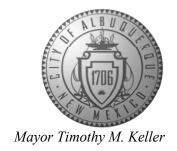
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



June 20, 2023

Mark H. Burak, P.E. 1512 Sagebrush Trail SE Albuquerque, NM 87123

RE: 8920 Eagle Rock NE

Permanent C.O. - Accepted

Engineer's Certification Date: 06/08/23

Engineer's Stamp Date: 01/31/22

Hydrology File: C20D087

Dear Mr. Burak:

Based on the Certification received 06/16/2023 and site visit on 06/16/2023, this letter serves as a "green tag" from Hydrology Section for a Permanent Certificate of Occupancy to be issued by

the Building and Safety Division.

Renée C. Brissette

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Albuquerque

PO Box 1293

Sincerely,

NM 87103

Renée C. Brissette, P.E. CFM

Senior Engineer, Hydrology

www.cabq.gov
Planning Department



City of Albuquerque

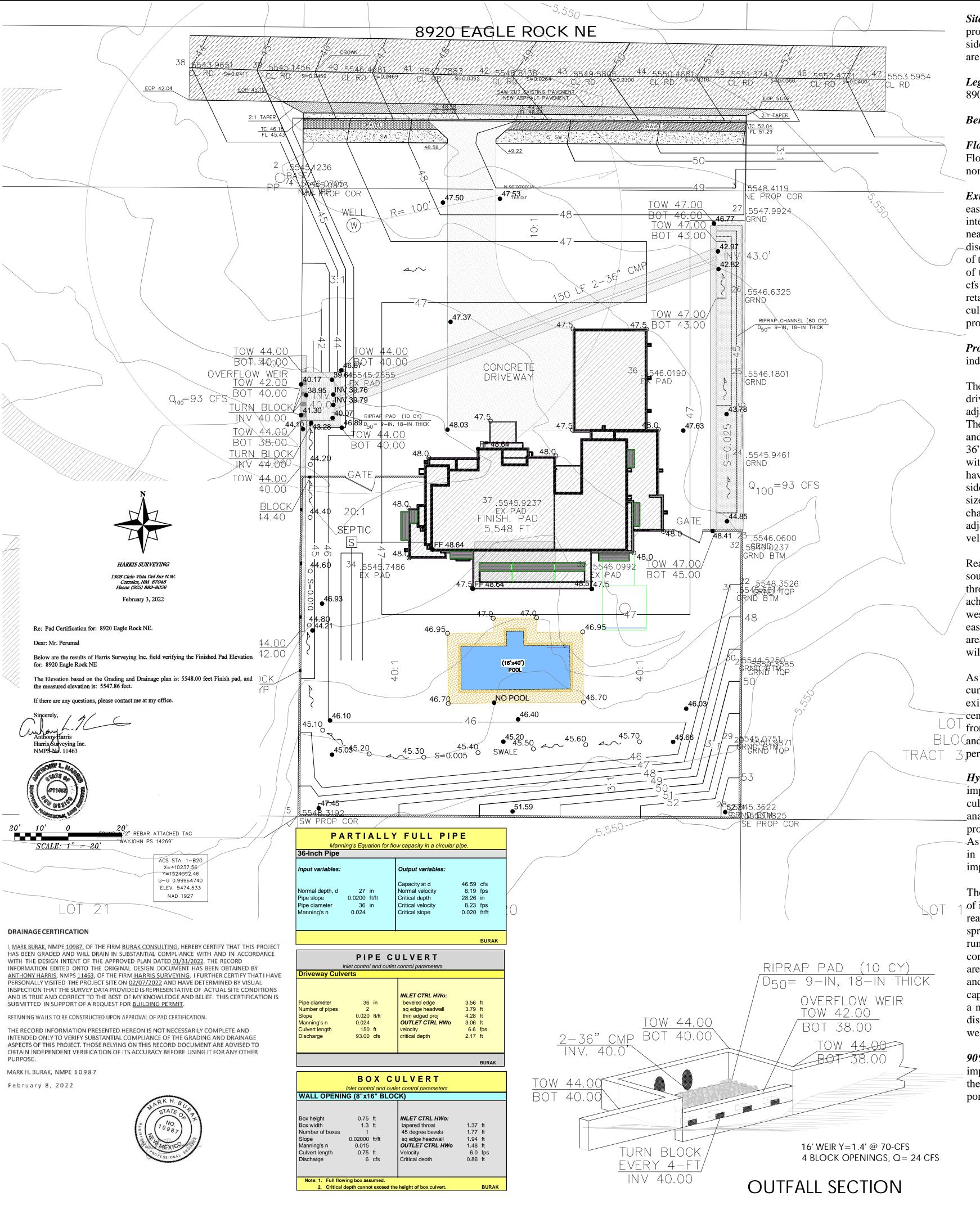
Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title:	8920 Eagle Rock	NE Building Pe	ermit #:	Hydrology File #: C20D087		
				Work Order#:		
Legal Description	on:Lot 13, Blo 8900 Eagle	ck 2, Tract 3, Unit				
Applicant:	Mark Burak, PE 1512 Sagebrush		ue, NM 87123	Contact:		
				E-mail: mburak@comcast.net		
				Contact:		
Phone#:		Fax#:		E-mail:		
IS THIS A RESUB	MITTAL?TRANSPORTA	YesXNo		X DRB SITE ADMIN SITE		
PAD CERTIF CONCEPTUA GRADING P DRAINAGE DRAINAGE FLOODPLAI ELEVATION CLOMR/LOM TRAFFIC CI TRAFFIC IM	ITTAL: ARCHITECT CERTIFICATION ALG & D PLAN LAN REPORT MASTER PLAN N DEVELOPMENT PER I CERTIFICATE MR RCULATION LAYOU IPACT STUDY (TIS) HT LAYOUT ECIFY) MEETING?	ERMIT APPLIC	BUILDIN X CERTIFIC PRELIMIT SITE PLA SITE PLA FINAL PI SIA/ REL FOUNDA GRADING GRADING GRADING GRADING CLOMR/I FLOODPI OTHER (S	LAIN DEVELOPMENT PERMIT SPECIFY)		
DATE SUBMITT	ED: 06/11/2023	By:	Mark Burak, PE			
COA	STAFF:	ELECTRONIC	C SUBMITTAL RECEIVE			

FEE PAID:____



Site Location - As shown by the Vicinity Map (Zone Atlas Map C-20), the proposed residential project site is located on a single 0.88-acre parcel on the south side of Eagle Rock NE and west side of Ventura in North Albuquerque Acres. At present, the site is undeveloped. Single homes are adjacent to the west of the property and across Eagle Rock to the north.

Legal Description: Lot 13 Block 2 NORTH ALBQ ACRES TR3 UNIT #3, 8900 Eagle Rock NE

Benchmark - Basis of elevation is ACS Station "5-D21" Elevation 5,653.331 NAVD 1988.

Flood Zone - As shown by Panels 35001-C0133H of the National Flood Insurance Program Flood Insurance Rate Maps (FIRM) for the City of Albuquerque, New Mexico, dated 08/16/2012 none of this site lies within a designated flood hazard Zone.

Existing Conditions - Currently, the project site slopes at about three percent and drains from ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE. east to west across the undeveloped site in a small arroyo towards the west. The arroyo runoff is intercepted by the upstream property and discharged through a double 36" cmp culvert battery near the northeastern corner of the lot adjacent to the subject property. The small arroyo discharge crosses the property in a southwesterly direction basically through the middle portion of the lot. Eagle Rock is paved with no culverts, curb or gutter. The offsite runoff generated east of the adjacent subdivision impacts the property in an historical/allowable discharge rate of 104 cfs according to the calculations. The property two lots to the east is surrounded by a retaining/garden wall which blocks all runoff from impacting the subject property other than the culvert discharge. The vacant lot to the east drains to the arroyo and through the subject property.

Proposed Grading - The Grading and Drainage Plan shows 1) existing and proposed grades indicated by spot elevations and contours; 2) the limit of existing and proposed improvements.

The upstream watershed is collected and discharged through an existing culvert battery under the driveway of the property two lots to the east of the subject parcel. This runoff will traverse the adjacent property and will impact the subject approximately 100-feet south of Eagle Rock NE. The grading of the lot will elevate the residence about two feet above the bottom of the arroyo and will divert the runoff towards the north to cross under the proposed driveway utilizing two 36" diameter CMP culverts. The culverts have the capacity to carry the entire peak runoff rate with a headwater depth of 4.2-feet. The riprap channel banks upstream of the driveway culverts have a slope of two percent, a retaining wall on the west side, a ten foot bottom width with 2:1 side slopes. The maximum velocity was calculated at 7.4-fps which will require a riprap nominal size of nine inches. The riprap bedding should extend a minimum of eighteen inches below the channel invert. The culverts will discharge onto a riprap apron located near the existing arroyo adjacent to the lot to the west of the subject property. The riprap apron will dissipate the excess velocity to reduce potential downstream scour.

Rear yard runoff on the property is to be discharged into a low area that is to be located near the southern property boundary and will act as a detention basin. Excess runoff will discharge through the turned blocks in the western wall. Turned blocks are to be spaced every 20-feet. To achieve adequate pad and fill height, a six foot retaining wall is proposed along a portion of the western side of the property. An additional wall segment will be located along a portion of the eastern property along the channel. Cut and or fill slopes along the east and south boundary areas were set at a maximum of 3:1 so that no armoring will be required. A six foot garden wall will be constructed around the east, west, and south property lines as shown on the plan.

As part of this construction, the southern half of Eagle Rock Avenue will be installed including curb, gutter, and sidewalk. The proposed roadway section is 32-feet face to face. Since the existing pavement is mostly located on the northern side of the right-of-way, the crown is not centered within the road right-of-way. The new asphalt will extend between two and four feet from the existing edge of pavement to the proposed curb and gutter. The curb, gutter, sidewalk $B \sqcup O$ (and roadway will be sloped to match the existing grades along the crown which range from 2.6-TRACT 3 percent to 4.7 percent in front of the property.

> *Hydrologic Methods* - The drainage basin map shows six separate sub-basins (offsite, and A-E) impacting the project area to assess peak flow rates at various points around the project site culminating at the retention basins or outfall channel. The calculations which appear hereon _analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The process outlined in the DPM, Chapter 6 was used to quantify the peak flow rates and volumes. As shown by these calculations, the fully developed improvements will result in a slight increase in runoff generated by the site. When incorporating the proposed ponding, the downstream impact is similar when comparing to existing and/or historical conditions.

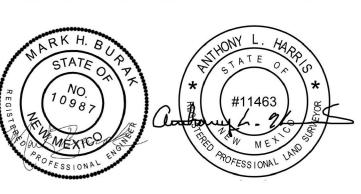
The proposed improvements will increase the existing peak runoff due to the higher percentage 1 of impervious area proposed by the development. By controlling the calculated runoff within the rear lot low detention area, scour and erosion is expected to be reduced to a minimum amount. A spreadsheet for Precipitation Zone 3 is included on this plan. This spreadsheet outlines the peak runoff and volume generated for each sub-basin for existing and proposed fully developed conditions. Percentage of each land treatment is shown to illustrate the addition of impervious area related to the proposed construction. By routing the proposed developed discharge rates and volumes through the detention basin, the outfall is to be controlled by incorporating a limited capacity discharge through the block garden wall. In this case, the discharge structure consists of a number of turned blocks in the west wall. The majority of the southern basin overflow will discharge through the turned blocks in the western wall to discharge onto the property to the

90% Compensatory Volume Management – The first flush has been mitigated based on the impervious areas listed on the attached spreadsheet. This equates to the total impervious area of the site multiplied by 0.615-inches or about 468 cubic feet for the bottom two inches of the ponding area. This storage has been provided on the plan by the detention basin as shown.

AS-BUILT CERTIFICATION

I, Mark H. Burak, NMPE 10987, OF THE FIRM Burak Consulting, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AS SUPPLEMENTAL DATA TO THE ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY Anthony Harris, NMPS 11463, OF THE FIRM Harris Surveying, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR Certificate of Occupancy (CO).

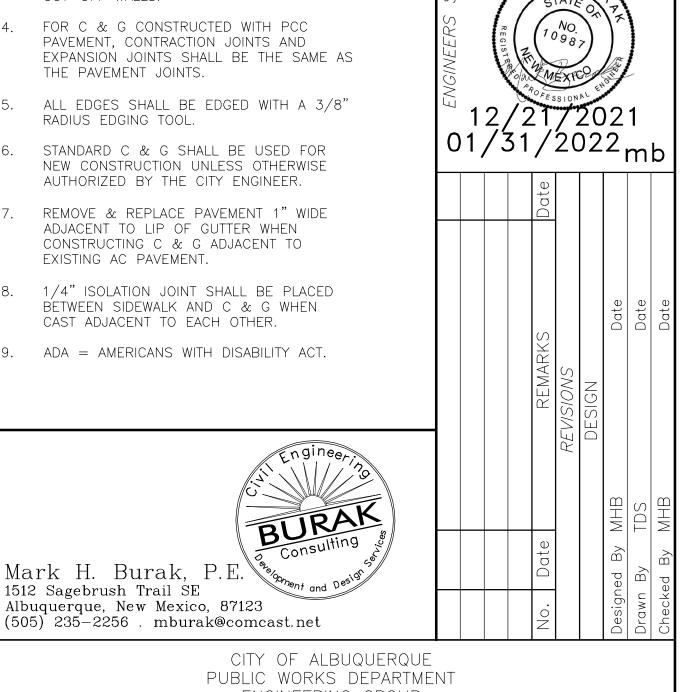
THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS



June 8th, 2023

GENERAL NOTES:

- CURB, GUTTER AND CUT-OFF WALL WILL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE (PCC).
- FOR STANDARD AND MEDIAN C & G ADJACENT TO ASPHALT CONCRETE (AC) PAVEMENT, PROVIDE CONTRACTION JTS. AT 12" MAX SPACING, 1/2" EXP JOINTS AT CURB RETURNS & AT A MAXIMUM SPACING OF 120' BETWEEN CURB RETURNS & EACH SIDE OF SEPARATELY CONSTRUCTED DRIVEWAYS. CONTRACTION JOINTS SHALL BE EITHER SAWED OR TOOLED A MINIMUM OF 1" DEEP AT FINISHED FACES.
- FOR ALL OTHER C & G CUT-OFF WALL PROVIDE CONTRACTION JOINTS AT 10' MAX SPACING, 1/2" EXP. JTS. AT CURB RETURNS & AT A MAXIMUM SPACING OF 100' BETWEEN CURB RETURNS & EACH SIDE OF SEPARATELY CONSTRUCTED DRIVEWAYS. CONTRACTION JOINTS SHALL BE EITHER SAWED OR TOOLED A MINIMUM OF 1" DEEP AT ALL FINISHED FACES. REINFORCEMENT SHALL NOT BE USED IN CUT-OFF WALLS.
- FOR C & G CONSTRUCTED WITH PCC PAVEMENT, CONTRACTION JOINTS AND EXPANSION JOINTS SHALL BE THE SAME AS
- THE PAVEMENT JOINTS.
- STANDARD C & G SHALL BE USED FOR NEW CONSTRUCTION UNLESS OTHERWISE
- REMOVE & REPLACE PAVEMENT 1" WIDE ADJACENT TO LIP OF GUTTER WHEN CONSTRUCTING C & G ADJACENT TO
- 1/4" ISOLATION JOINT SHALL BE PLACED BETWEEN SIDEWALK AND C & G WHEN CAST ADJACENT TO EACH OTHER.
- 9. ADA = AMERICANS WITH DISABILITY ACT.



ENGINEERING GROUP

8920 EAGLE ROCK AVE. NE GRADING AND DRAINAGE PLAN

	C20D087	C	Zone Map NO. $C-20$		2	
City Project No.		Zone Mo	ap NO.	Sheet	Of	
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