

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

September 11, 2020

Jackie McDowell, PE
McDowell Engineering, Inc.
7820 Beverly Hills Ave NE
Albuquerque, NM 87121

RE: **Lot 19 Block 5, Unit 18, S.A.D. 228**
Volcano Cliffs Subdivision
6620 Sujeto Rd. NW
Grading and Drainage Plan
Engineers Stamp Date 9/10/2020 (D10D003K19)

Ms. McDowell,

Based upon the information provided in your submittal received 8/7/2020, this plan is approved for Grading Permit.

PO Box 1293

Prior to Building permit approval a Pad Certification will be required, provided by the Engineer or a registered Land Surveyor.

Albuquerque

Please inform the builder/owner to attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

NM 87103

Reiterate to the Owner/Contractor that a separate permit for a garden/retaining wall must be obtained, with the approved G&D plan dated 7/28/2020.

www.cabq.gov

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist of this plan will be required.

If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

Sincerely,

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes _____ No

DEPARTMENT _____ TRANSPORTATION _____ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ DRAINAGE REPORT
- _____ DRAINAGE MASTER PLAN
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ STREET LIGHT LAYOUT
- _____ OTHER (SPECIFY) _____
- _____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ SO-19 APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ GRADING/ PAD CERTIFICATION
- _____ WORK ORDER APPROVAL
- _____ CLOMR/LOMR
- _____ FLOODPLAIN DEVELOPMENT PERMIT
- _____ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

GENERAL DRAINAGE PLAN NOTES:

1. It is recommended that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This plan recommends positive drainage away from all structures to prohibit ponding of runoff adjacent to the structure. Future alterations of the grades next to the structures are not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Irrigation water adjacent to the structures could cause settlement.
4. This plan establishes on-site drainage and assumes no responsibility for subsurface analysis, foundation or structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer is recommended.
6. It is recommended that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey.
8. All work shall be constructed in accordance with the City of Albuquerque Standard Specifications for Public Works Construction with updates.
9. All work on this project shall be performed in accordance with applicable Federal, State, and Local laws, rules, and regulations concerning construction safety and health.
10. Contactor shall ensure that no site soils/sediment or silt enters the right-of-ways during construction.
11. Areas disturbed due to construction shall be restored per City of Albuquerque Spec. 1012 native seed mix.

SURVEY NOTES:

PROJECT LOCATION

6620 SUJETO ROAD NW, ALBUQUERQUE, NEW MEXICO

SURVEY INFORMATION

TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO AUGUST 2020.

PROJECT BENCHMARK

PROJECT BENCHMARK IS A USGLD SECTION CORNER DISC SET IN A 12 INCH CONCRETE POST POURED AROUND THE ORIGINAL IRON PIPE 1 FOOT ABOVE GROUND STAMPED, "S21, S22, S28, S27, 111, R2E, 1911," TO REACH THE STATION BENCHMARK FROM THE INTERSECTION OF MONTANO ROAD AND UNSER BOULEVARD NORTHWEST, TRAVEL NORTHWEST ON UNSER BOULEVARD 0.78 MILES TO MOLTEN ROCK ROAD NORTHWEST, TURN LEFT AND TRAVEL 320 FEET TO 81ST STREET NORTHWEST AND THE STATION IS LOCATED ON THE SOUTHEAST QUADRANT OF THE INTERSECTION. ELEVATION = 5,330.151 FEET.

TEMPORARY PROJECT BENCHMARK

PROJECT BENCHMARK CP 150 IS A TERRA LAND SURVEY 1/2" REBAR WITH PLASTIC CAP STAMPED "TERRA CONTROL" ELEVATION = 5,334.45 FEET (NAVD 1988 VERTICAL DATUM).

NOTES

1. FIELD SURVEY PERFORMED IN AUGUST 2020.
2. TOPOGRAPHIC SURVEY WAS COMPILED UTILIZING SURFACE COORDINATES REFERENCED TO NAD 1983 NEW MEXICO CENTRAL ZONE. PRIMARY HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED UTILIZING GPS RTK METHODS. COMBINED SHOW TO GRID FACTOR IS 0.999671106 SCALED AROUND 0.0.
3. ELEVATIONS SHOWN FOR PIPES ARE INVERT ELEVATIONS UNLESS OTHERWISE SPECIFIED.
4. CONTOURS SHOWN HEREON ARE AT A ONE FOOT INTERVAL REFERENCED TO THE NAVD 88 VERTICAL DATUM.
5. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL OF THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
6. PIPE SIZES AND MATERIAL TYPES FOR MANHOLES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEYS AND VISUAL INSPECTIONS. THE SURVEYOR MAKES NO GUARANTEE THAT THE PIPE SIZES AND MATERIAL TYPES ARE EXACT BUT DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
7. THIS IS NOT A BOUNDARY SURVEY PROPERTY LINES SHOWN ARE FOR ORIENTATION ONLY.

STANDARD GRADING NOTE: THE MAXIMUM GRADED SIDE SLOPE SHALL NOT EXCEED 3 FEET (HORIZONTALLY) TO 1 FOOT (VERTICALLY). AREAS DISTURBED BY GRADING WHICH WILL NOT BE TREATED WITH LANDSCAPING SHALL BE SEEDED.

STANDARD WALL AND PAD CERTIFICATION NOTES:

ALL PERMITTER GARDEN WALLS SHALL BE PERMITTED SEPARATELY.

A PAD CERTIFICATION IS REQUIRED BEFORE THE BUILDING PERMIT IS RELEASED.

This is the plan to be used for any garden walls and any openings in the walls shall be placed 3" above final grade in the rear yard to allow for cross lot drainage from west to east (upstream to downstream).

PROPERTY LINE WALLS AND GARDEN WALLS SHALL HAVE TURNED BLOCKS OR WEEP HOLES FOR DRAINAGE. ALL OPENINGS IN THE WALLS SHALL BE 3" ABOVE GRADE.

CROSS SECTION PROPERTY LINE WALL DETAIL

CP 151
1/2" REBAR W/CAP
N:1,517,352.312
E:1,500,197.330
EL.=5,333.05'

DRAINAGE PLAN

SCOPE:

Pursuant to the latest City of Albuquerque and Bernalillo County Ordinances, the Drainage Plan shown hereon outlines the drainage management criteria for controlling developed runoff on and exiting the project site. A single family home is proposed for the site with associated parking, access, landscaping, and utility improvements.

EXISTING CONDITIONS:

Presently, the 0.50 acre site is undeveloped. The site is bounded on the south, west, and east by private property, on the north by Sujeto Rd. NW. As shown on FEMA Panel #111G, the site is not located in a 100 year flood plain.

PROPOSED CONDITIONS:

Per the SAD 228 Drainage Report by Wilson & Company, drainage from the lot has been master planned to be intercepted by drainage features downstream of the properties. Current COA Drainage Ordinance requires that ponds must be provided to handle the First Flush volume which has been calculated and is included on this plan. As shown by the plan, the building is located in the center of the lot and the lot has been designed to drain to the north and south. Negligible off-site flows enter the site. On site flows will drain around the structure via swales, and flow to the south and north to the first flush retention pond located at the northerly portion of the lot. All roof drainage will discharge from the roof to the lot and be directed around the structure to the drainage paths and pond.

Supplemental calculations are shown as part of this Grading and Drainage plan.

CALCULATIONS:

The calculations shown hereon define the 100 year-6 hour design storm falling within the project area under existing and developed conditions. The Hydrology is per "Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque, New Mexico in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority.

PROPERTY ADDRESS:

6620 SUJETO ROAD NW

TOPOGRAPHY:

Topographic information provided by Christopher Medina, Terra Land Surveys, LLC. dated August, 2020.

ZONE 1

Areas: (acres)	Existing	Proposed
Treatment A	0.50	0.00
Treatment B	0.00	0.20
Treatment C	0.00	0.05
Treatment D	0.00	0.25
Total (acres) =	0.50	0.50

POND VOLUME PROVIDED:

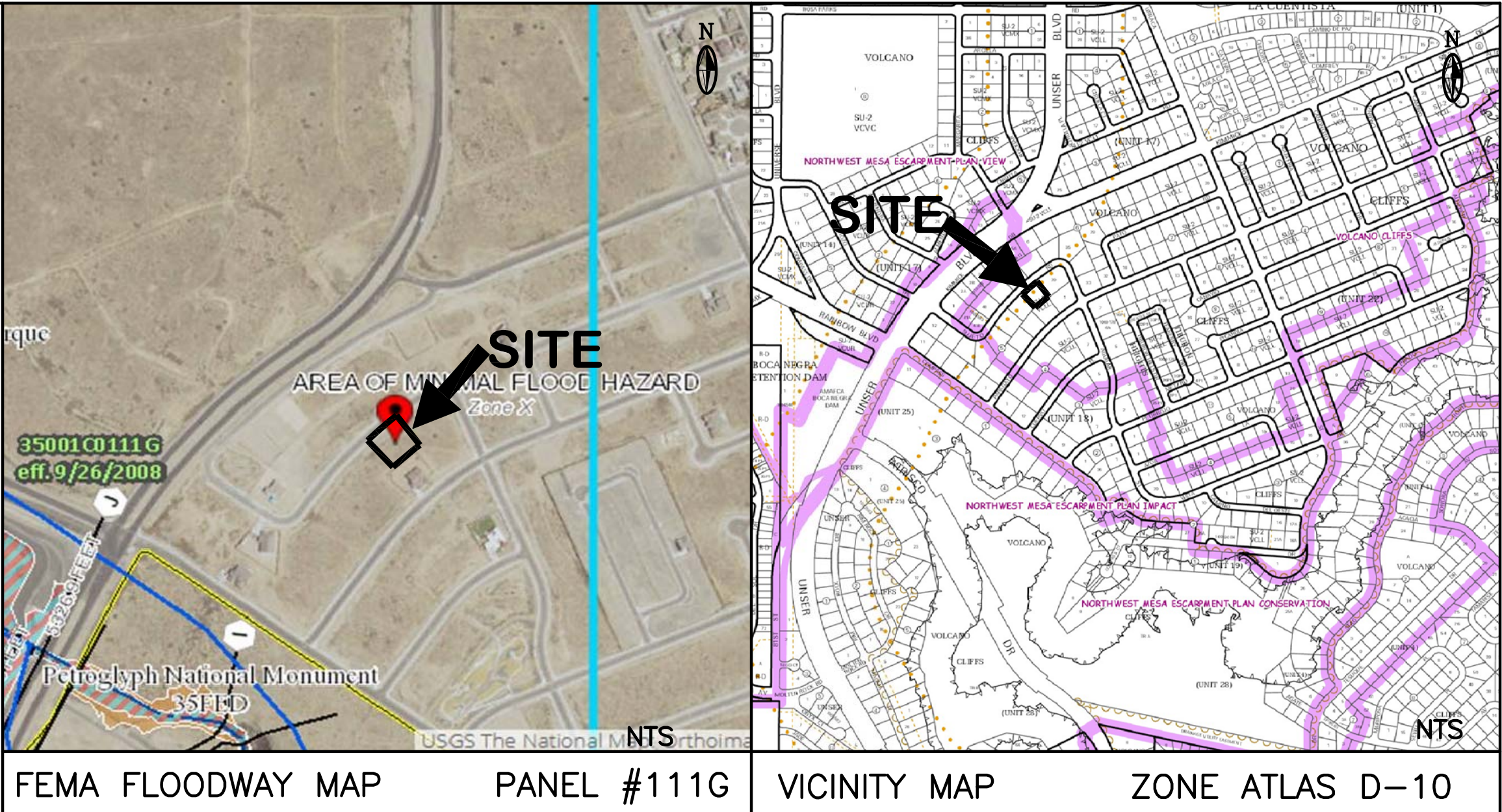
ELEV.	AREA	VOL. (CF)
5335	603	394.5
5334	186	

TOTAL POND VOL PROVIDED = 394.5

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.018	0.056	0.003	0.031	0.000	0.016
Volume (cubic feet) =	799	2,454	145	1,365	0	682

FIRST FLUSH REQUIRED POND VOL = $0.34" (12" / \text{FT}) (0.25 \text{ AC} * 43560 \text{ SF/AC}) = 309 \text{ CF}$

Total Q(p), cfs:	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	0.65	0.00	0.12	0.00	0.00	0.00
Treatment B	0.00	0.41	0.00	0.15	0.00	0.01
Treatment C	0.00	0.14	0.00	0.07	0.00	0.02
Treatment D	0.00	1.05	0.00	0.72	0.00	0.42
Total Q (cfs) =	0.65	1.64	0.12	0.95	0.00	0.45



SURVEY LEGEND

- △ CONTROL MONUMENT (AS NOTED)
- FOUND REBAR (AS NOTED)
- ◇ FOUND CHISELED "X"
- ⊙ WATER METER
- ⊕ TELEPHONE RISER
- ⊞ TRANSFORMER
- ⊟ CABLE TV
- +53XX.XX SPOT ELEVATION
- TCBC= TOP BACK/BACK CURB
- TSW= TOP OF SIDEWALK
- █ BLOCK WALL
- CONCRETE HATCH

WALL OPENING CALCULATIONS:
1 Turned Block
Weir Equation
 $Q = CLH^{3/2}$
 $Q(max) = 1.04$ cfs (total site runoff)
 $C = 3$
 $H = 0.5$ ft
 $L = 0.5$ ft
for 1/2 block, 6" x 6" opening
 $Q = 0.53$ cfs capacity, so for the full block,
the total block capacity = 1.06 cfs

LEGEND

- | | EXISTING | PROPOSED |
|---------------------|----------|----------|
| CONTOUR | 6045 | 6045 |
| PROPERTY LINE | | |
| ROAD | | |
| SETBACK | | |
| RETAINING WALL/WALL | | |
| SPOT ELEVATION | 5313.72 | |

Jackie S. McDowell
Professional Engineer
9-10-20

ENGINEER'S CERTIFICATION:

I, Jackie S. McDowell, hereby certify that I personally inspected the site shown on this plan on September 3, 2020 and as of that date it appeared that no filling, grading, or excavation had occurred thereon since completion of the topographic survey used to prepare this plan.

6620 SUJETO ROAD NW, ALBUQUERQUE, NM 87120

CITY OF ALBUQUERQUE, BERNALILLO COUNTY		NEW MEXICO					
LOT 19, BLOCK 5, UNIT 18 VOLCANO CLIFFS SUBDIVISION							
OLIVAS, JONATHAN (M. SANCHEZ) – GRADING & DRAINAGE PLAN							
McDowell Engineering, Inc. 7820 BEVERLY HILLS AVE. NE • ALBUQUERQUE, NM 87122 TEL: 505-828-2430 • FAX: 505-821-4857							
Designed	JSM	Drawn	STAFF	Checked	JSM	Sheet	of
File	OLI0120L		Date	SEPTEMBER, 2020		1	1