

DS #: 5391

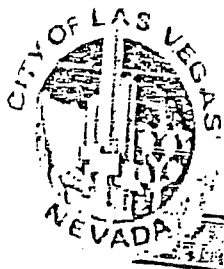
APN: 137-15-810-008, 137-23-210-001

PROJECT: Summerlin Village 22 - Parcel G/H Mass Grading

SUBMITTAL: 1st

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		December 29, 2020
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:	
	Summerlin Village 22 - Parcel GH Mass Grading	
Cross Streets:	SWC Desert Foothills Dr & Kestrel Creek Ave	COPIES TO:
File Number:	F:\Depot\DSMemos\DS5391A.doc	GCW, Inc.
Parcel Number:	137-15-810-008, 137-23-210-001	Howard Hughes Company, LLC
Zoning Action:	N/A	Bart Anderson, P.E., DevCo
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 (Paid on 12/28/2020)	11/30/2020 & 12/28/2020	12/28/2020	See Comments Below	\$400.00	4112821: \$400
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

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

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

- The subject project of mass grading is premised on the existence of all the perimeter streets: *Kettle Ridge Drive* on the west, *Desert Foothill Drive* on the east, *Kestrel Creek Avenue* on the north and *Clowder Pass Way* on the south and the associated storm drain systems for flood cut-off protection. The subject drainage study will not be approved prior to the posting of construction bonds of all perimeter streets.
- A technical drainage study will be required for the development of the ultimate condition as defined in this *Study* and the onsite residential lots improvements.
- Address in the next submittal when the onsite development will start because for a wide time gap, the mass graded surface without any erosion treatment, dust and mud can be a serious problem for downstream areas. A Dust Permit and a BMP may need to be obtained prior to the final approval of this drainage study.
- Figure 5:** The hydraulic section of the rough graded roadways onsite (hydraulic section 1) has erosive velocities above 5 fps requiring erosion mitigation.
- Figure 5:** The sub-basin boundary on the exhibit does not match the line weight shown on the legend.

6. **MG2, MG4 and MG5:** Sections shown on **MG2** call out as *Sections A/MG4* and *B/MG5* etc, however the sections shown on MG4 and MG5 are not labeled with any letters.

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
HDR/AYS

T/R/S: T20S/R59E/23
AREA K-23

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Summerlin Village 22 Parcel GH Mass Grading Date: January 2021

Location of Development: a) Descriptive (Cross Streets) North/South: Desert Foothills Drive
East/West: Kestrel Creek Avenue

b) Section: 23 Township: 20 Range: 59

c) APN : 137-15-810-008,137-23-210-001

Name of Owner: Developer: Pulte Homes Owner: Howard Hughes Company LLC

Telephone No.: 702 914-4800 Fax No.: _____ E-Mail Address: _____

Address: 7255 S. Tenaya Way #200 Las Vegas, NV 89113

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

* E-Mail Address: CBeck@gcwengineering.com Fax No.: (702) 804-2299

Firm: GCW, Inc.

Address: 1555 S. Rainbow Blvd Las Vegas, NV 89146

Type of Land Development/Land Disturbance Process:

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

1. Total Owned Land Area: At Site: +/- 14.2 AC. Being Developed/Disturbed: +/- 14.2 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

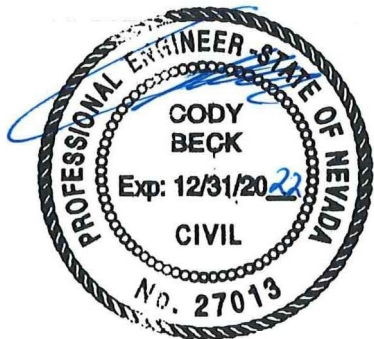
4. Proposed type of development (Residential, Commercial, Etc.): Mass Grading

5. Approximate upstream land area which drains to the subject site: 0 AC.

6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: Master Plan Update Summerlin West Planning Area, Master Conceptual Drainage Study Summerlin West Village 22, Summerlin Village West 22 Studies Desert Foothills Drive, Kettle Ridge Drive, Kestrel Creek Avenue, and Clowder Pass Way

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Storm drain in Desert Foothills

8. Briefly describe your proposed schedule for the subject project: The Client intends to start construction as soon as practical. Any expediting of the review is appreciated.



1/18/21

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

764-A174-001

January 12, 2021

Oh Sang Kwon, P.E.
City of Las Vegas, Public Works
495 S. Main St, Las Vegas, NV 89101

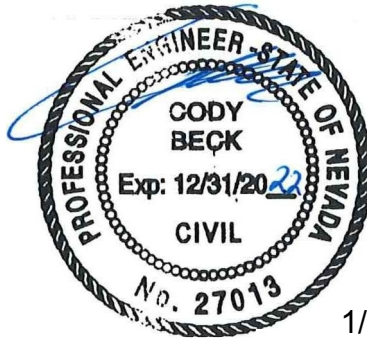
**Re: Technical Drainage Study for Summerlin Village 22 – Parcel GH Mass Grading
Response to Comments**

Dear Mr. Kwon,

This letter is to certify that all documents provided on electronic submittal (CD) match the hardcopy version of the study.

Respectfully submitted,

Cody Beck, P.E.
Flood Control Division



1/18/21



764-A174-001

January 14, 2021

**Subject: Response to Comments on the Technical Drainage Study for Summerlin Village
22 Parcel GH Mass Grading (DS5391A)**

This letter addresses the City of Las Vegas review comments dated December 29, 2020 regarding the project. Individual responses to the review comments are provided below.

Comment 1:

The subject project of mass grading is premised on the existence of all the perimeter streets: *Kettle Ridge Drive* on the west, *Desert Foothill Drive* on the east, *Kestrel Creek Avenue* on the north and *Clowder Pass Way* on the south and the associated storm drain systems for flood cut-off protection. The subject drainage study will not be approved prior to the posting of construction bonds of all perimeter streets.

Response:

It is acknowledged that the project is premised on the existence of all the perimeter streets and that the drainage study will not be approved prior to the posting of the construction bonds for all the perimeter streets. GCW requests conditional approval with the condition that posting of the construction bonds for the perimeter streets is required prior to final approval.

Comment 2:

A technical drainage study will be required for the development of the ultimate condition as defined in this *Study* and the onsite residential lots improvements.

Response

It is acknowledged that a technical drainage study will be required for the development of the ultimate condition as defined in this *Study* and the onsite residential improvements. The residential study will be submitted following the approval of this *Study*.

Comment 3:

Address in the next submittal when the onsite development will start because for a wide time gap, the mass graded surface without any erosion treatment, dust and mud can be a serious problem for downstream areas. A Dust Permit and a BMP may need to be obtained prior to the final approval of this drainage study.

Response:

Construction of the residential development will commence no later than 6 months after mass grading of the site. As part of the CLV grading permit requirements, a dust permit will be obtained

and a SWPPP will be done for the Site. The SWPPP will cover any BMPs necessary relating to dust, mud, or erosion. Note that a sediment trap has also been provided to protect downstream developments and facilities. The surrounding areas will be adequately protected due to the sediment trap, the short amount of time the mass grading will be in place, and the additional BMPs that will be part of the future SWPPP.

Comment 4:

Figure 5: The hydraulic section of the rough graded roadways onsite (hydraulic section 1) has erosive velocities above 5 fps requiring erosion mitigation.

Response:

The Site is privately maintained and construction of the residential development will commence no later than 6 months after mass grading of the site. A SWPPP will be done for the Site as part of the CLV grading permit requirements. The SWPPP will cover any BMPs necessary relating to dust, mud, or erosion. Note that a sediment trap has also been provided to protect downstream developments and facilities. The surrounding areas will be adequately protected due to the sediment trap, the short amount of time the mass grading will be in place, and the additional BMPs that will be part of the future SWPPP.

Comment 5:

Figure 5: The sub-basin boundary on the exhibit does not match the line weight shown on the legend.

Response:

The line weight in the legend and figure have been revised to match. The revised figure is included in the appendix.

Comment 6:

MG2, MG4 and MG5: Sections shown on **MG2** call out as *Sections A/MG4* and *B/MG5* etc, however the sections shown on MG4 and MG5 are not labeled with any letters.

Response:

Since there was only 1 section per sheet the cross section name was called out in the title block. A cross section name has been added next to the cross sections for clarification.

If you have any questions or require additional information, please do not hesitate to contact me at 804-2000.

Respectfully,

GCW, INC.

A handwritten signature in green ink, appearing to read 'Nelson Bags, E.I.', with a stylized flourish at the end.

Nelson Bags, E.I.
Flood Control Division

APPENDIX



CITY OF LAS VEGAS		DATE:
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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:	COPIES TO:
	Summerlin Village 22 - Parcel GH Mass Grading	GCW, Inc.
Cross Streets:	SWC Desert Foothills Dr & Kestrel Creek Ave	Howard Hughes Company, LLC
File Number:	F:\Depot\DSMemos\DS5391A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	137-15-810-008, 137-23-210-001	
Zoning Action:	N/A	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES NO X	

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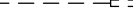
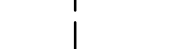
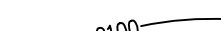
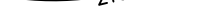
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END OF REMARKS
HDR/AYS

T/R/S: T20S/R59E/23
AREA K-23

APN #137-15-810-008
APN #137-23-210-001



EXISTING	PROPOSED	DESCRIPTION
		ROW OR PROPERTY LINE CENTERLINE
		STORM DRAIN MANHOLE
		SEWER MANHOLE
		SEWER LINE AND SIZE
		STORM DRAIN LINE
		WATER LINE AND SIZE
		WATER LINE REDUCER
		WATER SERVICE
		WATER VALVE
		BLOW-OFF
		FIRE HYDRANT
		SIDEWALK RAMP
		TRAFFIC CONTROL SIGN
		STREET NAME SIGN (PERMANENT)
		STREET LIGHT
		PULL BOX
		SERVICE POINT, PAD MOUNTED
		DROP INLET
		RETAINING WALL
		INDEX CONTOUR
		INTERMEDIATE CONTOUR
		LOT NUMBER

<u>ZONING</u>	<u>LOT SIZE</u>
EXISTING ZONING = P-C (PLANNED COMMUNITY) ZONE	MINIMUM LOT SIZE = 2,625 SF
[SFD (SINGLE FAMILY SPECIAL LOT DEVELOPMENT)	MAXIMUM LOT SIZE = 7,241 SF
SUMMERLIN SPECIAL LAND USE DESIGNATION]	AVERAGE LOT SIZE = 3,369 SF
PROPOSED ZONING = SF3	
NUMBER OF LOTS = 122	
NUMBER OF COMMON ELEMENTS = 5	

ACREAGE = 14.18 AC
DENSITY = 8.60 UNIT/AC

35' X 75' LOT:		
FRONT	= 18'	● SETBACKS SHALL COMPLY WITH SFSD
INTERIOR SIDE	= 3'	(SINGLE FAMILY SPECIAL LOT
ACCESSORY STRUCTURE	= 3'	DEVELOPMENT) SUMMERHILL SPECIAL
SIDE CORNER	= 8'	LAND USE DESIGNATION
REAR	= 3'	
PATIO COVER	= 8'	

LAS VEGAS VALLEY WATER DISTRICT - WATER
CITY OF LAS VEGAS - SEWER
REPUBLIC SERVICES - DISPOSAL
NV ENERGY - POWER
SOUTHWEST GAS CORPORATION - GAS
CENTRAL TELEPHONE CO. DBA CENTURY LINK - TELEPHONE
COX COMMUNICATION - CABLE

A COVENANT, CONDITIONS AND RESTRICTIONS AND RESERVATION TO BE PROVIDED AT A LATER DATE.

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM: UTM SURVEY FOOT (FTUS)
 LINEAR REFERENCE FRAME: NAD 83 (2011) EPOCH 2010.00
 SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
 ZONE: LAS VEGAS HIGH ELEVATION ZONE
 PROJECTION: TRANSVERSE MERCATOR
 STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
 LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
 FALSE EASTING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS)
 FALSE EASTING AT CENTRAL MERIDIAN: 300,000.0 M (984,250.0000 FTUS)
 SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
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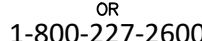
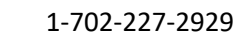
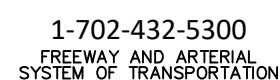
THIS PROJECT IS LOCATED WITHIN A FEMA DESIGNATED FLOOD ZONE X PER FIRM PANEL 32003C2150E, DATED SEPTEMBER 27, 2002. A ZONE X IS DEFINED AS BEING OUTSIDE THE 100-YEAR FLOODPLAIN AND NOT LOCATED WITHIN A FEMA-DESIGNATED SPECIAL FLOOD HAZARD AREA.

SUMMERLIN DESIGN REVIEW COMMITTEE	DATE
-----------------------------------	------

PULTE SALES	DATE
-------------	------

PULTE LAND DEVELOPMENT	DATE
------------------------	------

OWNER	DEVELOPER
THE HOWARD HUGHES COMPANY LLC 10845 GRIFFITH PEAK DRIVE, SUITE 160 LAS VEGAS, NV 89135 (702) 791-4000	PULTE HOMES 7255 S. TENAYA WAY, STE 2 LAS VEGAS, NV 89113 (702) 914-4800



01/14/2021

PROJECT NO.
764-A174-001

DESIGN: NPD

DRAWN: NPD

CHECK: WTP

PLOT TIME: 11:54:09

1555 S. RAINBOW BLVD.
LAS VEGAS NV 89146

T: 702.804.2000

E: 702.804.2299

gcwengineering.com

MASS GRADING.DWG

GCLV
ENGINEERS \ SURVEYORS

PROJECTS\700\A174-001\DWG\EXHIBITS\764-A

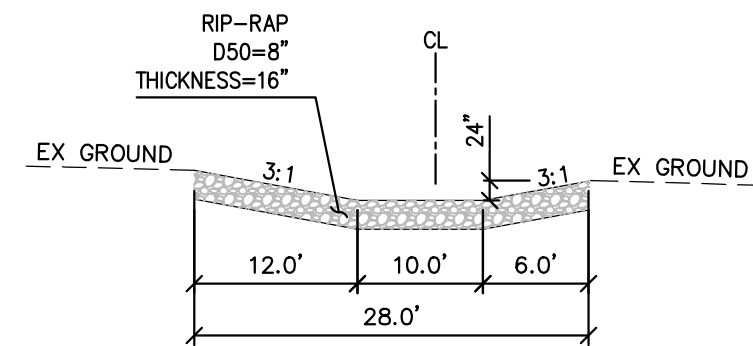
PULTE HOMES

SUMMERLIN VILLAGE 22
PARCEL GH

COVER SHEET

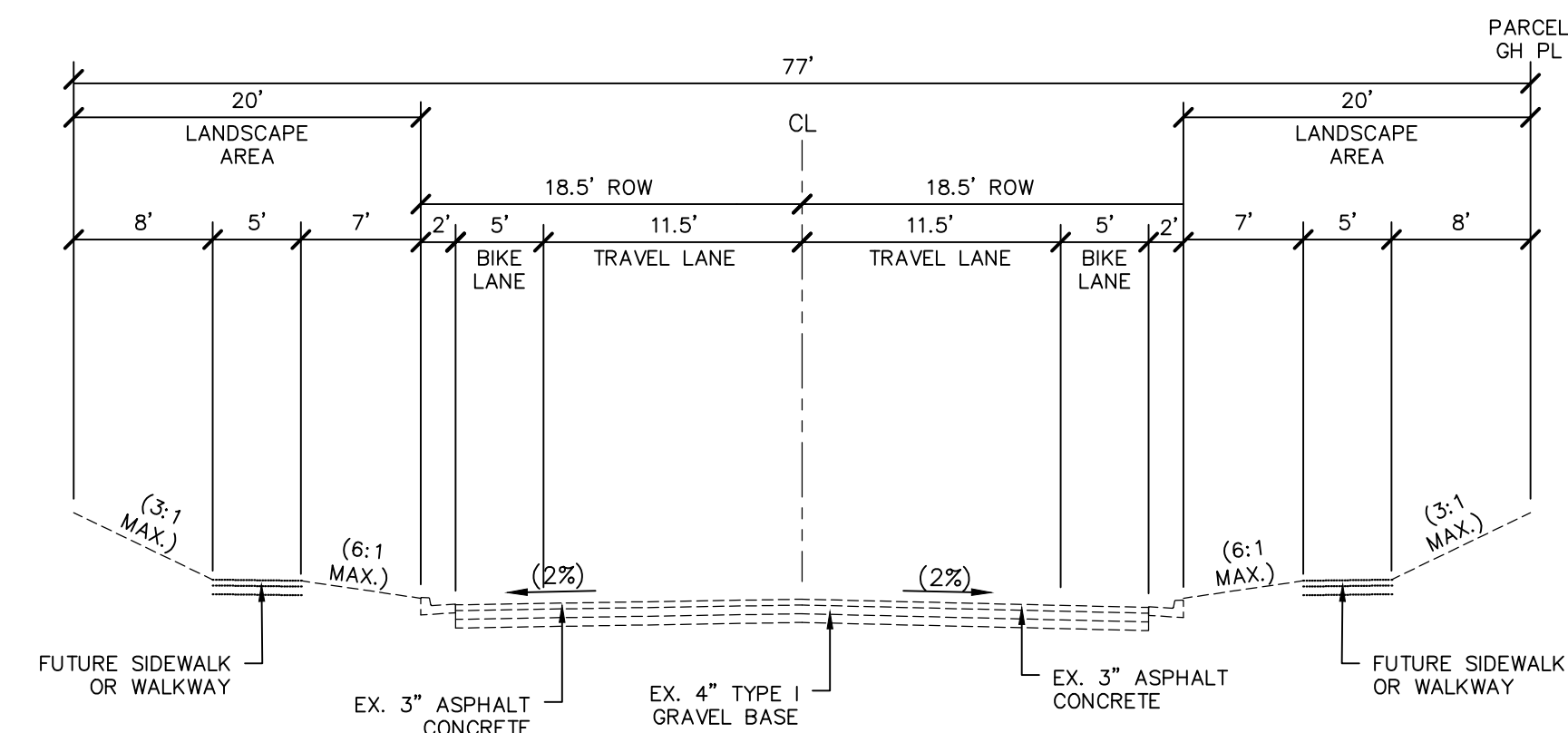
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MG1

1 OF 5 SHTS



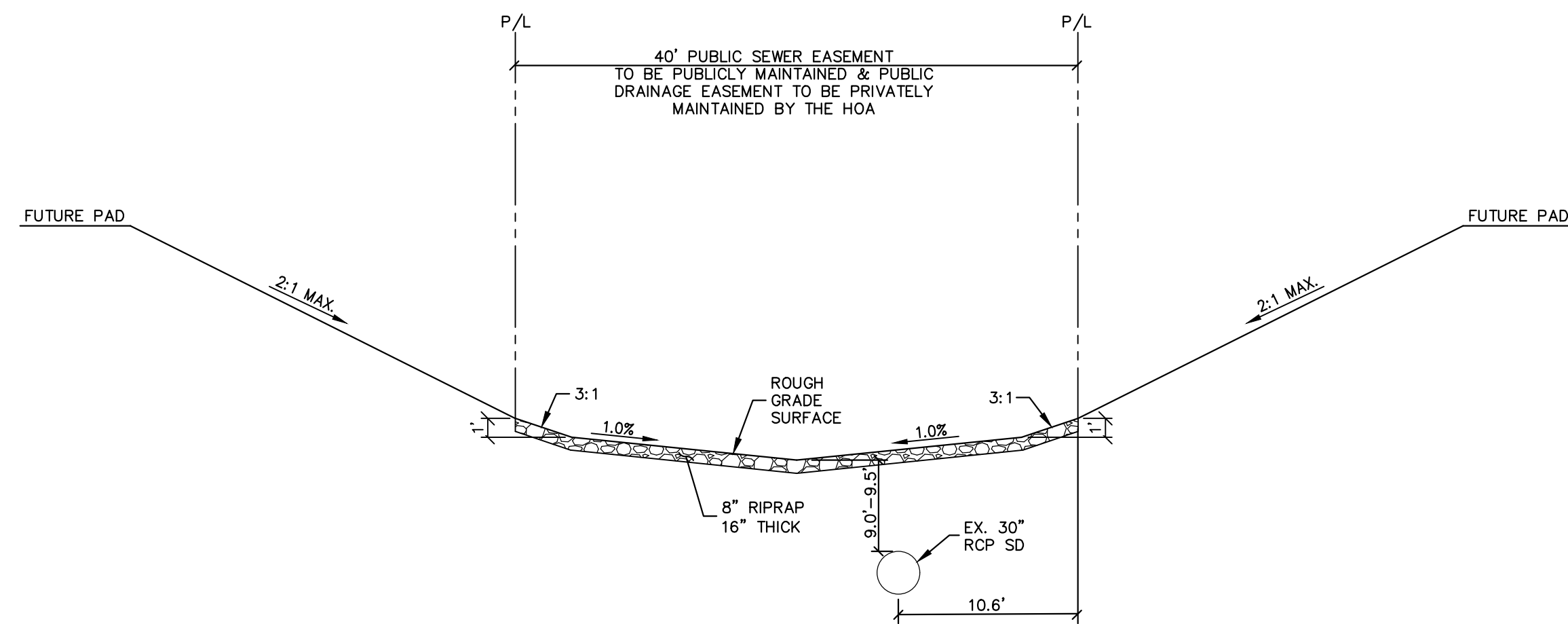
SEDIMENT TRAP

SCALE: NTS



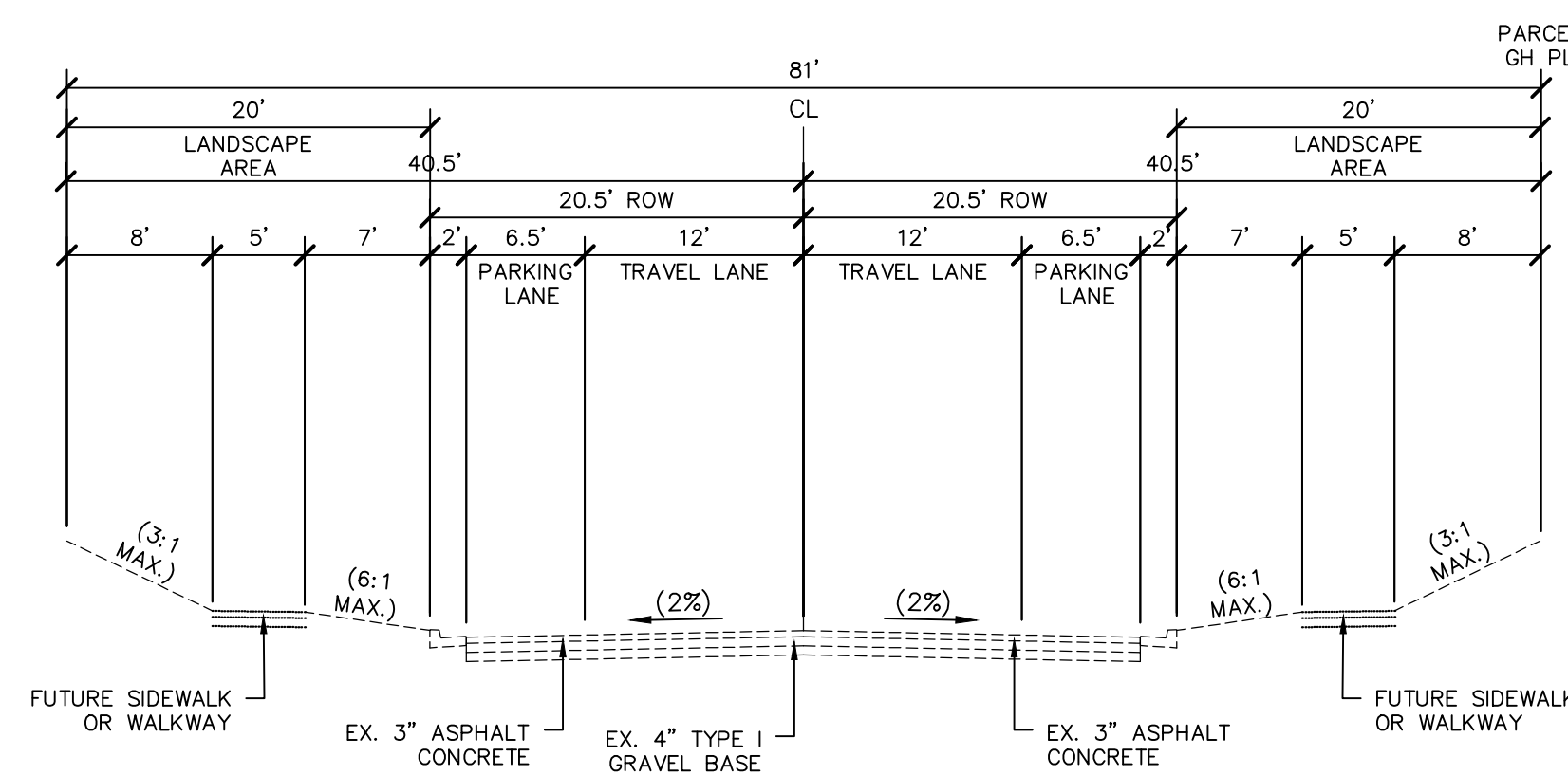
KESTREL CREEK AVENUE (PUBLIC)

SCALE: NTS



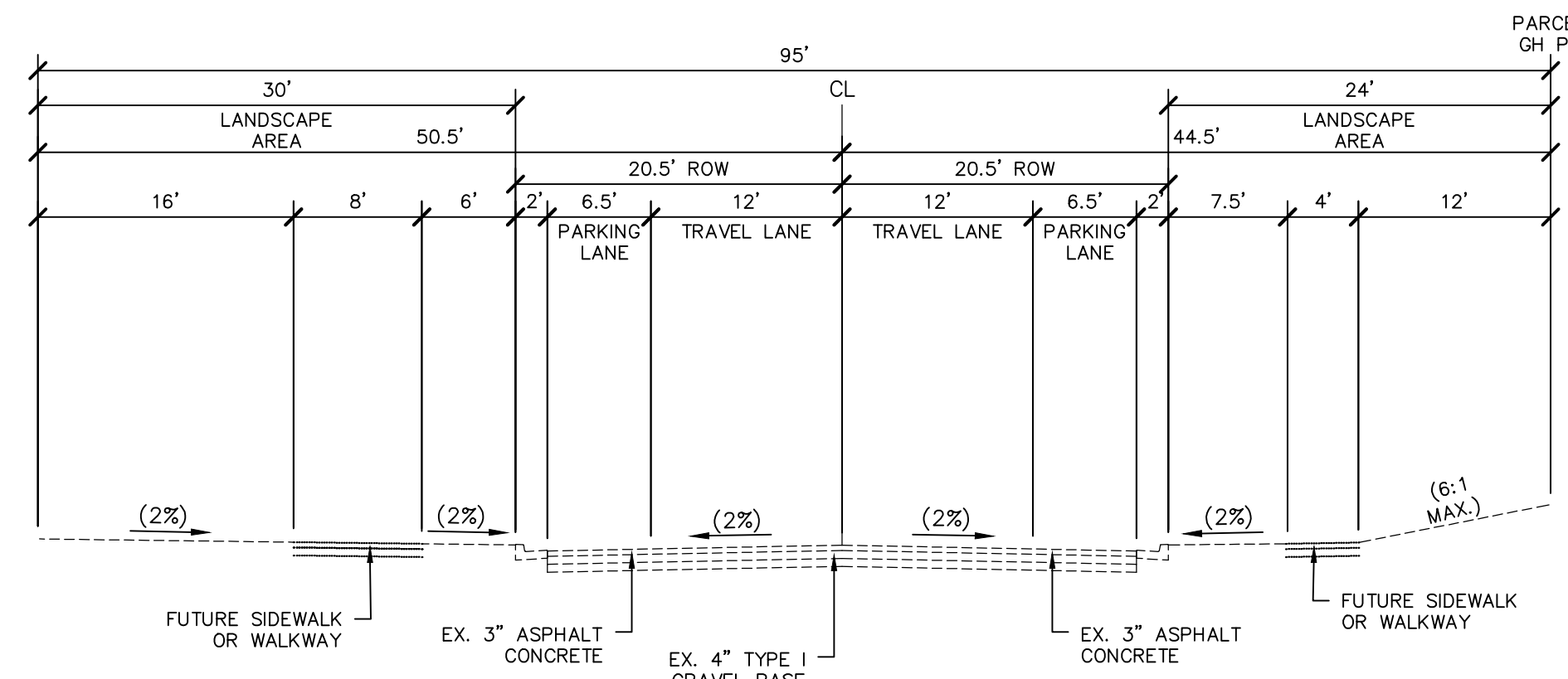
40' P.D.E. AND P.U.E.

SCALE: NTS



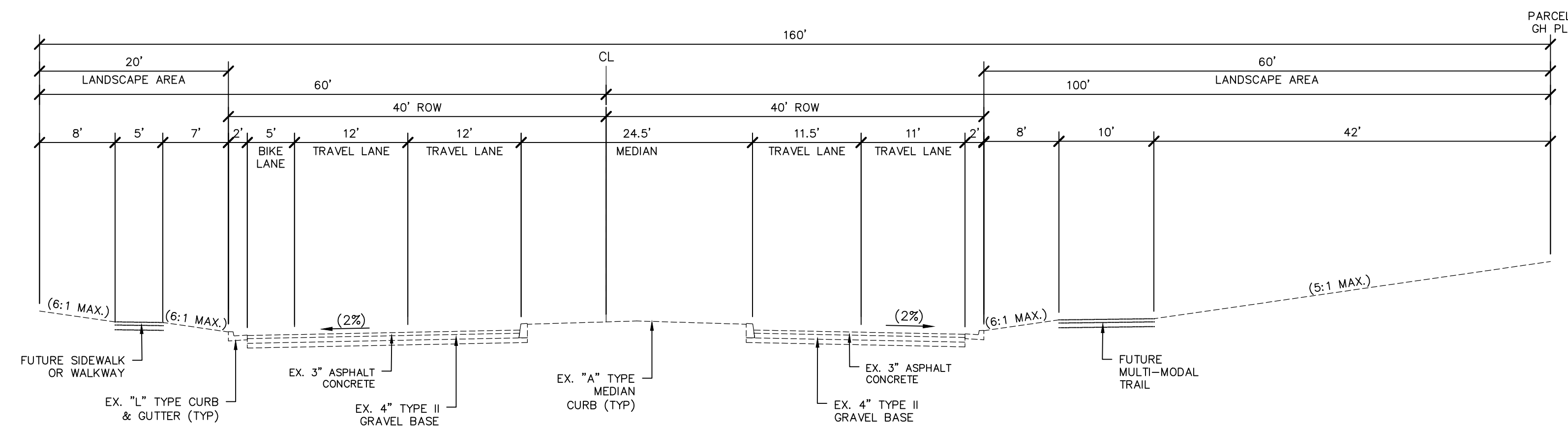
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SCALE: NTS



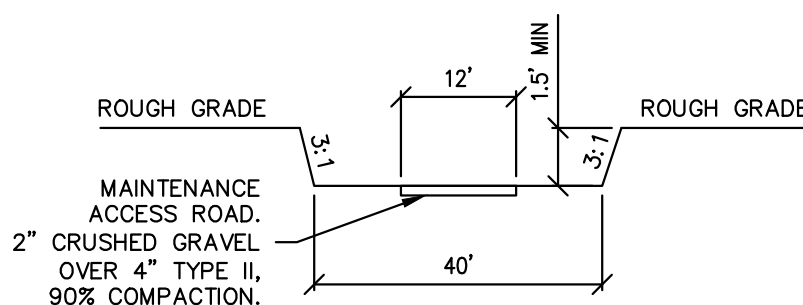
KETTLE RIDGE DRIVE (PUBLIC)

SCALE: NTS



DESERT FOOTHILLS DRIVE (PUBLIC)

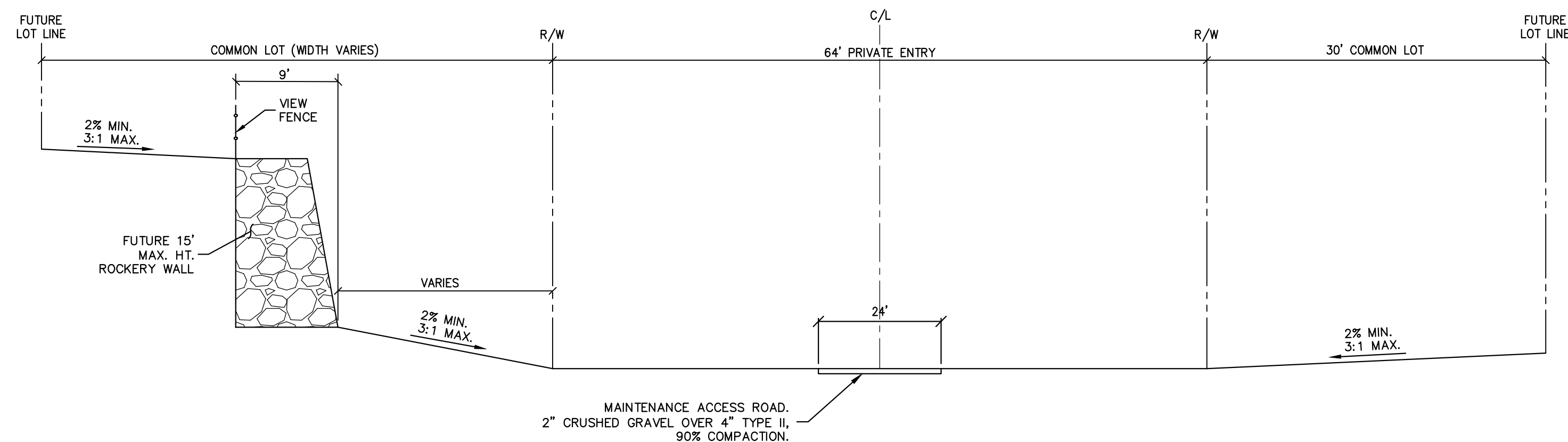
SCALE: NTS



NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER SOILS REPORT PREPARED BY ANGLE ENGINEERING, PROJECT #77095-1. PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.

ROUGH GRADE STREET SECTION

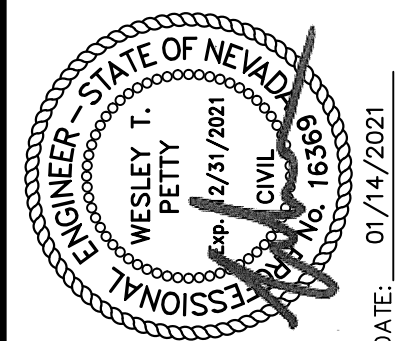
SCALE: NTS



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64' PRIVATE ENTRY

SCALE: NTS

[illegible][illegible]

PROJECT NO.	764-A174-001
DESIGN:	NPD
DRAWN:	NPD
CHECK:	WTP
PLOT DATE:	01-14-21
PLOT TIME:	11:54:14

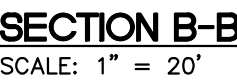
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

4-MASS GRADING.DWG

NICHOLAS DEROSA

GCV
ENGINEERS & SURVEYORS

PULTE HOMES	SUMMERLIN VILLAGE 22 PARCEL GH	STREET SECTIONS
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CROSS SECTION B-B

DRAWING
MG5
OF 5 S

PROJECT NO. 764-A174-001

DESIGN: NPD
DRAWN: NPD
CHECK: WTP

PLOT DATE: 01-14-21

[illegible]