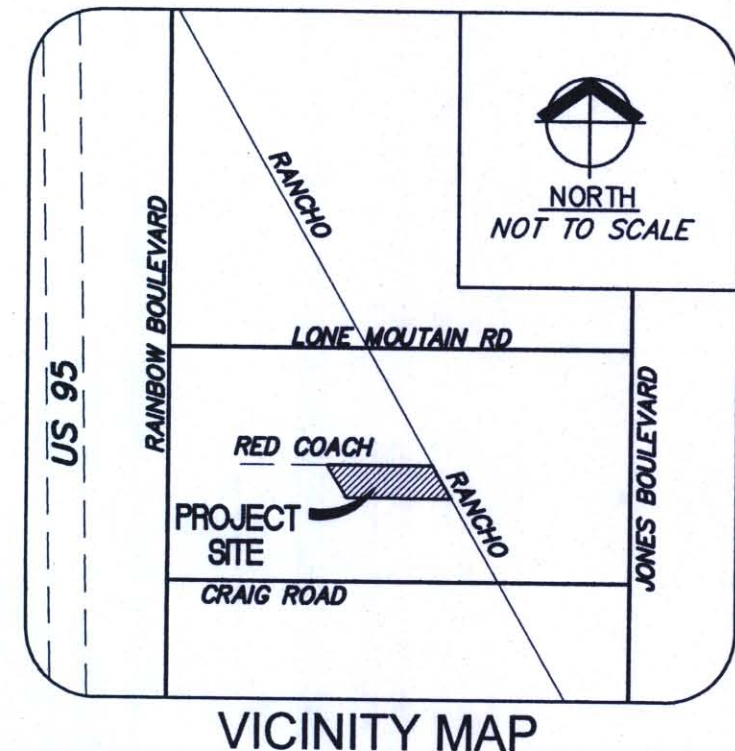
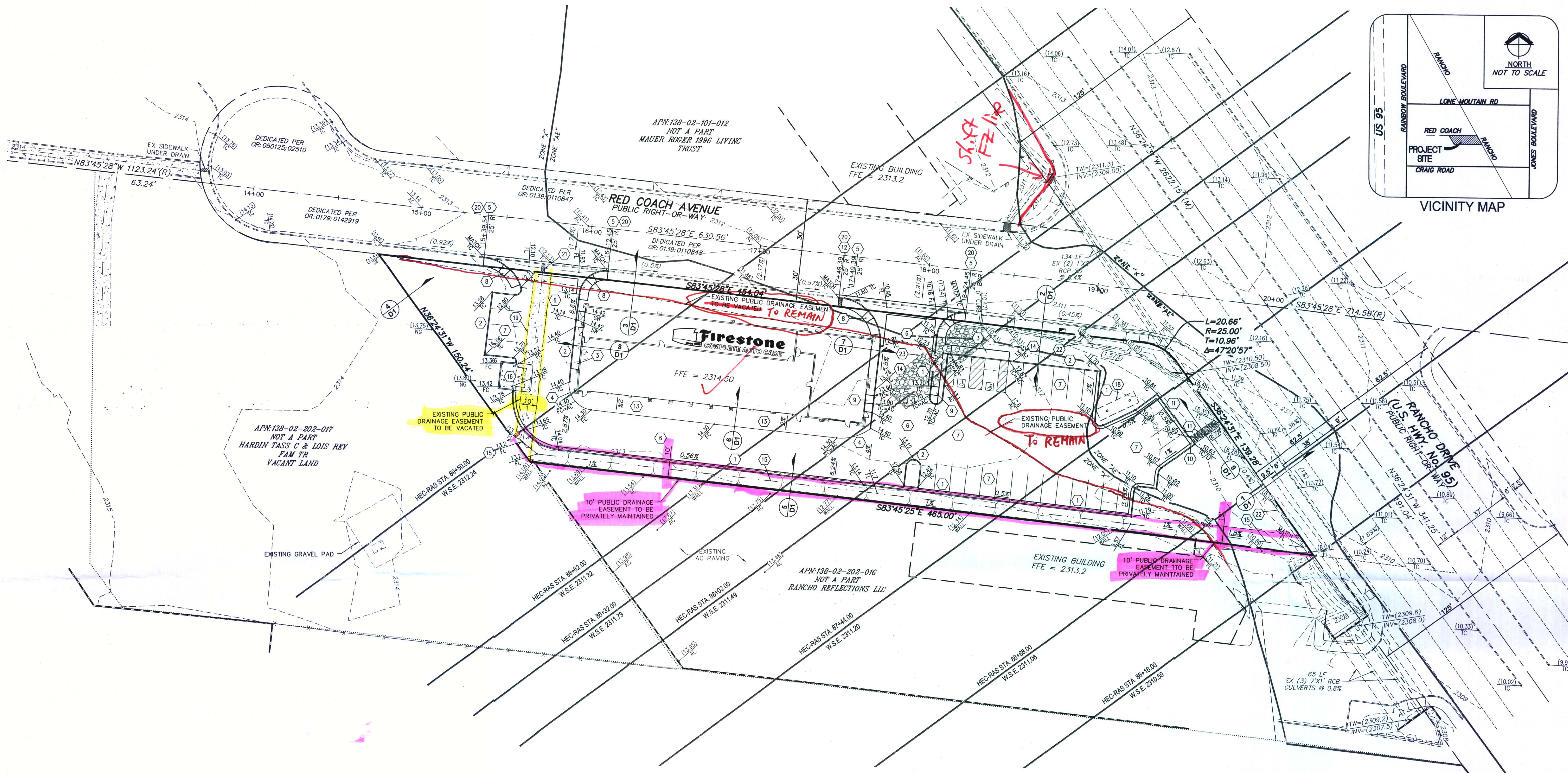




FLOOD ZONE
A PORTION OF THIS SITE IS LOCATED IN ZONE "AE", AREAS WHERE BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED, PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 3200322155 E, CLARK COUNTY, NEVADA DATED SEPTEMBER 27, 2002, REVISED TO REFLECT LOMAR DATED JANUARY 12, 2006.
FLOOD ZONE "AE" DEPICTED ON PLAN REFLECTS PROPOSED CONDITION AND WILL BE SUBMITTED AS PART OF A CLOMAR TO FEMA FOR THIS PROJECT.

BASIS OF BEARING
NORTH 83°40'36" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 2, TOWNSHIP 20 SOUTH, RANGE 50 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN FILE 111, PAGE 12 OF OFFICIAL RECORDS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

BENCHMARK
BENCHMARK STATION: BLVD 204N
RIVET AND ROUND ALUMINUM PLATE IN THE TOP OF CURB, 4521 N RANCHO DR AND 100' SW OF P.I. OF TORREY PINES DR AND RANCHO DR.
ELEVATION = 2303.01 FEET, 701.959 METERS
N.A.V.D. 88 DATUM
PER THE CITY OF LAS VEGAS VERTICAL CONTROL V.2008 UPDATED 2010

Call before you dig
811
1-800-227-2600
CLARK COUNTY
1-702-455-7544

do UnderGround
1-702-455-7511
CLARK COUNTY
1-702-455-7544

CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

NOTES

- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING STRUCTURES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED OR OBLISCURED DURING CONSTRUCTION.

GRADING

- CONSTRUCT "L" CURB AND GUTTER PER CCAUSD #216
- CONSTRUCT "A" CURB AND GUTTER PER CCAUSD #219
- CONSTRUCT SIDEWALK PER CCAUSD #234
- 6"-0" AC TRANSITION
- CONSTRUCT 32' (FACE TO FACE) WIDE COMMERCIAL DRIVEWAY PER CCAUSD #222A AND #228
- MAIN CORRIDOR (TRUCK ACCESS) INSTALL 4" AC OVER 5" TYPE II AGGREGATE BASE PER GEOTECH REPORT PREPARED BY TERRACON MAY 12, 2011
- AUTOMOBILE ROUTE / PARKING. INSTALL 3" AC OVER 5" TYPE II AGGREGATE BASE PER GEOTECH REPORT PREPARED BY TERRACON MAY 12, 2011
- CONSTRUCT HANDICAP RAMPS PER CCAUSD #235 CASE III A AND B = 8' UNLESS OTHERWISE NOTED
- CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIV. PER LATEST ADA GUIDE LINE
- CONSTRUCT 5' CURB CUT
- INSTALL RIP-RAP PAD D50=6", 12" DEEP (PAD SIZE PER PLAN) SEE DETAIL 9 SHEET D1
- INSTALL SIDEWALK UNDER DRAIN PER CCAUSD # 236
- CONCRETE APRON. INSTALL 5" CONCRETE OVER 4" TYPE II AGGREGATE BASE PER GEOTECH REPORT PREPARED BY TERRACON MAY 12, 2011
- CONSTRUCT 3' CURB TRANSITION PER DETAIL 10 ON SHEET D1
- CONSTRUCT EARTH SWAIL AT MIN 1% SLOPE
- INSTALL TRASH ENCLOSURE, SEE ARCHITECTURAL PLANS FOR DETAILS
- SAWCUT (CLEAN), REMOVE CURB, GUTTER, & SIDEWALK
- EXISTING BILLBOARD SIGN TO REMAIN IN PLACE
- REMOVE EXISTING CONCRETE VALLEY GUTTER
- REMOVE EXISTING CURB, GUTTER, AND SIDEWALK
- REMOVE EXISTING SIDEWALK UNDERDRAIN
- EXISTING VALLEY GUTTER TO REMAIN IN PLACE
- REMOVE EXISTING RIP-RAP TRACK OUT PAD

LEGEND

2500	INDEX CONTOUR (5' INTERVAL)	PROPOSED	EXISTING
---	INTERMEDIATE CONTOUR (1' INTERVAL)	00.00	00.00
---	CENTERLINE	00.00	00.00
---	RIGHT-OF-WAY	00.00	00.00
---	PROPERTY LINE	00.00	00.00
---	EASEMENT	00.00	00.00
---	EXISTING CMU WALL	00.00	00.00
---	EXISTING EDGE OF PAVEMENT	00.00	00.00
---	PROPOSED FLOW LINE	00.00	00.00
---	EXISTING CHAIN LINK FENCE	00.00	00.00
---	EXISTING SIDEWALK UNDER DRAIN	00.00	00.00

APN # 138-02-202-015

DATUM

ADD 2300.00 TO PLAN GRADES, EXCEPT FOR CONTOURS. TOPOGRAPHY BY AERIAL FLIGHT PROVIDED BY OTHERS. CONTOUR INTERVAL = 1'

GEOTECHNICAL REPORT

PROJECT No. 64115013
DATED: MAY 12, 2011
AS PREPARED BY: TERRACON

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY CLV # D54533A FOR THIS SITE ON FILE AT CITY OF LAS VEGAS FOR THIS PROJECT.

ERIC J. RIETZ, P.E. No. 16350

DRAINAGE QUANTITIES

This grading plan is a part of drainage study #4533 which was received on 8/23/11 and APP'D on 8/30/11. Page 1 of 3

SCALE: 1"=30'

Firestone
COMPLETE AUTO CARE

RIETZ CONSULTING INC.
5740 SOUTH ARVILLE STREET, #206
CLARK COUNTY, NEVADA 89118
PH: 702.621.3355 FAX: 702.212.3963

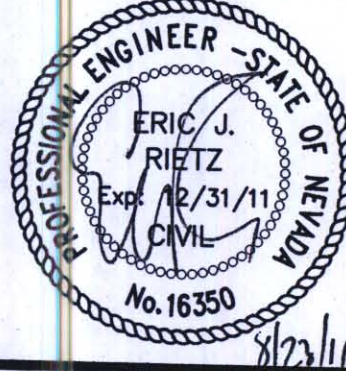
GRADING PLAN

Firestone
RANCHO DRIVE/RED COACH AVENUE
CITY OF LAS VEGAS
APN 138-02-202-015

DATE: 8/23/2011

DRAFTER: RES

CHECKED: EUR



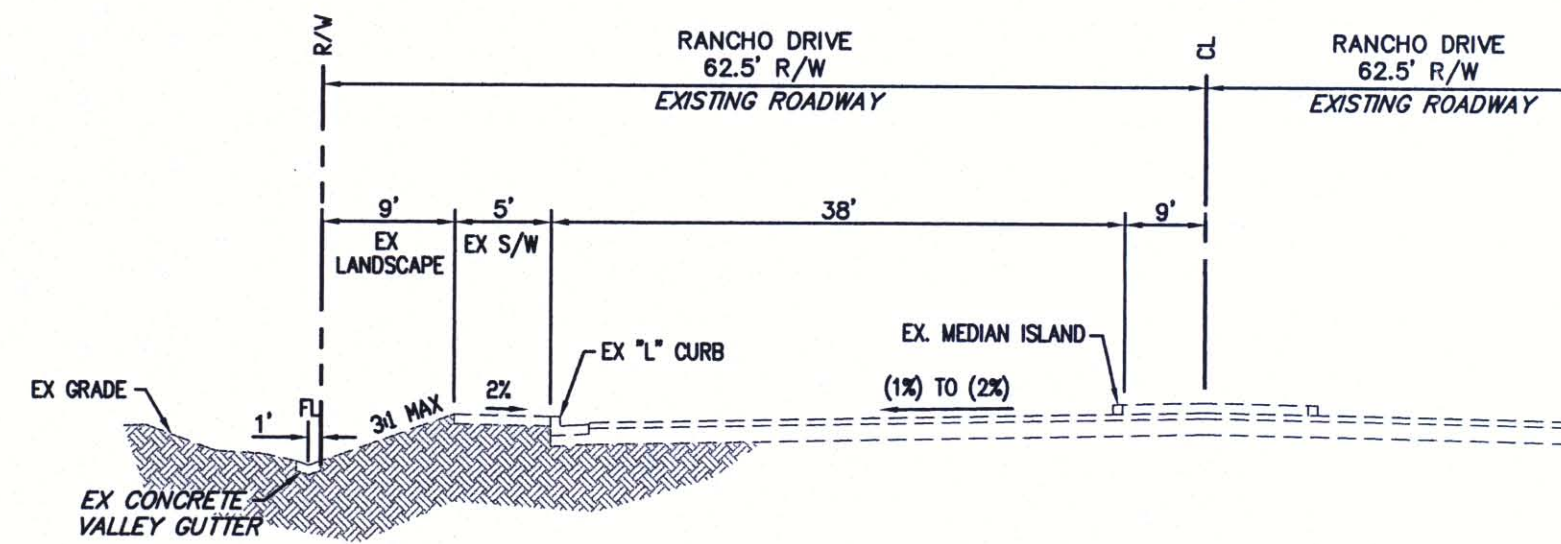
SHEET

C3

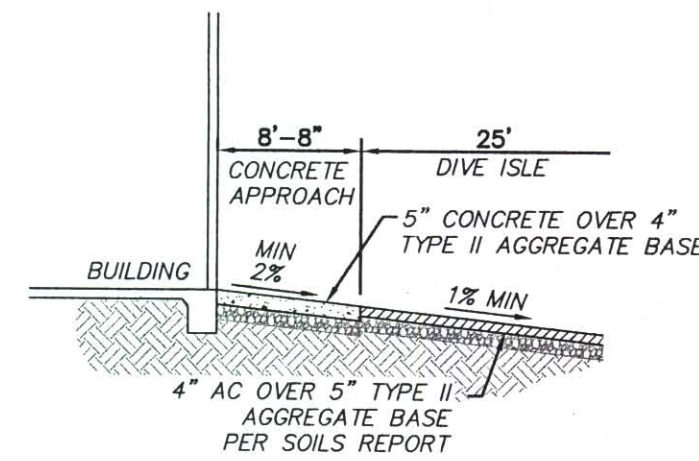
SHEET 3 OF X SHEETS

CLV # D54533A

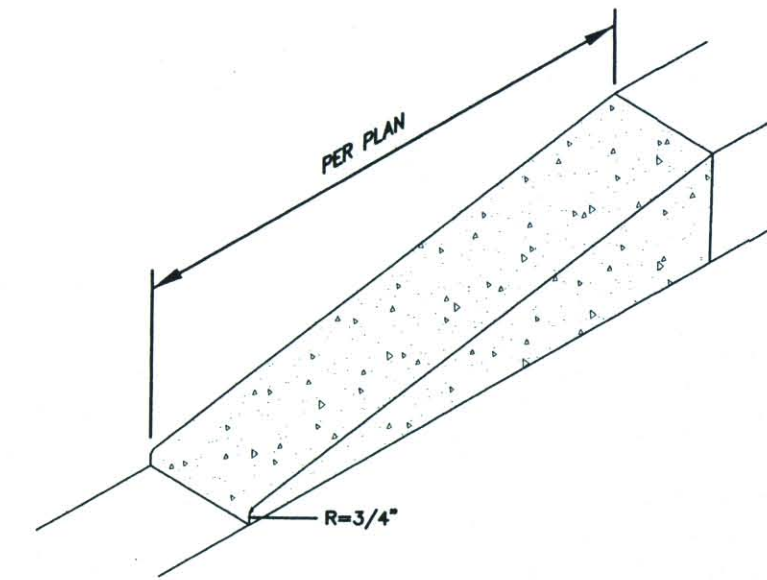
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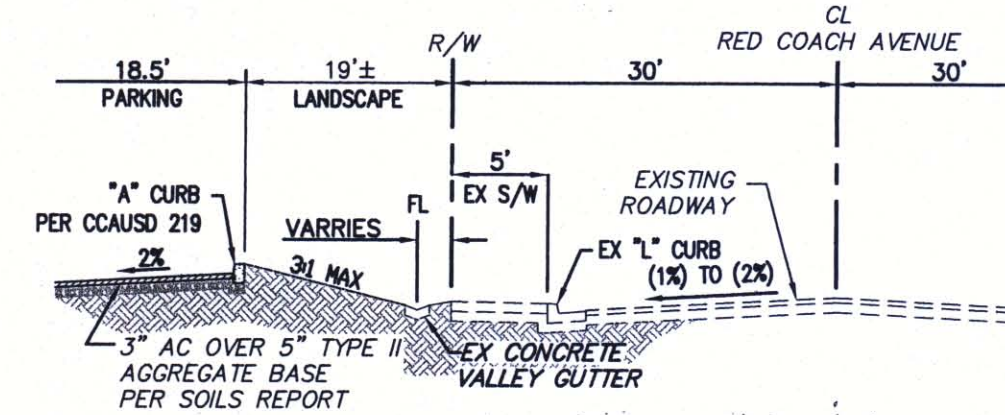
① RANCHO DRIVE (PUBLIC) NTS



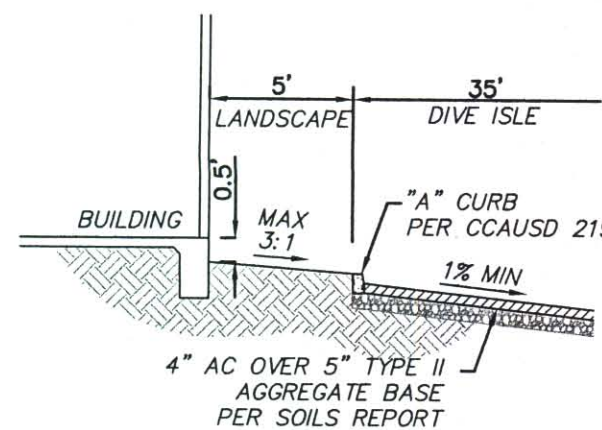
⑥ SECTION (PUBLIC) NTS



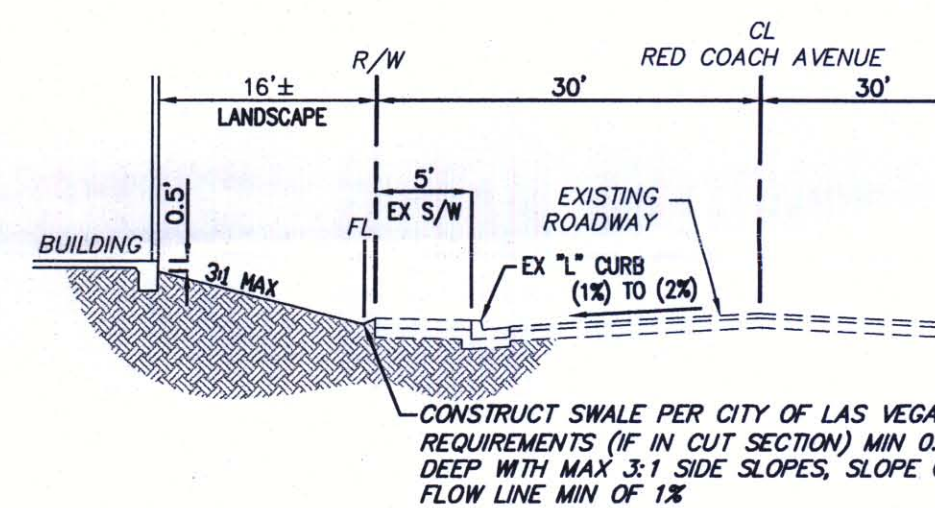
⑩ DEPRESSED CURB NTS



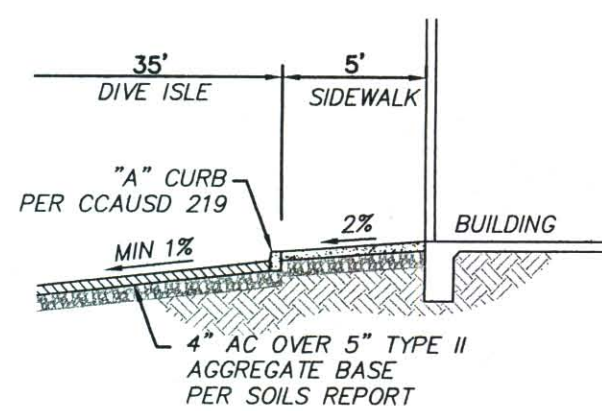
② RED COACH AVENUE (PUBLIC) NTS



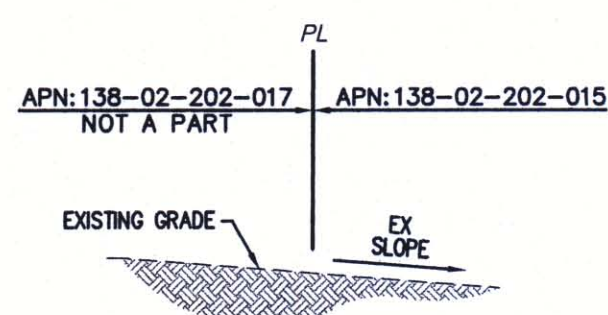
⑦ SECTION (PUBLIC) NTS



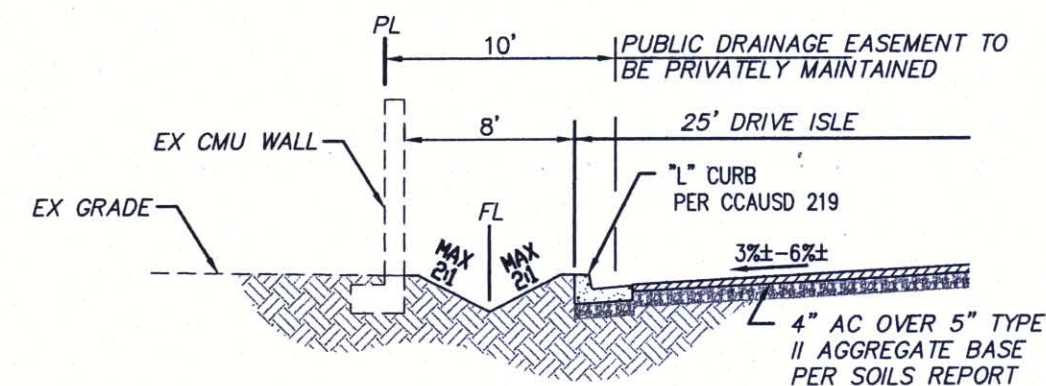
③ RED COACH AVENUE (PUBLIC) NTS



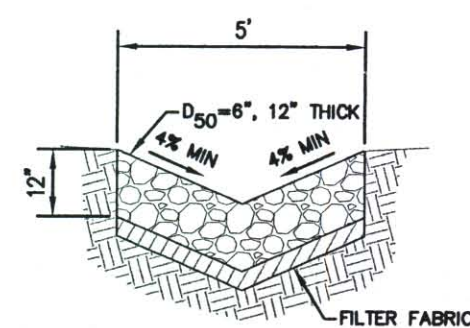
⑧ SECTION (PUBLIC) NTS



④ SECTION (PRIVATE) NTS



⑤ SECTION (PRIVATE) NTS



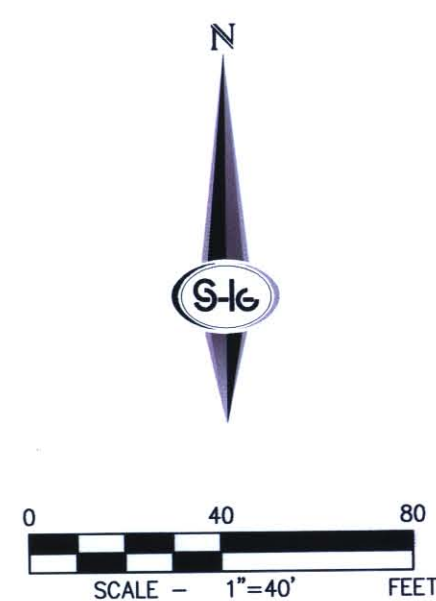
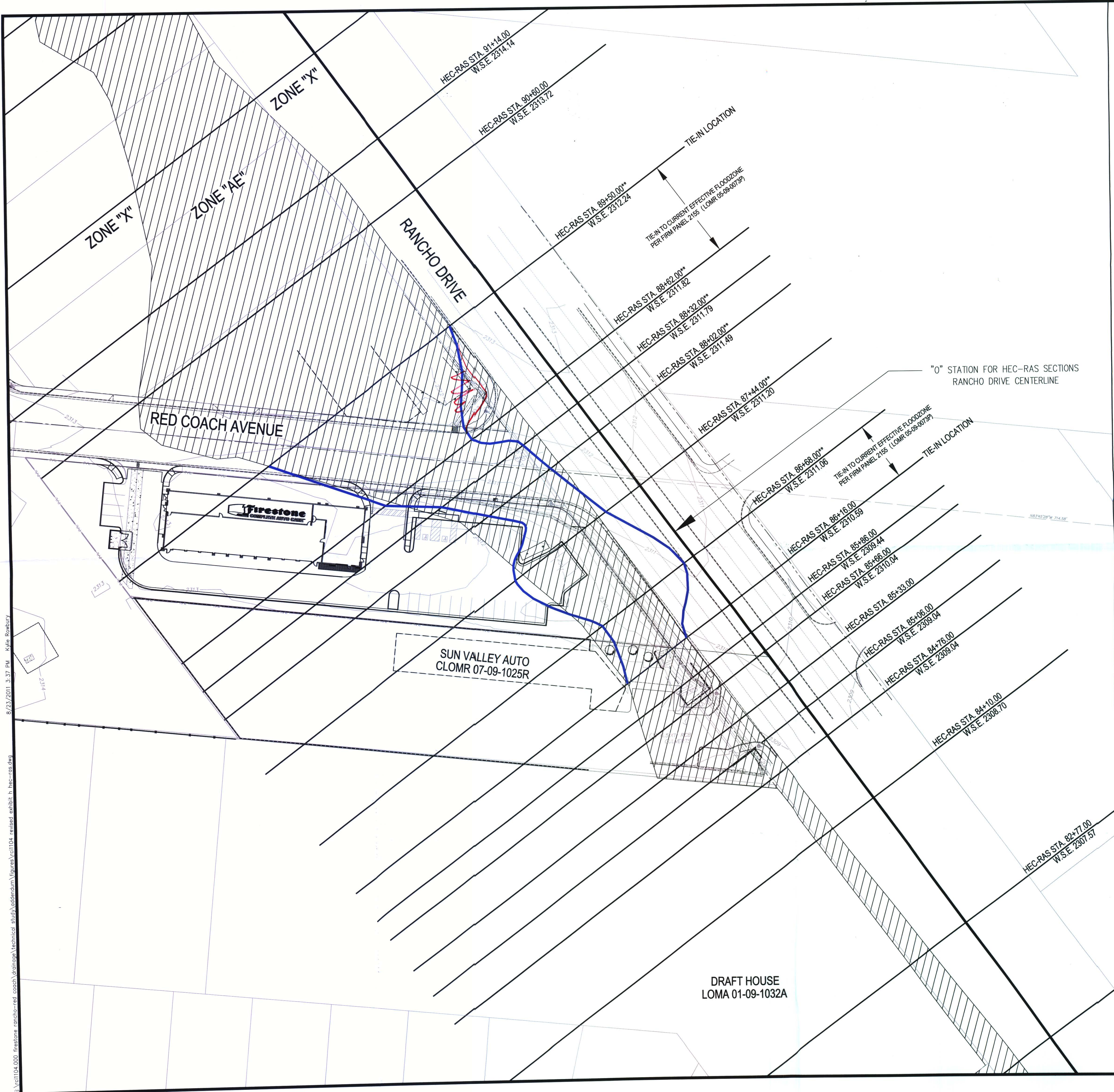
⑨ SECTION (PUBLIC) NTS

This grading plan is a part of drainage study #4533 which was received on 8/23/11 and APP'D. on 8/30/11. Page 2 of 3

GEOTECHNICAL REPORT
PROJECT No. 64115013
DATED: MAY 12, 2011
AS PREPARED BY: TERRACON

Firestone COMPLETE AUTO CARE		RIETZ CONSULTING INC. 5740 SOUTH ARVILLE STREET, #206 LAS VEGAS, NEVADA 89118 PH: 702.521.3353 FX: 702.212.3963	
CLIENT:		PROJECT:	
SHEET:		SCALE:	
DATE: 8/23/2011	DRAFTER: RES	CHECKED: EUR	NTS
PROFESSIONAL ENGINEER - STATE OF NEVADA ERIC J. RIETZ EXP. 12/31/11 No. 16350		SHEET C4 4 OF X SHEETS CLV DWG # XXXXXXXX	

8/23/2011 3:37 PM K:\R. Rawbury
J:\1104.000 Firestone rancho-red coach\technical study\addendum\figures\c11104 revised exhibit h hec-ras.dwg



LEGEND	
HEC-RAS STA. 87+44.00 W.S.E. 2310.72	HEC-RAS SECTION
**	SECTION GEOMETRY PER FIRESTONE PROPOSED GRADING
—	PROPOSED FLOODZONE
▨	CURRENT EFFECTIVE FLOODZONE

HEC-RAS Analysis Comparison FEMA Effective vs. Existing vs. Proposed					
HEC-RAS Station	Sun Valley Auto* CLOMR 07-09-1025R WSE (ft)	FEMA Effective* LOMR 05-09-0073P WSE (ft)	Existing Condition WSE (ft)	Proposed Condition WSE (ft)	Δ WSE (ft) Proposed - Existing
94+72.00	-	2316.66	2316.66	2316.66	0.00
93+76.00	-	2316.40	2316.40	2316.40	0.00
93+24.00	-	2314.81	2314.81	2314.81	0.00
92+05.00	-	2314.50	2314.50	2314.50	0.00
91+14.00	-	2314.20	2314.14	2314.14	0.00
90+60.00	-	2313.72	2313.72	2313.72	0.00
89+50.00	2312.84	2312.74	2312.24	2312.24	0.00
88+62.00	2312.08	N/A	2311.92	2311.82	-0.10
88+32.00	2311.70	N/A	2311.85	2311.79	-0.06
88+02.00	2311.40	N/A	2311.53	2311.49	-0.04
87+44.00	2311.11	N/A	2311.26	2311.20	-0.06
86+68.00	2311.02	2311.03	2311.08	2311.06	-0.02
86+16.00	2310.60	N/A	2310.59	2310.59	0.00
85+86.00	2310.31	N/A	2309.44	2309.44	0.00
85+66.00	2310.36	N/A	2310.04	2310.04	0.00
85+06.00	2309.08	N/A	2309.04	2309.04	0.00
84+76.00	2309.06	2309.37	2309.04	2309.04	0.00
84+10.00	-	2308.72	2308.70	2308.70	0.00
82+77.00	-	2307.57	2307.57	2307.57	0.00
81+55.00	-	2306.61	2306.61	2306.61	0.00
79+39.00	-	2304.14	2304.14	2304.14	0.00

1 - Referenced from the Lone Mountain Apartments Study and associated LOMR 05-09-0073P
2 - For informational purposes only.

This grading plan is a
part of drainage study
#4533 which was received
on 8/23/11 and ^{comp.} on
8/30/11. Page 3 of 3

NO.	DESCRIPTION	DATE	BY	APP.

FIRESTONE
FIRESTONE AT RANCHO & RED COACH
HEC-RAS EXHIBIT

DATE: 08/23/11
DRAFTER: KCR
DESIGNER: KCR
CHECKED: M/JF
PROJECT NO.
RC11104.000