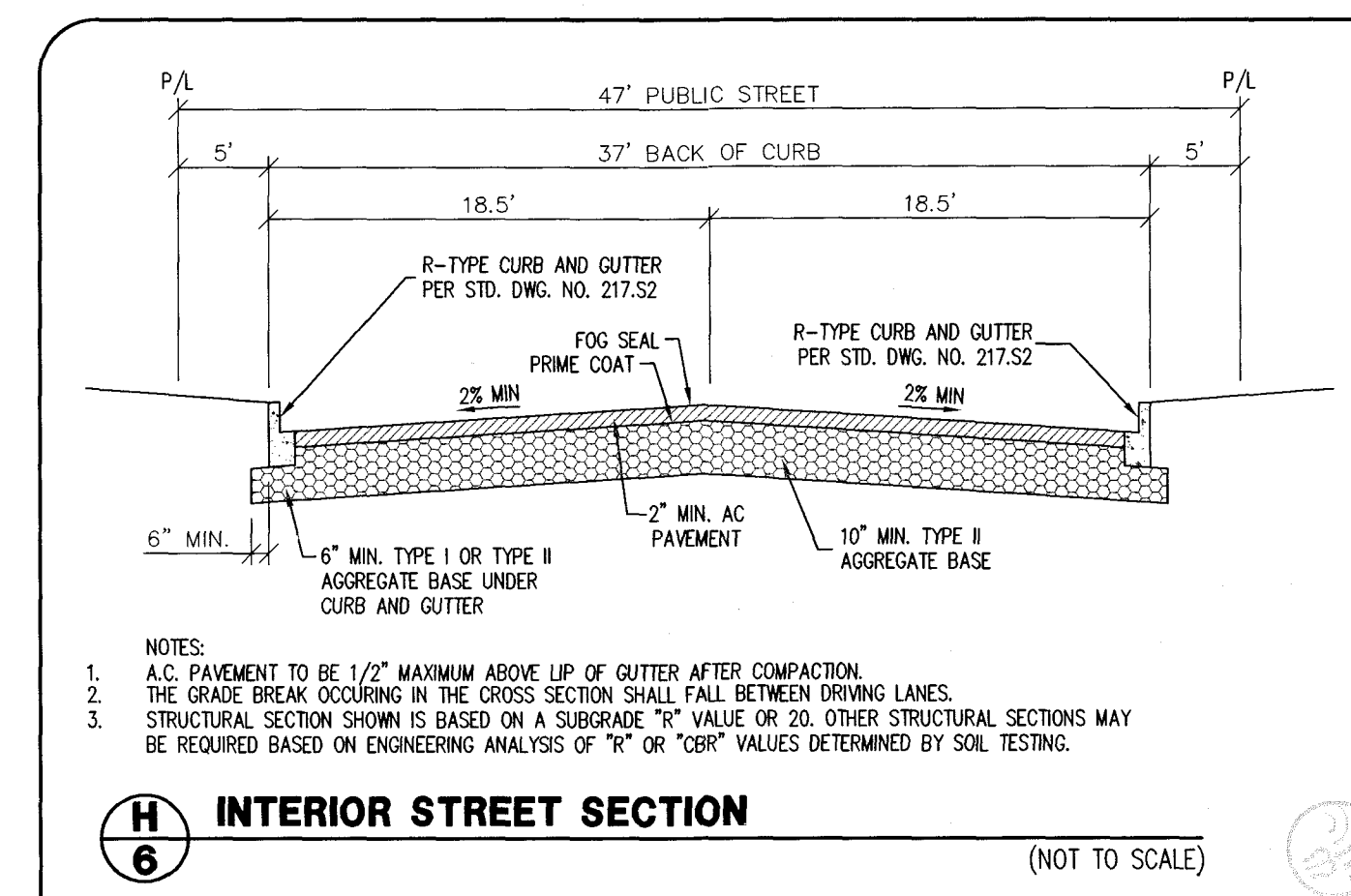
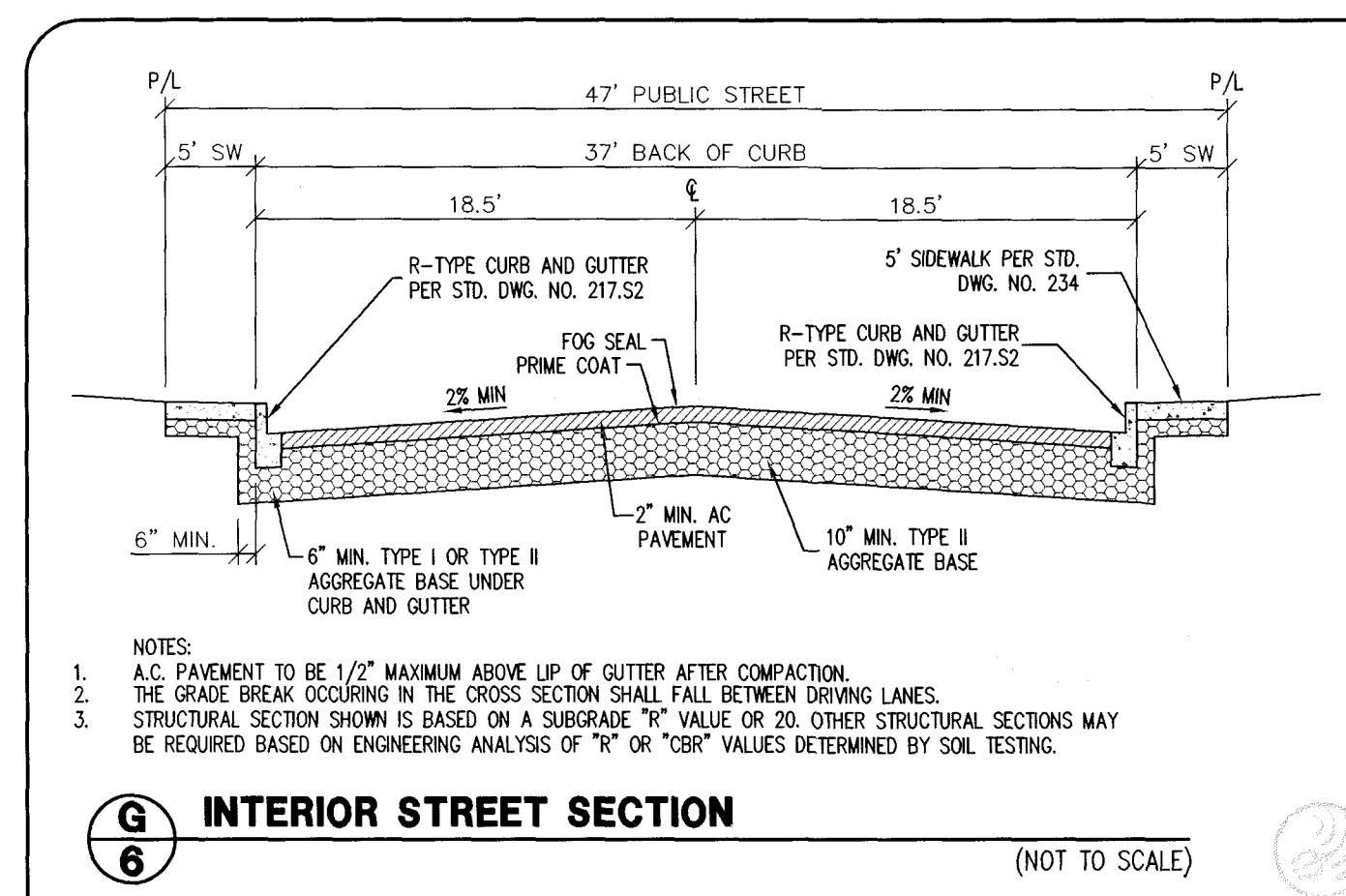
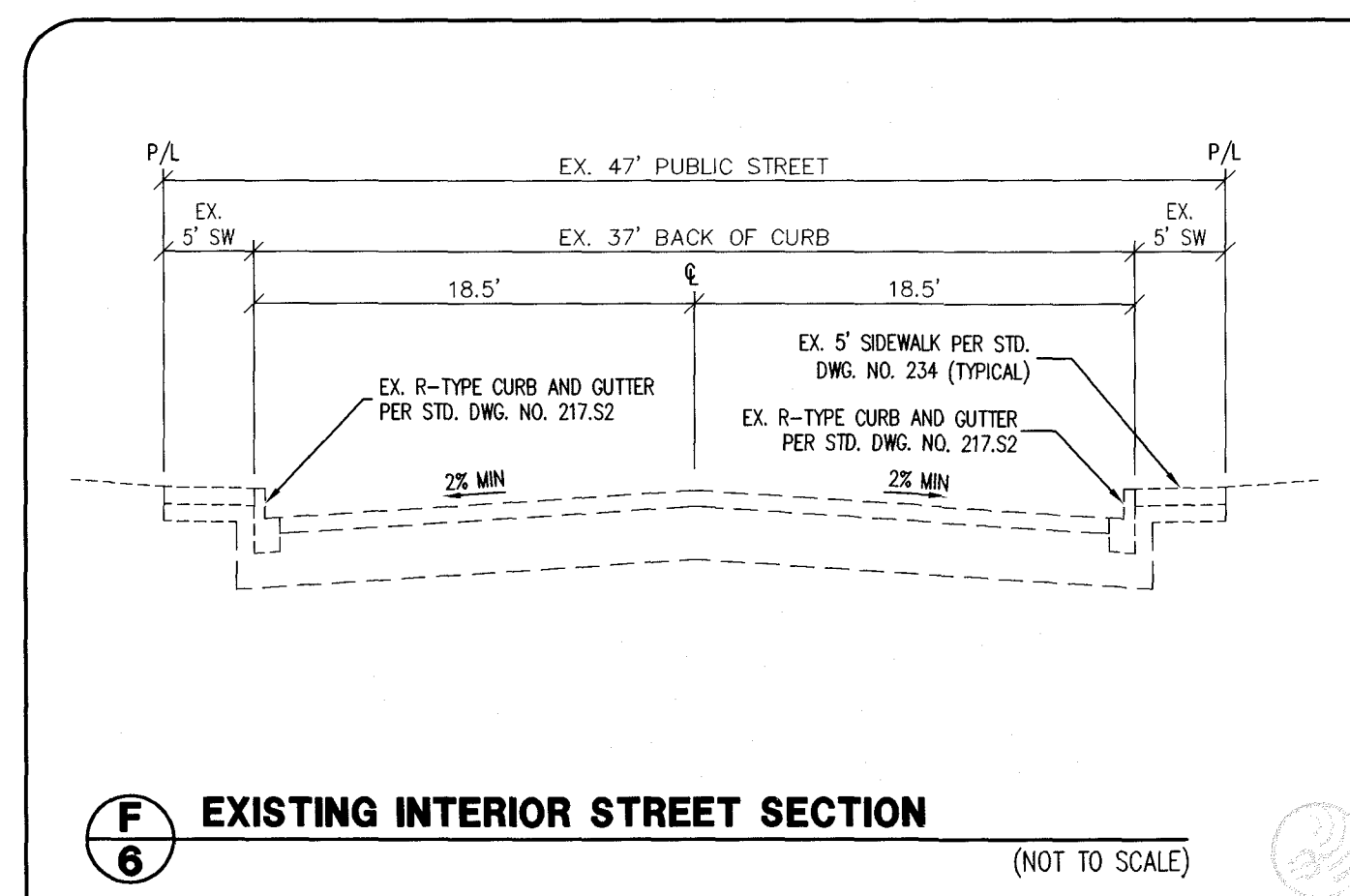
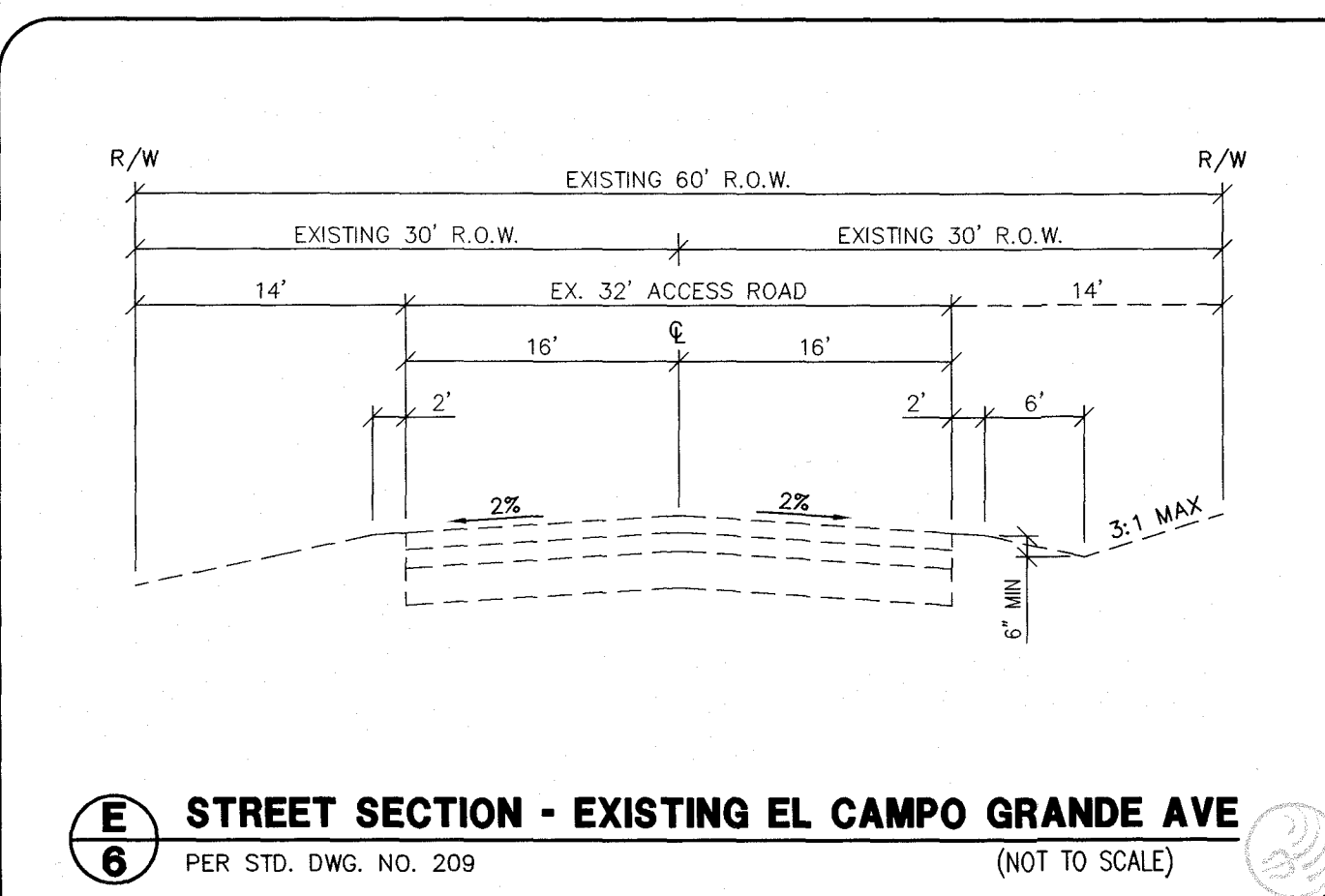
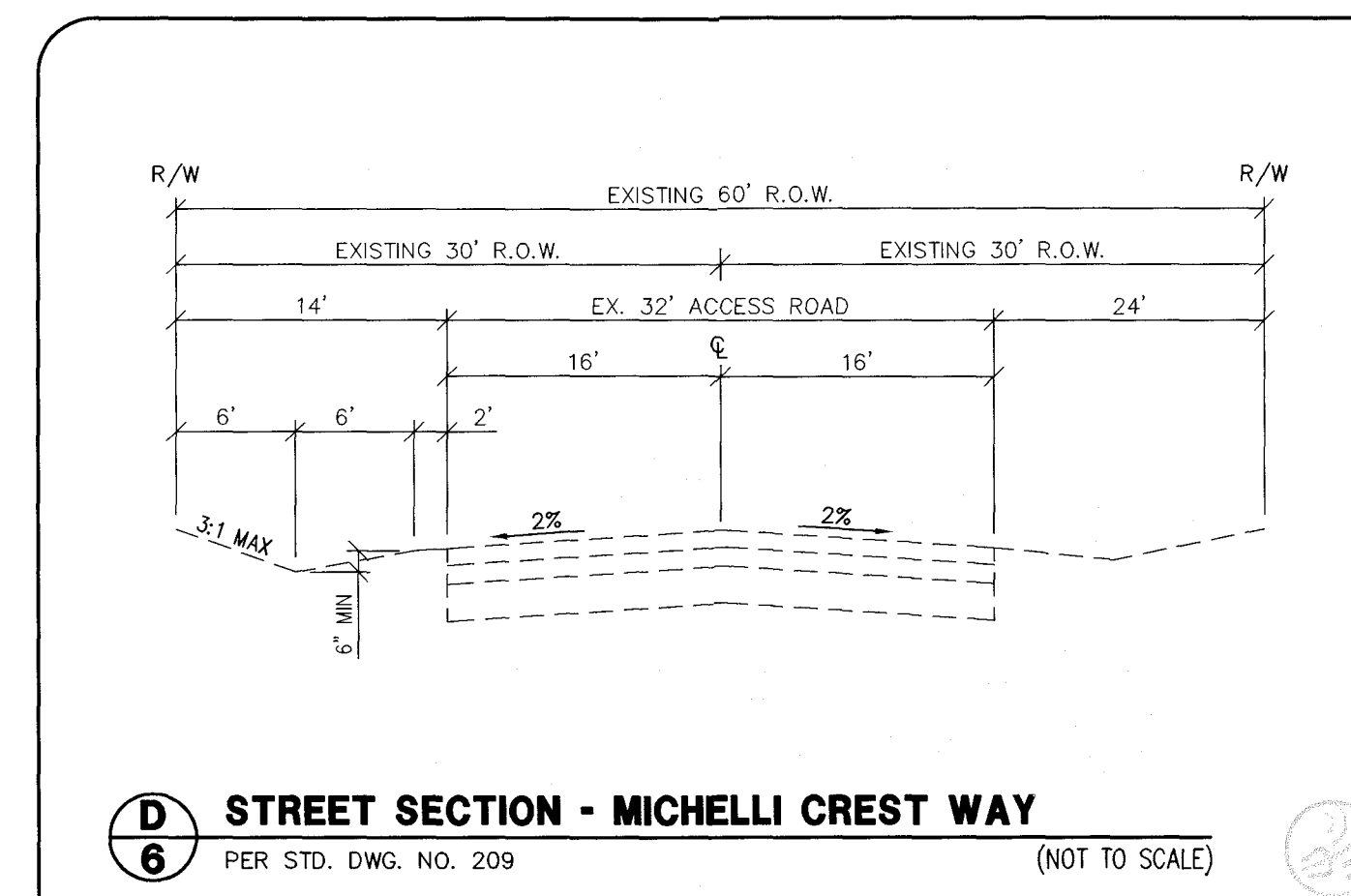
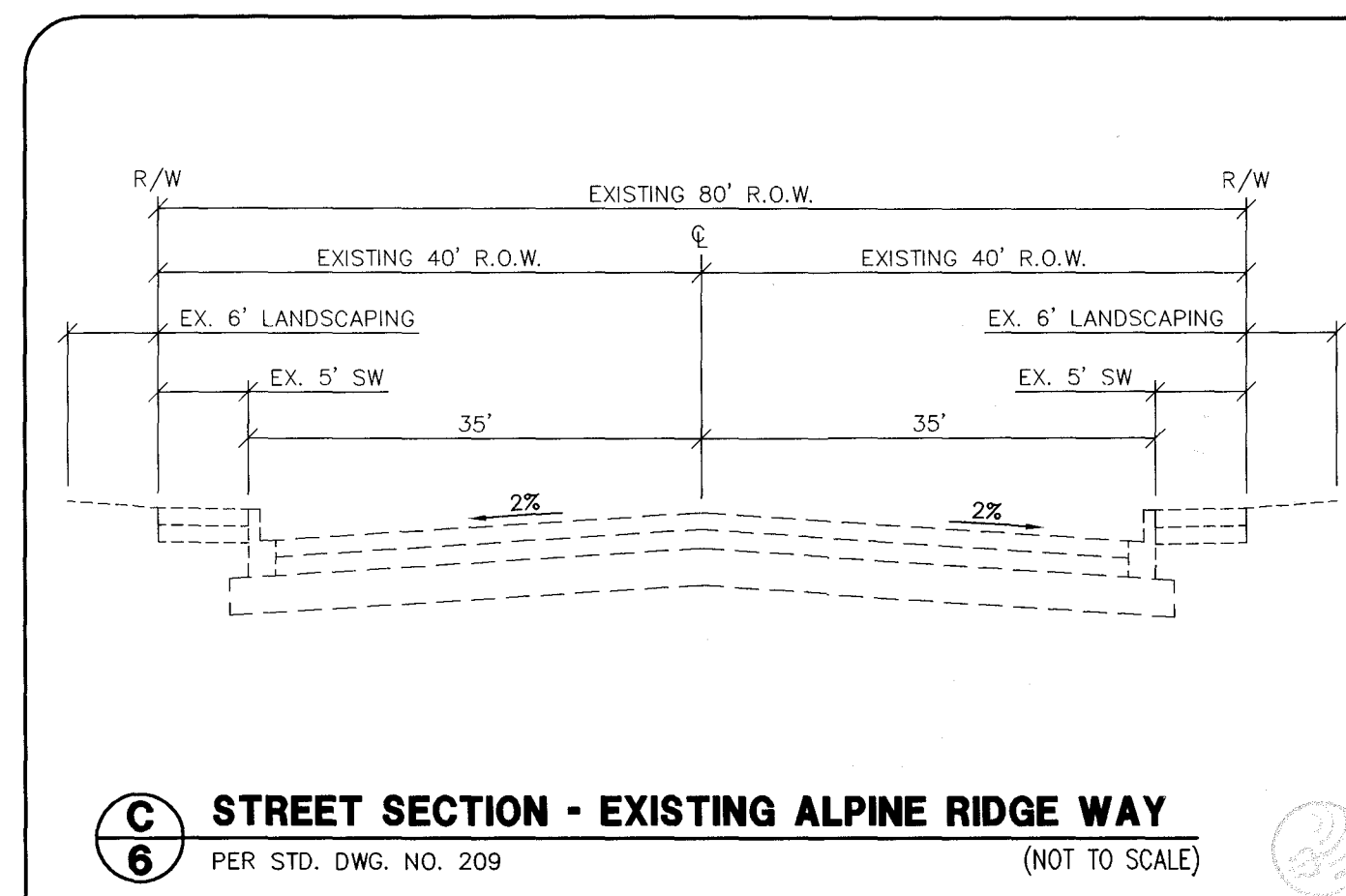
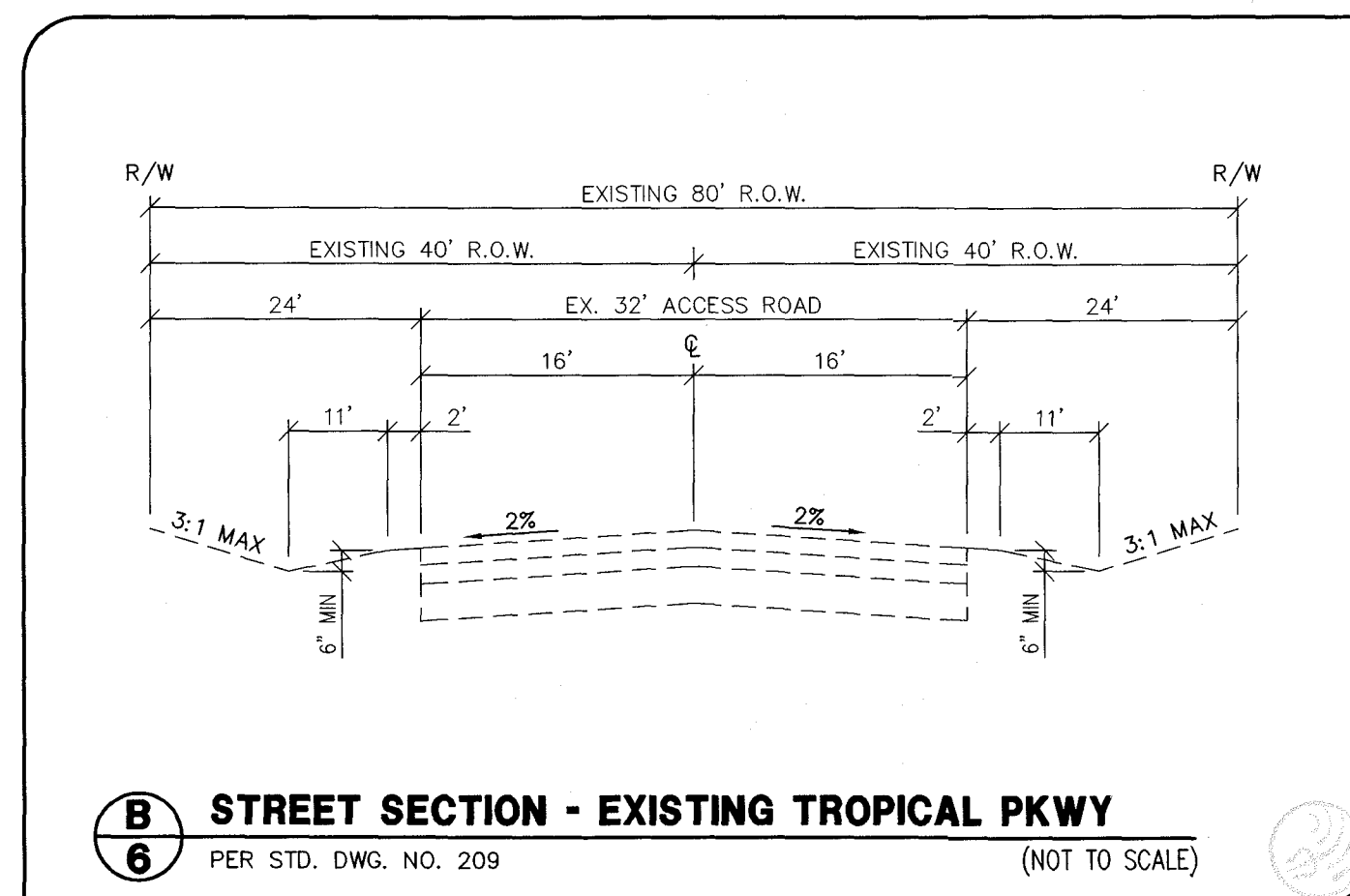
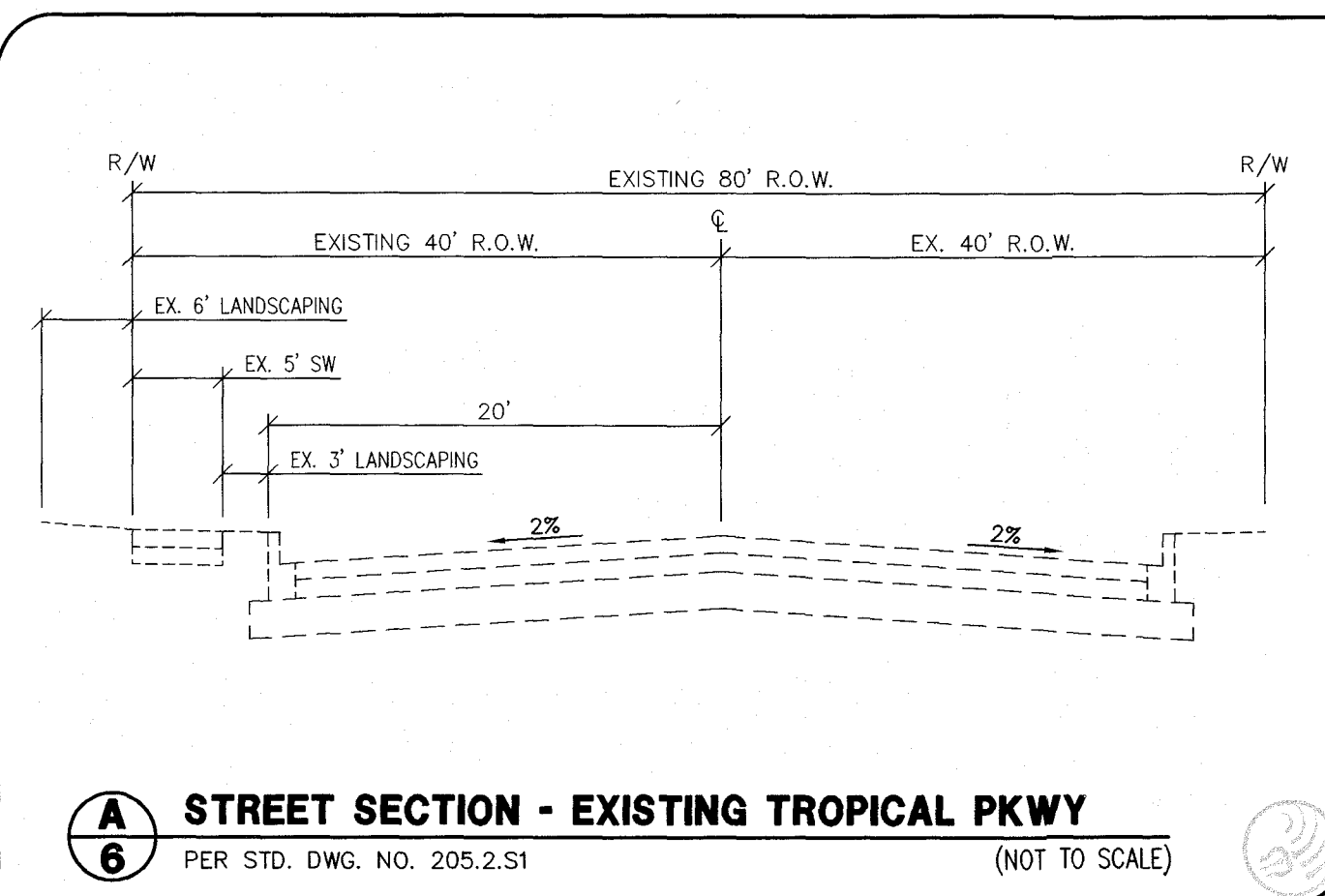


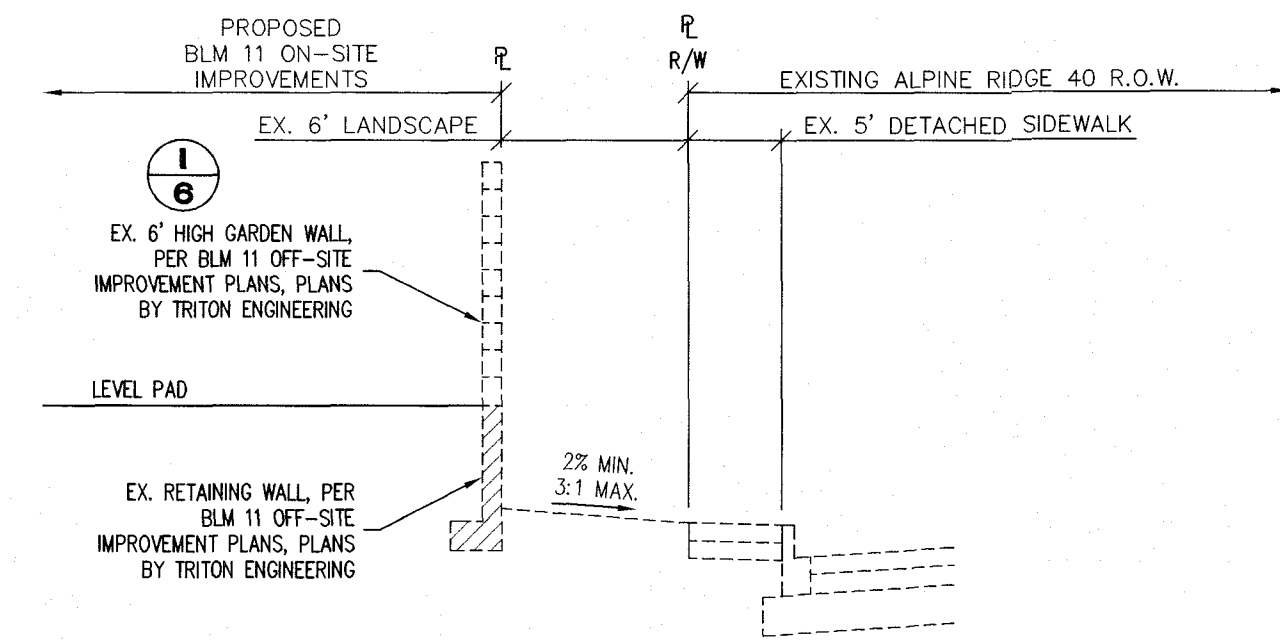
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FAST
Call before you
Underground
1-702-432-5300

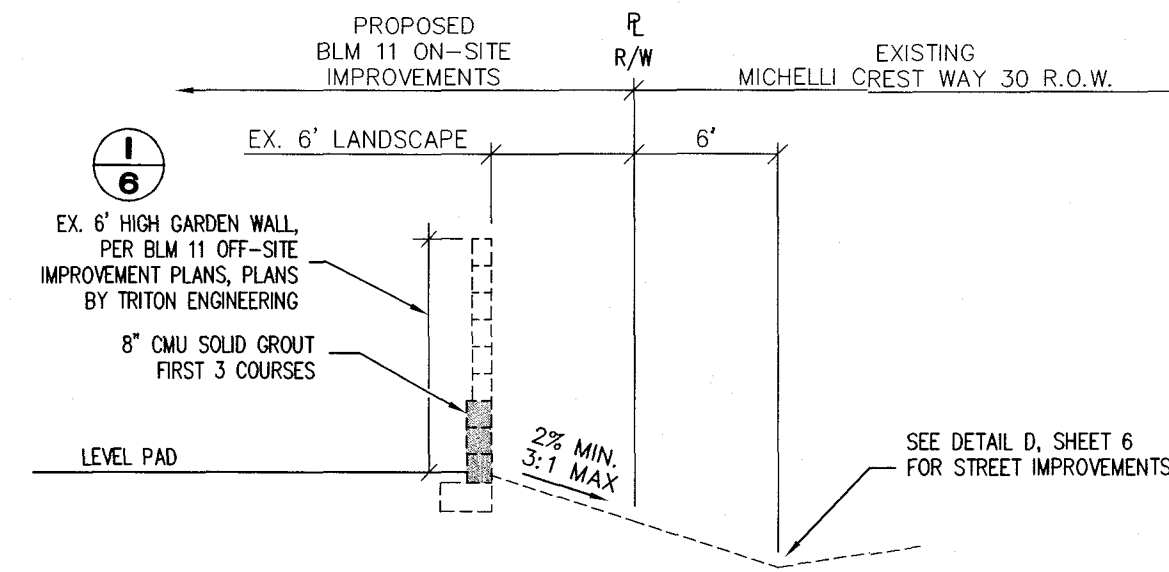
Avoid overhead power
line contact. It's costly.

Call
before you
Overhead
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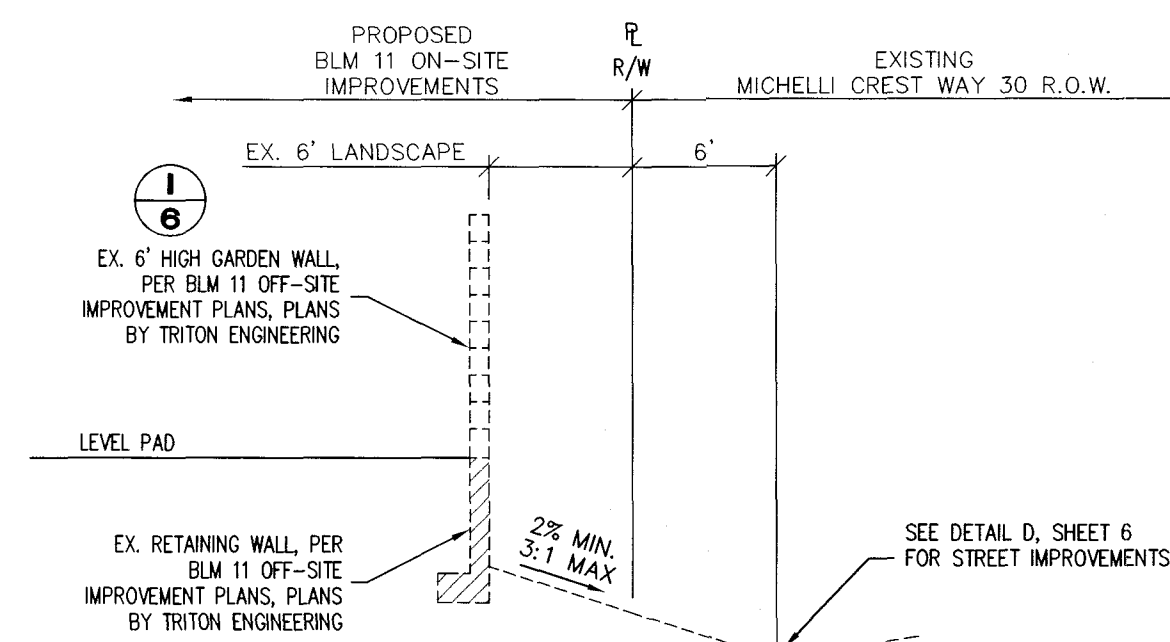




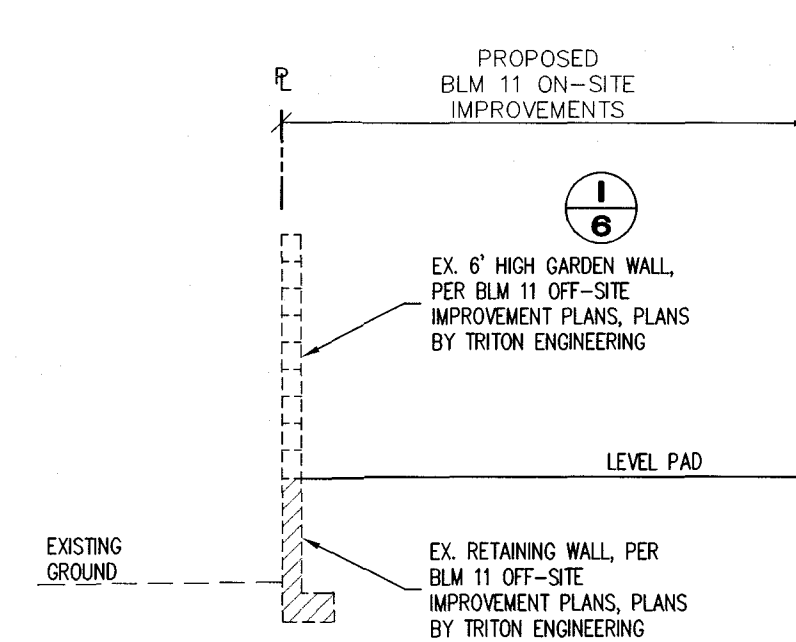
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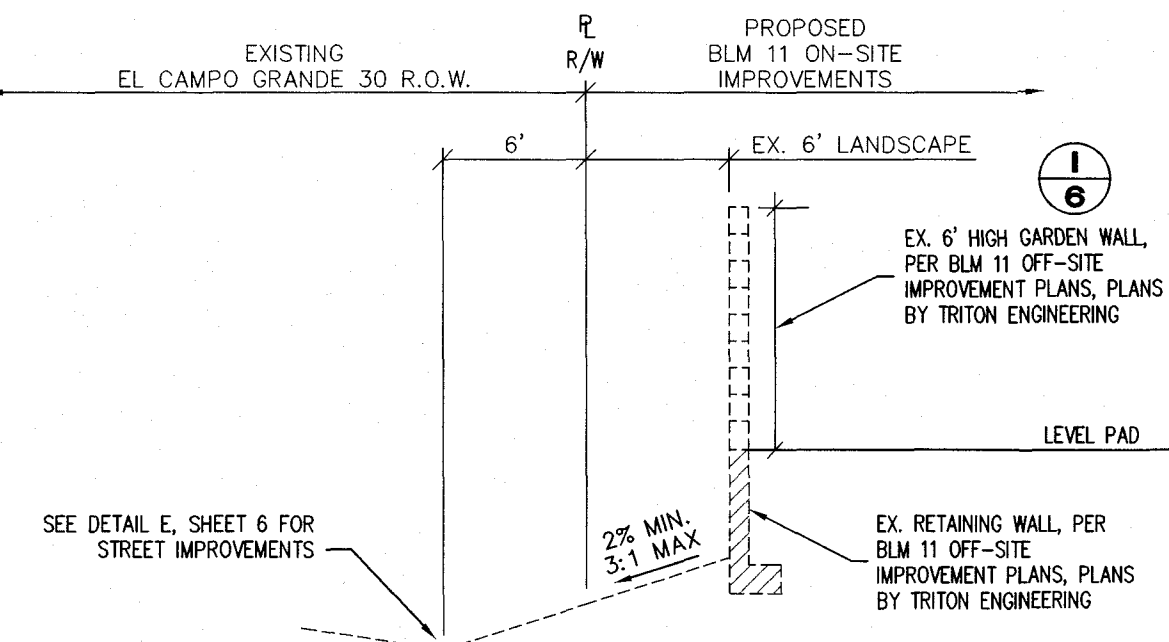
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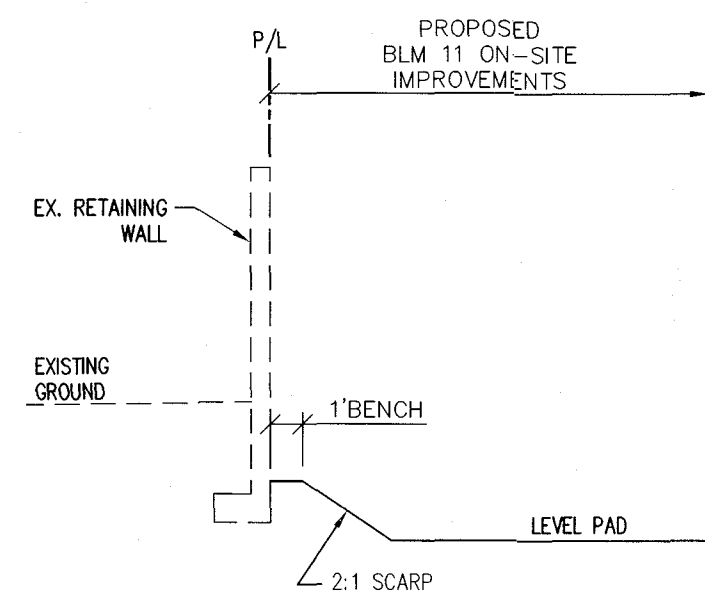
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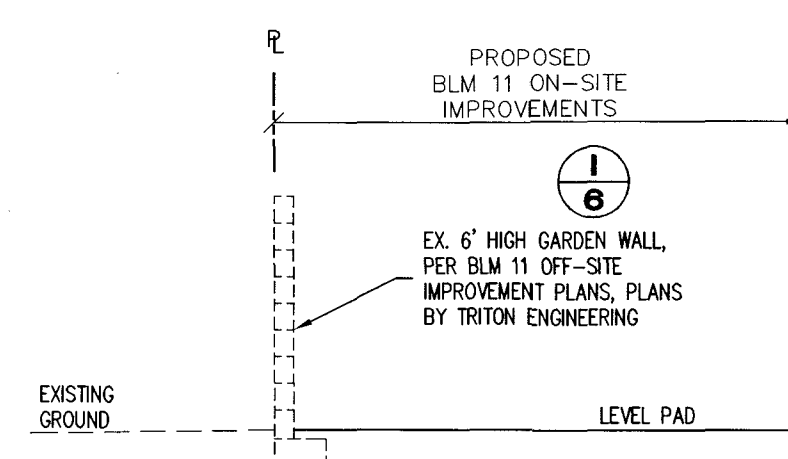
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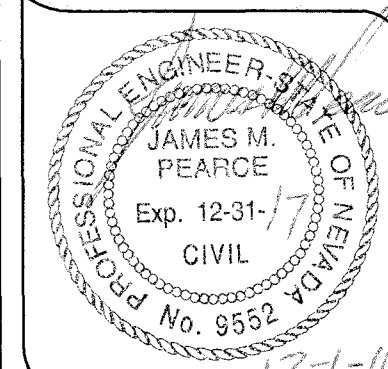
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DATE: 12/01/2016
PM: J. PERRE
DRAWN BY: :
DESIGNED BY: :
CHECKED BY: :
ADA CHECKED: :
JOB NO.: 007104
SCALE: AS SHOWN

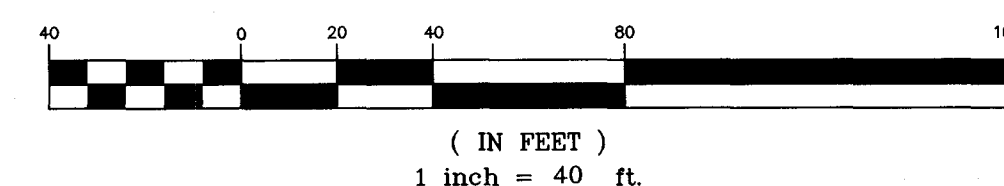
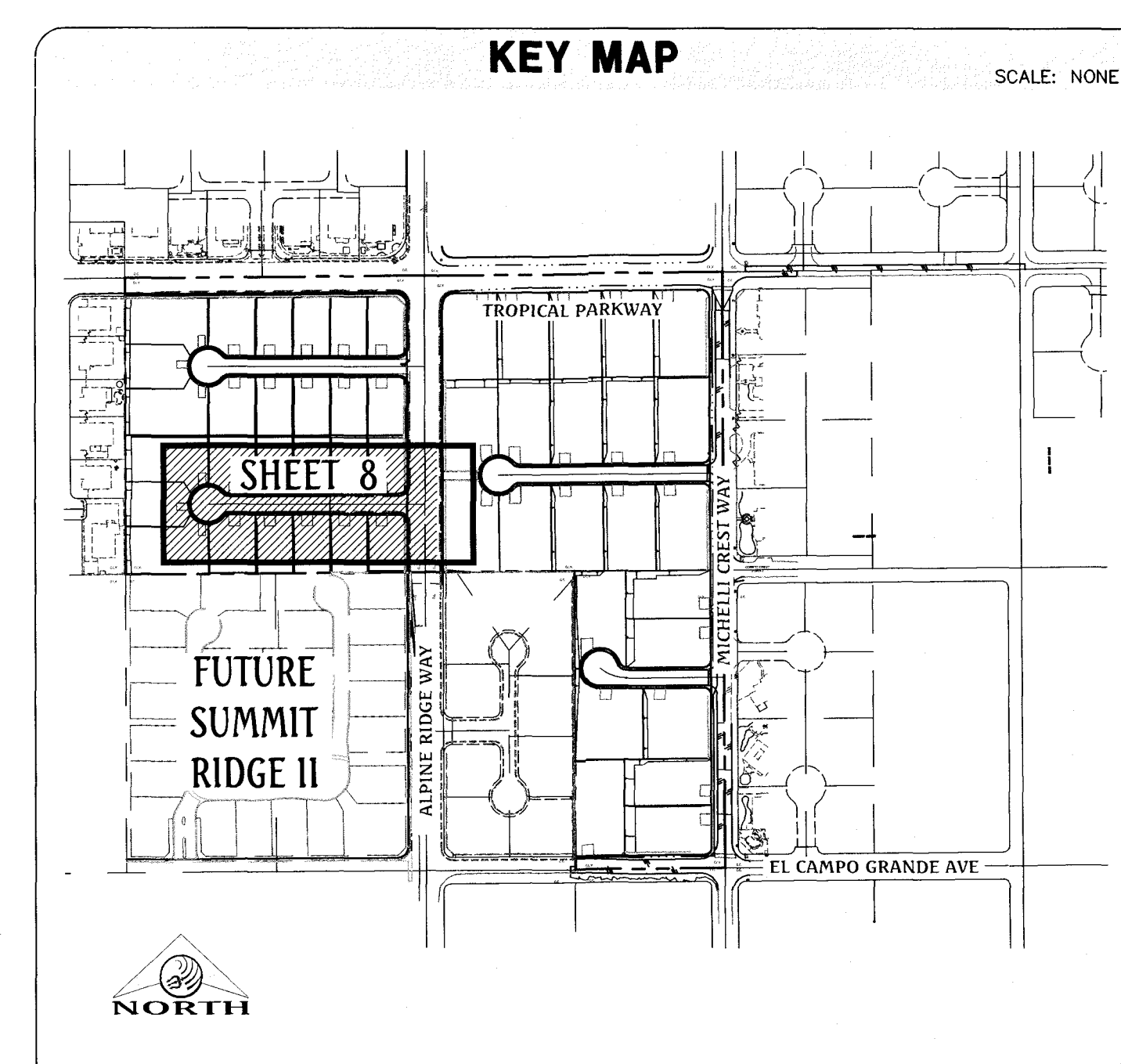
Triton Engineering
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Fax: (702) 254-1480
www.tritoneng.com
6757 W. Charleston Blvd.
Suite B
Las Vegas, Nevada 89146



DR HORTON
BLM SITE 11
ON-SITE DRAINAGE PLANS
GRADING DETAILS II



SHEET **7** OF 17
C.L.V. DWG.#



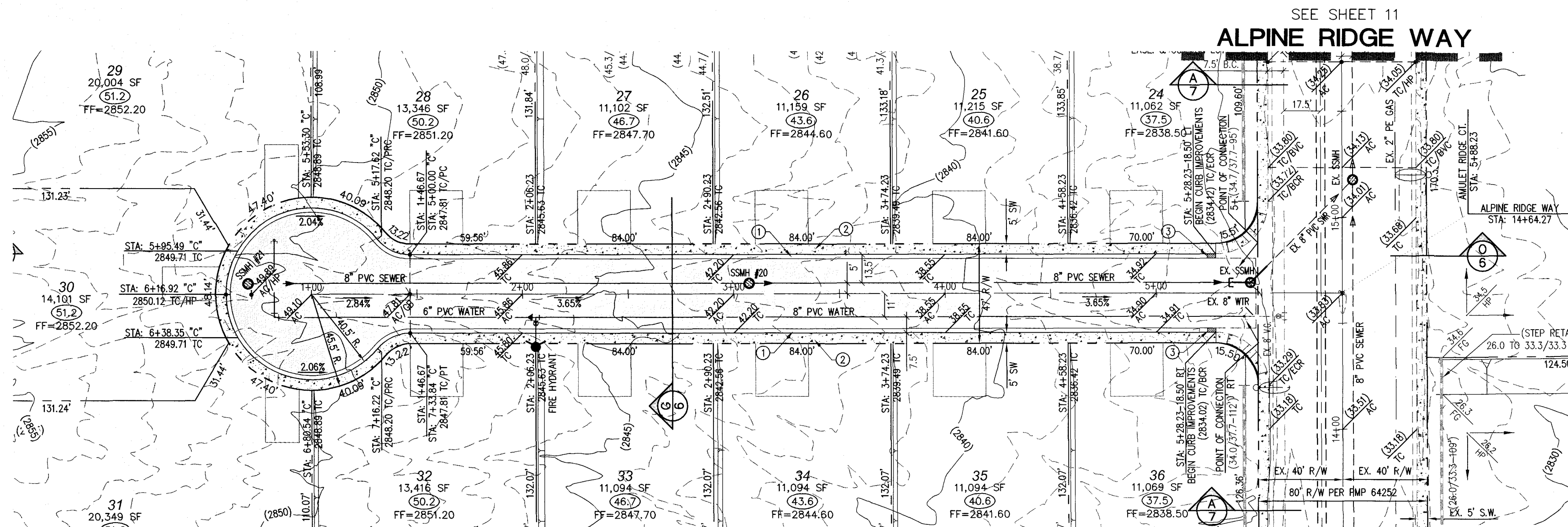
BENCHMARK # 1C9925SSW6

RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF
A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE
WEST END OF ANN ROAD

ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)

ON-SITE DRAINAGE PLANS
FORTRESS RIDGE COURT PLAN & PROFILE
STA 0+50.00 TO STA 3+74.23

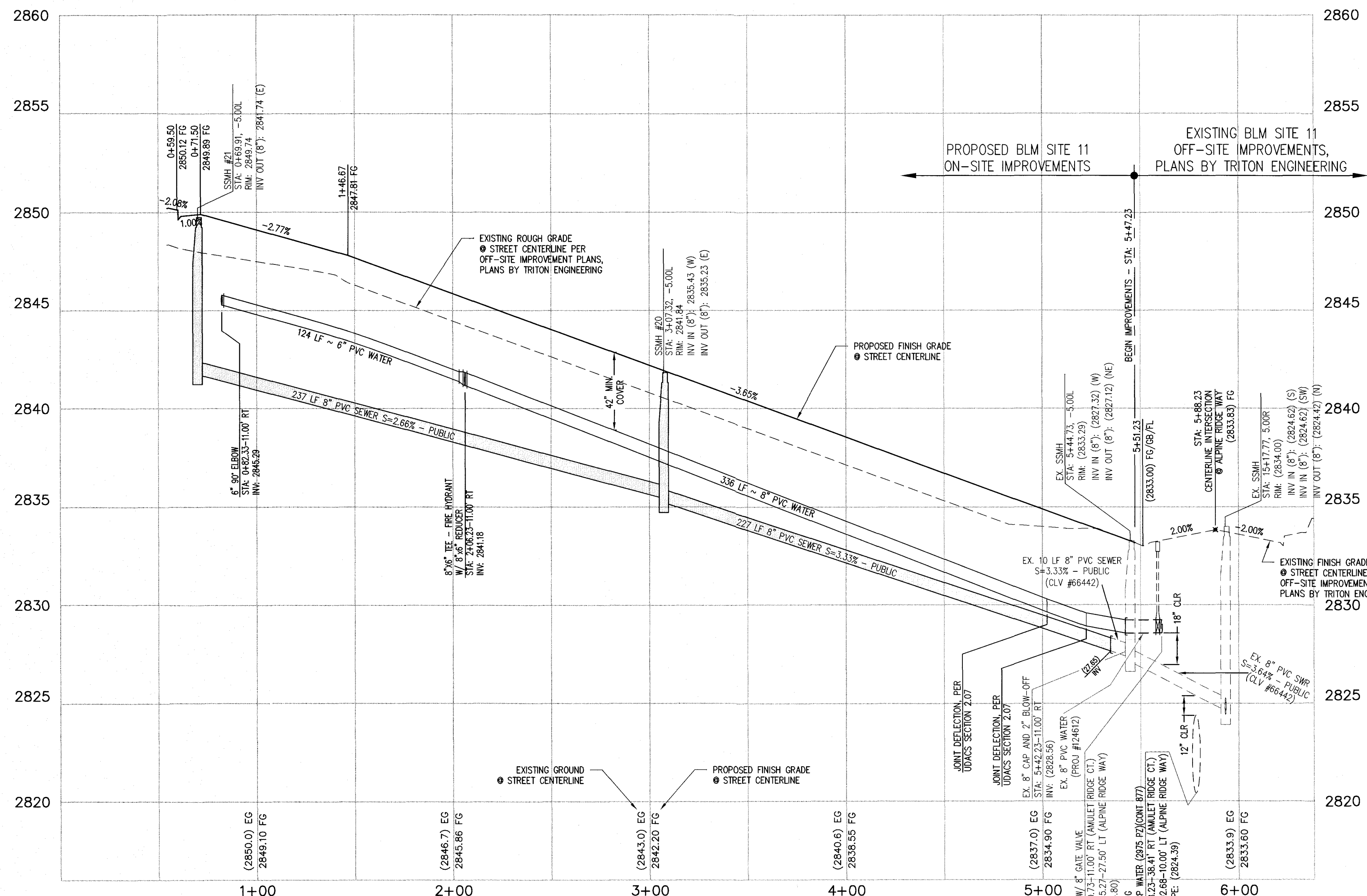
SHEET **8** OF 17
C.L.V. DWG.#



AMULET RIDGE COURT (PUBLIC)

PLAN

SCALE: HORIZ. 1" = 40'



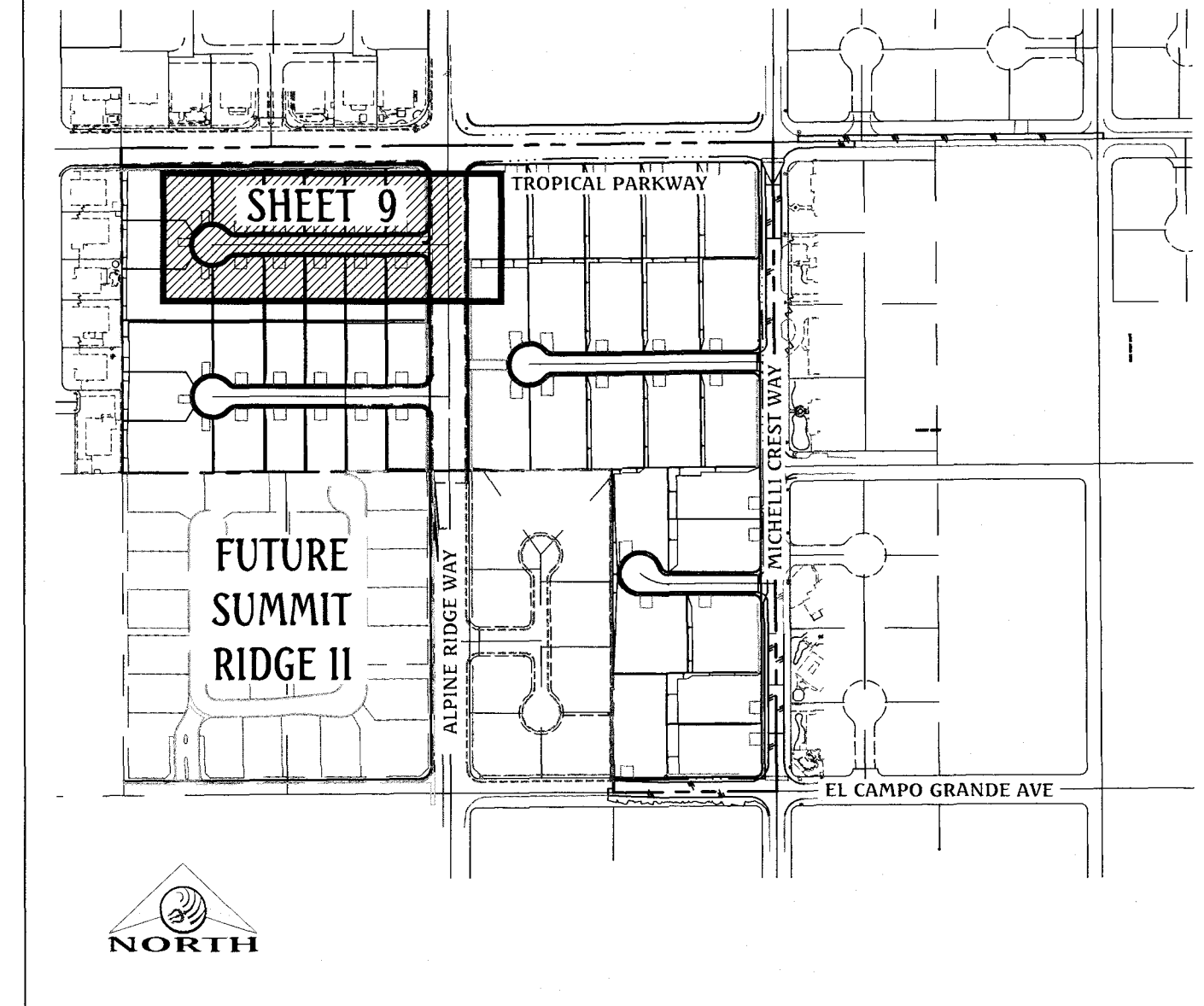
AMULET RIDGE COURT (PUBLIC)

PROFILE

SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'

KEY MAP

SCALE: NONE



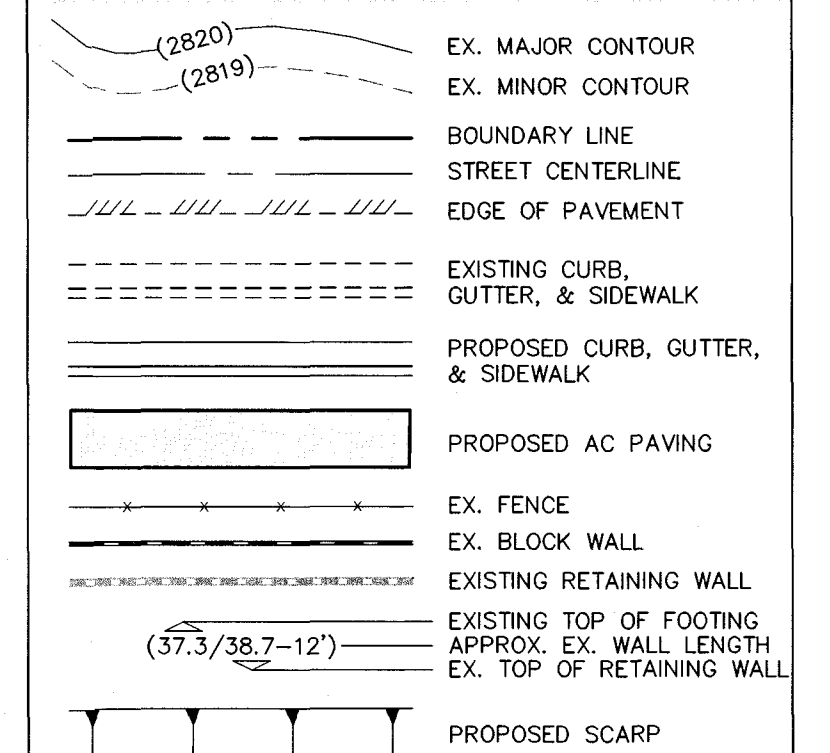
CONSTRUCTION NOTES

1. CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.52.
2. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
3. 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB
4. SAWCUT AND MATCH EXISTING ASPHALT.

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8. ANY CURVED CURB LESS THAN 1% MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.

GRADING LEGEND



FLOOD ZONE NOTE

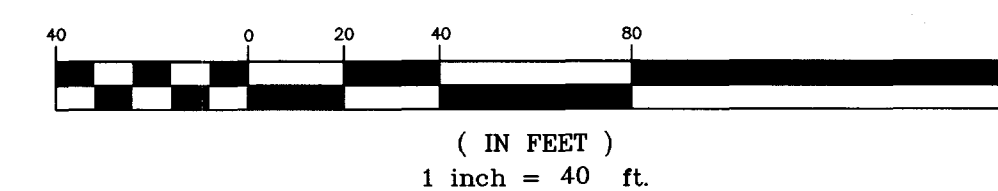
THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #32003C1750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

BASIS OF BEARING

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

BENCHMARK # 1C992555W6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)



FAST
Call before you
Underground
1-702-432-5300

Avoid overhead power
line contact. It's costly.
**Call before you
Overhead**
1-702-227-2929

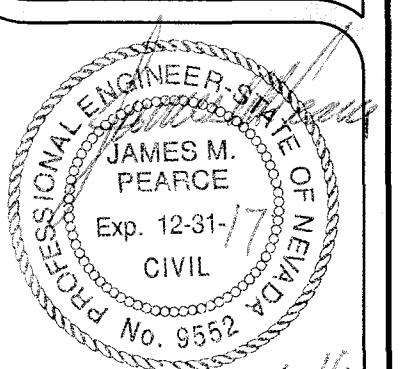
Call before you Dig
Avoid cutting underground
utility lines. It's costly.
CALL 811
OR
1-800-227-2600

DATE: 12/01/2016
PM: J. PEARCE
DRAWN BY:
DESIGNED BY:
CHECKED BY:
ADA CHECKED:
JOB NO.: 007104
SCALE: 1" = 40'

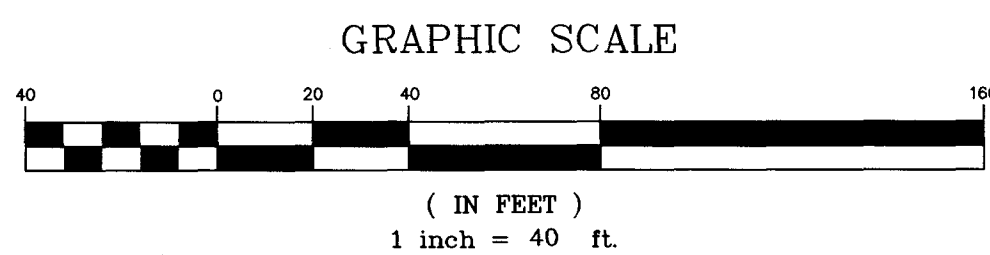
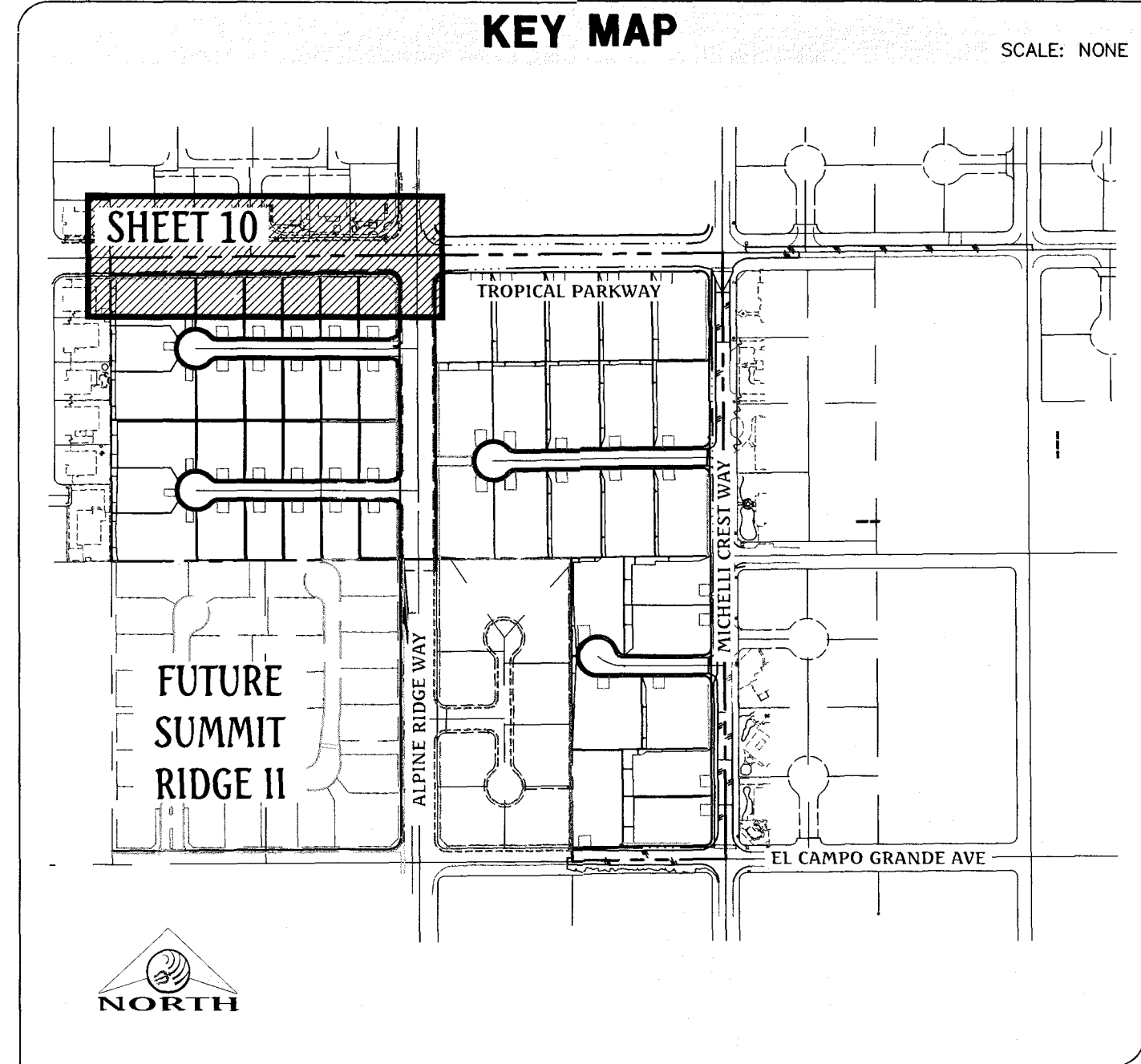
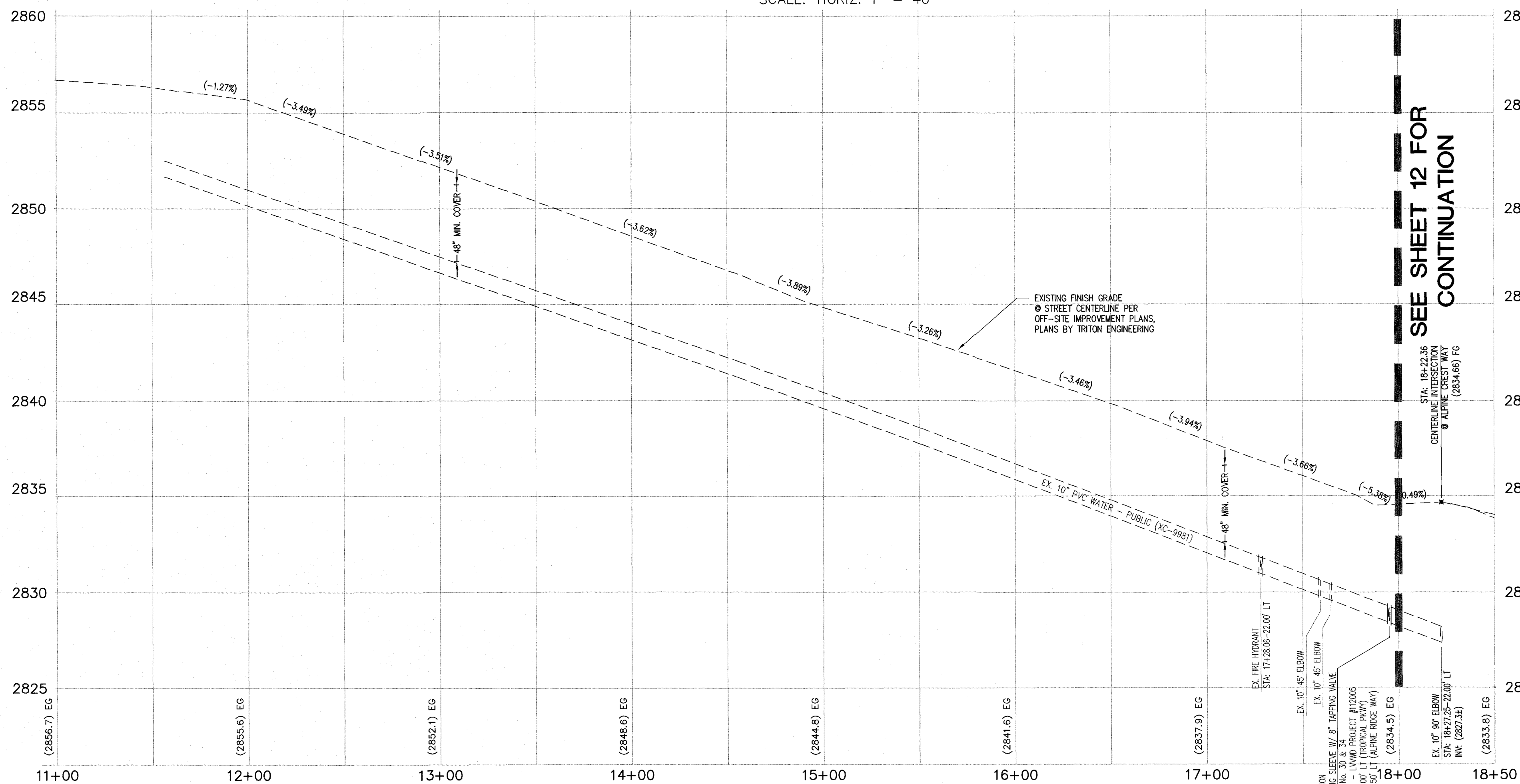
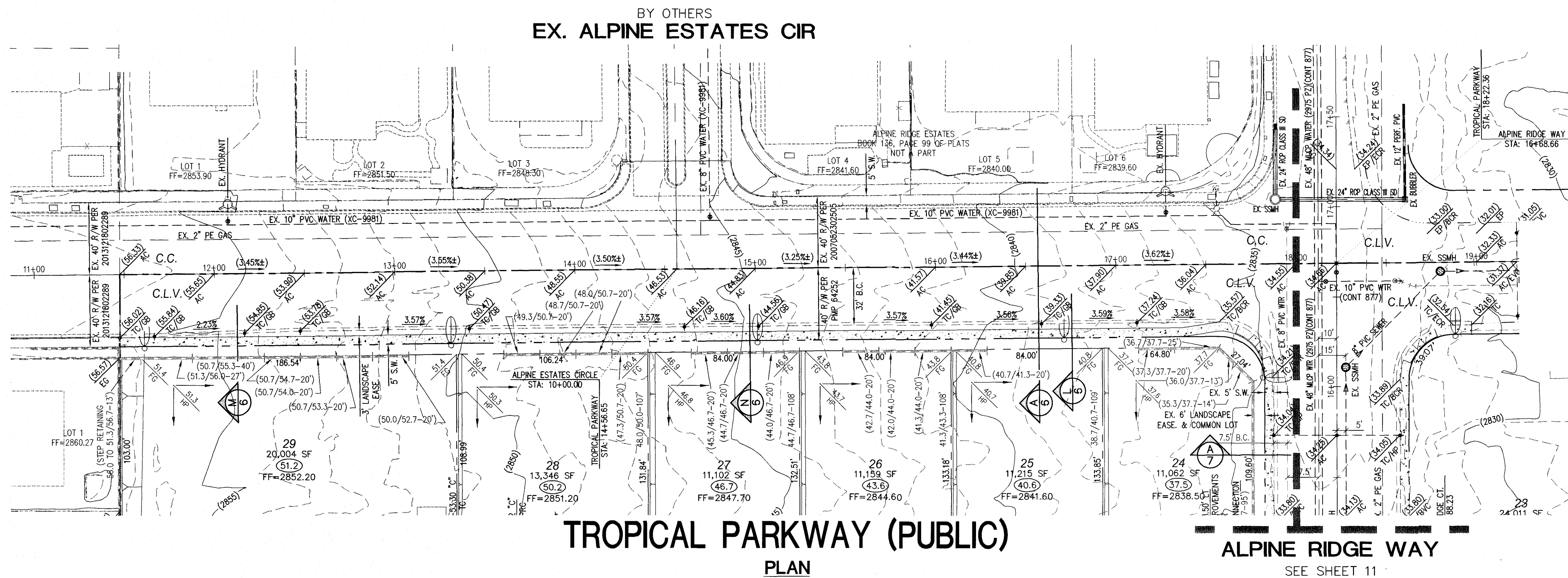
Triton Engineering
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6757 W. Charleston Blvd.
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Las Vegas, Nevada 89146
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BLM SITE 11
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SHEET 9 OF 17
C.L.V. DWG.#



FAST
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Avoid overhead power line contact. It's costly.
Call before you Overhead
1-702-227-2929

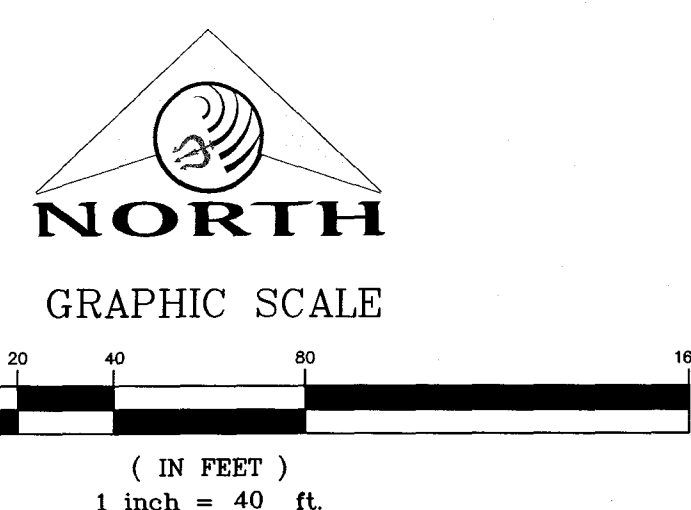
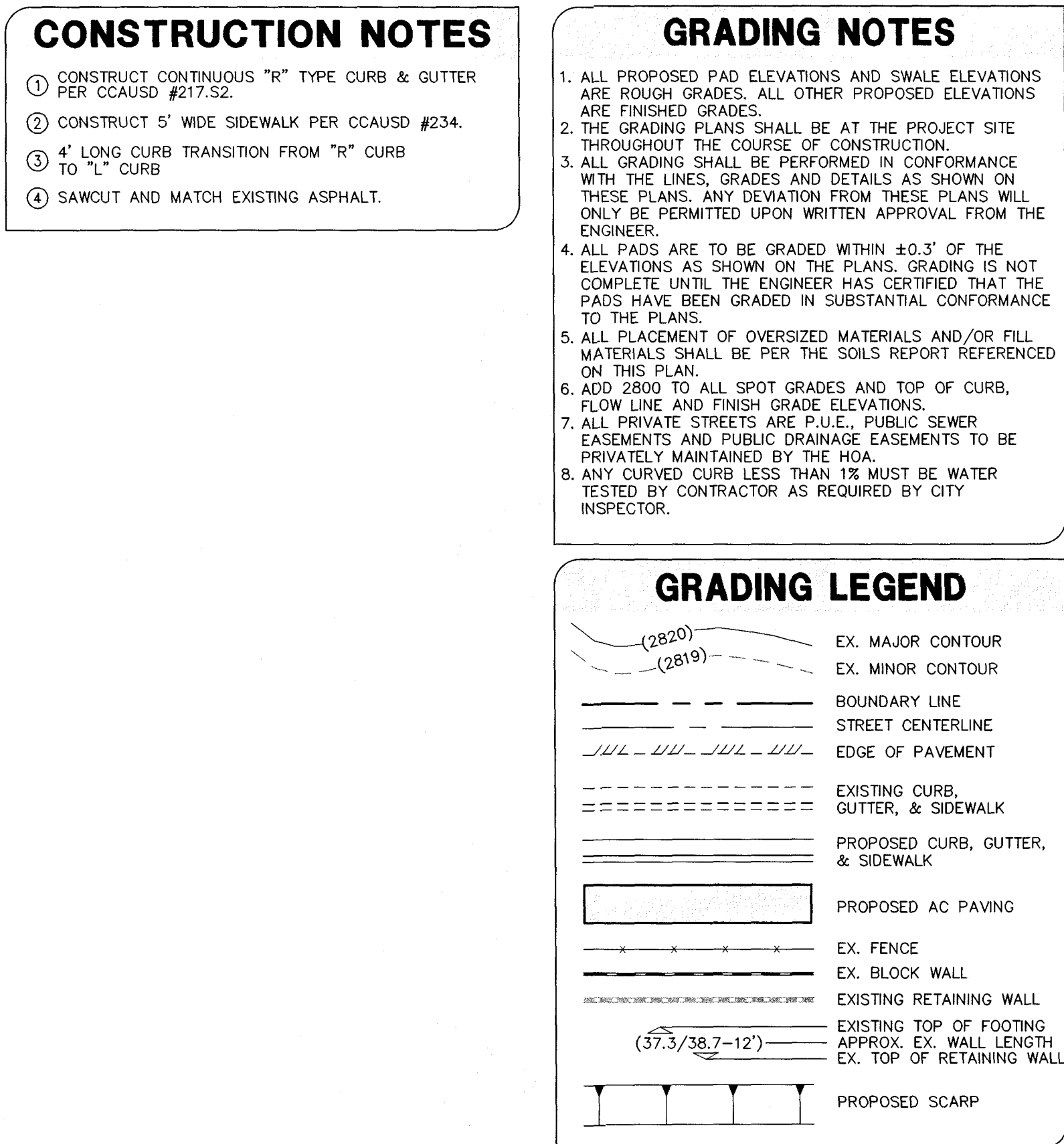
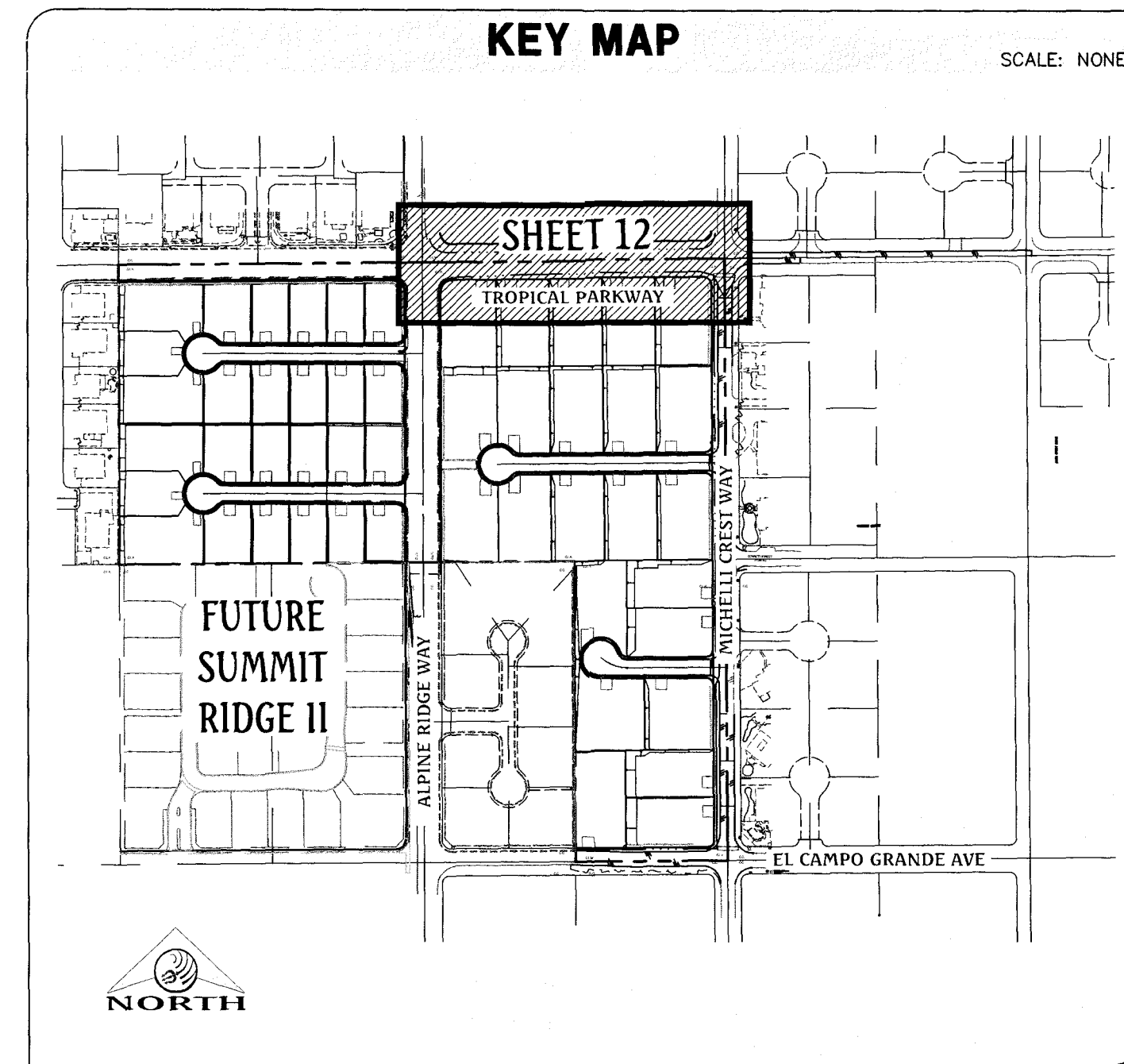
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CALL
811
OR
1-800-227-2600

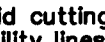
DATE: 12/01/2016
PW: J. PEARCE
DRAWN BY:
DESIGNED BY:
CHECKED BY:
ADA CHECKED BY:
JOB NO.: 007104
SCALE: 1" = 40'

Triton Engineering
6757 W. Charleston Blvd.
Suite B
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BLM SITE 11
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SHEET **10** OF 17
C.L.V. DWG.#



<i>FAST</i>  Call before you Underground 1-702-432-5300 FREEMAN & ARTERAL SYSTEM, INC. TRANSFORMERS ETC.	Avoid overhead power line contact. It's costly. Call before you Overhead 1-702-227-2929	Call before you Dig Avoid cutting underground utility lines. It's costly. CALL  OR 1-800-227-2600
--	---	--

FLOOD ZONE NOTE

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #32003C1750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

BASIS OF BEARING

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

BENCHMARK # 1C9925SSW6

RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF
A CONCRETE BASE FOR LARGE POWER POLE (#40-B) AT THE
WEST END OF ANN ROAD

ELEVATION = 880.365 METERS (NAV'D/88)
ELEVATION = 2,888.33 U.S. FEET (NAV'D/88)

Triton

Engineering

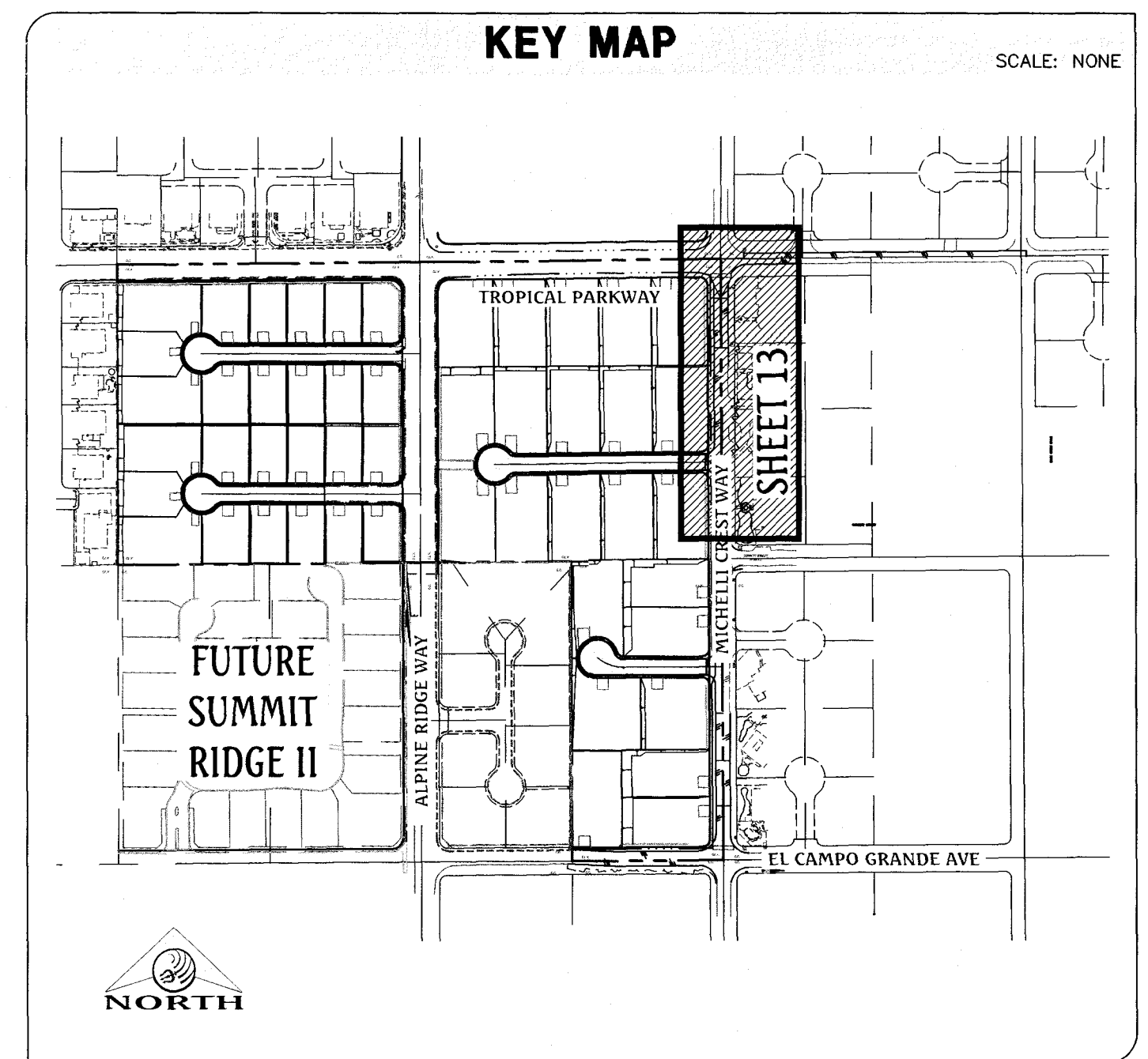
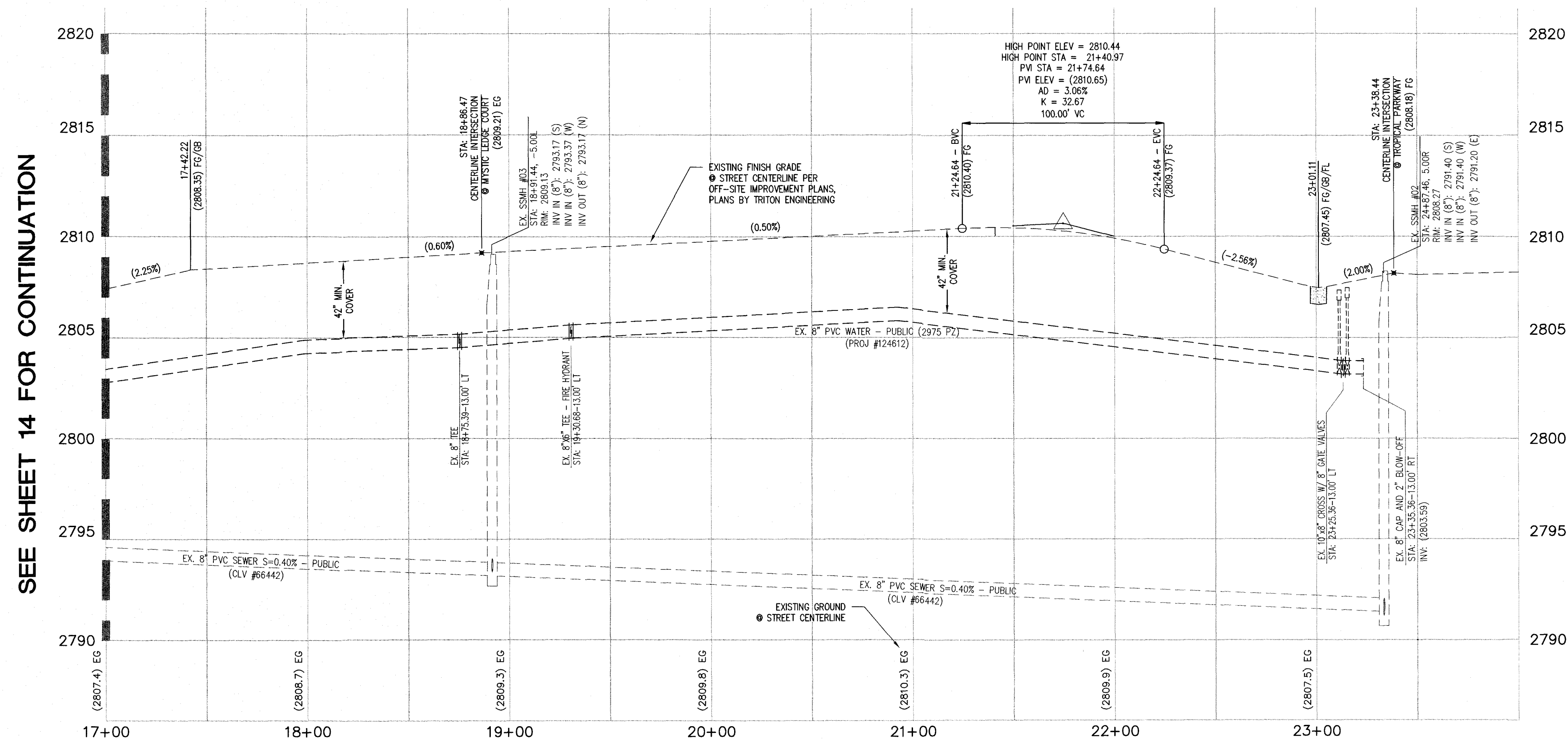
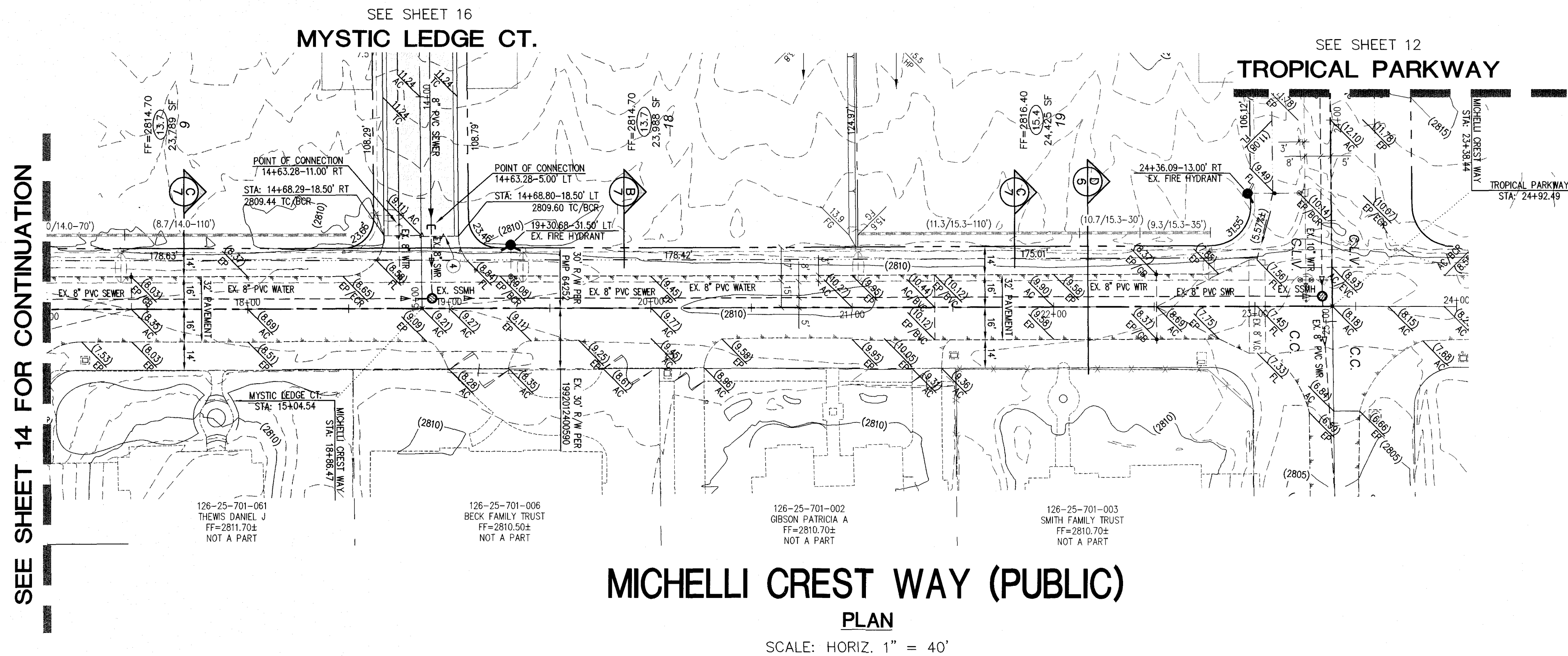
6757 W. Charleston Blvd.
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Fax: (702) 254-3062
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DR HORTON	ON-SITE DRAINAGE PLANS
BLM SITE 11	TROPICAL PARKWAY PLAN & PROFILE
	STA 18+00.00 TO STA 25+50.00

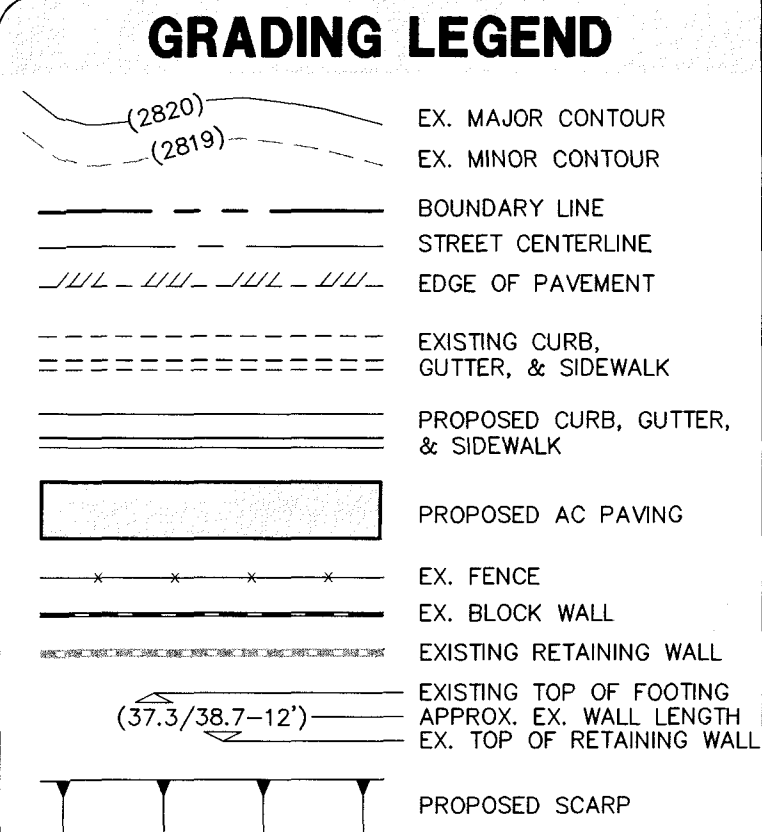
SHEET **12** OF 17
CLV DWG #

G:\Triton Drawings\007104 BLM Site 11 East\Drawings\DRAINAGE\On-sites\007104-on-drain-12-Profile East.dwg, Thursday, 01 Dec 2016 - 11:03am



- CONSTRUCTION NOTES**
1. CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.S2.
 2. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
 3. 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB
 4. SAWCUT AND MATCH EXISTING ASPHALT.

- GRADING NOTES**
1. ALL PROPOSED PAD ELEVATIONS AND SWALE ELEVATIONS ARE ROUGH GRADES. ALL OTHER PROPOSED ELEVATIONS ARE FINISHED GRADES.
 2. THE GRADING PLANS SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
 3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER.
 4. ALL PADS ARE TO BE GRADED WITHIN $\pm 0.5'$ OF THE ELEVATIONS AS SHOWN ON THE PLANS. GRADING IS NOT COMPLETE UNTIL THE ENGINEER HAS CERTIFIED THAT THE PADS HAVE BEEN GRADED IN SUBSTANTIAL CONFORMANCE TO THE PLANS.
 5. ALL PLACEMENT OF OVERSIZED MATERIALS AND/OR FILL MATERIALS SHALL BE PER THE SOILS REPORT REFERENCED ON THIS PLAN.
 6. ADD 2800 TO ALL SPOT GRADES AND TOP OF CURB, FLOW LINE AND FINISH GRADE ELEVATIONS.
 7. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.
 8. ANY CURVED CURB LESS THAN 1% MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.



FLOOD ZONE NOTE

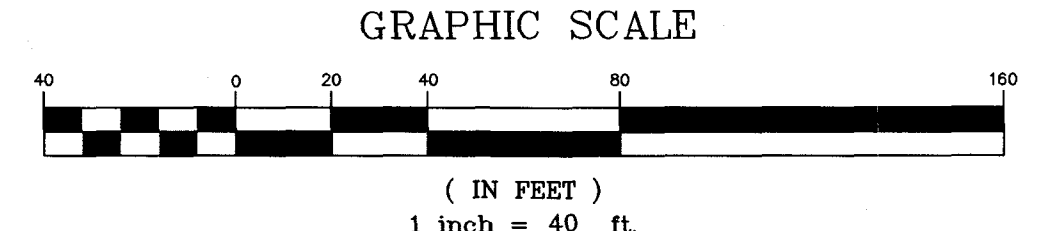
THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #3200050750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

BASIS OF BEARING

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

BENCHMARK # 109925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)



FAST
Call before you
Underground
1-702-432-5300

Avoid overhead power
line contact. It's costly.
**Call before you
Overhead**
1-702-227-2929

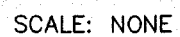
Call before you Dig
Avoid cutting underground
utility lines. It's costly.
811
OR
1-800-227-2600

DATE: 12/01/2016
PM: J. PEARCE
DRAWN BY:
DESIGNED BY:
CHECKED BY:
ADA CHECKED:
JOB NO.: 007104
SCALE: 1" = 40'
NO. DESCRIPTION
DATE
APP'D

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SHEET **13** OF 17
C.L.V. DWG.#



1. ALL PROPOSED PAD ELEVATIONS AND SWALE ELEVATIONS ARE ROUGHED GRADES, ALL OTHER PROPOSED ELEVATIONS ARE FINISHED GRADES.
2. THE GRADING PLANS SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER.
4. ALL PADS ARE TO BE GRADED WITHIN $\pm 0.3'$ OF THE ELEVATIONS AS SHOWN ON THE PLANS. GRADING IS NOT REQUIRED UNTIL THE ENGINEER HAS CERTIFIED THAT THE PADS HAVE BEEN GRADED IN SUBSTANTIAL CONFORMANCE TO THE PLANS.
5. ALL PLACEMENT OF OVERSIZED MATERIALS AND/OR FILL MATERIAL SHALL BE PER THE SOILS REPORT RECOMMENDATION ON THIS PLAN.
6. ADD 2800 TO ALL SPOT GRADES AND TOP OF CURB, FLOW LINE AND FINISH GRADE ELEVATIONS.
7. ALL PRIVATE STREET SIDEWALKS, PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.
8. ANY CURVED CURB LESS THAN 1/4 MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.

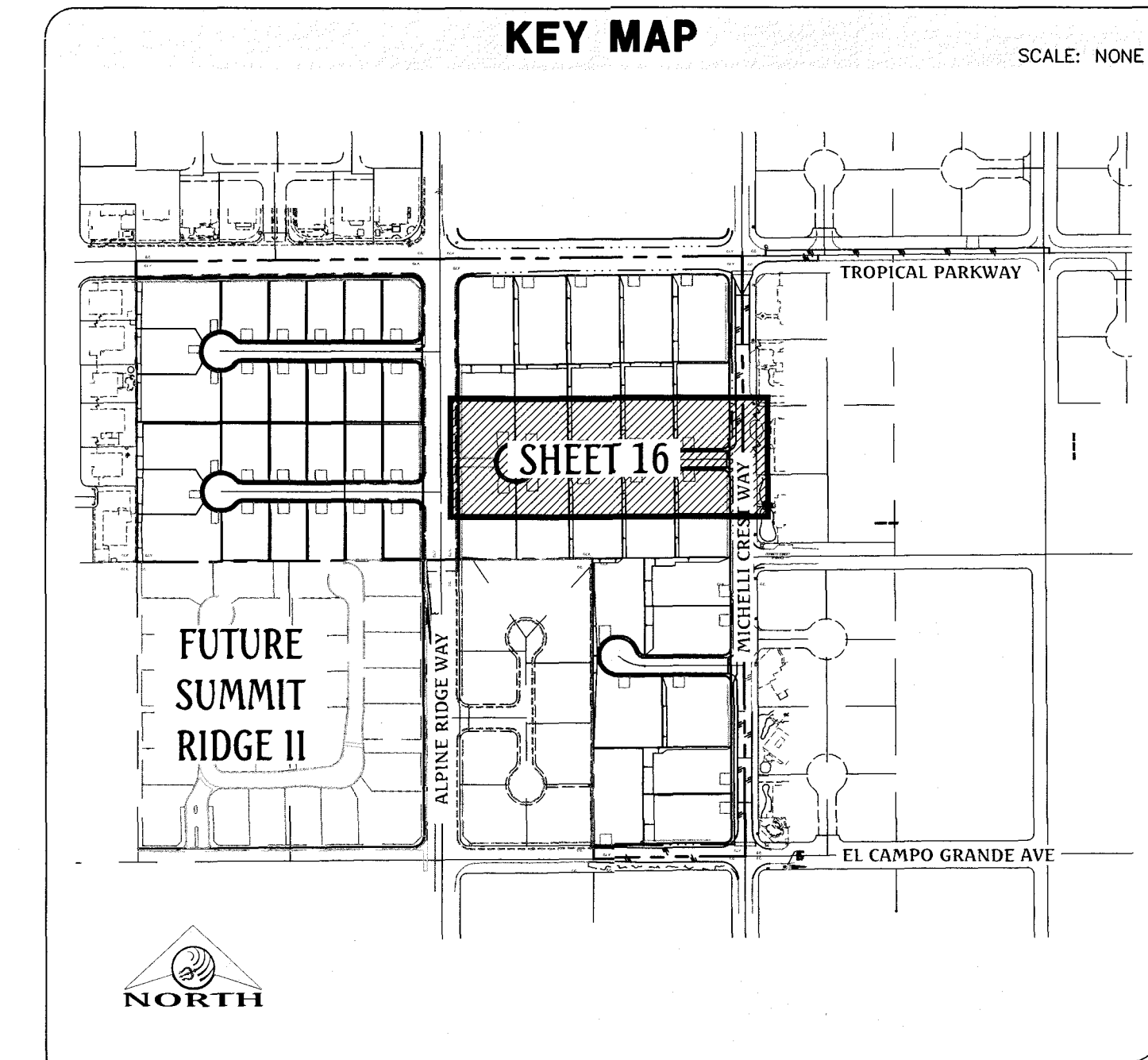
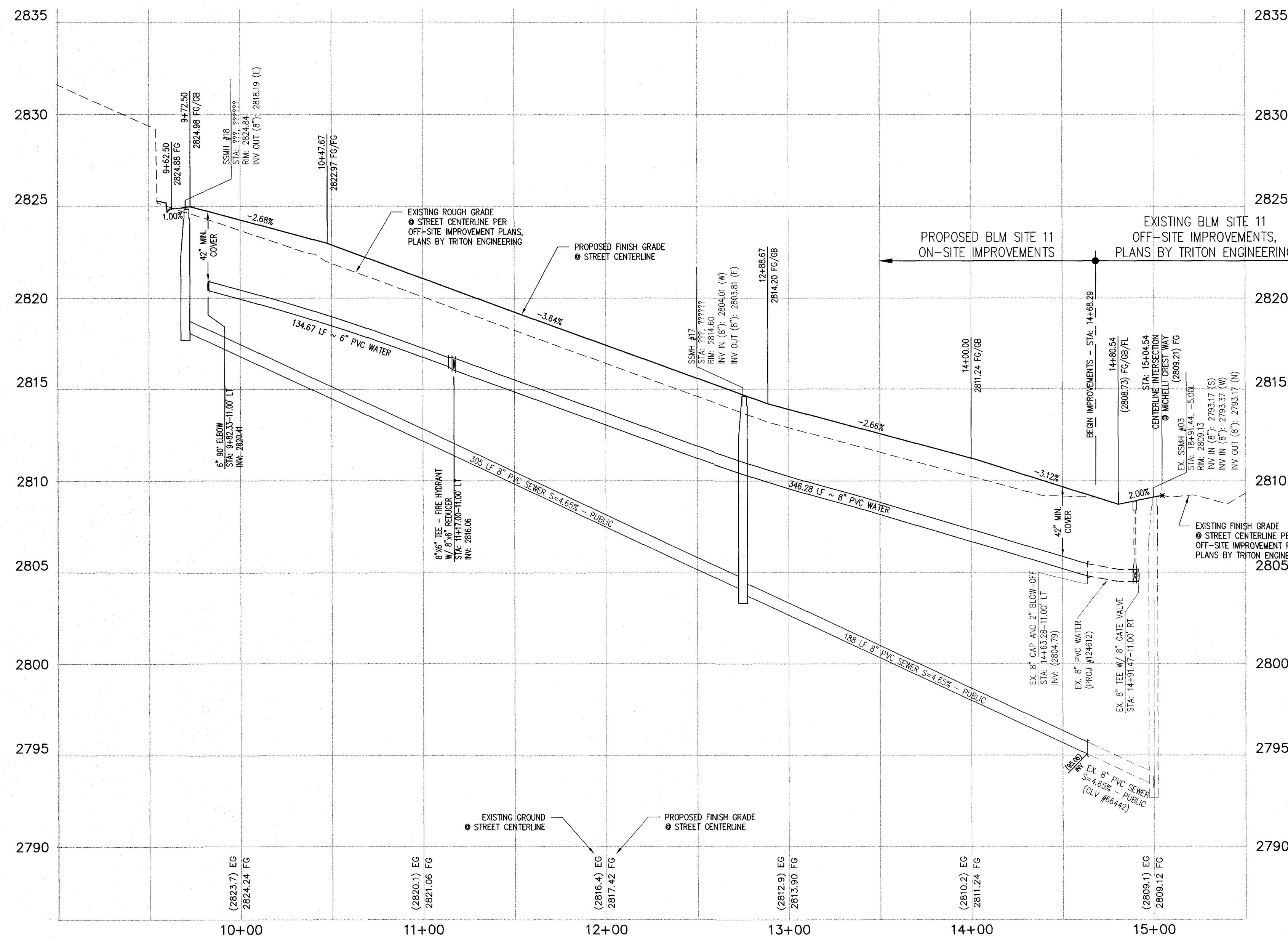
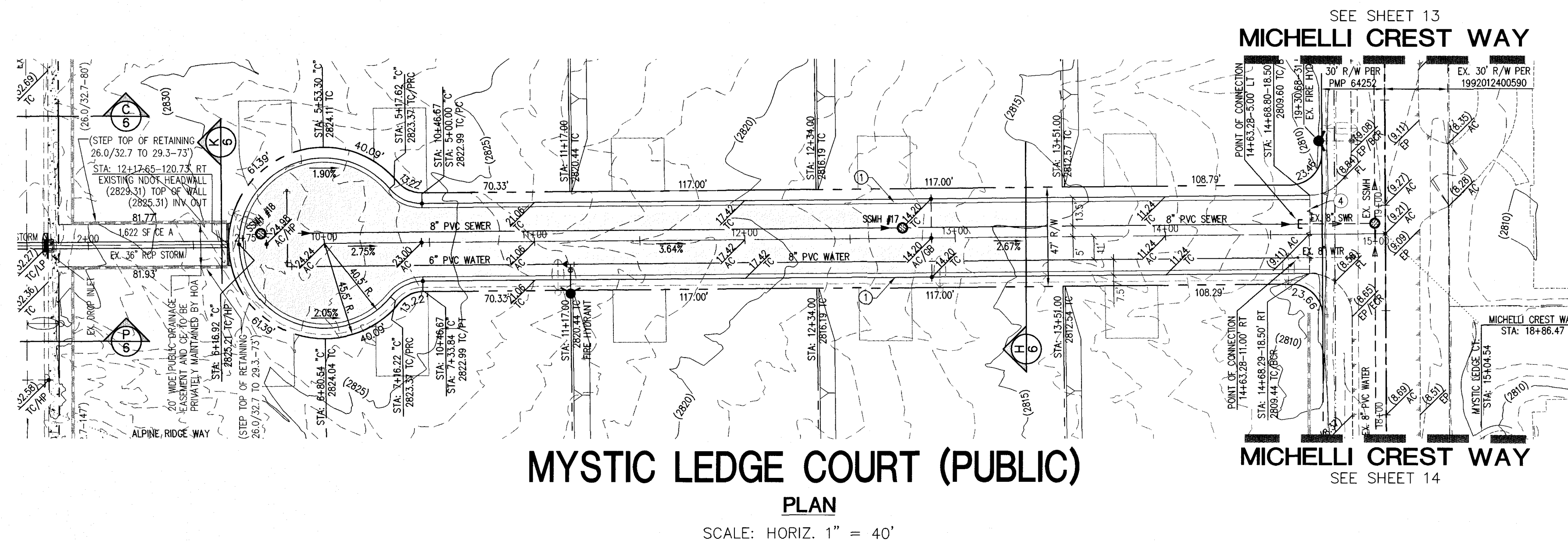
	EX. MAJOR CONTOUR EX. MINOR CONTOUR
	BOUNDARY LINE
	STREET CENTERLINE
	EDGE OF PAVEMENT
	EXISTING CURB, GUTTER, & SIDEWALK
	PROPOSED CURB, GUTTER, & SIDEWALK
	PROPOSED AC PAVING
	EX. FENCE EX. BLOCK WALL
	EXISTING RETAINING WALL
	EXISTING TOP OF FOOTING APPROX. EX. WALL LENGTH EX. TOP OF RETAINING WALL
	PROPOSED SCARP

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #32003C1750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK # 1C9925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF
A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE
WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)

- ① CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.S2.
- ② CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
- ③ 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB
- ④ SAWCUT AND MATCH EXISTING ASPHALT.



- GRADING NOTES**
1. ALL PROPOSED PAD ELEVATIONS AND SWALE ELEVATIONS ARE FINISHED GRADES. ALL OTHER PROPOSED ELEVATIONS ARE FINISHED GRADES.
 2. THE GRADING PLANS SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
 3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER.
 4. ALL PADS ARE TO BE GRADED WITHIN $\pm 0.3'$ OF THE ELEVATIONS AS SHOWN ON THE PLANS. GRADING IS NOT COMPLETE UNTIL THE ENGINEER HAS CERTIFIED THAT THE PADS HAVE BEEN GRADED IN SUBSTANTIAL CONFORMANCE TO THE PLANS.
 5. ALL PLACEMENT OF OVERSIZED MATERIALS AND/OR FILL MATERIALS SHALL BE PER THE SOILS REPORT REFERENCED TO THE PLANS.
 6. ADD 2800 TO ALL SPOT GRADES AND TOP OF CURB, FLOW LINE AND FINISH GRADE ELEVATIONS.
 7. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.
 8. ANY CURVED CURB LESS THAN 12' MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.

- GRADING LEGEND**
- EX. MAJOR CONTOUR
 - EX. MINOR CONTOUR
 - BOUNDARY LINE
 - STREET CENTERLINE
 - EDGE OF PAVEMENT
 - EXISTING CURB, GUTTER, & SIDEWALK
 - PROPOSED CURB, GUTTER, & SIDEWALK
 - PROPOSED AC PAVING
 - EX. FENCE
 - EX. BLOCK WALL
 - EXISTING RETAINING WALL
 - EXISTING TOP OF FOOTING
 - APPROX. EX. WALL LENGTH
 - EX. TOP OF RETAINING WALL
 - PROPOSED SCARP

FLOOD ZONE NOTE

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #32003C1750E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

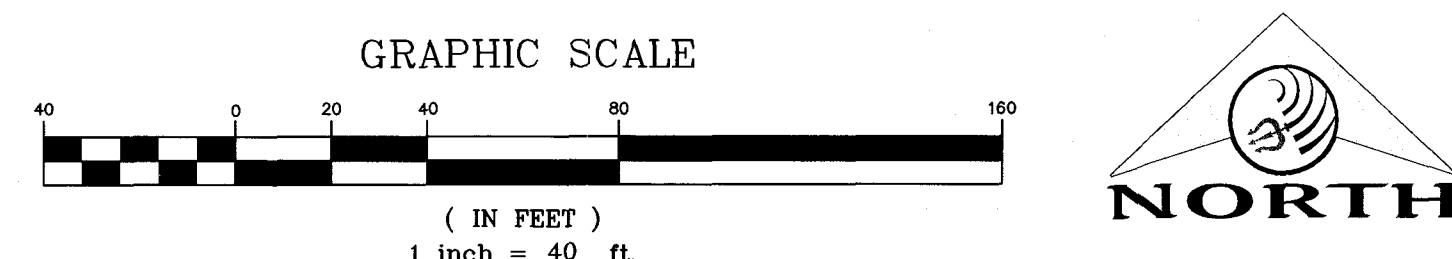
BASIS OF BEARING

NORTH 89°27'31" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN IN FILE 196, PAGE 87 OF SURVEY'S ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.

BENCHMARK

BENCHMARK # 109925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)

- CONSTRUCTION NOTES**
1. CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.52.
 2. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
 3. 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB
 4. SAWCUT AND MATCH EXISTING ASPHALT.



FAST

Call before you Dig

Underground

1-702-432-5300

Call before you Dig

Overhead

1-702-227-2929

811

OR

1-800-227-2600

DATE: 12/01/2016
PM: J. PEARCE
DRAWN BY: J. PEARCE
CHECKED BY: J. PEARCE
JOB NO.: 007104
SCALE: 1" = 40'

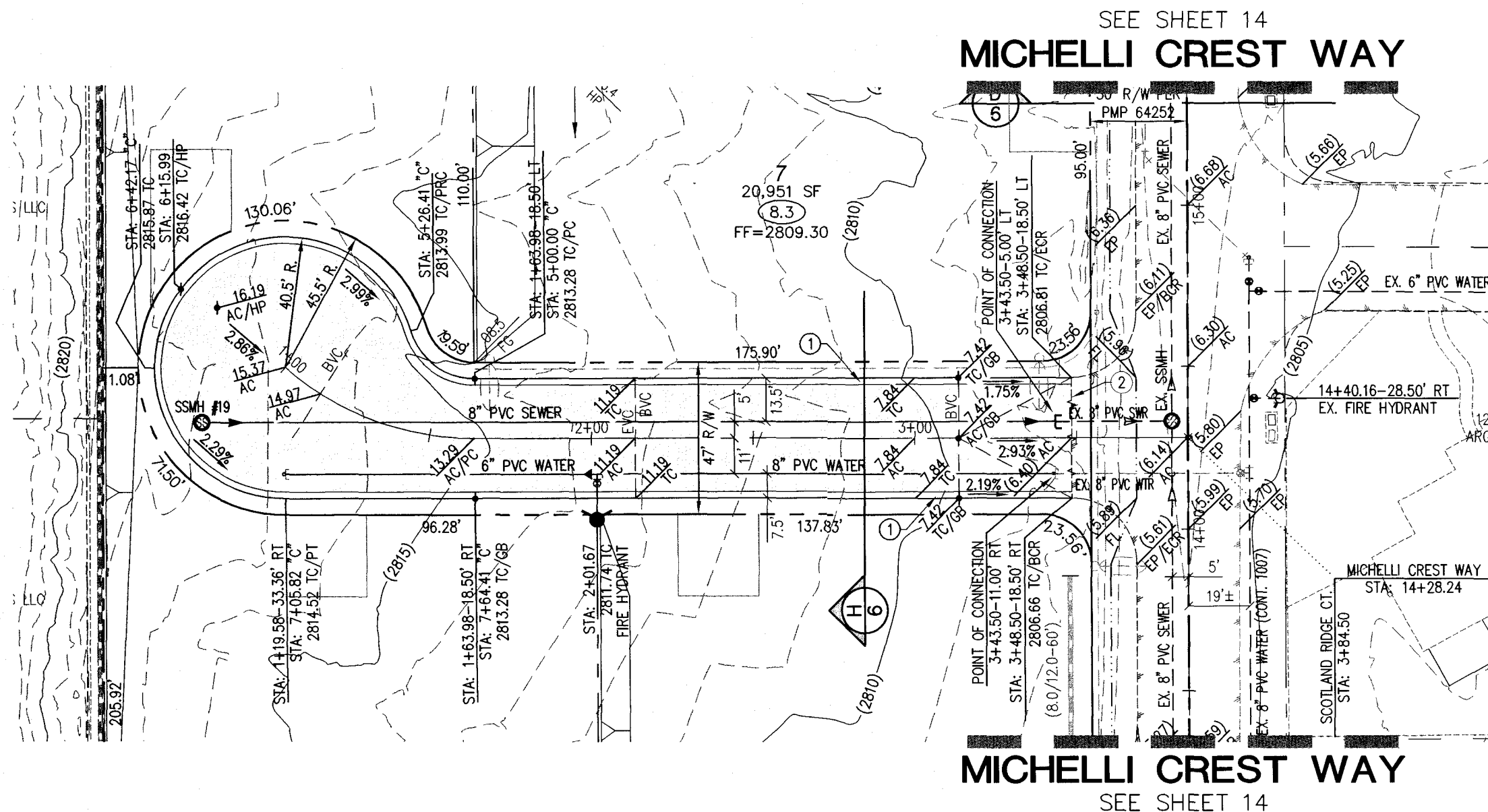
Triton Engineering

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DR. HORTON
BLM SITE 11

ON-SITE DRAINAGE PLANS
MYSTIC LEDGE COURT PLAN & PROFILE
STA 1+00.00 TO STA 5+00.00

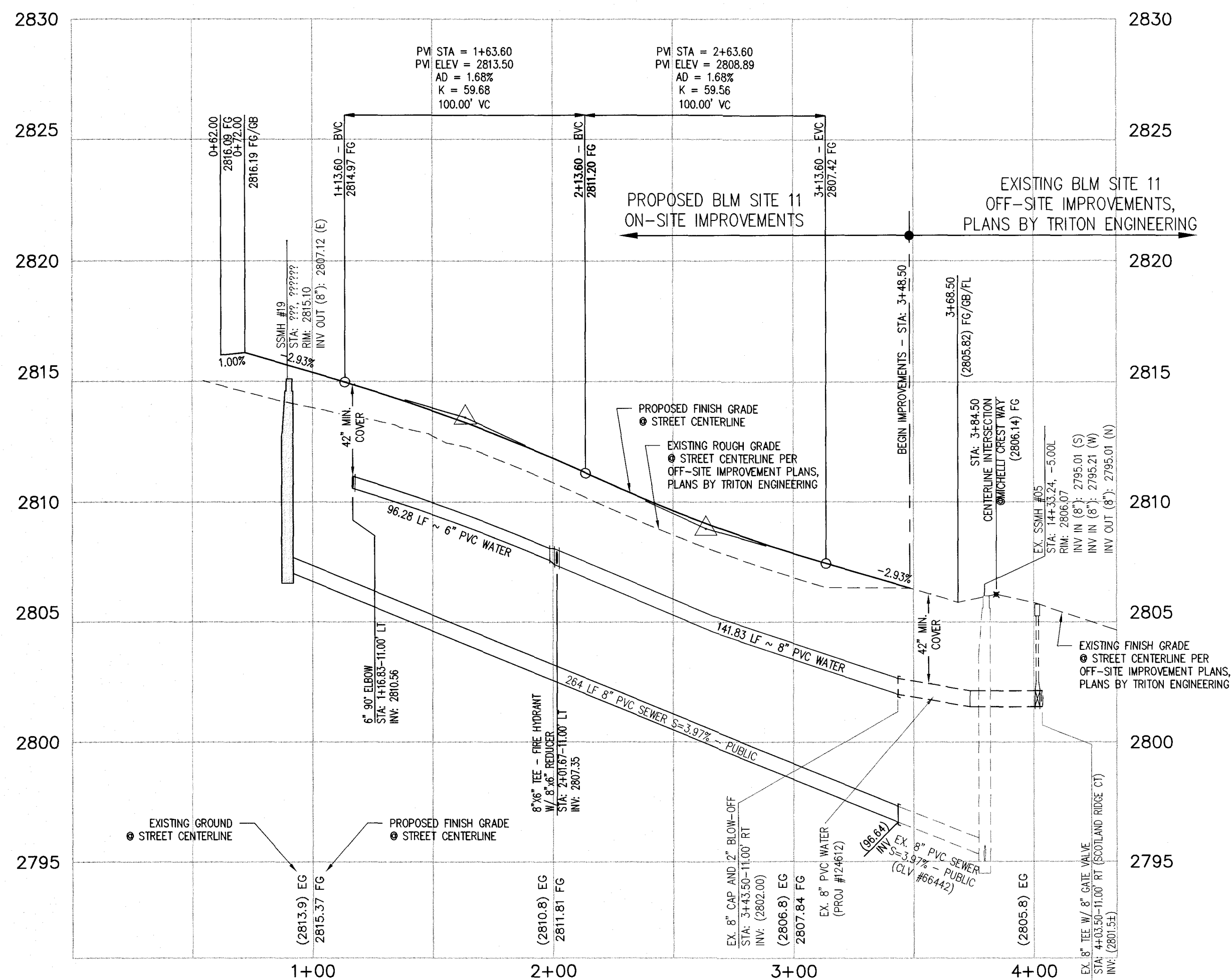
SHEET **16** OF 17
C.L.V. DWG.#



SCOTLAND RIDGE COURT (PUBLIC)

PLAN

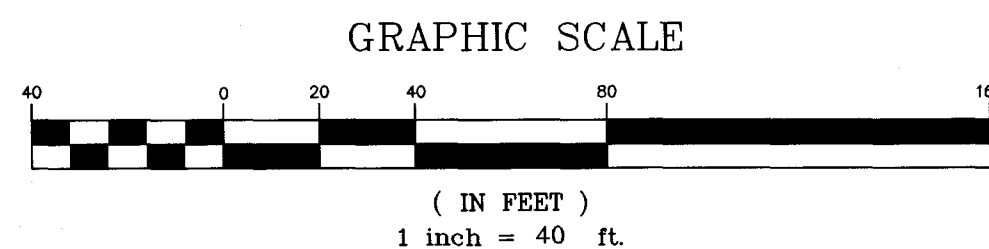
SCALE: HORIZ. 1" = 40'



SCOTLAND RIDGE COURT (PUBLIC)

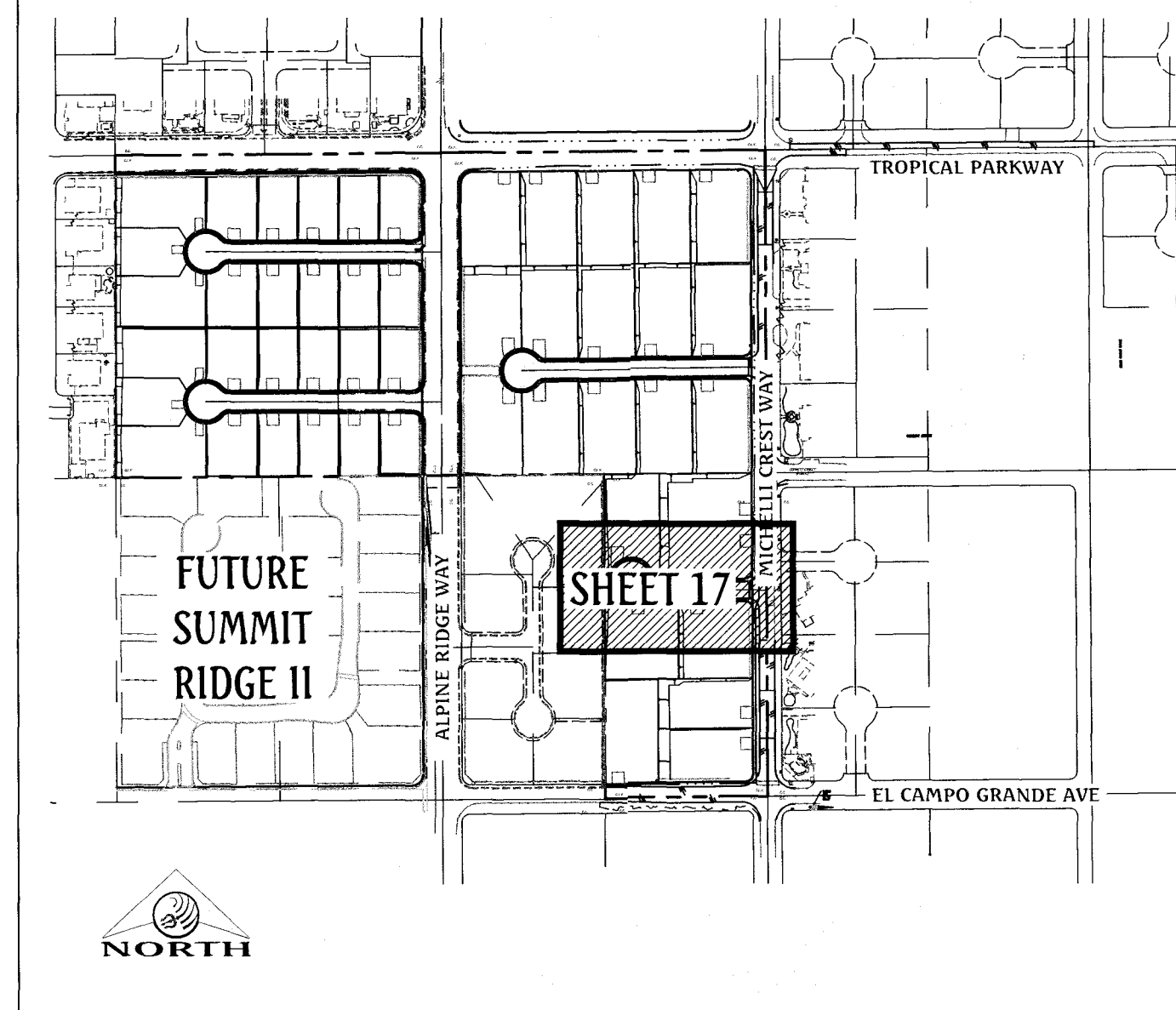
PROFILE

SCALE: HORIZ. 1" = 40'
VERT. 1" = 4'



KEY MAP

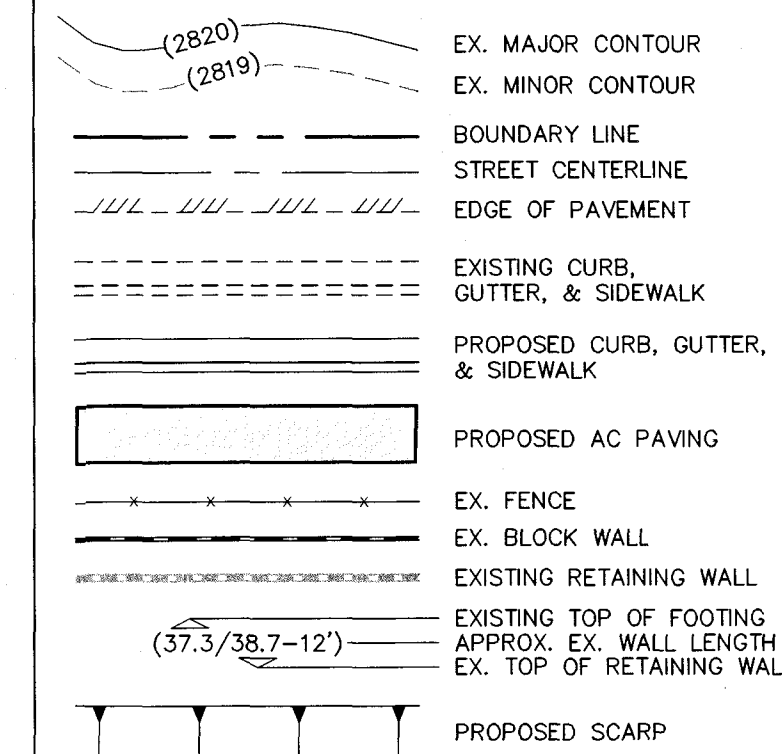
SCALE: NONE



GRADING NOTES

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2. THE GRADING PLANS SHALL BE AT THE PROJECT SITE THROUGHOUT THE COURSE OF CONSTRUCTION.
3. ALL GRADING SHALL BE PERFORMED IN CONFORMANCE WITH THE LINES, GRADES AND DETAILS AS SHOWN ON THESE PLANS. ANY DEVIATION FROM THESE PLANS WILL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER.
4. ALL PADS ARE TO BE GRADED WITHIN $\pm 0.3'$ OF THE ELEVATIONS AS SHOWN ON THE PLANS. GRADING IS NOT COMPLETE UNTIL THE ENGINEER HAS CERTIFIED THAT THE PADS HAVE BEEN GRADED IN SUBSTANTIAL CONFORMANCE TO THE PLANS.
5. ALL PLACEMENT OF OVERSIZED MATERIALS AND/OR FILL MATERIALS SHALL BE PER THE SOILS REPORT REFERENCED ON THIS PLAN.
6. ADD 2800 TO ALL SPOT GRADES AND TOP OF CURB, FLOW LINE AND FINISH GRADE ELEVATIONS.
7. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.
8. ANY CURVED CURB LESS THAN 1% MUST BE WATER TESTED BY CONTRACTOR AS REQUIRED BY CITY INSPECTOR.

GRADING LEGEND



FLOOD ZONE NOTE

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP #200017150E. THE SITE IS LOCATED WITHIN DESIGNATED FLOOD HAZARD ZONE X BEING AN AREA DETERMINED TO BE OUTSIDE THE 100 YEAR FLOOD PLAIN.

BASIS OF BEARING

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BENCHMARK

BENCHMARK # 1C9925SSW6
RIVET AND SQUARE ALUMINUM PLATE IN NORTHEAST CORNER OF A CONCRETE BASE FOR LARGE POWER POLE (#40-8) AT THE WEST END OF ANN ROAD
ELEVATION = 880.365 METERS (NAVD'88)
ELEVATION = 2,888.33 U.S. FEET (NAVD'88)

CONSTRUCTION NOTES

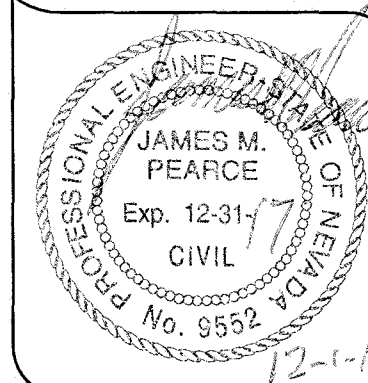
1. CONSTRUCT CONTINUOUS "R" TYPE CURB & GUTTER PER CCAUSD #217.52.
2. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD #234.
3. 4' LONG CURB TRANSITION FROM "R" CURB TO "L" CURB.
4. SAWCUT AND MATCH EXISTING ASPHALT.

DATE: 12/07/2018
PM: J. PEARCE
DRAWN BY:
DESIGNED BY:
CHECKED BY:
ADA CHECKED:
JOB NO.: 007104
SCALE: 1" = 40'

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STA 1+00.00 TO STA 5+00.00



SHEET 17 OF 17
C.L.V. DWG.#

