

DS #: 05207

125-20-601-006; 125-20-602-002, -005, -009, -010;
APN: 125-20-603-001, -003, 125-21-201-004

PROJECT: Montecito 60-Unit 3

SUBMITTAL: 2nd

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		December 5, 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:	COPIES TO:
	Montecito 60 – Unit 3	Slater Hanifan
Cross Streets:	NWC of Deer Springs & Grand Montecito	KB Home Nevada
File Number:	F:\Depot\DSMemos\DS5207B.doc	Bart Anderson, P.E., DevCo
Parcel Number:	125-20-601-006; 125-20-602-002, -005, -009, -010; 125-20-603-001, -003; 125-21-201-004	
Zoning Action:	SDR-74638	
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	10/23/2019	11/26/2019	See Comments Below	\$400.00	3621409: \$400
2 nd Submittal	12/3/2019	12/5/2019	Approved	N/C	
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

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

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

Note that the Clark County Regional Flood Control District (District) has begun efforts to update the *Hydrologic Criteria and Drainage Design Manual (HCDDM)* and is requesting participation from the engineering community. The District is collecting comments and suggestions on errors, clarifications, or changes needed to the current Manual and/or content and usability enhancements to be incorporated into the updated Manual. Additional information on procedures and deadline to provide feedback and comments are available online at (<http://www.ccrfcd.org/hcddmupdate.html>).

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

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

END OF REMARKS
JKS

T/R/S: T19S/R60E/20 & 21
AREA G-20

TECHNICAL DRAINAGE STUDY SUPPLEMENT

Montecito 60 - Unit 3

City of Las Vegas, Nevada

Job No.: KBH1805.003

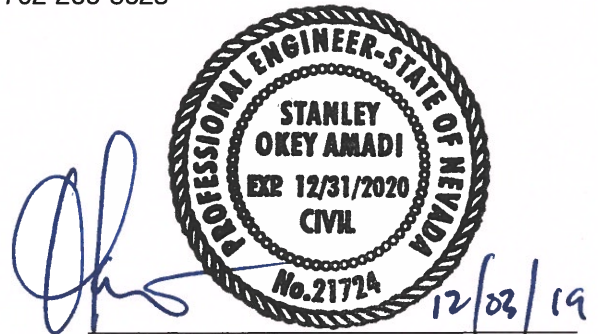
Date: December 2019

Prepared By:

Slater Hanifan Group, A Westwood Team
5740 S. Arville Street, Suite 216
Las Vegas, Nevada 89118
Phone: 702-284-5300 • Fax: 702-284-5399

Prepared For:

KB Home
5795 Badura Avenue, Ste 180
Las Vegas, NV 89118
Phone: 702-266-8400 • Fax: 702-266-8623



Stanley Okey Amadi, P.E., CFM
NV Professional Engineer No. 21724

Assisted By: Caitlyn Alcantara, E.I.

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Supplement to the Technical Drainage Study for Montecito 60 - Unit 3 Date: December 2019
 Location of Development: a) Descriptive (Cross Streets): North/South: Grand Montecito Parkway
East/West: Deer Springs Way
 b) Section: 20 & 21 Township: 19 South Range: 60 East
 c) APN: 125-20-601-006, 125-20-602-002, -005, -009, -010; 125-20-603-001, -003 & 125-21-201-004

Name of Owner: KB Home Nevada Acquisition, LLC
 Telephone No.: (702) 266-8400 Fax No.: (702)266-8623 E-mail Address: pchao@kbhome.com
 Address: 5795 Badura Ave, Suite 180 Las Vegas NV 89118

Contact Person – Name: Stanley Okey Amadi, P.E., CFM Telephone No.: (702) 284-5300
 *E-mail Address: stanley.amadi@westwoodps.com Fax No.: (702) 284-5399
 Firm: Slater Hanifan Group, A Westwood Team
 Address: 5740 S. Arville #216 Las Vegas NV 89118

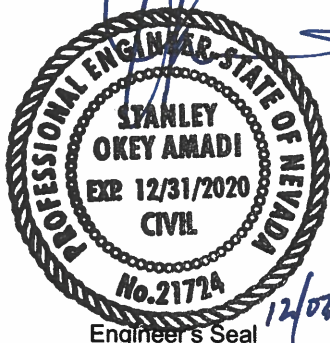
Type of Land Development/Land Disturbance Process:

☐ Rezoning	☐ Subdivision Map	☐ Clearing and grading Only
☐ Parcel Map	☒ Planned Unit Development	☐ Other (Please specify below)
☐ Large Parcel Map	☐ Building Permit	☐

1. Total Owned Land Area: At Site: ± 52.4 acres Being Developed/Disturbed: 12.8 +/- acres
 2. Is a portion or all of the subject property located in a FEMA Flood Hazard Area? ☐ Yes** ☒ No
 3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ Yes** ☒ No
 4. Proposed type of development (Residential, Commercial, Etc.): Residential
 5. Approximate upstream land area which drains to the subject site: 58 +/- acres
 6. Has the site drainage been evaluated in the past? ☒ Yes** ☐ No If yes, please identify documentation: _____
 TDS for Montecito Storm Drain Infrastructure (DS-5108), TDS for Montecito Unit 1 (DS-5114)
 Final Design Report for Centennial Parkway Channel West – US95 CC215 to Durango Drive

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: To Montecito Pointe as surface flows and captured by storm drain before Oso Blanca Road.

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



Submit this form as part of the required drainage study to the local entity which has jurisdiction over The subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

***Newly Required Field**

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

Revision	Date

Local Entity File No. _____

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008



KBH1805-003

December 03, 2019

Ms. Jennifer Shinn, P.E.
Flood Control Engineering Associate
City of Las Vegas Department of Public Works
333 N. Rancho Drive
Las Vegas, Nevada 89106

Subject: Supplement to the Technical Drainage Study for Montecito 60 - Unit 3

Ms. Shinn:

This letter certifies that all items provided within the Supplement to the *Technical Drainage Study for Montecito 60 - Unit 3* submittal CD match the paper version bound into the study.

Respectfully Submitted,
SLATER HANIFAN GROUP

Caitlyn Alcantara, E.I.
Graduate Engineer – Flood Control Division



KBH1805.003

December 03, 2019

Jennifer Shinn, P.E.
Flood Control Engr. Associate
City of Las Vegas, Department of Public Works
333 N. Rancho Drive
Las Vegas, Nevada 89106

Subject: Supplement to the Technical Drainage Study for Montecito 60 – Unit 3 (DS5207)

Dear Ms. Shinn:

The following are responses to supplemental comments/request contained in the November 27, 2019 review memorandum, regarding the above referenced project. A copy of the City of Las Vegas (CLV) comment letter has been provided in Appendix A of this submittal. The comments have been individually addressed as follows:

1. **Comment:** *The velocity of flow along the northern wall is erosive. Provide scour calculations to demonstrate the wall and footing are adequately designed.*

Response: A scour computation has been provided for the flows conveyed along the northern perimeter wall. The previously submitted FlowMaster wall section, Section S1, has been referenced for the peak flow and the top width utilized in the scour calculation.

The maximum scour depth was calculated to be 0.8-ft (10-inches). Three wall sections apply at the northern wall shown on the improvement plan as details 16, 17, and 27 of Sheet D-2. Detail Section 27 shows retaining of existing ground between 1.0-ft and 6.0-ft above the proposed pad elevations. Whereas Detail Sections 16 and 17 show only 3-inches of cover above the wall footing. Both Details 16 and 17 have been revised on the improvement plans to provide a minimum of ten (10) inches of cover above the wall footing. Computations for the determination of the scour depth and revised improvement plans have been provided in Appendices B and C respectively.

2. **Comment:** *Show and label the existing public drainage easement with the recorded document number on the Grading Plans and Detail Sheets.*

Response: Acknowledged. The grading plans and relevant detail sections, specifically Detail D of Sheet D-1, has been revised to call out the existing public drainage easements with the recorded document number. The revised improvement plans have been provided in Appendix C.

3. **Comment:** *Label the size and provide City of Las Vegas recorded drawing numbers of all existing storm drain systems in the perimeter streets on all pertinent grading plans in the next submittal.*

Response: The sizes with the CLV recorded drawing numbers of existing storm drains were previously provided on the grading plans. Please refer to the revised improvement plans provided in Appendix C.

4. **Comment:** *The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Easements must be bonded and inspected.*

Response: The table of quantity estimate of all drainage improvements was provided on Sheet G-1 of the previous submittal. The subject table has been added to all the other grading sheets (G-2 thru G-6) and are provided in Appendix C.

We believe the above response with calculations and revised plans have adequately addressed your supplemental request. If you have any questions or require additional information, please do not hesitate to contact us at 284-5300.

Respectfully Submitted,

SLATER HANIFAN GROUP



Caitlyn Alcantara, E.I.
Flood Control Division

cc: Stanley Okey Amadi, P.E., CFM – SHG
Mark Failla, P.E., CFM – SHG

APPENDIX

Appendix A: CLV Comment Letter

Appendix B: Hydraulic Computations

Appendix C: Revised Improvement Plans

APPENDIX A

CLV Comment Letter

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		November 27, 2019
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SUBJECT:	Drainage Study for: Montecito 60 – Unit 3	COPIES TO: Slater Hanifan
Cross Streets:	NWC of Deer Springs & Grand Montecito	KB Home Nevada
File Number:	F:\Depot\DSMemos\DS5207A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	125-20-601-006; 125-20-602-002, -005, -009, -010; 125-20-603-001, -003; 125-21-201-004	
Zoning Action:	SDR-74638	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
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1. The velocity of flow along the northern wall is erosive. Provide scour calculations to demonstrate the wall and footing are adequately designed.
2. Show and label the existing public drainage easement with the recorded document number on the Grading Plans and Detail Sheets.
3. Label the size and provide *City of Las Vegas* recorded drawing numbers of all existing storm drain systems in the perimeter streets on all pertinent grading plans in the next submittal.
4. The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.

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

END OF REMARKS

JKS

T/R/S: T19S/R60E/20 & 21

AREA G-20

APPENDIX B

Hydraulic Analyses



Multi-Disciplined
Surveying & Engineering

USACE Scour Calculations

Project Name: KBH1805.003: Montecito 60 Unit 3

Date: 12/2/2019

File Name: KBH1805.003 TDS SUPP Scour Calcs (USACE) V130618.xlsx

By: CAA

Scour Calculation Equation per USACE Technical Supplement 14B, Equation 23

$$z_t = K (Q_d)^a (W_f)^b (D_{50})^c$$

z_t = maximum scour depth at the cross section or reach in question, ft (m)
 K = coefficient (table TS14B-8)
 Q_d = design discharge, ft³/s
 W_f = flow width at design discharge, ft
 D_{50} = median size of bed material (mm)
 a, b, c = exponents (table TS14B-8)

Table TS14B-8 :

Constants for Lacey and Blench relations, U.S. units (D_{50} in mm)

Condition	Lacey				Blench			
	K	a	b	c	K	a	b	c
Straight Reach	0.097	1/3	0	- 1/6	0.530	2/3	- 2/3	-0.1092
Moderate Bend	0.195	1/3	0	- 1/6	0.530	2/3	- 2/3	-0.1092
Severe Bend	0.292	1/3	0	- 1/6	0.530	2/3	- 2/3	-0.1092
Right Angle Bend	0.389	1/3	0	- 1/6	1.105	2/3	- 2/3	-0.1092
Vertical Rock Wall	0.487	1/3	0	- 1/6				

Input Project Specific Information

Q_d = 22.0 cfs
 W_f = 6.3 ft
 D_{50} = 3.0 in (Use D_{50} = 3" for natural wash)
 D_{50} = 76.2 mm

Condition: Severe Bend

Lacey Constants

K = 0.292
 a = 1/3
 b = 0
 c = - 1/6

$$z_t = 0.40 \text{ ft}$$

Blench Constants

K = 0.530
 a = 2/3
 b = - 2/3
 c = -0.1092

$$z_t = 0.76 \text{ ft}$$

$$\text{Maximum Scour } z_t = 0.8 \text{ feet}$$

5740 S. Arville St., Suite 216 - Las Vegas, NV 89118

Ph. 702-284-5300 - Fx. 702-284-5399

Worksheet for Section S1 - Perimeter Wall Section

Results

Critical Depth	1.08	ft
Critical Slope	0.01162	ft/ft
Velocity	5.89	ft/s
Velocity Head	0.54	ft
Specific Energy	1.48	ft
Froude Number	1.35	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

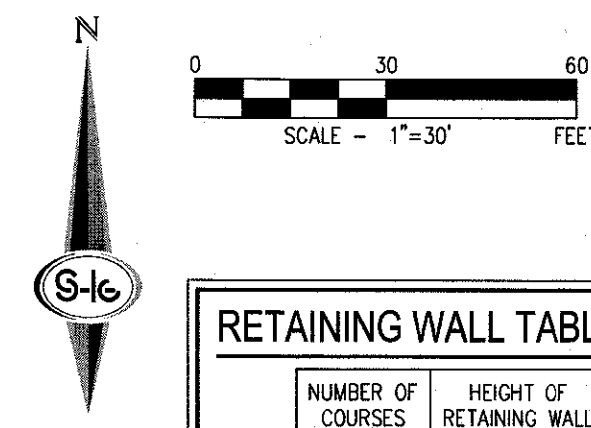
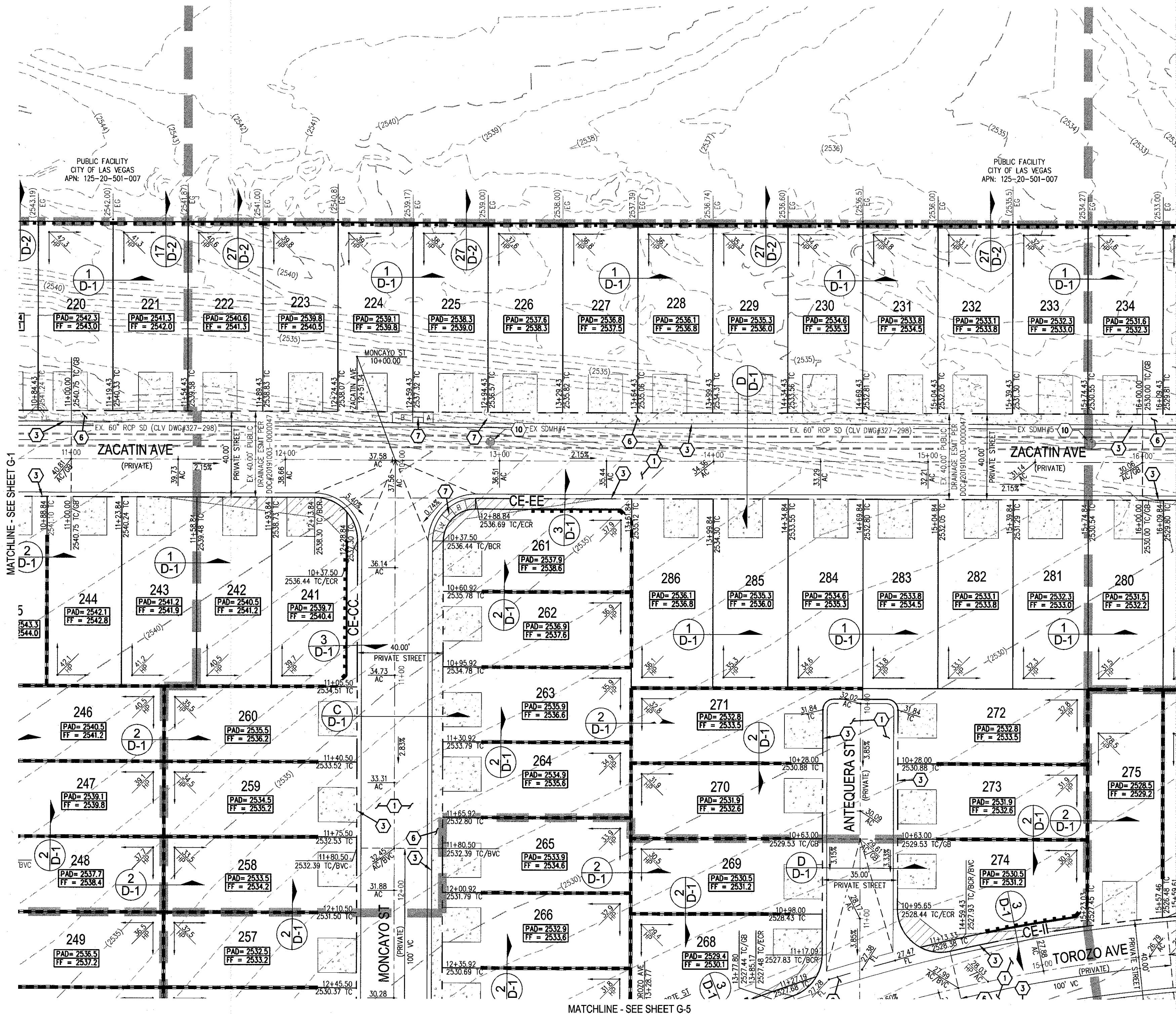
GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.94	ft
Critical Depth	1.08	ft
Channel Slope	2.19	%
Critical Slope	0.01162	ft/ft

APPENDIX C

CD & Revised Improvement Plans

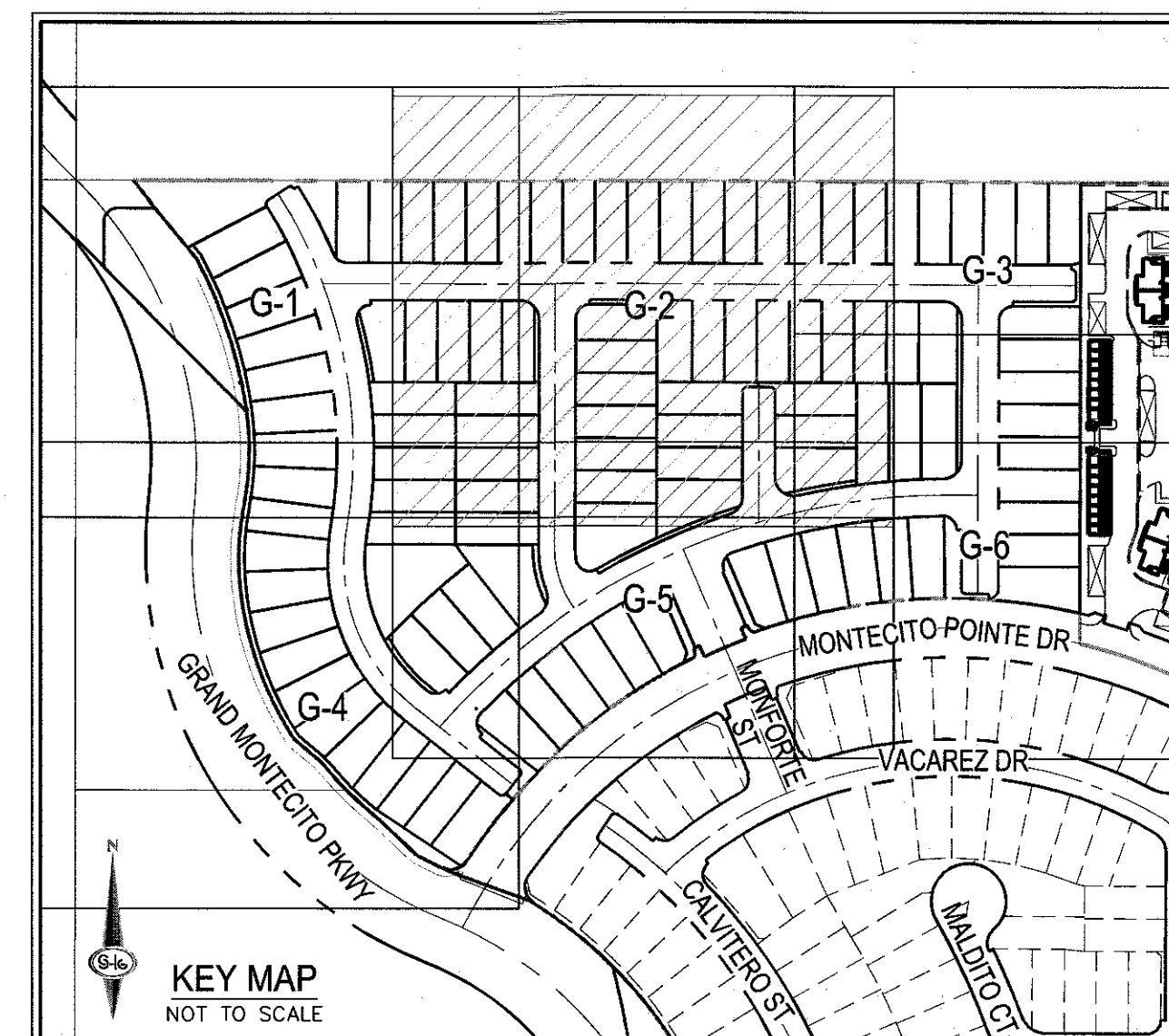
\\sh805-003 montecito 60 unit 3\\Map\\monr\\kbh1805-003 grading 12/17/2019 3:57 PM Brian Sammito



RETAINING WALL TABLE

NUMBER OF COURSES	HEIGHT OF RETAINING WALL
3	1.0'-1.7'
4	1.7'-2.3'
5	2.3'-3.0'
6	3.0'-3.7'
7	3.7'-4.3'
8	4.3'-5.0'
9	5.0'-5.7'
10	5.7'-6.0'

- ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK, ALL OF THESE ARE FIGURED TO HAVE THE TOP OF FOOTING BEING 8" BELOW THE ELEVATION OF THE SIDEWALK.
- ELEVATION DIFFERENCE OF 1' OR LESS DOES NOT REQUIRE RETAINING.
- SEE DETAIL SHEETS FOR MAX. WALL HEIGHTS.



CALL SOUTHWEST GAS AT 702-651-0111 FOR STANDBY WHEN EXCAVATING OR NEAR HIGH PRESSURE GAS LINES

SOILS REPORT
SOILS REPORT BY SOUTHWEST GEOTECHNICAL PROJECT NO. 182358 DATED 10/17/18 UPDATED 10/03/19

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
CUT = ### CU YDS
FILL = ### CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

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

DRAINAGE EASEMENT NOTE
ALL PRIVATE STREETS, DRAINAGE EASEMENTS, AND COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

DISCLAIMER NOTE
1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

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

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

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 5LV90 2006
RIVET & PLATE IN TOP OF CURB AT SW CORNER OF RILEY ST & DEER SPRINGS
ELEVATION=774.781 METERS (NAVD88)
ELEVATION=2541.93 US SURVEY FEET (NAVD88)

BASIS OF BEARING
NORTH 89°56'20" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDERS' OFFICE IN FILE 118, PAGE 89 OF SURVEY.

ELEVATION NOTE
ADD 2500 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2501.00)

- GRADING NOTES**
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
 - ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
 - MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
 - SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
 - ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
 - CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
 - NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS WITHIN THE SIGHT VISIBILITY ZONES.

- CONSTRUCTION NOTES**
- INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 - INSTALL L TYPE CURB PER CCAUSD NO. 216
 - INSTALL R-TYPE CURB & GUTTER PER CCAUSD NO. 217.3.51
 - INSTALL A TYPE CURB PER CCAUSD NO. 219
 - INSTALL 3" CURB TRANSITION PER CCAUSD NO. 223
 - INSTALL 5" WIDE SIDEWALK PER CCAUSD NO. 234
 - INSTALL SIDEWALK RAMP PER CCAUSD NO. 235, CASE 1 AND CCAUSD NO. 235.1
 - INSTALL 8" VALLEY GUTTER PER CCAUSD NO. 228
 - INSTALL STEEL TUBING FENCE & MAINTENANCE ACCESS GATE PER CCAUSD NO. 425.51 (DATE WIDTH PER PLAN)
 - ADJUST MANHOLE RIM TO FINISH GRADE
 - INSTALL 4" WIDE CONCRETE U-CHANNEL PER DETAIL 19 ON SHEET D-2
 - INSTALL SIDEWALK DRAIN PER CCAUSD NO. 236
 - INSTALL U-CHANNEL TO "L" CURB OPENING PER DETAIL 21 ON SHEET D-2
 - INSTALL WROUGHT IRON FENCE
 - REMOVE EXISTING IMPROVEMENTS
 - CONSTRUCT 1" TALL, 6" WIDE BERM @ 90% COMPACTION. SEE DETAIL 22 ON SHEET D-2.
 - INSTALL 6" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1745E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-5202 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.
TIMOTHY M. MULROONEY, P.E. 22938 DATE

DRAINAGE QUANTITIES			
	EA	PRIV.	PUBLIC
1. SIDEWALK UNDER DRAIN	2	-	-
2. 8" WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	3,166	-	-
3.			
4.			
5.			
6.			
7.			

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

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

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

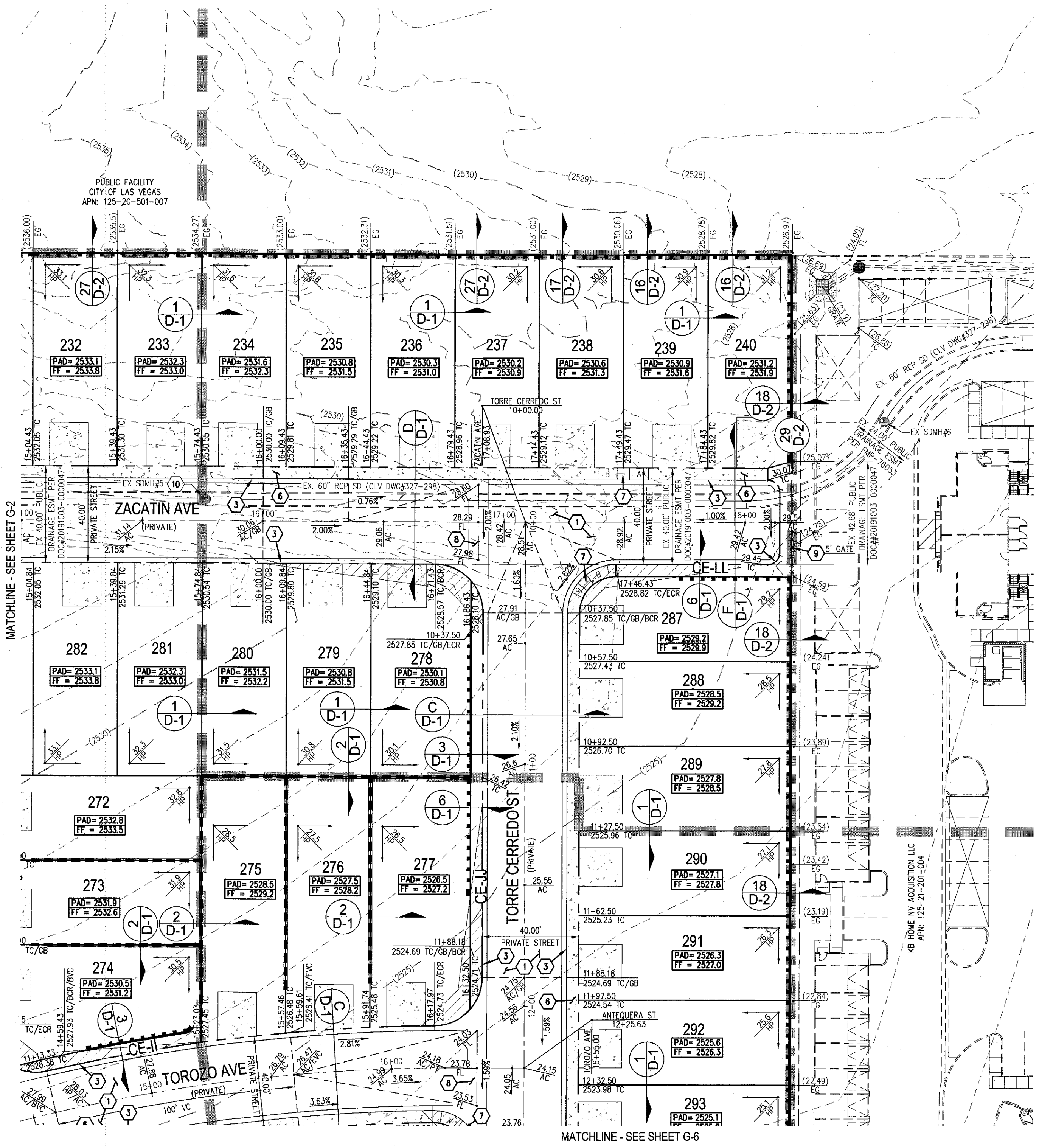
SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300
FAX (702) 284-5309

kb HOME
MONTECITO 60 - UNIT 3
GRADING PLAN II

DATE	BY	APP.	DESCRIPTION
10/14/19	BCS		DRAFTER: BCS
	MAK		DESIGNER: BCS
			CHECKED: MAK
			PROJECT NO. KBH1805-003

12/19

G-2
SHEET 5 OF 11



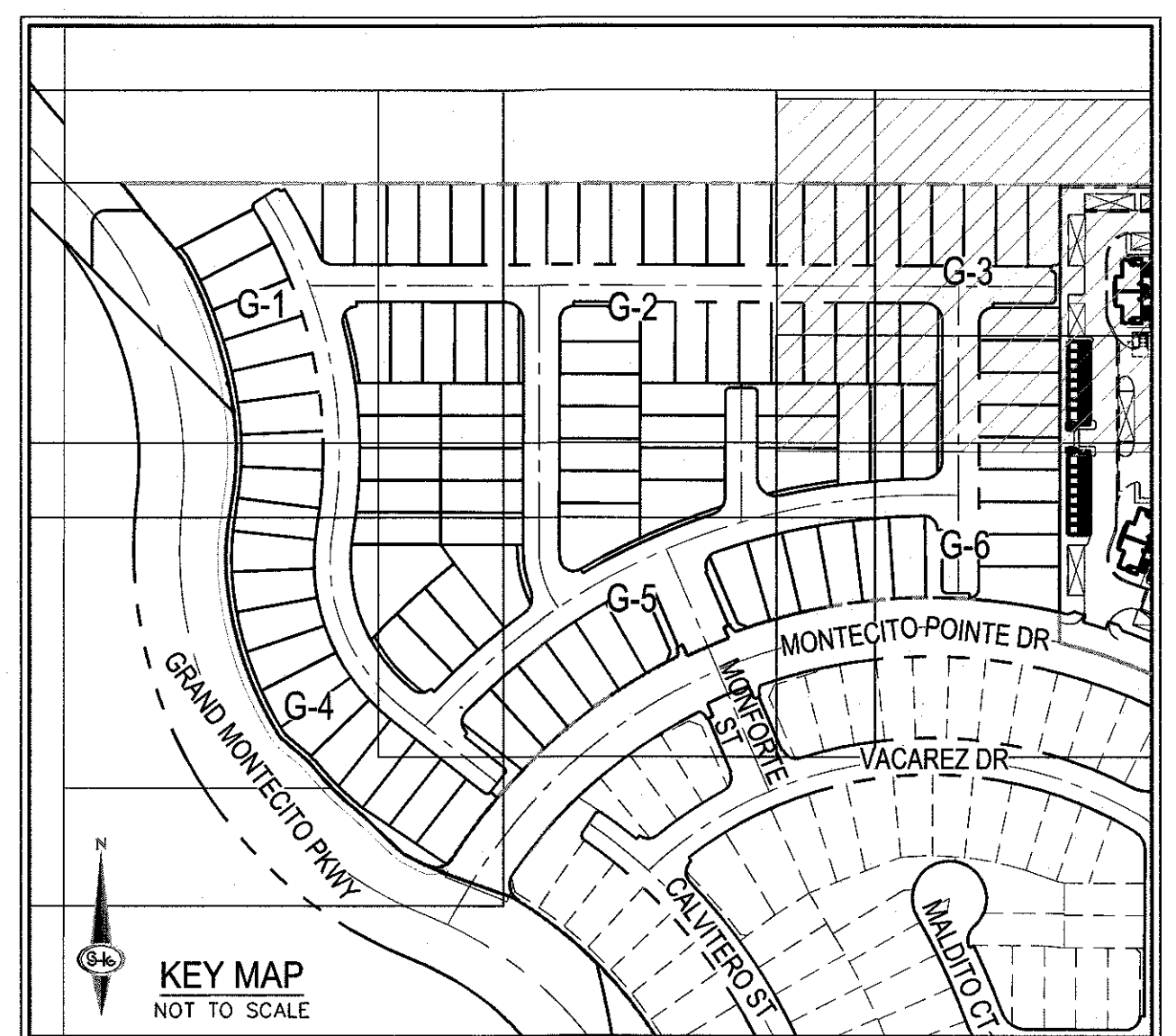
RETAINING WALL TABLE

NUMBER OF COURSES	HEIGHT OF RETAINING WALL
3	1.0'-1.7'
4	1.7'-2.3'
5	2.3'-3.0'
6	3.0'-3.7'
7	3.7'-4.3'
8	4.3'-5.0'
9	5.0'-5.7'
10	5.7'-6.0'

1. ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK, ALL OF THESE ARE FIGURED TO HAVE THE TOP OF FOOTING BEING 6" BELOW THE ELEVATION OF THE SIDEWALK.

2. ELEVATION DIFFERENCE OF 1" OR LESS DOES NOT REQUIRE RETAINING WALL.

3. SEE DETAIL SHEETS FOR MAX WALL HEIGHTS.



CALL SOUTHWEST GAS AT 702-651-3111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SOILS REPORT
SOILS REPORT BY SOUTHWEST GEOTECHNICAL PROJECT NO. 182358 DATED 10/17/18 UPDATED 10/03/19

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
CUT= ### CU YDS
FILL= ### CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

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

DRAINAGE EASEMENT NOTE
ALL PRIVATE STREETS, DRAINAGE EASEMENTS, AND COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

DISCLAIMER NOTE
1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))
1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 5LV90 2006
RIVET & PLATE IN TOP OF CURB AT SW CORNER OF RILEY ST. & DEER SPRINGS.
ELEVATION=774.781 METERS (NAVD88)
ELEVATION=2541.93 US SURVEY FEET (NAVD88)

BASIS OF BEARING
NORTH 89°56'20" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDERS'S OFFICE IN FILE 116, PAGE 89 OF SURVEYS.

ELEVATION NOTE
ADD 2500 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2501.00)

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

CONSTRUCTION NOTES
1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL L TYPE CURB PER CCAUSD NO. 216
3. INSTALL R-TYPE CURB & GUTTER PER CCAUSD NO. 217.3.S1
4. INSTALL A TYPE CURB PER CCAUSD NO. 219
5. INSTALL 3" CURB TRANSITION PER CCAUSD NO. 223
6. INSTALL 5" WIDE SIDEWALK PER CCAUSD NO. 234
7. INSTALL SIDEWALK RAMP PER CCAUSD NO. 235, CASE 1 AND CCAUSD NO. 235.1
8. INSTALL 8" VALLEY GUTTER PER CCAUSD NO. 228
9. INSTALL STEEL TUBING FENCE & MAINTENANCE ACCESS GATE PER CCAUSD NO. 428.51 (GATE WIDTH 6' PLAN)
10. ADJUST MANHOLE RIM TO FINISH GRADE
11. INSTALL 4" WIDE CONCRETE U-CHANNEL PER DETAIL 19 ON SHEET D-2
12. INSTALL SIDEWALK DRAIN PER CCAUSD NO. 236
13. INSTALL U-CHANNEL TO "L" CURB OPENING PER DETAIL 21 ON SHEET D-2
14. INSTALL WROUGHT IRON FENCE
15. REMOVE EXISTING IMPROVEMENTS
16. CONSTRUCT 1" TALL, 6" WIDE BERM @ 90% COMPACTION. SEE DETAIL 22 ON SHEET D-2
17. INSTALL 6" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1745E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY 05-5202 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.
TIMOTHY M. MULROONEY, P.E. 22938 DATE

DRAINAGE QUANTITIES

	PRIV.	PUBLIC
1. SIDEWALK UNDER DRAIN	EA	2
2. 8" WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	SF	3,166
3.		
4.		
5.		
6.		
7.		

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

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

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

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5309

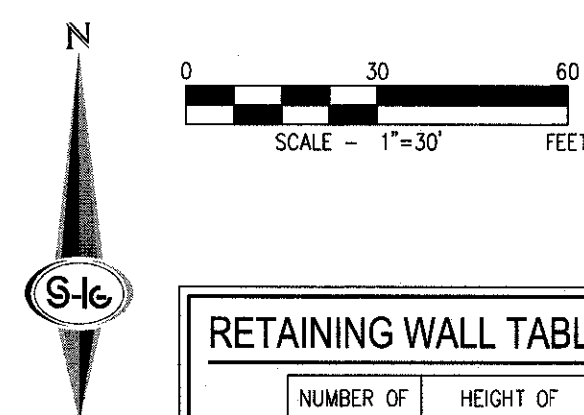
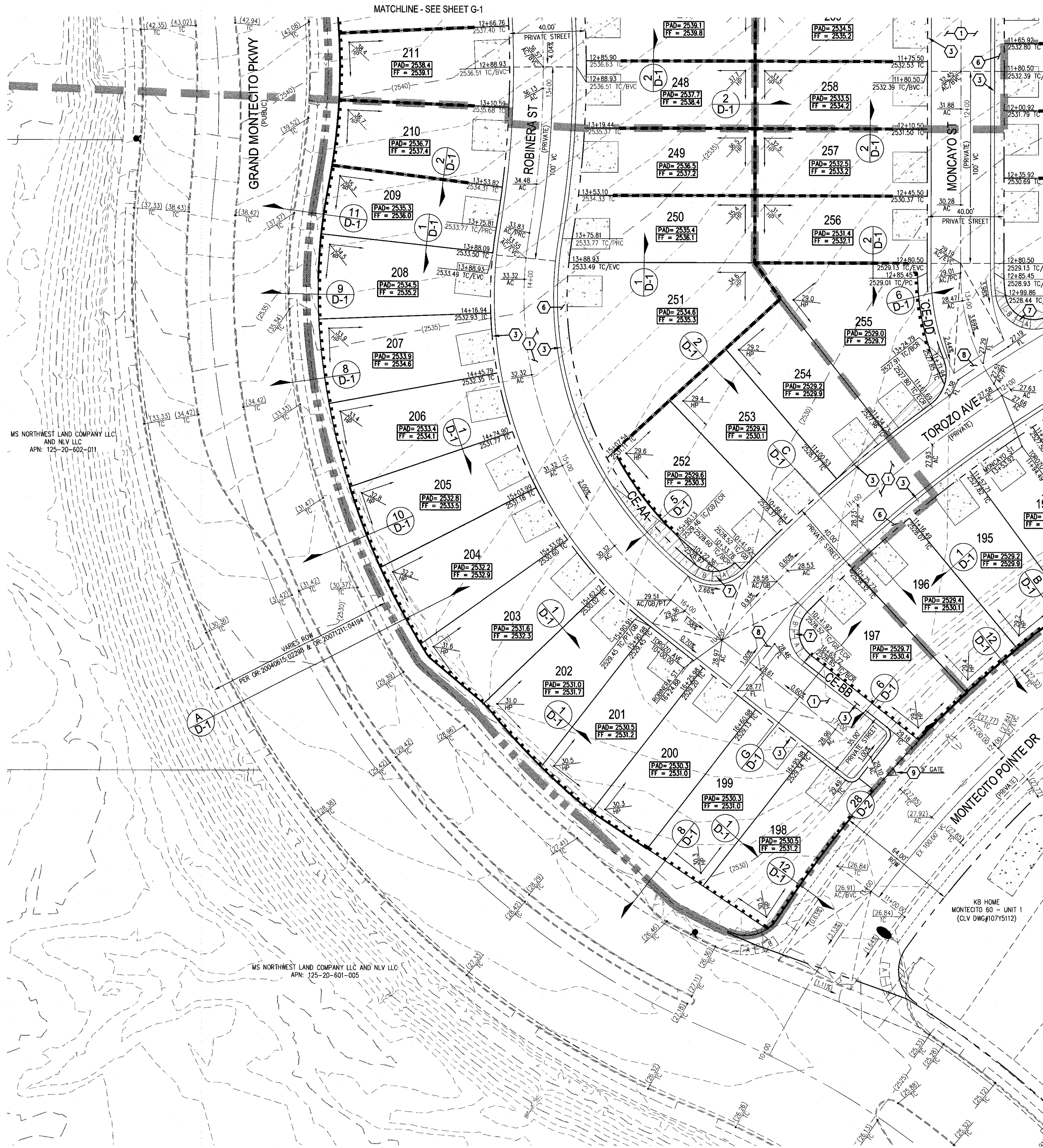
kb HOME
MONTECITO 60 - UNIT 3
GRADING PLAN III

DATE: 10/14/19
DRAFTER: BCS
DESIGNER: BCS
CHECKED: MAK
PROJECT NO. KBH1805-003

ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2021
CIVIL
Professional Seal No. 22938
12/1/19

G-3
SHEET 6 OF 11

\\slater\projects\1805-003\monterito\1805-003.dwg 12/12/2018 3:57 PM Brian Sommers

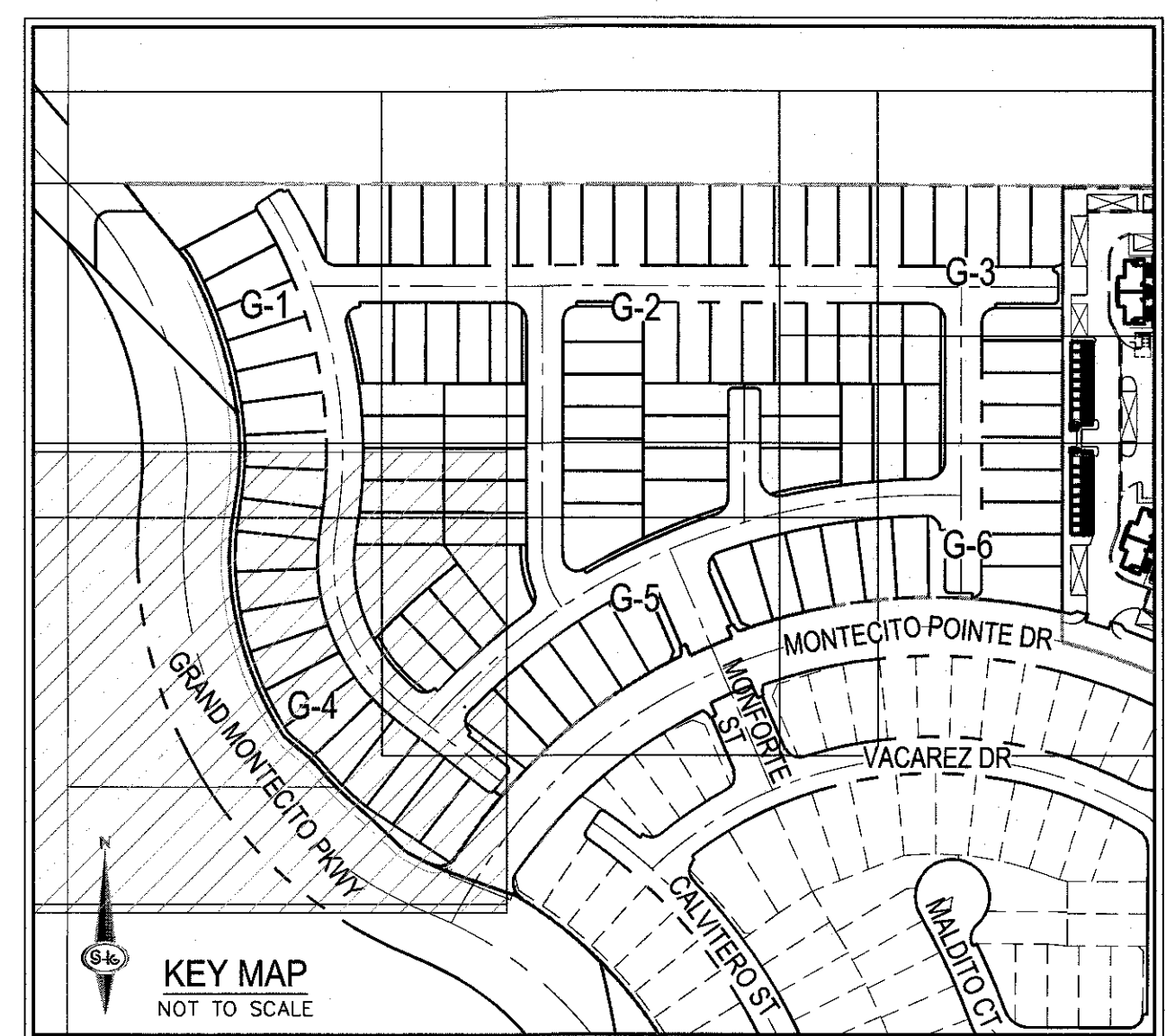


RETAINING WALL TABLE		
NUMBER OF COURSES	HEIGHT OF RETAINING WALL	
3	1.0'-1.7'	
4	1.7'-2.3'	
5	2.3'-3.0'	
6	3.0'-3.7'	
7	3.7'-4.3'	
8	4.3'-5.0'	
9	5.0'-5.7'	
10	5.7'-6.0'	

1. ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK, ALL OF THESE ARE FIGURED TO MAKE THE TOP OF FOOTING BEING 6" BELOW THE ELEVATION OF THE SIDEWALK.

2. ELEVATION DIFFERENCE OF 1" OR LESS DOES NOT REQUIRE RETAINING WALL.

3. SEE DETAIL SHEETS FOR MAX WALL HEIGHTS.



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

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 5LV80 2006
RIVET & PLATE IN TOP OF CURB AT SW CORNER OF RILEY ST. & DEER SPRINGS.
ELEVATION=774.781 METERS (NAVD'83)
ELEVATION=2541.93 US SURVEY FEET (NAVD'88)

SOILS REPORT
SOILS REPORT BY SOUTHWEST GEOTECHNICAL PROJECT NO. 182358 DATED 10/17/18
UPDATED 10/03/19

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
CUT= ###.### CU YDS
FILL= ###.### CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

BASIS OF BEARING
NORTH 89°56'20" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, CLARK COUNTY, CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN FILE 118, PAGE 89 OF SURVEYS.

ELEVATION NOTE
ADD 2500 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2501.00)

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

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

DRAINAGE EASEMENT NOTE
ALL PRIVATE STREETS, DRAINAGE EASEMENTS, AND COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

DISCLAIMER NOTE

1. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2. FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

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

- CONSTRUCTION NOTES**
1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 2. INSTALL L TYPE CURB PER CCAUSD NO. 216
 3. INSTALL R-TYPE CURB & GUTTER PER CCAUSD NO. 217.3.S1
 4. INSTALL A TYPE CURB PER CCAUSD NO. 219
 5. INSTALL 3" CURB TRANSITION PER CCAUSD NO. 223
 6. INSTALL 5" WIDE SIDEWALK PER CCAUSD NO. 234
 7. INSTALL SIDEWALK RAMP PER CCAUSD NO. 235, CASE I AND CCAUSD NO. 235.1
 8. INSTALL 8" VALLEY GUTTER PER CCAUSD NO. 228
 9. INSTALL 3" TUBING FENCE & MAINTENANCE ACCESS GATE PER CCAUSD NO. 425.S1 (GATE WIDTH PER PLAN)
 10. ADJUST MANHOLE RIM TO FINISH GRADE
 11. INSTALL 4" WIDE CONCRETE U-CHANNEL PER DETAIL 19 ON SHEET D-2
 12. INSTALL SIDEWALK DRAIN PER CCAUSD NO. 236
 13. INSTALL U-CHANNEL TO "L" CURB OPENING PER DETAIL 21 ON SHEET D-2
 14. INSTALL WROUGHT IRON FENCE
 15. REMOVE EXISTING IMPROVEMENTS
 16. CONSTRUCT 1" TALL, 6" WIDE BERM @ 90% COMPACTION. SEE DETAIL 22 ON SHEET D-2.
 17. INSTALL 6" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1745E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY QS-52027 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.
TIMOTHY M. MULROONEY, P.E. 22938 _____ DATE _____

DRAINAGE QUANTITIES		PRIV.	PUBLIC
1. SIDEWALK UNDER DRAIN	EA	2	-
2. 8" WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	SF	3,166	-
3.			
4.			
5.			
6.			
7.			

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

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

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

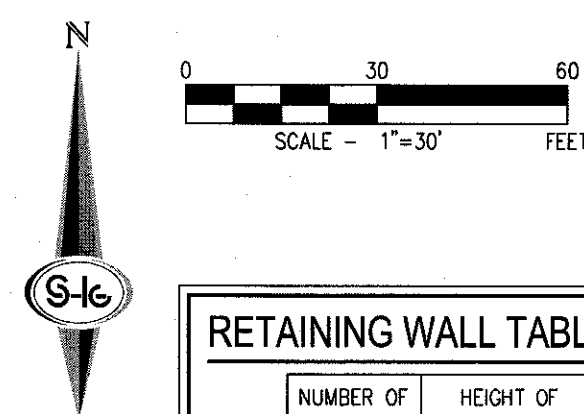
SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

kb HOME
MONTECITO 60 - UNIT 3
GRADING PLAN IV

DATE: 10/14/19
DRAFTER: BCS
DESIGNER: BCS
CHECKED: MAK
PROJECT NO. KBH1805-003

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2021
CIVIL
No. 22938

G-4
SHEET 7 OF 11



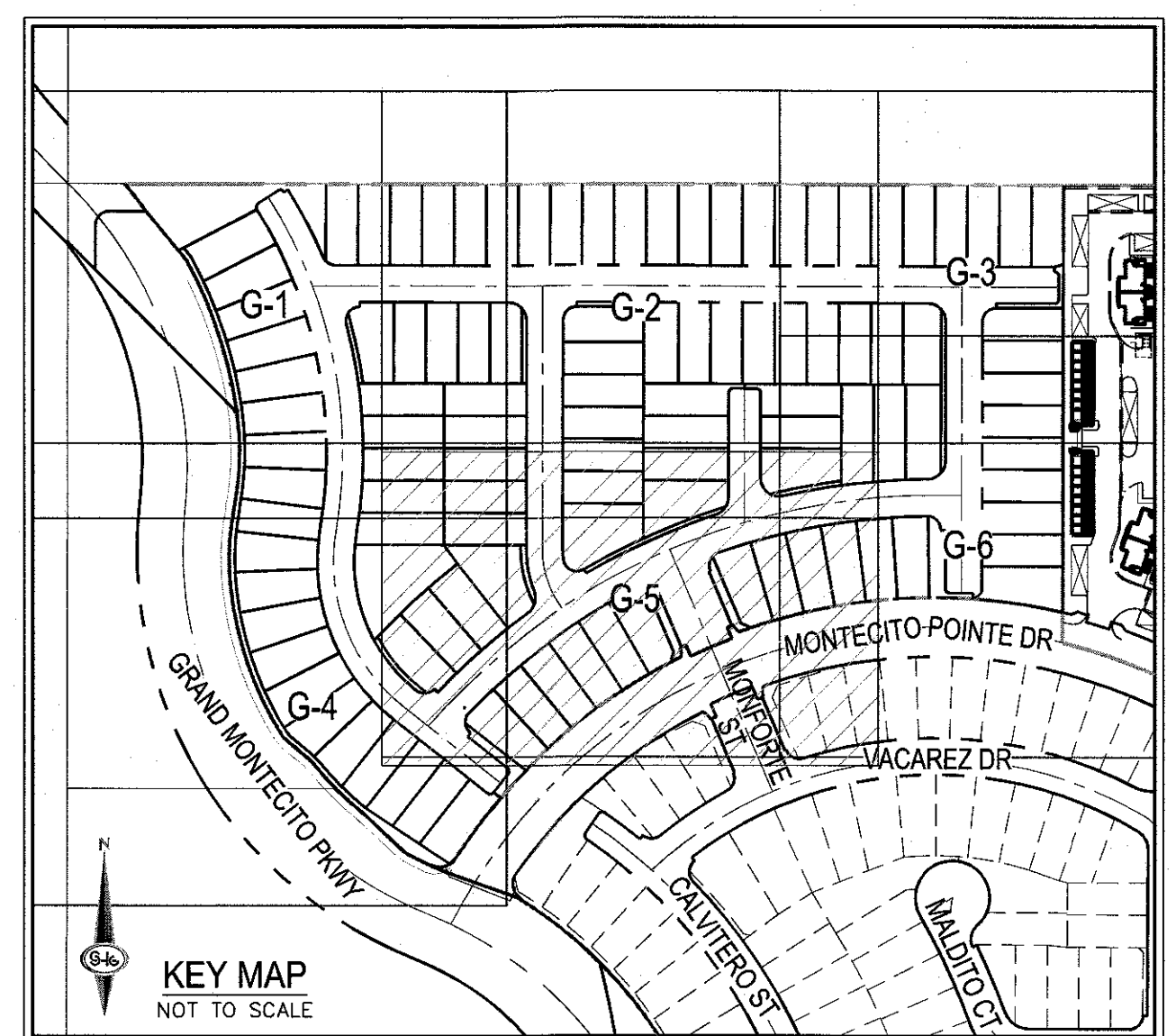
RETAINING WALL TABLE

NUMBER OF COURSES	HEIGHT OF RETAINING WALL
3	1.0'-1.7'
4	1.7'-2.3'
5	2.3'-3.0'
6	3.0'-3.7'
7	3.7'-4.3'
8	4.3'-5.0'
9	5.0'-5.7'
10	5.7'-6.0'

1. ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK, ALL OF THESE ARE FIGURED TO HAVE THE TOP OF FOOTING BEING 8" BELOW THE ELEVATION OF THE SIDEWALK.

2. ELEVATION DIFFERENCE OF 1" OR LESS DOES NOT REQUIRE RETAINMENT.

3. SEE DETAIL SHEETS FOR MAX WALL HEIGHTS.



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

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 51V90 2006
RIVET & PLATE IN TOP OF CURB AT SW CORNER OF RILEY ST. & DEER SPRINGS.
ELEVATION=774.781 METERS (NAVD'83)
ELEVATION=2541.93 US SURVEY FEET (NAVD'83)

ELEVATION NOTE
ADD 2500 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2501.00)

SOILS REPORT
SOILS REPORT BY SOUTHWEST GEOTECHNICAL PROJECT NO. 182358 DATED 10/17/18 UPDATED 10/03/19

BASIS OF BEARING
NORTH 89°56'20" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., COUNTY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN FILE 118, PAGE 89 OF SURVEYS.

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

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
CUT= ###.## CU YDS
FILL= ###.## CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

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

DRAINAGE EASEMENT NOTE
ALL PRIVATE STREETS, DRAINAGE EASEMENTS, AND COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWTOOTH LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNOCCURRED EROSION PROBLEMS IF THE SUBMITTAL PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV100000, SECTION III.A.5.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV100000, SECTION III.A.12.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

- CONSTRUCTION NOTES**
- INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 - INSTALL L-TYPE CURB PER CCAUSD NO. 216
 - INSTALL R-TYPE CURB & GUTTER PER CCAUSD NO. 217.3.51
 - INSTALL A-TYPE CURB PER CCAUSD NO. 219
 - INSTALL 3" CURB TRANSITION PER CCAUSD NO. 223
 - INSTALL 5" WIDE SIDEWALK PER CCAUSD NO. 234
 - INSTALL SIDEWALK RAMP PER CCAUSD NO. 235, CASE I AND CCAUSD NO. 235.1
 - INSTALL 8" VALLEY GUTTER PER CCAUSD NO. 228
 - INSTALL STEEL TUBING FENCE & MAINTENANCE ACCESS GATE PER CCAUSD NO. 425.51 (GATE WIDTH PER PLAN)
 - ADJUST MANHOLE RIM TO FINISH GRADE
 - INSTALL 4" WIDE CONCRETE U-CHANNEL PER DETAIL 19 ON SHEET D-2
 - INSTALL SIDEWALK DRAIN PER CCAUSD NO. 236
 - INSTALL U-CHANNEL TO "L" CURB OPENING PER DETAIL 21 ON SHEET D-2
 - INSTALL WROUGHT IRON FENCE
 - REMOVE EXISTING IMPROVEMENTS
 - CONSTRUCT 1' TALL, 6" WIDE BERM @ 90% COMPACTION. SEE DETAIL 22 ON SHEET D-2.
 - INSTALL 6" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1745E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY 05-5202, ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.
TIMOTHY M. MULROONEY, P.E. 22938 DATE

DRAINAGE QUANTITIES

	EA	PRIV.	PUBLIC
1. SIDEWALK UNDER DRAIN	2	-	-
2. 8" WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	3,166	-	-
3.			
4.			
5.			
6.			

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

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

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

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300

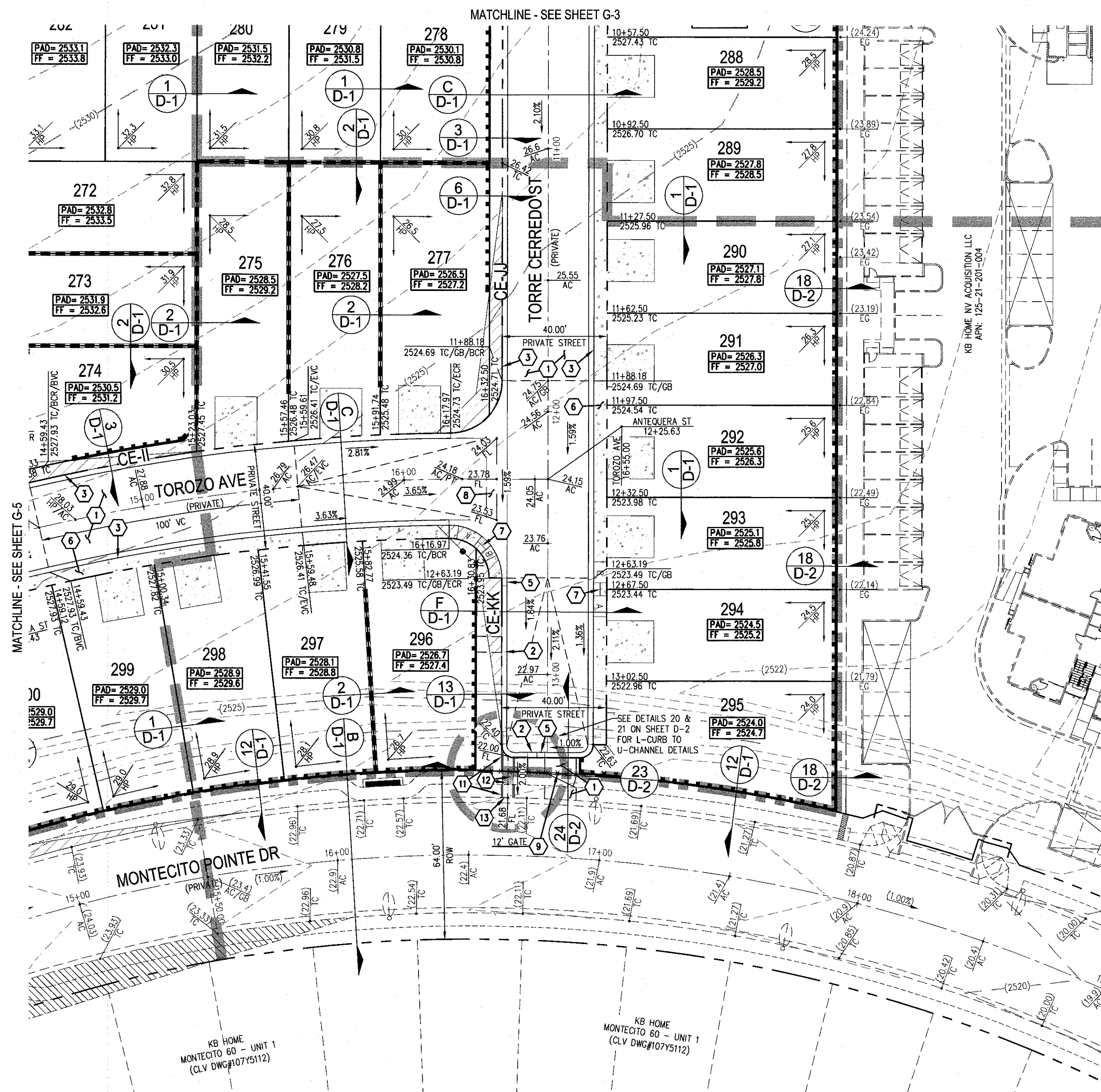
kb HOME
MONTECITO 60 - UNIT 3
GRADING PLAN V

DATE: 10/14/19
DRAFTER: BCS
DESIGNER: BCS
CHECKED: MAK
PROJECT NO. KBH1805-003

ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2021
CIVIL
Professional No. 22938

G-5
SHEET 8 OF 11

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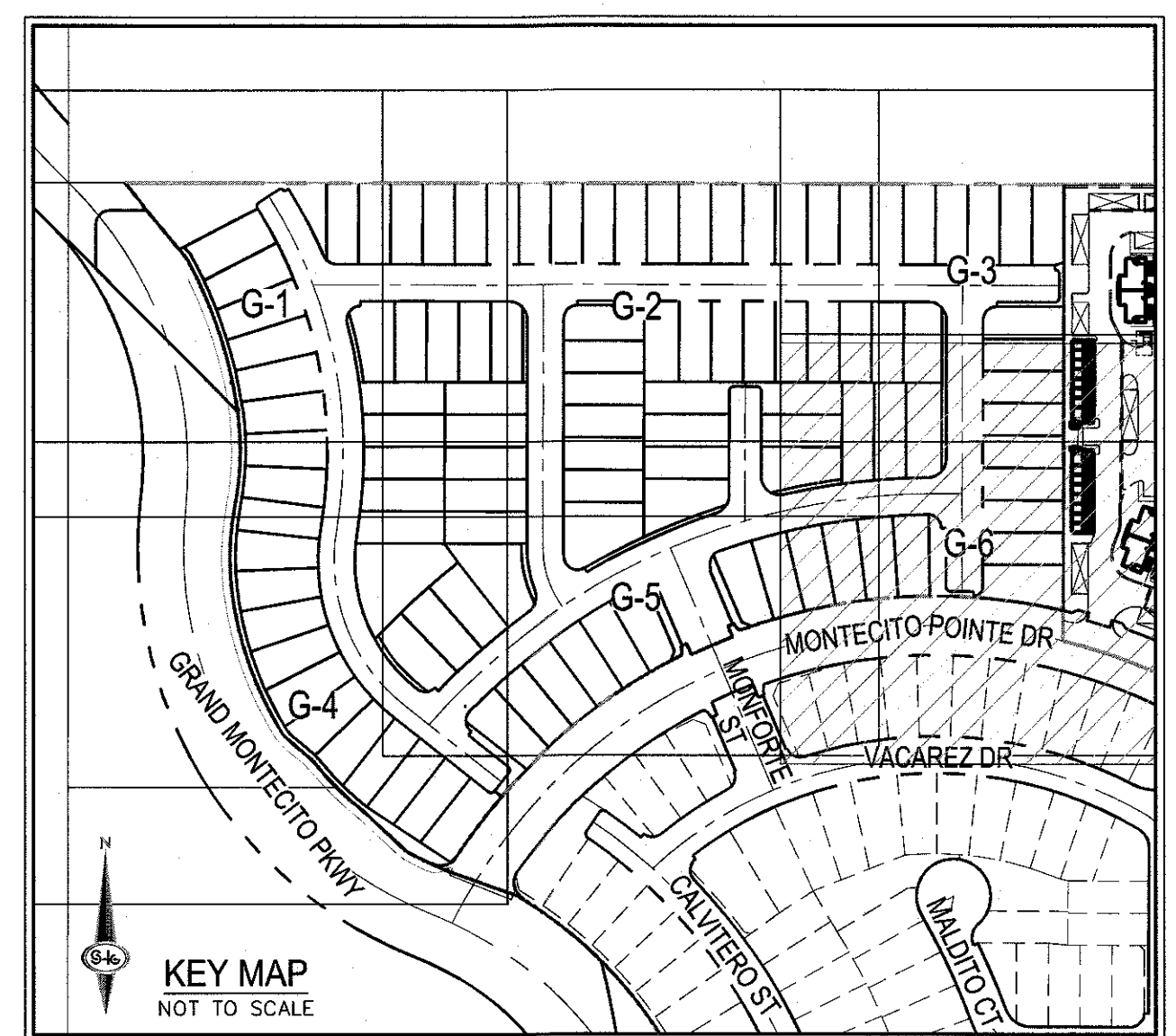
RETAINING WALL TABLE

NUMBER OF COURSES	HEIGHT OF RETAINING WALL
3	1.0'-1.7'
4	1.7'-2.3'
5	2.3'-3.0'
6	3.0'-3.7'
7	3.7'-4.3'
8	4.3'-5.0'
9	5.0'-5.7'
10	5.7'-6.0'

1. ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK. ALL OF THESE ARE FIGURED TO HAVE THE TOP OF FOOTING BEING 6" BELOW THE ELEVATION OF THE SIDEWALK.

2. ELEVATION DIFFERENCE OF 1' OR LESS DOES NOT REQUIRE RETAINING.

3. SEE DETAIL SHEETS FOR MAX WALL HEIGHTS.



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

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 5LV90 2066
RIVET & PLATE IN TOP OF CURB AT SW CORNER OF RILEY ST. & DEER SPRINGS.
ELEVATION=774.781 METERS (NAVD'83)
ELEVATION=2541.93 US SURVEY FEET (NAVD'83)

SOILS REPORT
SOILS REPORT BY SOUTHWEST GEOTECHNICAL PROJECT NO. 182358 DATED 10/17/18 UPDATED 10/03/19

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
CUT=#### CU YDS
FILL=#### CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

BASIS OF BEARING
NORTH 89°56'20" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN FILE 118, PAGE 89 OF SURVEYS.

ELEVATION NOTE
ADD 2500 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2501.00)

- GRADING NOTES**
1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
 2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
 3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
 4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
 5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
 6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
 7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
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2. FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

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4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
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- CONSTRUCTION NOTES**
1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 2. INSTALL L TYPE CURB PER CCAUSD NO. 216
 3. INSTALL R-TYPE CURB & GUTTER PER CCAUSD NO. 217.3.51
 4. INSTALL A TYPE CURB PER CCAUSD NO. 219
 5. INSTALL 3" CURB TRANSITION PER CCAUSD NO. 223
 6. INSTALL 5" WIDE SIDEWALK PER CCAUSD NO. 234
 7. INSTALL SIDEWALK RAMP PER CCAUSD NO. 235, CASE I AND CCAUSD NO. 235.1
 8. INSTALL 8" VALLEY GUTTER PER CCAUSD NO. 228
 9. STEEL TUBING FENCE & MAINTENANCE ACCESS GATE PER CCAUSD NO. 425.51 (GATE WIDTH PER PLAN)
 10. ADJUST MANHOLE RIM TO FINISH GRADE
 11. INSTALL 4" WIDE CONCRETE U-CHANNEL PER DETAIL 19 ON SHEET D-2
 12. INSTALL SIDEWALK DRAIN PER CCAUSD NO. 236
 13. INSTALL U-CHANNEL TO "L" CURB OPENING PER DETAIL 21 ON SHEET D-2
 14. INSTALL WROUGHT IRON FENCE
 15. REMOVE EXISTING IMPROVEMENTS
 16. CONSTRUCT 1" TALL, 6" WIDE BERM @ 90% COMPACTION. SEE DETAIL 22 ON SHEET D-2.
 17. INSTALL 6" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1745E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-5202Z ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.
TIMOTHY M. MULROONEY, P.E. 22938 DATE

DRAINAGE QUANTITIES

	PRIV.	PUBLIC
1. SIDEWALK UNDER DRAIN	EA	2
2. 8" WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	SF	3,166
3.		
4.		
5.		
6.		
7.		



SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

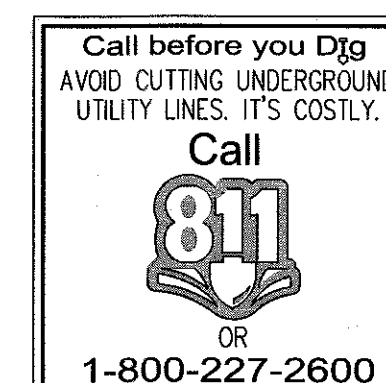
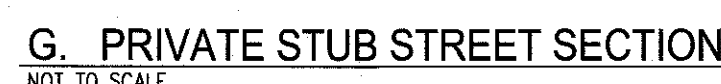
kb HOME
MONTECITO 60 - UNIT 3
GRADING PLAN VI

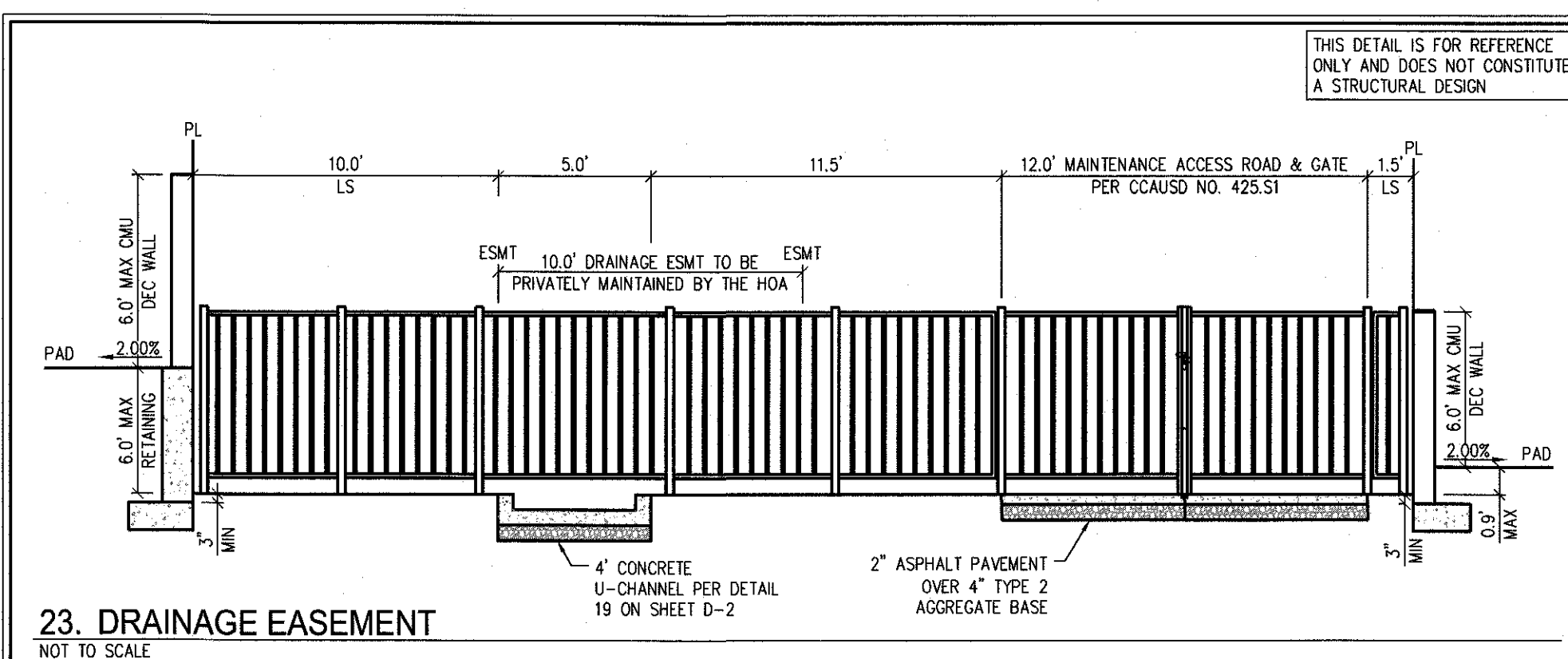
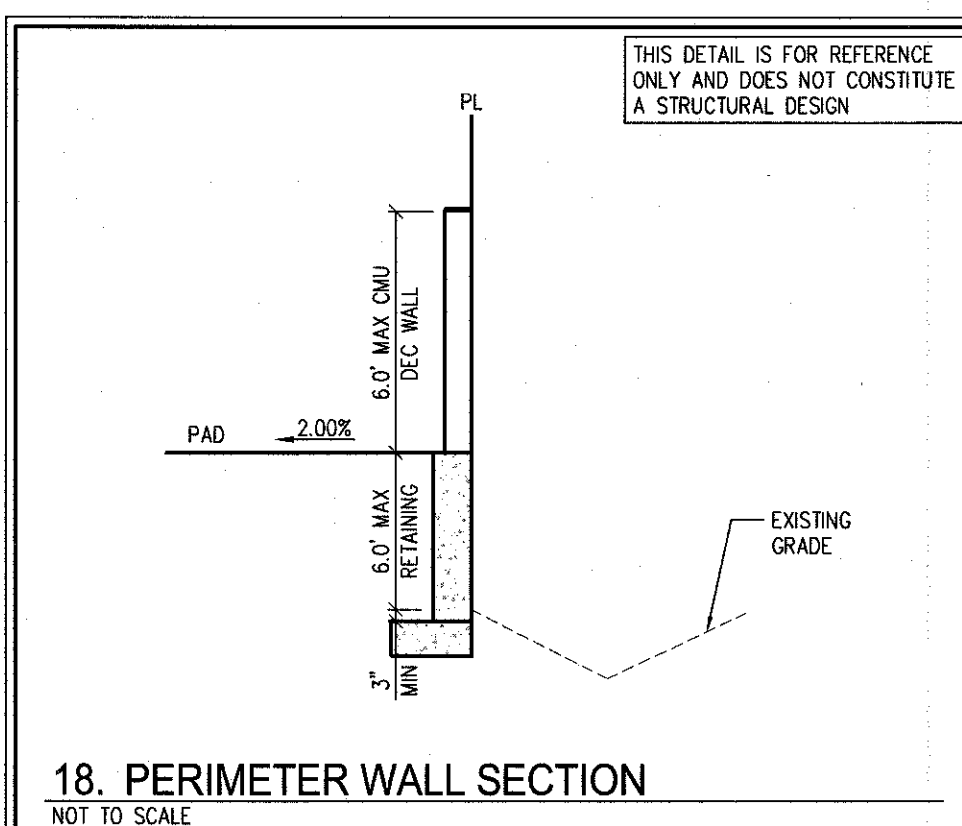
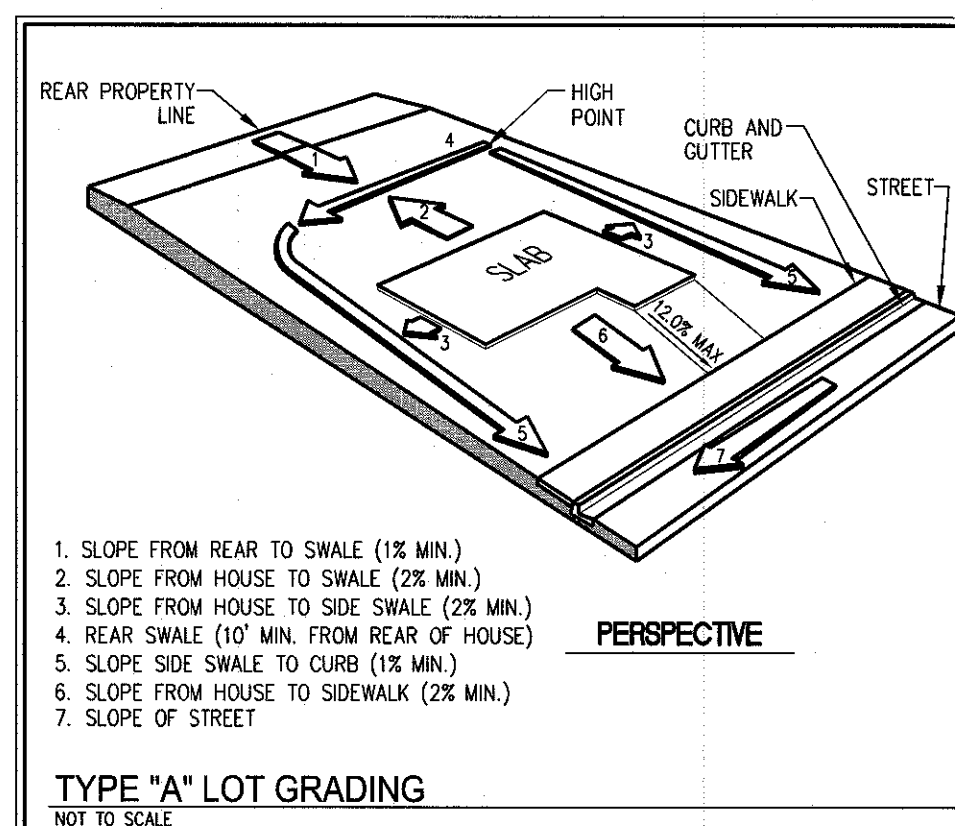
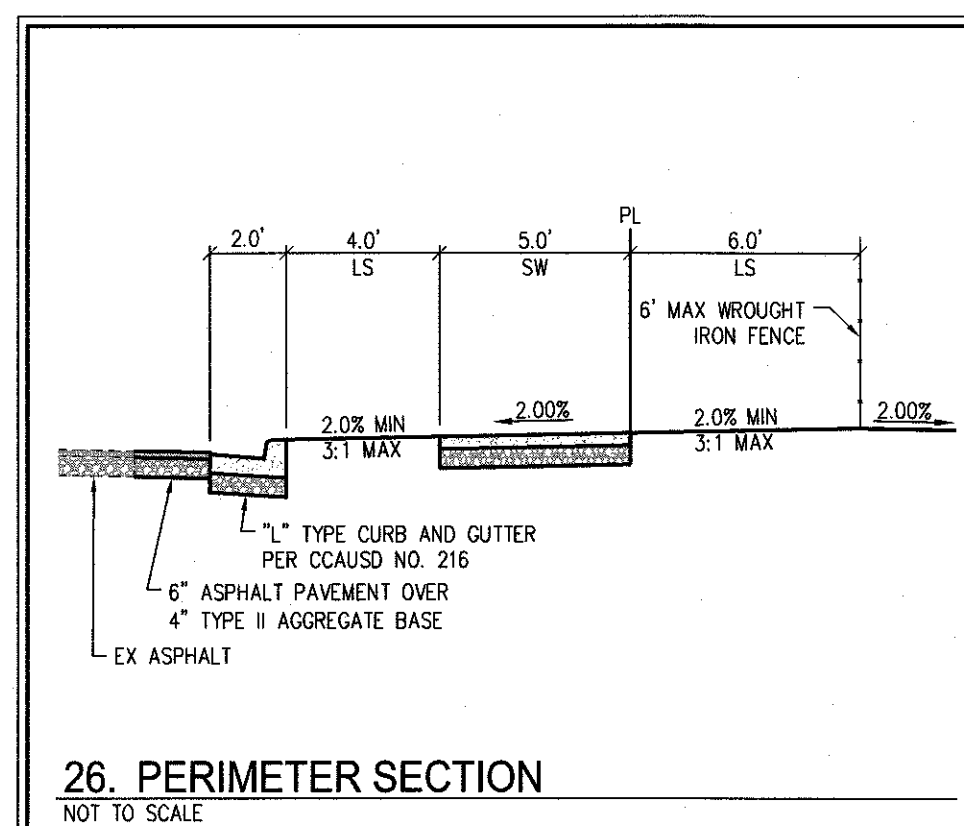
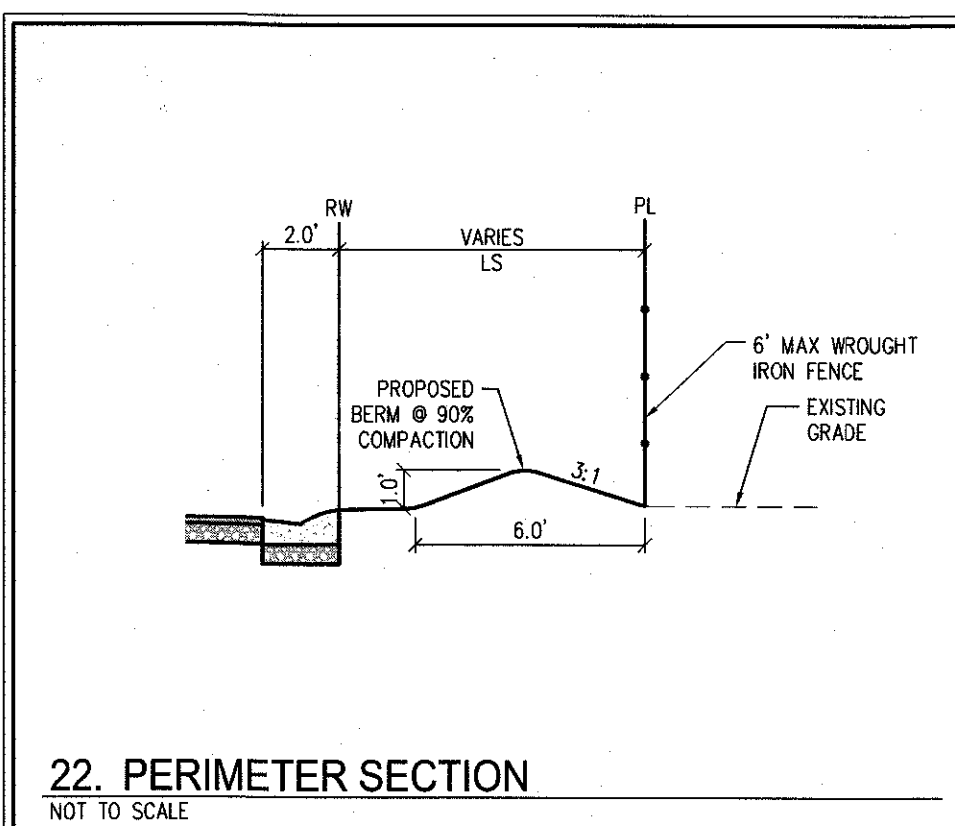
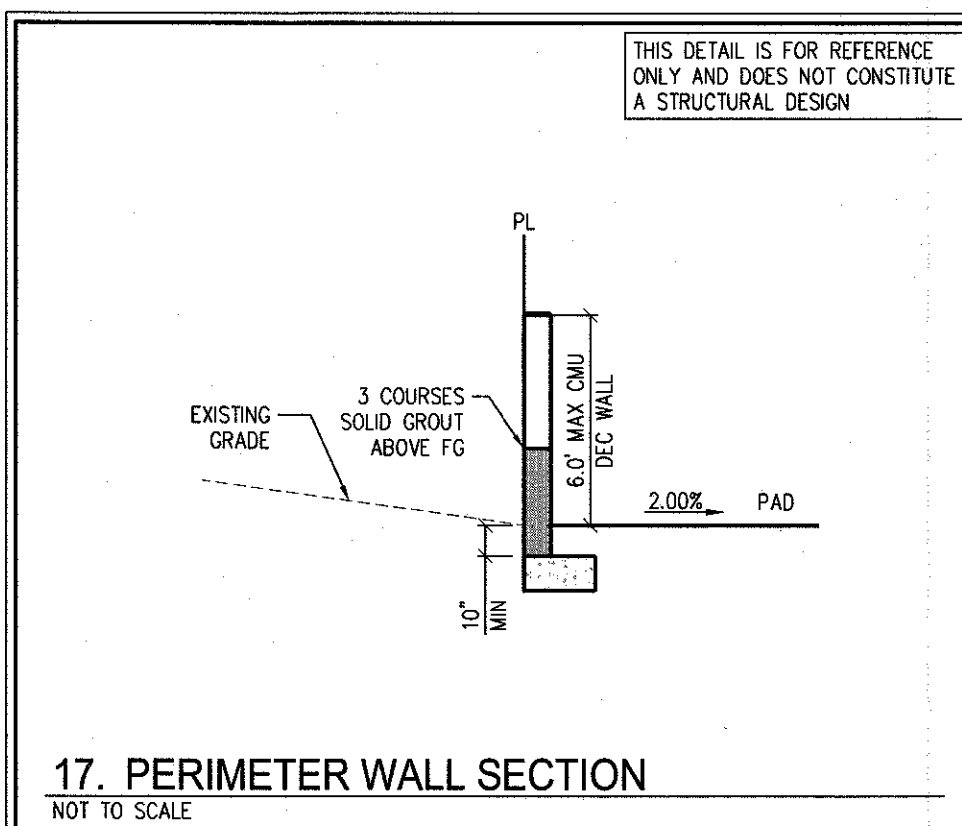
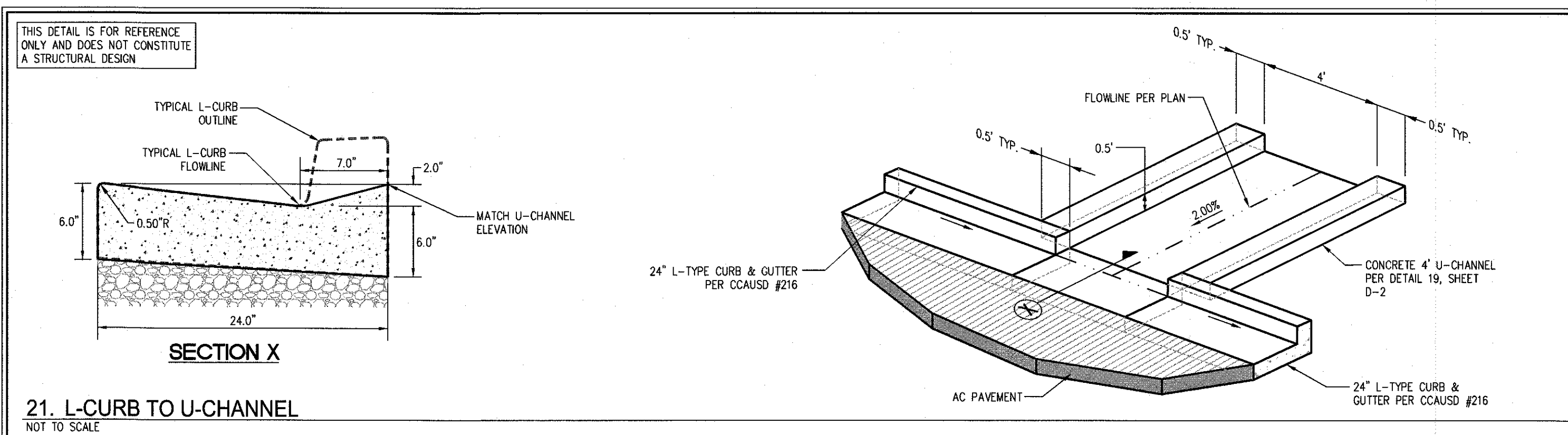
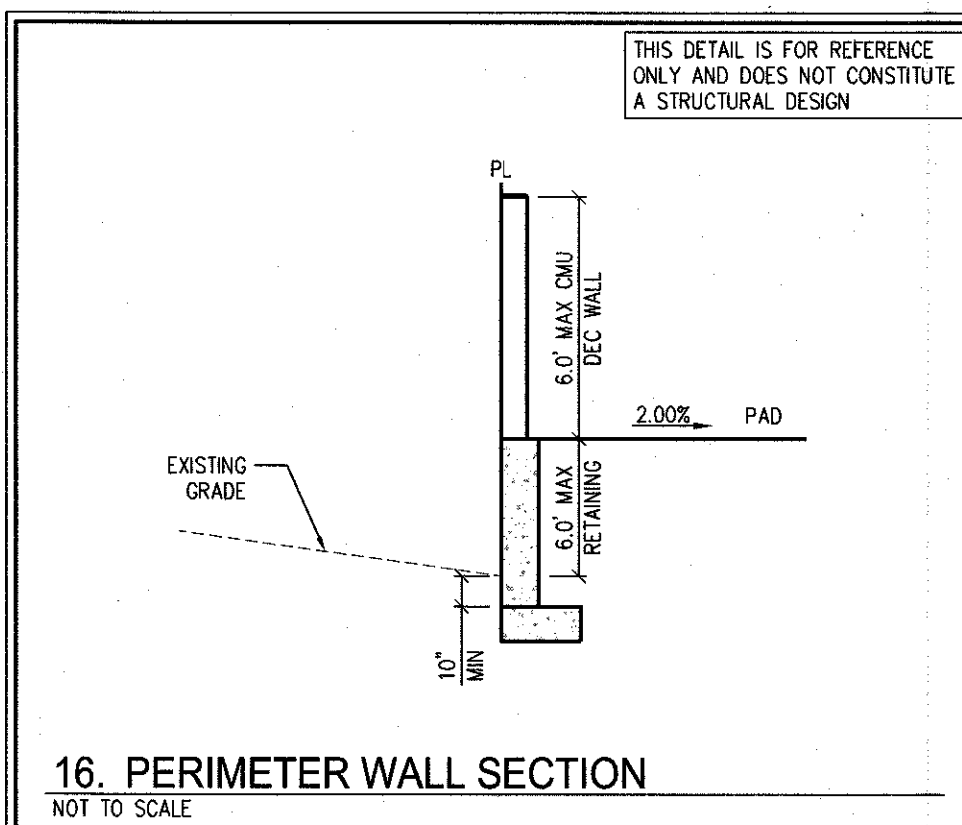
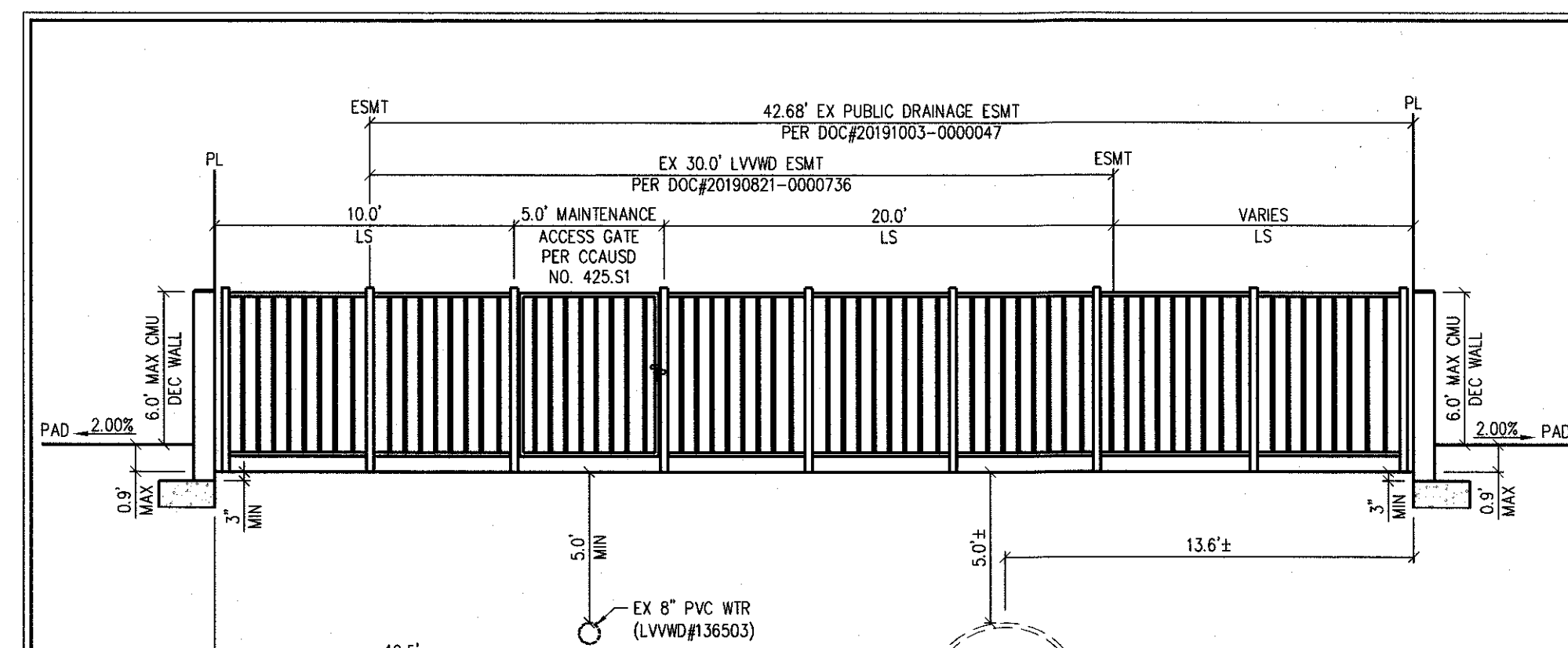
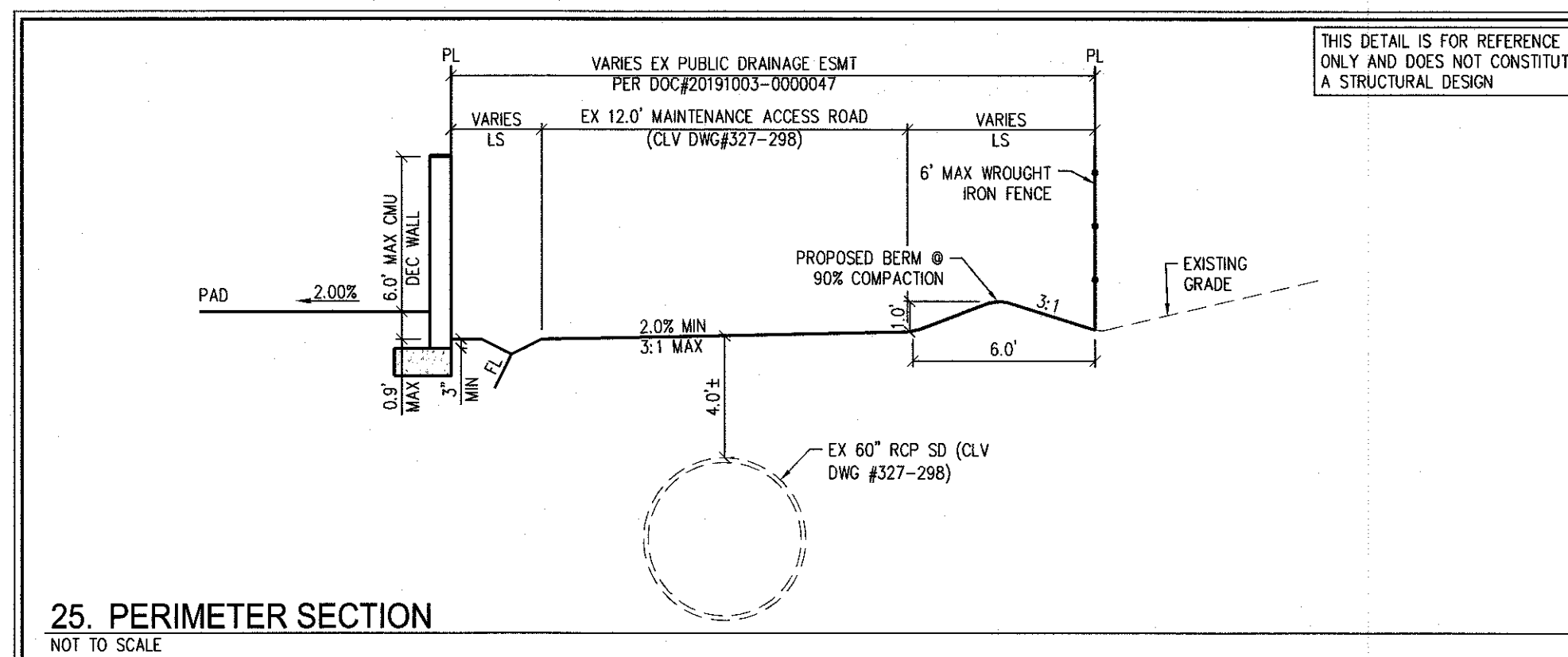
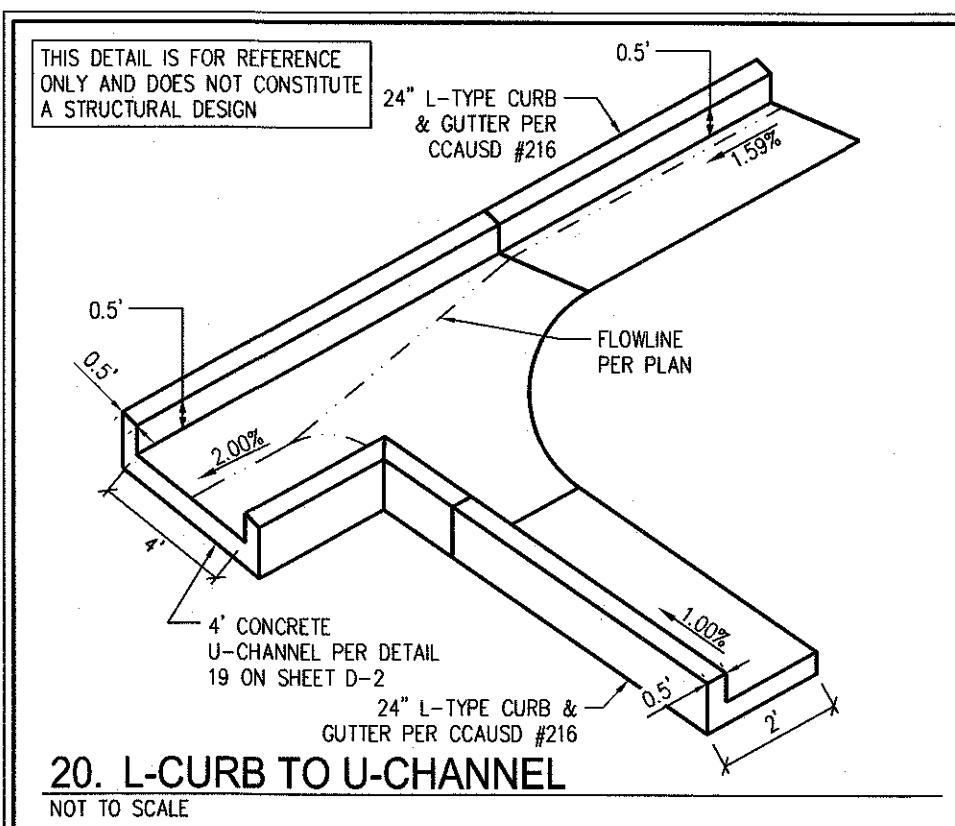
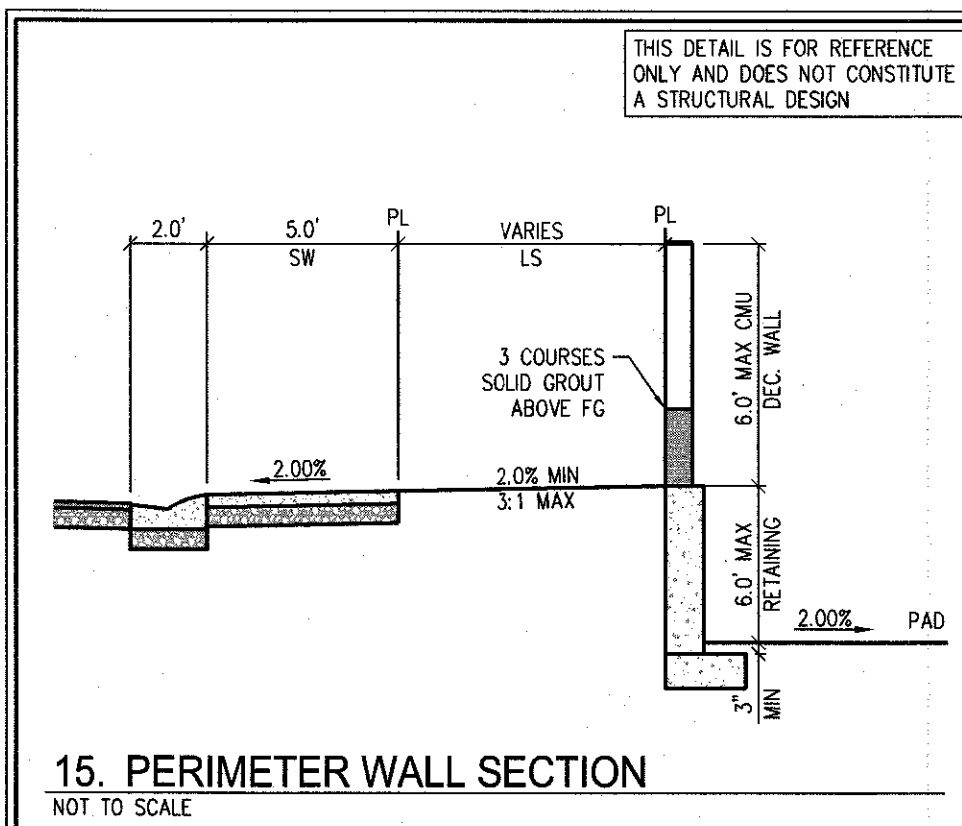
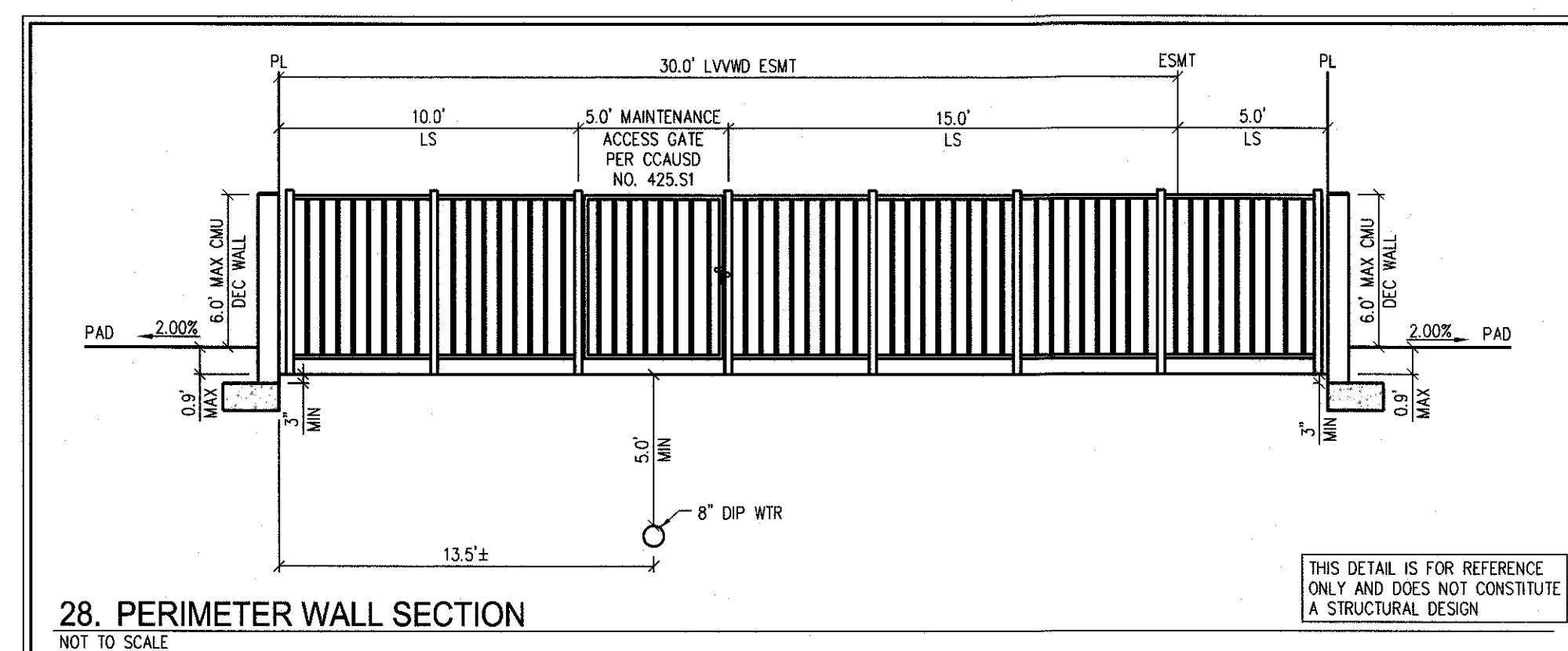
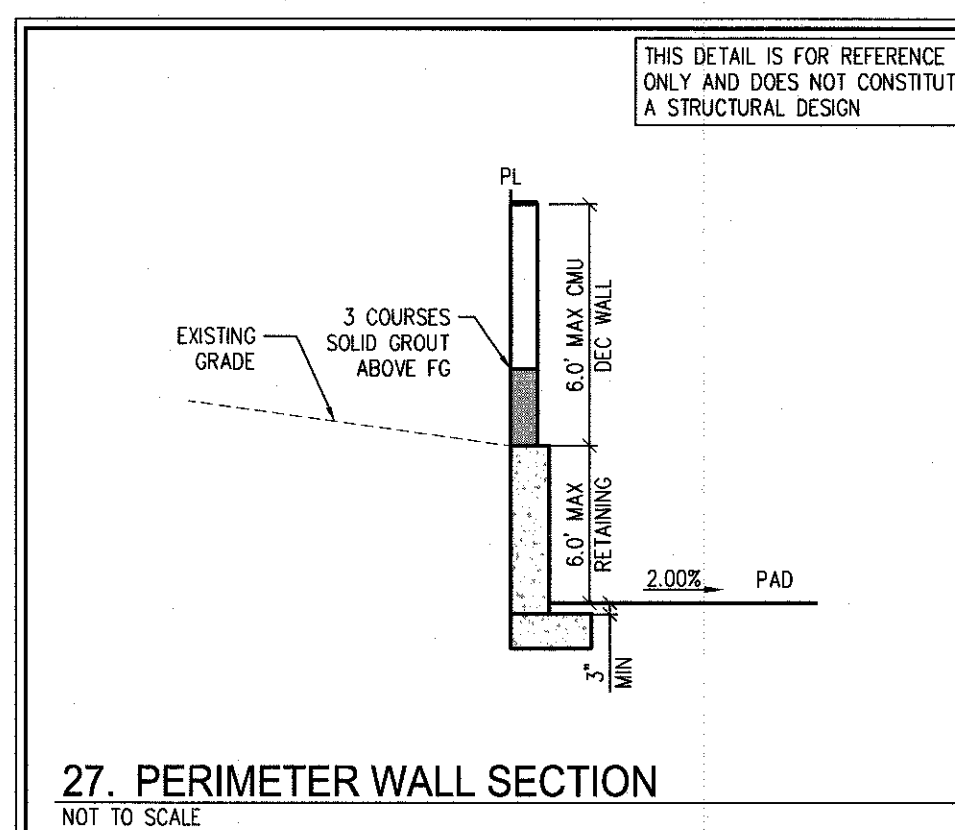
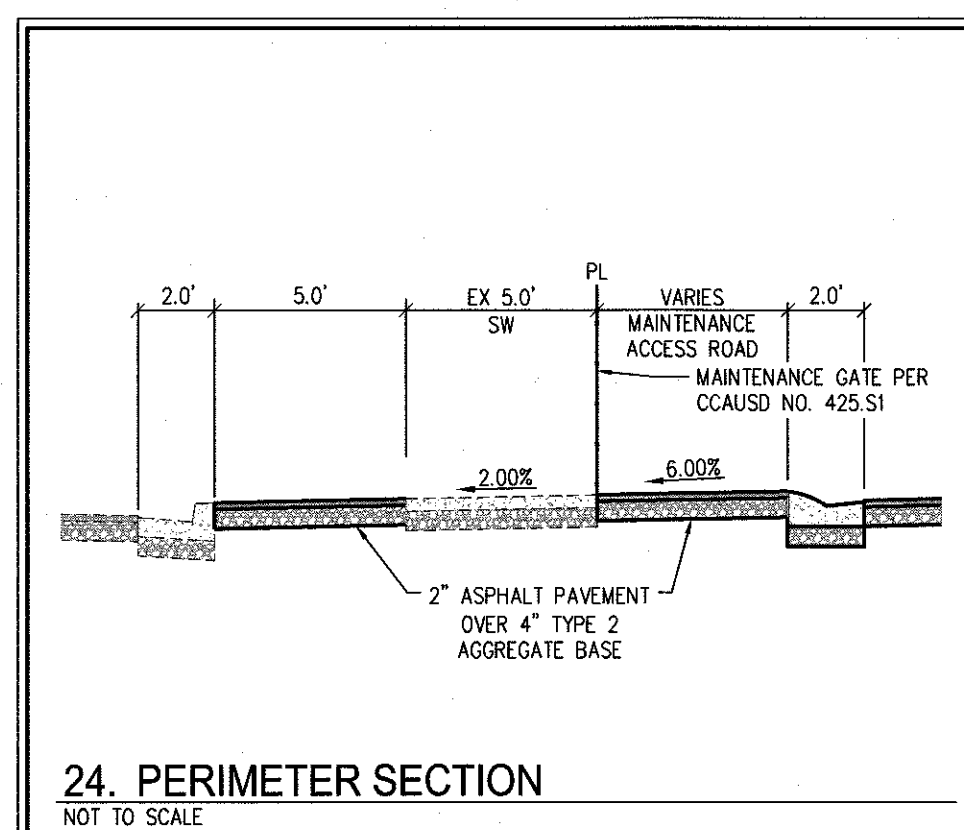
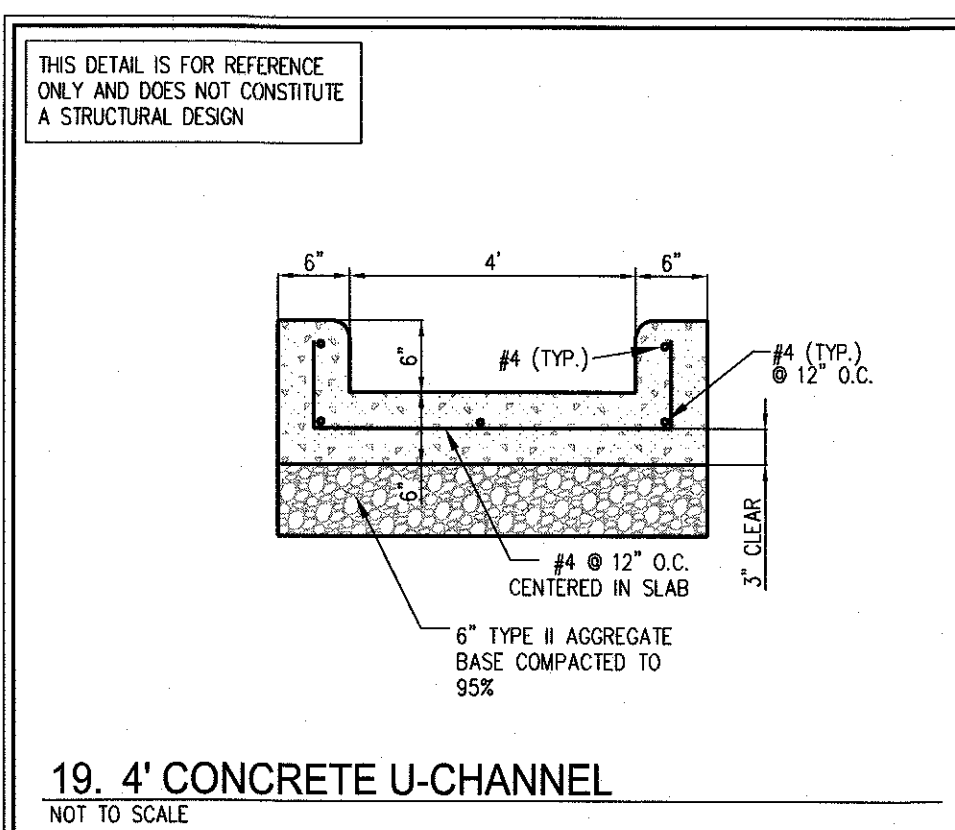
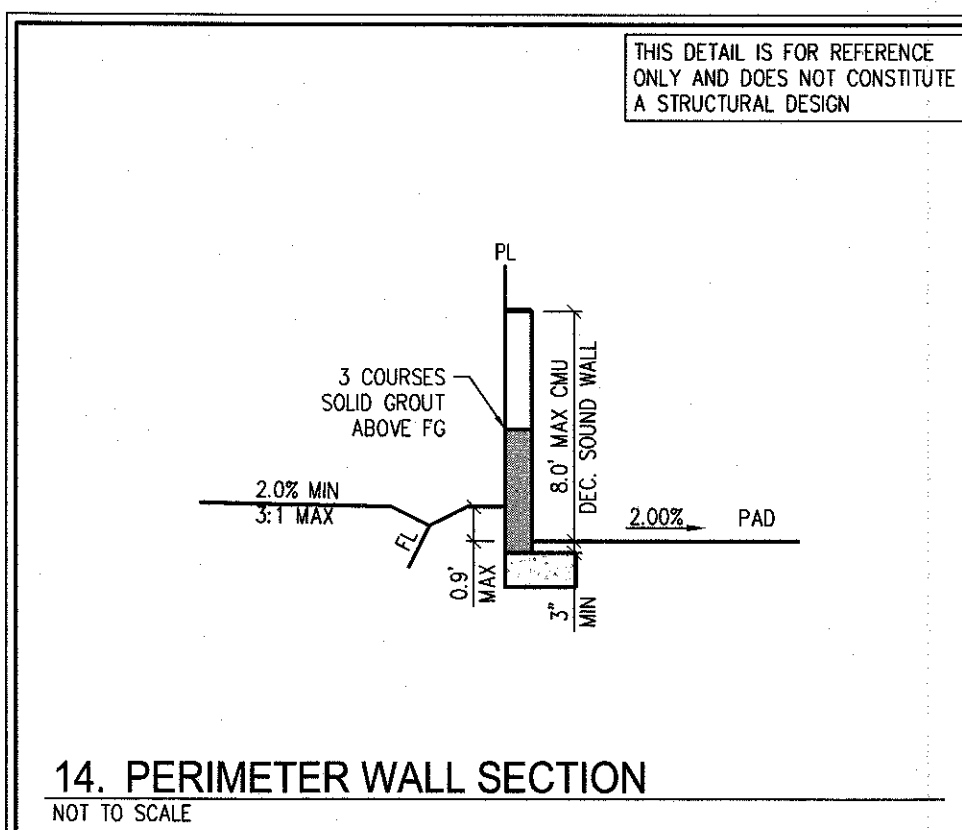
DATE: 10/14/19
DRAFTER: BCS
DESIGNER: BCS
CHECKED: MAK
PROJECT NO. KBH1805-003

ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2021
No. 22938
12/6/19

G-6
SHEET 9 OF 11

\\kbh1805-003\montecito 60 unit 3\Draw\Improvements\kbh1805-003.grd.dwg 12/22/2019 3:57 PM Bryan Sorrentino





S-E GROUP
SLATER
HANIFAN
GROUP
CONSULTING ENGINEERS & PLANNERS
5750 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

CITY OF LAS VEGAS, NV

kb HOME
MONTECITO 60 - UNIT 3
GRADING DETAILS II

20
19S
60E

DRAFTER: BCS

DESIGNER: BCS

CHECKED: MAK

PROJECT NO.

KBH1805-003

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

FAST
Call before you
UnderGround
1-702-432-5300
FREeway & ARTERIAL SYSTEM
OF TRANSPORTATION (EAST)

Call before you Dig
AVOID CUTTING UNDERGROUND
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Call
811
OR
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D-2
SHEET 11 OF