

CITY OF ALBUQUERQUE



February 13, 2018

Mike Balaskovits, PE
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

RE: **Broadstone Highlands East Block
Grading and Drainage Plan
Engineer's Stamp Date: 2/7/18
Hydrology File: K15D034C**

Dear Mr. Balaskovits,

Based on the information provided in the submittal received on 2/8/18 the above-referenced Grading and Drainage Plan is approved for Site Plan for Building Permit.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

PO Box 1293

Sincerely,

Albuquerque

NM 87103

Dana M. Peterson
Senior Engineer, Planning Dept.
Development Review Services

www.cabq.gov

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335
www.bhinc.com
voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: James D. Hughes
City of Albuquerque
600 2nd St. NW
Albuquerque, NM 87102

Requested by: Michael Balaskovits

Date: February 8, 2018

Time Due: ☐ This A.M.
☒ This P.M.
☐ Rush
☐ By Tomorrow

Phone: (505) 924-3880

Job No.: 20160155

Job Name: Broadstone Highlands East Block

DELIVERY VIA

☒ Courier ☐ Federal Express
☐ Mail ☐ UPS
☐ Other

PICK UP

Item: _____

<u>ITEM NO.</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	1	Drainage Info Sheet
2	1	Comment Response Letter
3	1	Conceptual Grading & Drainage Plan
4	1	Supplemental Information Sheet

COMMENTS / INSTRUCTIONS

James,

Please find attached the Conceptual Grading & Drainage plan for Broadstone Highlands East Block. We are requesting Hydrology approval in support of Site Plan for Building Permit Approval. Let me if you have any questions.

Thanks,
Mike

REC'D BY: _____ DATE: _____ TIME: _____



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____

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

Legal Description: _____

City Address: _____

Engineering Firm: _____ **Contact:** _____

Address: _____

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

Owner: _____ **Contact:** _____

Address: _____

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

Architect: _____ **Contact:** _____

Address: _____

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

Other Contact: _____ **Contact:** _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

- ☐ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) _____

CHECK 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
- ☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

February 8, 2018

Mr. Dana M. Peterson, P.E.
City of Albuquerque
Planning Department
600 2nd Street NW
Albuquerque, NM 87103

Re: Broadstone Highlands East Block / Hydrology File K15D034C

Dear Mr. Peterson:

Enclosed for your review and comment is a re-submittal of the Broadstone Highlands East Block Conceptual Grading & Drainage Plan. Please see the responses to your comments dated 02/01/18 below:

1. Include an off-site subbasin map, including topographic data.
Response: Please see the "Supplemental Information" Exhibit which indicates the offsite basins contributing to the inlets within Sycamore St and Copper Ave.
2. Clarify roof drainage and show on plans.
Response: At this time, the roof drains are conceptual but intend to drain to the existing 21" within Tract 5.
3. Label all Public vs. Private drainage improvements and ensure all improvements in the public ROW are on the infrastructure list.
Response: The public and private drainage infrastructure improvements have been labeled on the Conceptual Grading and Drainage Plan. The public infrastructure improvements have been included on the infrastructure list.
4. Clarify how the connections to existing storm drain will be made (keyed note 9). If there is no existing manhole to connect to, a new manhole will need to be built and included on the infrastructure list.
Response: Keyed note 9 has been expanded on regarding the type of connection to the existing storm drain. The infrastructure list includes all associated manholes and inlets within the footnote.

Engineering ▲

Spatial Data ▲

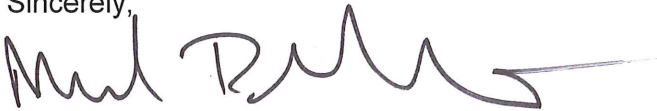
Advanced Technologies ▲

5. The new public storm drain easement (recorded) needs to be included on the infrastructure list. Provide a trenching prism at deepest point to evaluate the required width. The width will need to be at least 20' per DPM Ch.22, Section 6, Part C.

Response: The public storm drain easement will be included on the infrastructure list. A conceptual trenching prism has been provided on the "Supplemental Information" Exhibit to indicate that the minimum 20' wide easement will suffice for this storm drain at the deepest point.

We are requesting Hydrology Approval in support of Site Plan for Building Permit approval. Please feel free to contact me at 823-1000 with questions or comments.

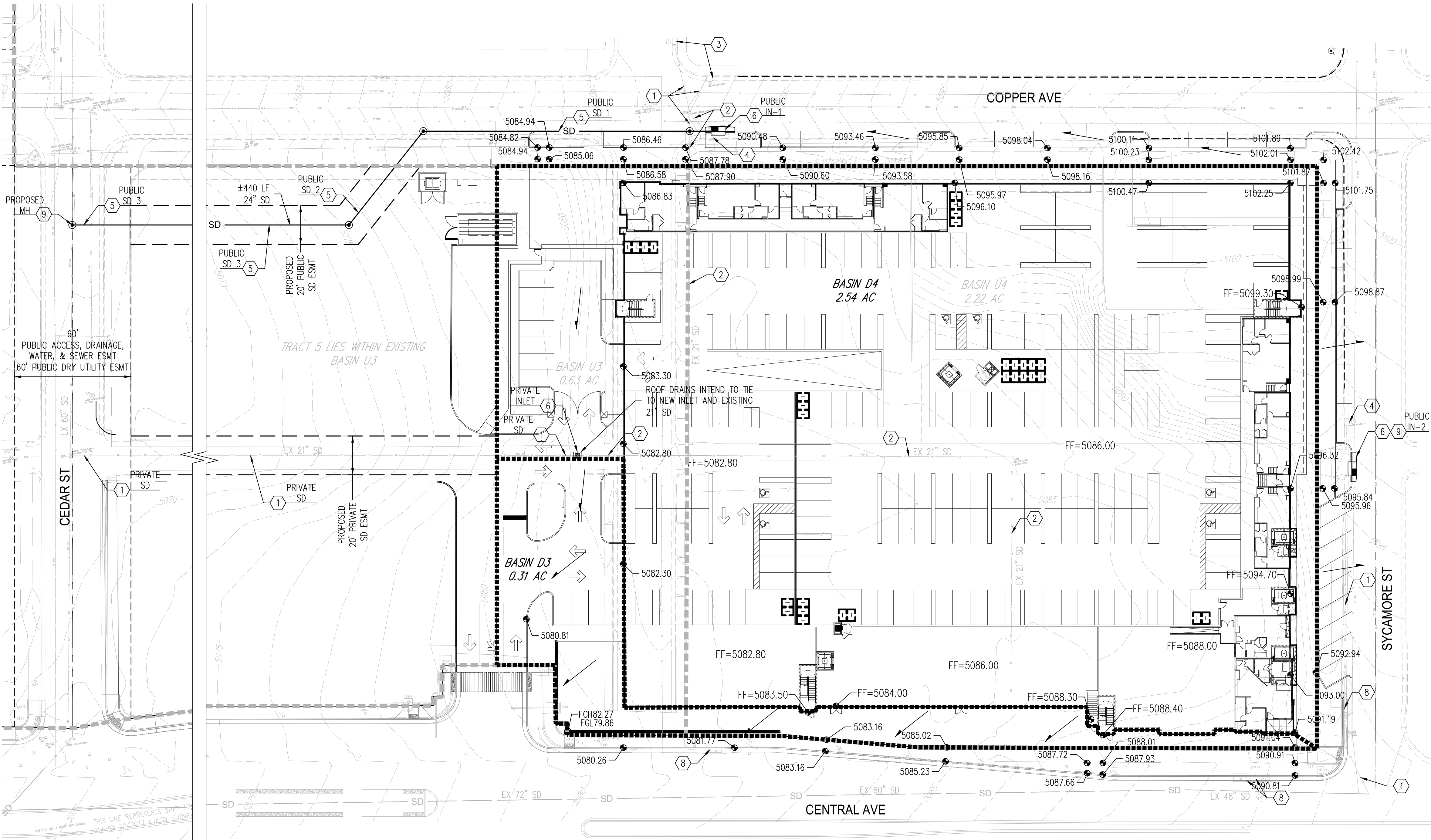
Sincerely,



Mike Balaskovits, PE
Vice President
Community Development and Planning

MJB/egn
Enclosure

FILE: F:\20160155\CDP\Plans\General\20160155_CDP01_EB_SPPB.dwg USER: enwman DATE: Feb, 08 2018 TIME: 02:18 pm



Highlands East Block Development											
Existing Developed Conditions Basin Data Table											
This table is based on the DPM Section 22.2, Zone: 2											
Basin ID	Area	Area	Land Treatment Percentages				Q(100yr)	Q(100yr)	V(100yr)	V _(100yr-6hr)	V _(100yr-24hr)
	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(inches)	(CF)	(CF)
CURRENT ONSITE BASINS											
U3	27585	0.63	0.0%	0.0%	40.0%	60.0%	4.08	2.58	1.72	3963	4515
U4	96664	2.22	0.0%	0.0%	40.0%	60.0%	4.08	9.05	1.72	13887	15821
TOTAL	124249	2.85	-	-	-	-	-	11.63	-	17850	20335
CURRENT OFFSITE BASINS											
OS1-COPPER	9143	0.21	0.0%	0.0%	10.0%	90.0%	4.54	0.95	2.02	1540	1814
OS1-SYCAMORE	576055	13.22	0.0%	0.0%	40.0%	60.0%	4.08	53.90	1.72	82760	94281

Highlands East Block Development												
Proposed Developed Conditions Basin Data Table												
This table is based on the DPM Section 22.2, Zone: 2												
Basin ID	Area	Area	Land Treatment Percentages				Q(100yr)	Q(100yr)	V(100yr)	V _(100yr-6hr)	V _(100yr-24hr)	FIRST FLUSH
	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(inches)	(CF)	(CF)	(CF)
PROPOSED ONSITE BASINS												
D3	13390	0.31	0.0%	0.0%	10.0%	90.0%	4.54	1.40	2.02	2255	2657	341
D4	110859	2.54	0.0%	0.0%	10.0%	90.0%	4.54	11.56	2.02	18671	21996	2827
TOTAL	124249	2.85	-	-	-	-	-	12.96	-	20926	24653	35835
												3168

STORM DRAIN PIPE TABLE					
PIPE #	INLET/SD/BASIN	Size in.	Slope	Capacity* cfs	ACTUAL FLOW cfs
SD1	IN-1	24	6.00%	55.41	0.95
SD2	IN-1	24	6.20%	56.33	0.95
SD3	IN-1	24	6.60%	58.12	0.95

*Capacity Based on Manning's Eq w/ N=0.013

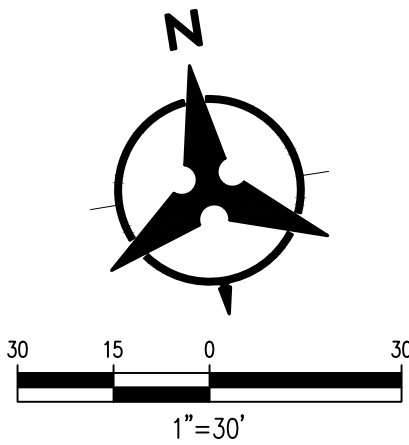
INLET TABLE					
Inlet #	Inlet Type	Basin	Actual Flow (cfs)	Capacity ¹ (cfs)	Bypass Flow (cfs)
IN-1	COA SINGLE A	OS1-COPPER	0.95	1.60	0.00
IN-2	COA SINGLE A	OS1-SYCAMORE	53.90	9.00	44.90

NOTE: The inlet calculations were based on the DPM PLATE 22.3 D-5 GRATING CAPACITIES FOR TYPE "A", "C" and "D"

¹The capacity is calculated based on the depth for the Q₁₀₀ based on the assumed contributing basin area.

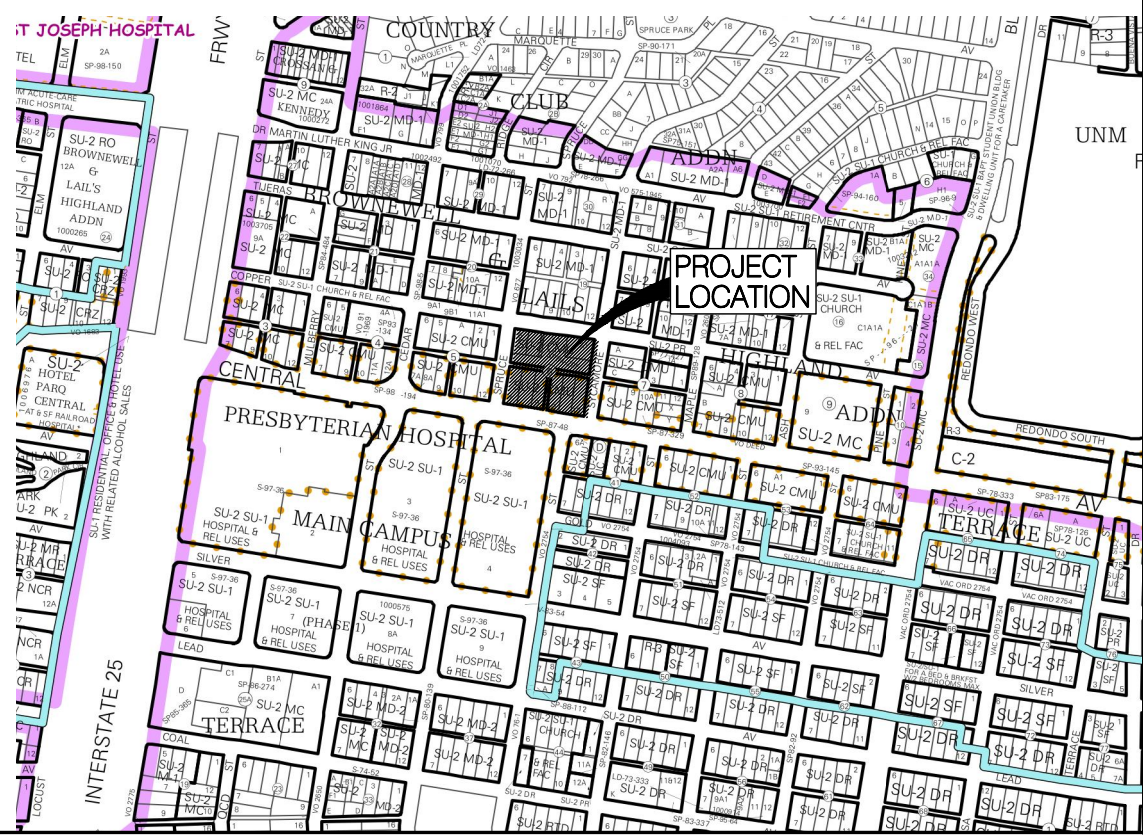
GRADING KEYNOTES

- EXISTING STORM DRAIN TO REMAIN.
- EXISTING STORM DRAIN TO BE REMOVED.
- EXISTING STORM DRAIN INLET TO REMAIN.
- EXISTING STORM DRAIN INLET TO BE REMOVED.
- PROPOSED NEW STORM DRAIN.
- PROPOSED NEW STORM DRAIN INLET.
- STORM DRAIN BY ART PROJECT.
- STORM DRAIN INLETS BY ART PROJECT.
- CONNECT TO EXISTING STORM DRAIN.



VICINITY MAP

ZONE MAP K-15-Z



FEMA FIRM MAP #: 35001C0334G

DRAINAGE NARRATIVE

THIS SITE IS LOCATED AT THE NORTHWEST CORNER OF SYCAMORE ST NE AND CENTRAL AVE NE. IT HAS PREVIOUSLY BEEN DEVELOPED AND SLOPES FROM NORTHEAST TO SOUTHWEST. FINISHED FLOOR ELEVATIONS HAVE BEEN SET TO GENERALLY ADHERE TO EXISTING ELEVATIONS AND PROMOTE POSITIVE DRAINAGE AWAY FROM BUILDINGS. THE SITE IS NOT LOCATED IN A DESIGNATED FEMA FLOOD ZONE (FEMA FIRM #35001C0334G).

AN EXISTING 21" SD PIPE WHICH RUNS NORTH/SOUTH FROM COPPER ALONG THE OLD SPRUCE ST ALIGNMENT, ACCEPTS FLOW FROM 3 EXISTING INLETS LOCATED AT THE INTERSECTION OF COPPER AVE & SPRUCE ST. THIS EXISTING SD WILL BE IN CONFLICT WITH THE NEW BUILDING AND WILL HAVE TO BE REMOVED AND RELOCATED. THE ULTIMATE OUTFALL IS THE EXISTING 60" SD IN CEDAR. A NEW 24" SD WILL BE CONSTRUCTED ALONG THE COPPER R/W AND A NEW PUBLIC EASEMENT WILL BE GRANTED. THIS IMPROVEMENT WILL BE DONE AS A PART OF THIS PROJECT.

IN ADDITION TO THE SD REALIGNMENT, THE BYPASS FLOWS WHICH WERE BEING CONVEYED ALONG SPRUCE ST WILL BE CAPTURED BY AN ADDITIONAL INLET LOCATED ON COPPER AVE.

THE SITE LIES WITHIN TWO EXISTING BASINS, U3 & U4. BASIN U3 IS A PART OF A LARGER BASIN THAT SURFACE DRAINS TO AN INLET IN COPPER AVE AND IS DISCHARGED INTO AN EXISTING 21" SD THAT HEADS WEST UNDERNEATH I-25. BASIN U4 DISCHARGES INTO THE EXISTING 21" STORM DRAIN ONSITE THAT ULTIMATELY DISCHARGES INTO THE 60" SD WITHIN CEDAR AVE. THE PROPOSED BASINS, D3 & D4, STILL CONTRIBUTE TO THOSE TWO OUTFALL POINTS WITH REDUCING FLOW FROM CONTRIBUTING TO THE 21" SD IN COPPER.

THE SITE WILL REMAIN DEVELOPED, ALLOWING 100% OF THE PROPOSED FLOW TO REMAIN GENERALLY UNCHANGED FROM THE HISTORICALLY DEVELOPED FLOW. THE DRAINAGE FROM THE BUILDING WILL BE HARD PIPED INTO A PROPOSED STORM DRAIN WHICH ULTIMATELY CONNECTS TO AN EXISTING 21" SD WEST OF THE SITE AND DISCHARGES INTO A 60" SD IN CEDAR ST. ROOF DRAINS WILL ALSO BE HARD PIPED INTO THE INLETS AT CENTRAL AVE.

GRADING LEGEND

---	PROPERTY LINE	=====	PROPOSED CURB & GUTTER
---	PROJECT LIMITS OF GRADING	=====	DIRECTION OF FLOW
---	EXISTING INDEX CONTOUR	=====	WATER BLOCK/GRADE BREAK
---	EXISTING INTERMEDIATE CONTOUR	=====	PROPOSED STORM DRAIN LINE
5025.25	EXISTING GROUND SPOT ELEVATION	=====	PROPOSED STORM DRAIN MANHOLE
5025	PROPOSED INDEX CONTOUR	=====	PROPOSED STORM DRAIN INLETS
5024	PROPOSED INTERMEDIATE CONTOUR	=====	PROPOSED RETAINING WALL
5025.25	PROPOSED FINISHED GRADE SPOT ELEVATION	-----	EASEMENT
5024	TO=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK, TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW	=====	EXISTING BASIN BOUNDARY
		=====	PROPOSED BASIN BOUNDARY

BROADSTONE EAST-BLOCK

NEC EAST CENTRAL AVE AND SPRUCE ST NE ALBUQUERQUE, NEW MEXICO



WorldHQ@ORBArch.com



PRELIMINARY
NOT FOR
CONSTRUCTION

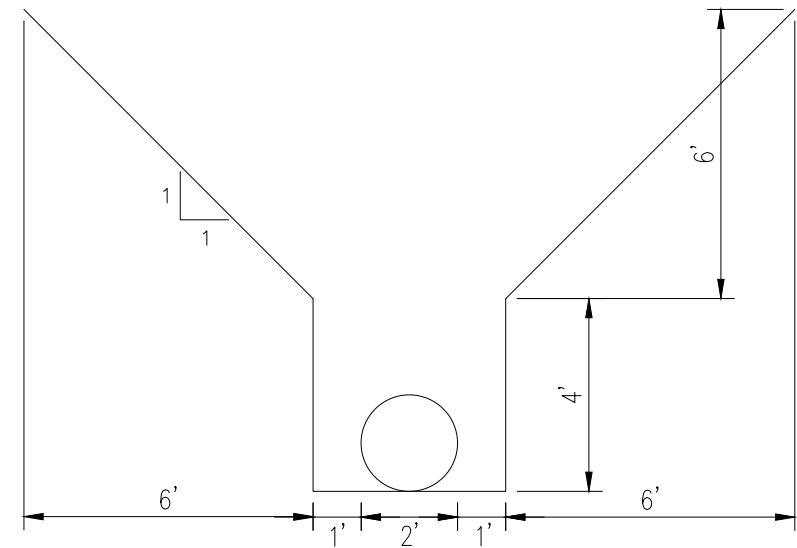
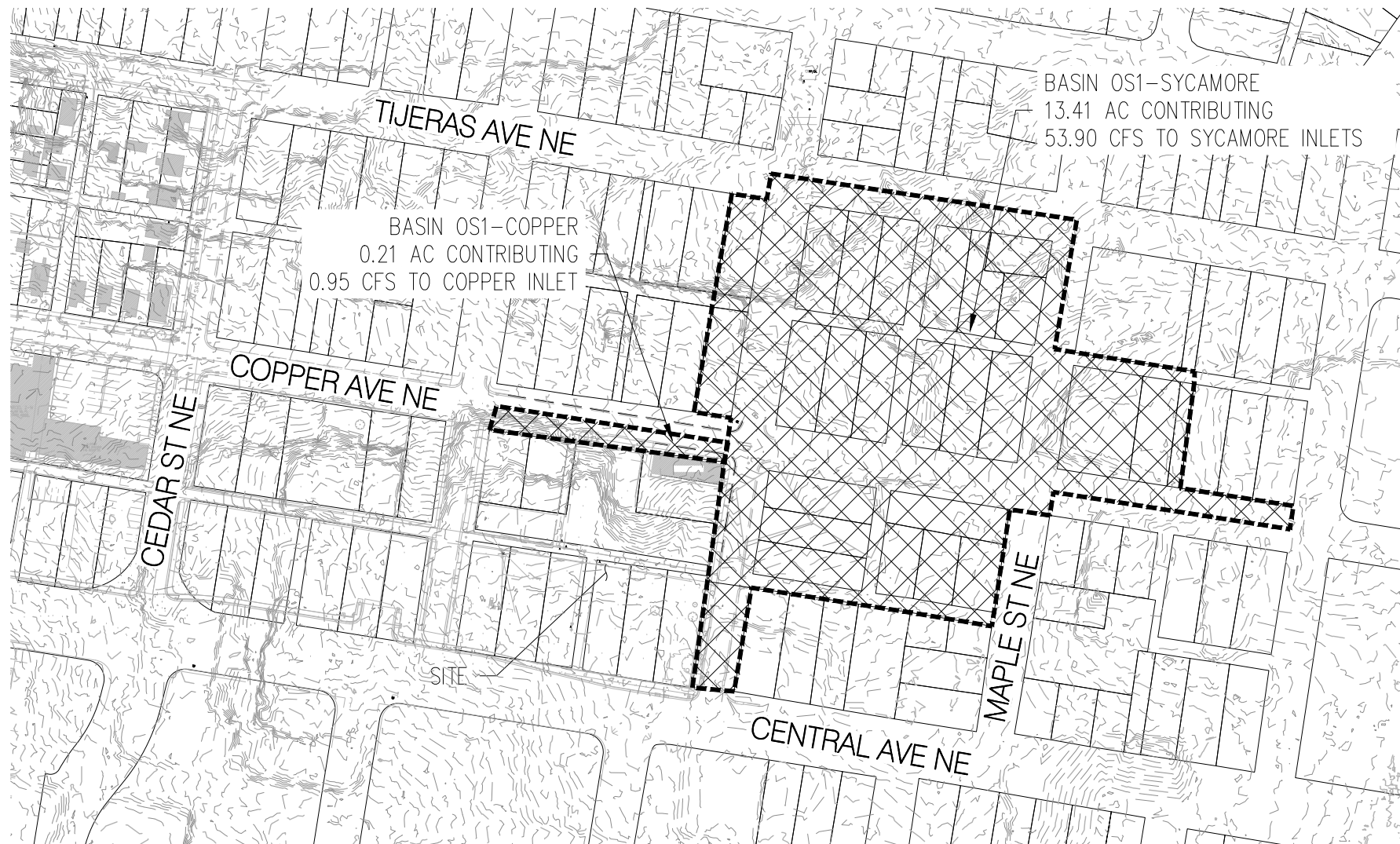
REVISIONS

1	
2	
3	
4	
5	
6	

DATE: JANUARY 23, 2018 ORB # 16-213

C1.00

CONCEPTUAL
GRADING & DRAINAGE PLAN

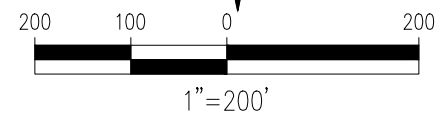


TRENCH PRISM AT DEEPEST INVERT

LEGEND

----- OFFSITE BASIN LIMITS

Bohannon  **Huston**



**BROADSTONE HIGHLANDS
EAST BLOCK**

**CONCEPTUAL GRADING & DRAINAGE SUBMITTAL
SUPPLEMENTAL INFORMATION**

DRAWN BY:	EGN	DATE:	02/07/2018
CHECKED BY:	MJB	PROJECT NO.	20160155
		SHEET NO.	1 of 1