CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

July 19, 2018

David Aube, P.E.
Hartman & Majewski Design Group
120 Vassar Dr SE, Suite 100
Albuquerque, NM, 87106

RE: Sawmill Market
1909 Bellamah NW
Grading and Drainage Plan
Engineer's Stamp Date: 7/11/18
Hydrology File: J13D017A

Dear Mr. Aube:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based on the submittal received 07/11/2018, the Grading and Drainage Plan **is not** approved for Building Permit or SO-19 Permit. The following comments need to be addressed for approval of the above referenced project:

Prior to Building Permit/SO-19 Permit:

1. Per the DPM Chapter 22 Section 7: *Grading Plan Checklist*, 24"x36" is currently the City's standard. This applies to all site plans, Grading & Drainage Plans, Traffic Circulation Plans, DRC Plans etc.

2. The SO-19 work needs to be clearly defined. Please callout the sidewalk culverts and provide dimensions, inverts in, inverts out, and reference Std Dwg 2236 for their construction.

3. Add note on the grading plan that "No work shall be performed in the public ROW without an approved Work Order or Excavation Permit."

4. The ponds described on the drainage plan need to be shown on the grading plan, supported with proposed contours, spot elevations, top of pond elevations, and bottom of pond elevations.

5. Build notes for the areas of new paving, paving to remain, gravel-pave, and concrete work also need to be provided on the grading plan. Alternatively, if a separate paving plan was prepared to describe this work, please provide it.

6. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).

7. A Private Facility Drainage Covenant is required for the stormwater quality ponds. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.

Prior to Certificate of Occupancy (For Information):

8. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

9. The sidewalk culverts must be inspected and approved by storm drain maintenance (Jason Rodriguez, jtrodriguez@cabq.gov or 857-8607).

10. The Private Facility Drainage Covenant must be recorded with Bernalillo County and a copy included with the drainage certification.

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

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

1706

City of Albuquerque

Planning Department
Development & Building Services Division
DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: SAWMILL MARKET Building Permit #: ______ Hydrology File #: J13D017A
DRB#: ______ EPC#: ______ Work Order#: ______
Legal Description: TRACTS 340A2A1C, 340A2A1A2B, and 340A2A2B MAP 35
City Address: 1909 Bellemah

Applicant: Heritage Hotels and Resorts Contact: Jason Cosyleon
Address: 201 Third Street NW Suite 1140
Phone#: 505-836-6700 Fax#: ______ E-mail: jcosyleon@hhandr.com

Other Contact: The Design Group Contact: Dave Aube
Address: 120 Vassar Street Se Suite 100
Phone#: 505-998-6430 Fax#: 505-242-6881 E-mail: daube@designgroupnm.com

TYPE OF DEVELOPMENT: ___ PLAT ___ RESIDENCE ___ DRB SITE _✓_ ADMIN SITE

Check all that Apply:

DEPARTMENT:
_✓_ HYDROLOGY/ DRAINAGE
___ TRAFFIC/ TRANSPORTATION

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?

IS THIS A RESUBMITTAL?: _✓_ Yes ___ No

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: 7-11-18 By: David Aube

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ______

FEE PAID: ______

SAWMILL MARKET, PHASE 1

I. PURPOSE AND SCOPE

The purpose of this drainage plan is to present the existing and proposed drainage management plans for the proposed Sawmill Market Facility located at the NE Corner of Bellamah Avenue NW and 19th Street NW. The site is located in Zone Atlas Page H–13–Z. The site is currently fully developed and was the former site for Paxton Lumber.

II. SITE DESCRIPTION AND HISTORY

The site has been previously developed with a large warehouse for Paxton Lumber. The building is currently vacant, but surrounding asphalt pavement is still in good condition.

III. COMPUTATIONAL PROCEDURES

Hydrologic analysis was performed utilizing the design criteria found in the COA–DPM Section 22.2 released in June 1997.

IV. PRECIPITATION

The 100–yr. 6–hr duration storm was used as the design storm for this analysis. This site is within Zone 2 as identified in the DPM Section 22.2. Tables within the section were used to establish the 6–hr precipitation, excess precipitation and peak discharge.

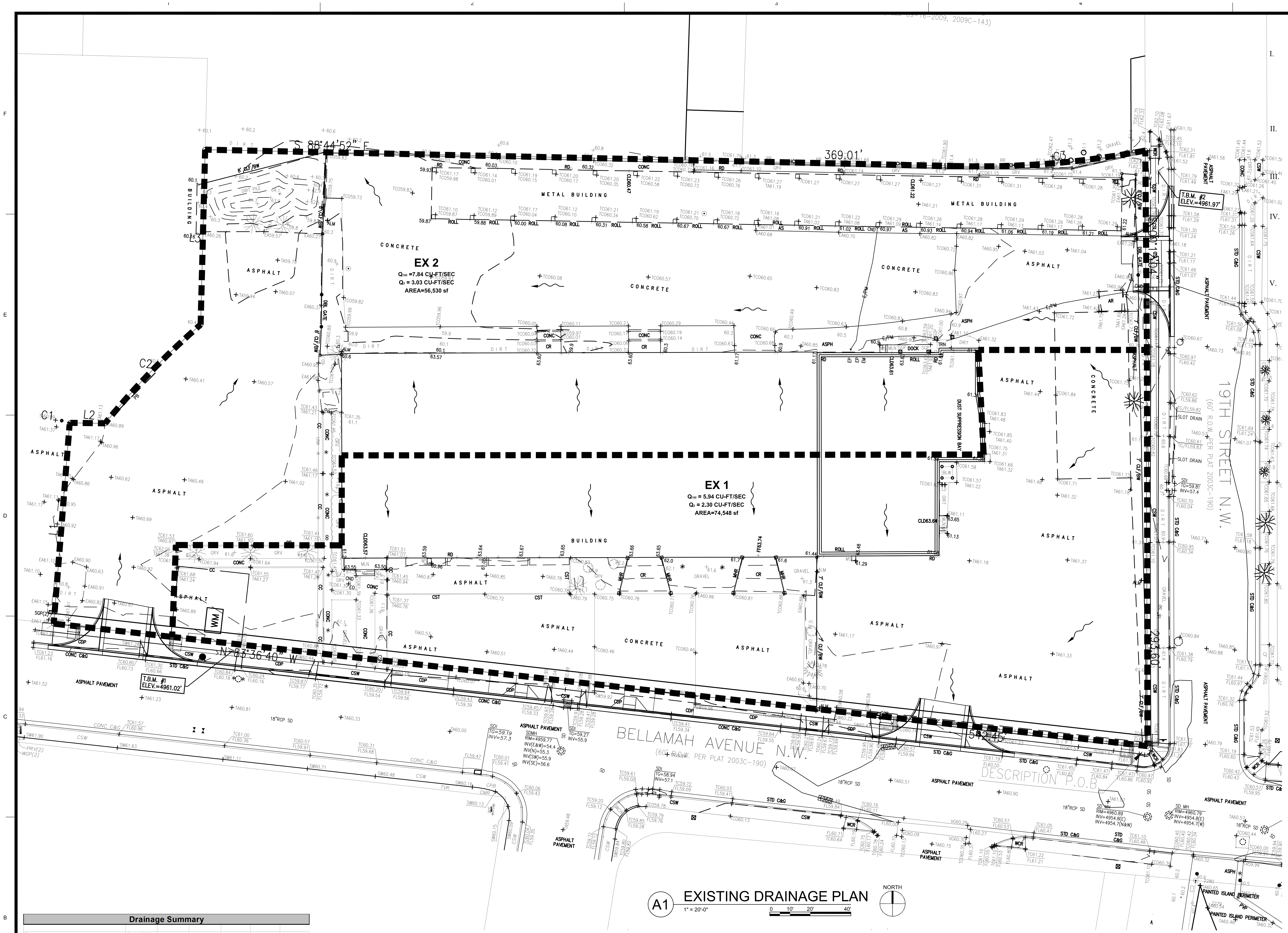
V. EXISTING DRAINAGE CONDITIONS OVERVIEW

The existing site is divided into two drainage basins. One basin drains toward the south into Bellamah Avenue NW. The basin contains ½ of the roof area as well as the parking and drive lanes on the southern parts of the site. This basin identified in the plan as EX1 contains 56,530sf and generates a peak runoff rate of 5.94cfs into Bellamah Avenue NW. This discharge is divided between the multiple driveways along the southern edge. For the purpose of this report we have used the discharge into Bellamah as an Analysis Point even though it is discharge through multiple driveways.

The second basin contains the north ½ of the building roof area, as well as parking areas and drive lanes. Basin EX2 drains toward the north west corner of the site and discharges into the old Railroad ROW at that corner. Basin EX2 contains a total of 74,548sf and generates a peak discharge of 7.84cfs.

Currently there are no on–site ponding areas to reduce the excess storm runoff. The Northwest corner of the site contains a mound of soil that will be removed during the construction activities proposed by this project.

Per FEMA, the site is in a Zone X (recurrence period of 500 years). Areas to the north and south have defined flooding depths, but those defined AH Zones to not touch the subject property.



A1 EXISTING DRAINAGE PLAN
1" = 20'-0"

Drainage Summary

Project:	Sawmill Market	
Project Numbe:	2543	
Date:	03/30/18	
By:	Dave A	
Site Location	1903 Bellamah Avevnue NW	
Precipitaion Zone	2	Per Table A-1 COA DPM Section 22.2
Existing summary		
Basin Name	EX 1	EX 2
Area (sf)	56530	74548
Area (acres)	1.30	1.71
%A Land treatment	0	0
%B Land treatment	5	5
%C Land treatment	0	0
%D Land treatment	95	95
Soil Treatment (acres)		
Area "A"	0.00	0.00
Area "B"	0.06	0.09
Area "C"	0.00	0.00
Area "D"	1.23	1.63
Excess Runoff (acre-feet)		
100yr. 6hr.	0.2220	0.2928
10yr. 6hr.	0.1392	0.1835
2yr. 6hr.	0.0813	0.1072
100yr. 24hr.	0.2631	0.3470
Peak Discharge (cfs)		
100 yr.	5.94	7.84
10yr.	3.93	5.19
2yr.	2.30	3.03

Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

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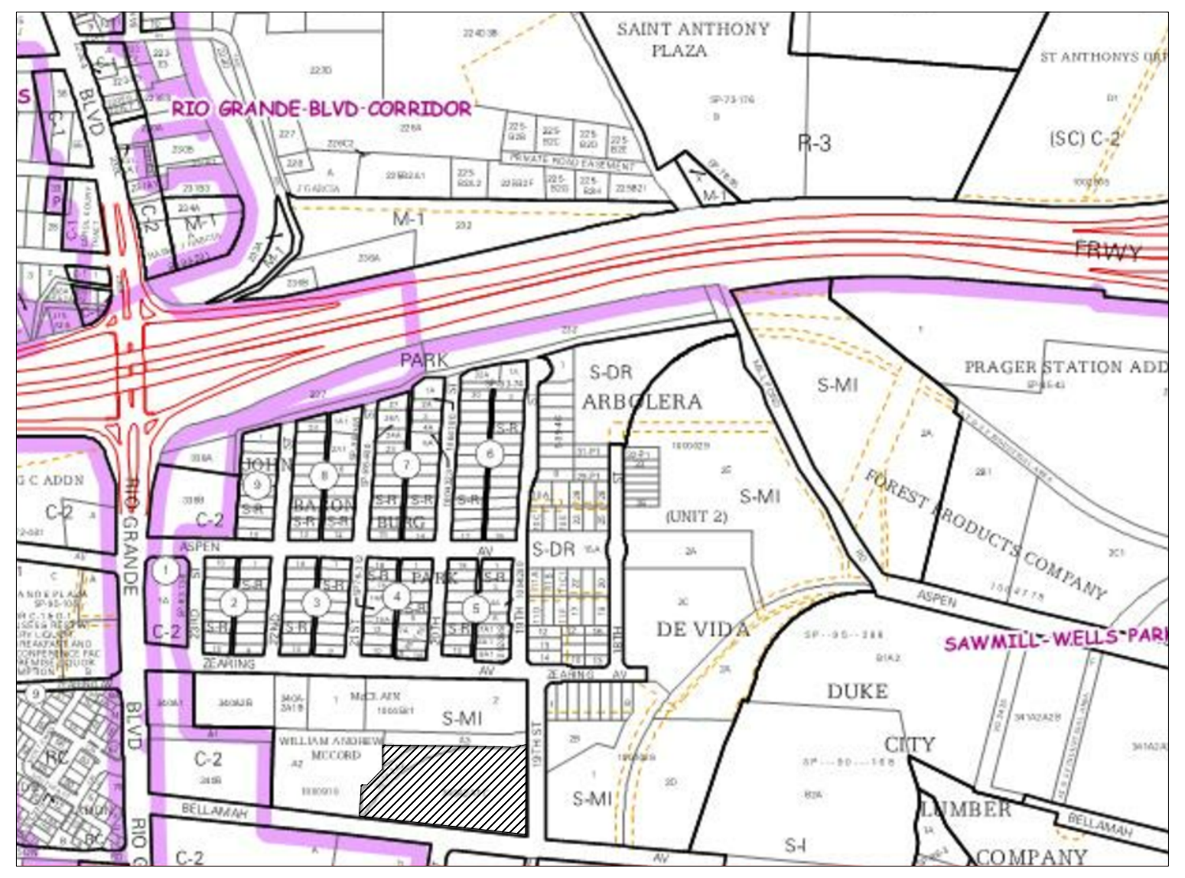
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact New Mexico One Call, dial "811" [or (505) 260-1990] for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets may be required on a 24-hour basis.
8. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

B5 FEMA FLOOD MAP
SCALE: NOT TO SCALE



A5 ZONE ATLAS PAGE
SCALE: NOT TO SCALE

HERITAGE
HOTELS & RESORTS, INC

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ARCHITECT

201 THIRD STREET NW
SUITE 1140
ALBUQUERQUE, NM
87102

505.212.9148

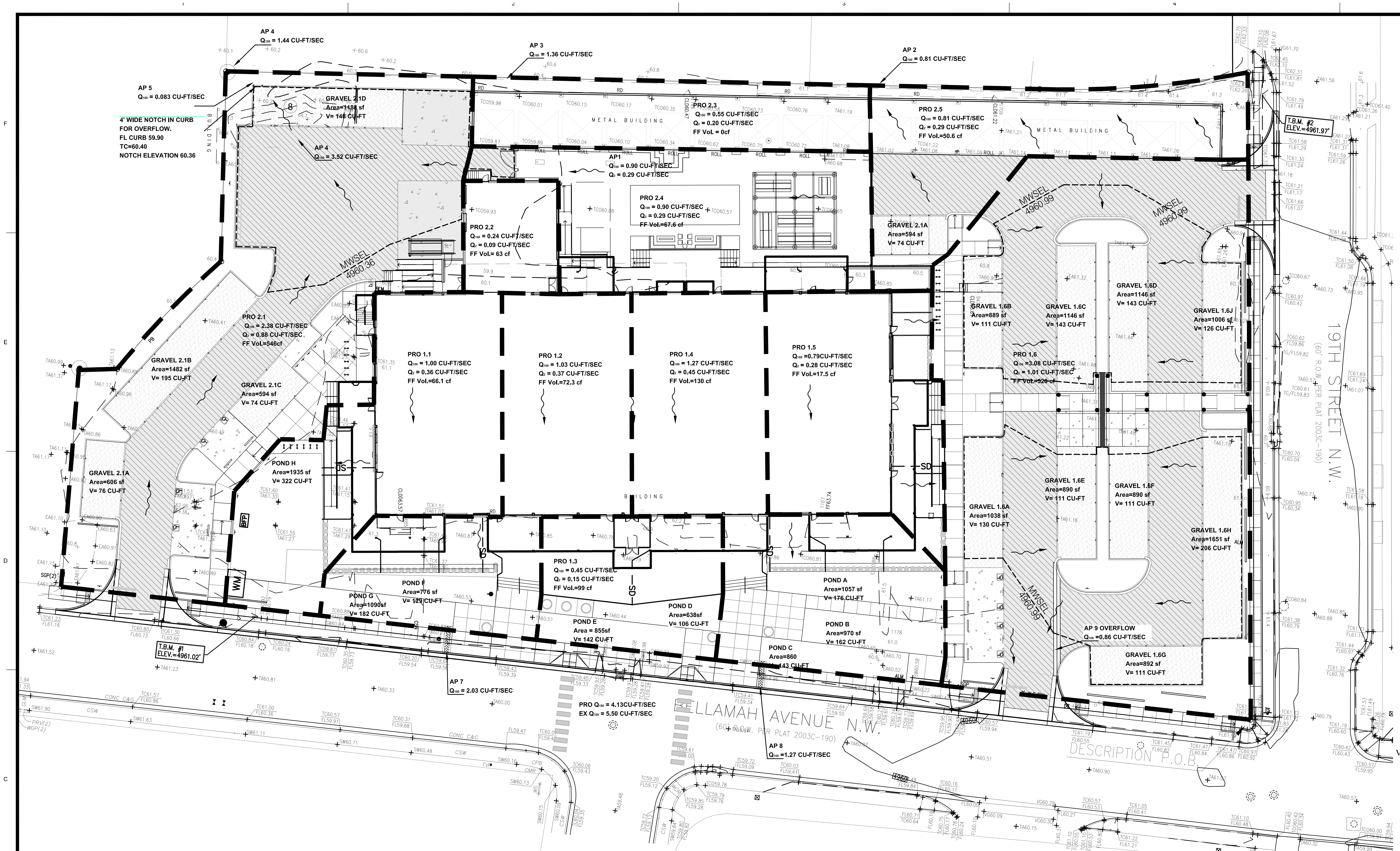
Consultant

Stamp

DAVID A. AUBE
14221
7-11-18

SAWMILL MARKET, PHASE 1
SITE, SHELL, COMMON AREAS
1909 BELLAMAH AVENUE NW
ALBUQUERQUE, NEW MEXICO

Date	7-11-2018
Revised	
Drawn by	DAA
Checked by	DAA
Scale	1"=30'
Sheet Title	EXISTING DRAINAGE PLAN
Job Number	-
Sheet No.	CD1



A1 PROPOSED DRAINAGE PLAN

1" = 20'-0"

0 10' 20' 40'

NORTH

Drainage Summary												
Project:	Sawmill Market											
Project Numbe:	2543											
Date:	03/30/18											
By:	Dave A											
Site Location	1903 Bellamah Avevnue NW											
Precipitaion Zone	2	Per Table A-1 COA DPM Section 22.2										
Proposed summary												
Basin Name	Pro 1.1	Pro 1.2	Pro 1.3	Pro 1.4	Pro 1.5	Pro 2.1	Pro 2.2	Pro 2.3	Pro 2.4	Pro 2.5	Pro 1.6	
Area (sf)	10355	10629	4977	13172	8211	24095	2210	5562	9840	8370	33639	
Area (acres)	0.238	0.244	0.114	0.302	0.188	0.553	0.051	0.128	0.226	0.192	0.772	
%A Land treatment	0	0	0	0	0	0	0	0	0	0		
%B Land treatment	20	20	30	20	20	10	0	15	10	15	10	
%C Land treatment	0	0	0	0	0	10	0	0	30	7	30	
%D Land treatment	80	80	70	80	80	80	100	85	60	78	60	
Soil Treatment (acres)												
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Area "B"	0.05	0.05	0.03	0.06	0.04	0.06	0.00	0.02	0.02	0.03	0.08	
Area "C"	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.07	0.01	0.23	
Area "D"	0.19	0.20	0.08	0.24	0.15	0.44	0.05	0.11	0.14	0.15	0.46	
Excess Runoff (acre-feet)												
100yr. 6hr.	0.0367	0.0377	0.0164	0.0467	0.0291	0.0870	0.0090	0.0204	0.0318	0.0296	0.11	acre-ft.
10yr. 6hr.	0.0223	0.0229	0.0097	0.0284	0.0177	0.0531	0.0057	0.0126	0.0186	0.0180	0.06	acre-ft.
2yr. 6hr.	0.0126	0.0129	0.0053	0.0160	0.0100	0.0299	0.0033	0.0072	0.0098	0.0101	0.03	acre-ft.
100yr. 24hr.	0.0430	0.0442	0.0190	0.0547	0.0341	0.1017	0.0107	0.0240	0.0363	0.0346	0.12	acre-ft.
Peak Discharge (cfs)												
100 yr.	1.00	1.03	0.45	1.27	0.79	2.38	0.24	0.55	0.90	0.81	3.08	cfs
10yr.	0.64	0.66	0.28	0.82	0.51	1.54	0.16	0.36	0.56	0.52	1.92	cfs
2yr.	0.36	0.37	0.15	0.45	0.28	0.86	0.09	0.20	0.29	0.29	1.01	cfs
Exisitng Roof Area or paving to remain	5950	5950	0	5950	5950	0	0	4727.7	3518	4741.6	0	
First Flush Ponding Voulme (cf)	66.1	72.3	98.7	130.0	17.5	546.2	62.6	0.0	67.6	50.6	571.9	
Excess Runoff (Cubic feet)	1598	1640	713	2033	1267	3789	390	889	1385	1290	4735	
Allowed Free Discharge	1051	1051		1051	1051			889	1235	838	0	
Volume to be detained to 0.1 cfs	547	589	713	982	216	3789	390	0	150	452	4735	

VI. DRAINAGE MANAGEMENT PLAN

The site overall drainage patterns will change slightly with the reconstruction. The main difference being created by modifying the roof of the buildings to slope entirely to the south side. Formerly the roof was generally flat and sloped both north and south from the middle. A new builT up roof framing will be added to create the ¼" per foot slope and allow for the addition of roof insulation to meet current Energy Codes. This will direct approximately 12,000 sf of roof runoff to the south reducing the flow toward the north west corner.

The Plan also shows areas where the existing building, asphalt pavement, and concrete pavement will be removed to allow for the construction of the patio/terrace surrounding the existing building. The development team has determined that it is preferable to remove the existing asphalt and replace it with a combination of asphalt, concrete and pervious gravel surfaces as on the plans.

Shallow flat terraced ponds are located on the south side of the building. These ponding areas will receive the first flush and excess runoff from the existing roof areas as well as new impervious terrace surfaces.

Basin Pro 1.1 contains ¼ of the existing roof, but also contains portions of the new terrace. This basin will produce an excess runoff amount of 547cf with available ponding (in Ponds G and H) of 504cf. This also contains the first flush volume of 66cf. The remaining 43cf of water will need to be contained in basin 1.6 or 2.1.

Proposed Basin 1.2 also contains a portion of the roof, and terrace creating a excess runoff of 589 cf with available ponding in Pond F of 129cf of which 72cf is used for first flush. The remaining 460 cubic feet will need to be contained in basins 1.6 or 2.1.

Proposed Basin 1.3 is primarily terrace surface and sidewalks along Bellamah. This basin generates 713cf of excess runoff including the 99cf or first flush. Available ponding in Ponds D and E is limited to 248f, and the remaining 465 cf of excess runoff will need to be contained in basins 1.6 and 2.1.

Proposed Basin 1.4 also contains a portion of the roof, and terrace creating a excess runoff of 932cf with available ponding in Ponds A, B and C of 481cf of which 130cf is used for first flush. The remaining 451cf will need to be contained in basins 1.6 or 2.1.

Proposed Basin 1.5 also contains a portion of the roof, and terrace creating a excess runoff of 216cf with 18cf used for first flush. The basin drains directly into Basin 1.6 and first flush volume and containment of excess runoff will be within Basin 1.6.

VI. DRAINAGE MANAGEMENT PLAN (CONTINUED)

Proposed Basin 1.6 contains a portion of the site where the existing surface was removed and replaced with a mix of concrete, asphalt and gravel parking. This basin generates an excess runoff of 3789cf. Once the ponding volumes are reached the excess runoff will reach the height of a overflow valley gutter allowing the remaining runoff to pass toward Bellamah. The peak runoff from this basin will be the 0.79cfs from the existing roof, plus the 0.07cfs from the new paving restricted to 0.1cfs/acre. Combined this creates a peak runoff into Bellamah of 0.86cfs.

This basin contains many gravel surface parking areas that have been designed to have a total of 6" of gravel (4" below the Gravel Pave2 and 2" within the Gravel Pave) giving a storage volume of 1.5" in each area. The total surface of these sub–areas is 9548sf giving a below the surface of the gravel parking water storage volume of 1194cf.

Excess runoff from Basins Pro 1.1, 1.2, 1.3, 1.4 and 1.5 create an additional ponding volume of 1637cf. When combined with the 3789cf generated within Basin 1.6 the total volume to be detained is 5426cf of which the 1194cf is contained below ground giving a surface water storage volume of 4232cf.

The Max Water Surface Elevation (MWSEL) to contain this volume in the basin is approximately 0.91 inches deep in the outer gravel parking areas and 2.91 inches deep in the central parking stalls. This gives a MWSEL of 4960.97.

A speed table has been included to allow pedestrians to enter the site from 19th street along a surface that is set at 4961.23 (above the MWSEL line). The valet drop off area is also located above the overflow elevation for the ponding area.

Two Sidewalk culverts will be constructed along Ballamah to allow for excess runoff from the shallow ponding areas (Pond C and Pond G). These ponds area sized to contain as much water as possible but will allow passage of the existing roof runoff from the building. Peak runoff from Pond G will be 2.03cfs and Pond C will discharge 1.27cfs.

Combined the peak discharge into Bellamah will be 4.13cfs which is less than current conditions of 5.50cfs.

VI. DRAINAGE MANAGEMENT PLAN (CONTINUED)

Starting at the west side of the site, Pro. Basin 2.1 generates an excess runoff volume of 3789cf of excess runoff. This basin similar to Basin 1.6 has had the asphalt parking removed and replaces with a mix of concrete, asphalt and gravel parking. Ponding within the gravel parking total 493cf with the remainder being contained as surface ponding within the back service yard located at the north west corner of the project site. This basin generates 546cf of First Flush Volume requirements.

Basin Pro 2.2 is a new building addition of 2210sf generating a peak runoff of 0.24cfs and excess runoff of 390cf with first flush volume of 63cf.

Basin Pro 2.3 is an existing roof that flows directly to the north. This location is allowed free discharge and is not subject to first flush requirements.
Basin Pro 2.4 is the back patio area of the site. This area contains a concrete slab that will be overtopped with crusher fines surfaces, artificial turf and in a small area at the terrace will be replaced with new concrete surfacing.
This basin will generate a excess runoff volume of 150cf with a first flush requirements of 68cf. This basin will flow west into Basin Pro 2.1.

Basin Pro 2.5 flows directly north both from the roof surface and the parking areas. To accommodate the built up pavement sections within the back patio areas a water block is being created at the gate location. This basin will generate a first flush volume of 51cf and has capacity of 74cf within the gravel parking area. The excess runoff from this basin is 452cf with 74cf being contained in the parking giving a volume of 378cf that will need to be offset by excess detention in Basin Pro 2.1.

Basin 2.1 has a excess runoff volume of 3789+390+150 378=4707cf. Ponding within the gravel parking accounts for 493cf of this volume, giving 4214cf that will need to be contained surface ponding. The area of the back service yard is 9130sf which will limit the depth of the storm water during the 100 year rainfall event to 0.46' deep.

There will be a header curb to contain the ponding area in the north west corner with a4' wide notch set at the 0.46' deep (4960.36) to set the MWSEL.

VII. CONCLUSIONS

Based on the pre–design conference, ponding areas have been sized to retain both the first flush and excess runoff from the new impervious surfaces. Ponding is located throughout the site in gravel parking areas as well as shallow depressions in the landscaping areas. Excess runoff that cannot be captured by the shallow ponds on the south side of the building from roof and patio/terrace runoff will be detained/retained in the parking areas. The plan has been set to allow for offsetting the location of the ponding and to provide an overall plan that restricts excess runoff from leaving the site.

The peak runoff into Bellamah will be decreased by 1.37 cfs while the discharge at the north–west corner is reduced by 7.40cfs, giving a net reduction in peak discharge of 8.77cfs. Ponding areas have been set to contain the First Flush volume and up to the 100 year 6 hour storm for the new impervious surfaces. Sidewalk culverts will be constructed to convey the excess beyond the retained volume of into Bellamah in two locations. The surface parkign lot on the east side will contain water up to a depth of 2.91" in the center and will flow through a valley gutter as overflow into Bellamah.

The peak discharge has been reduced, runoff from new surfaces are retained on site, excess runoff is restricted to 0.1cfs per acre for the new impervious surfaces.

HERITAGE
HOTELS & RESORTS, INC

ERIC HASKINS, AIA
ARCHITECT

201 THIRD STREET NW
SUITE 1140
ALBUQUERQUE, NM
87102

505.212.9148

Consultant

Stamp

DAVID A. AUBE
14221
7-11-18

SAWMILL MARKET, PHASE 1
SITE, SHELL, COMMON AREAS

1909 BELLAMAH AVENUE NW
ALBUQUERQUE, NEW MEXICO

Date 7-11-2018

Revised

Drawn by DAA

Checked by DAA

Scale 1"=20'

Sheet Title

PROPOSED
DRAINAGE
PLAN

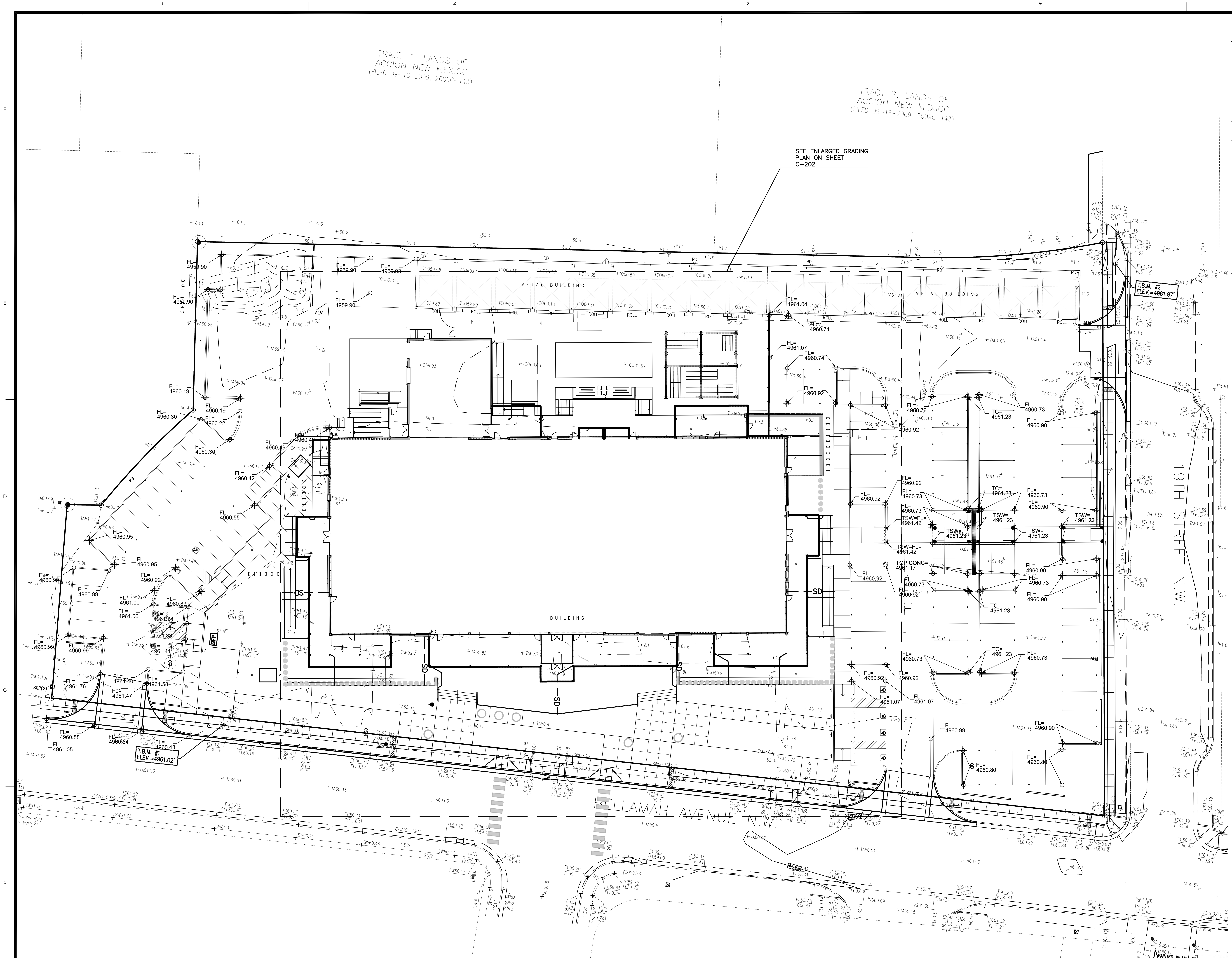
Job Number -

Sheet No.

CD2

GENERAL SHEET NOTES

SHEET KEYED NOTES



NORTH

A1 OVERALL SITE GRADING PLAN

1" = 20'-0"

0 10' 20' 40'

Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

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SUITE 1140
ALBUQUERQUE, NM
87102

505.212.9148

Consultant

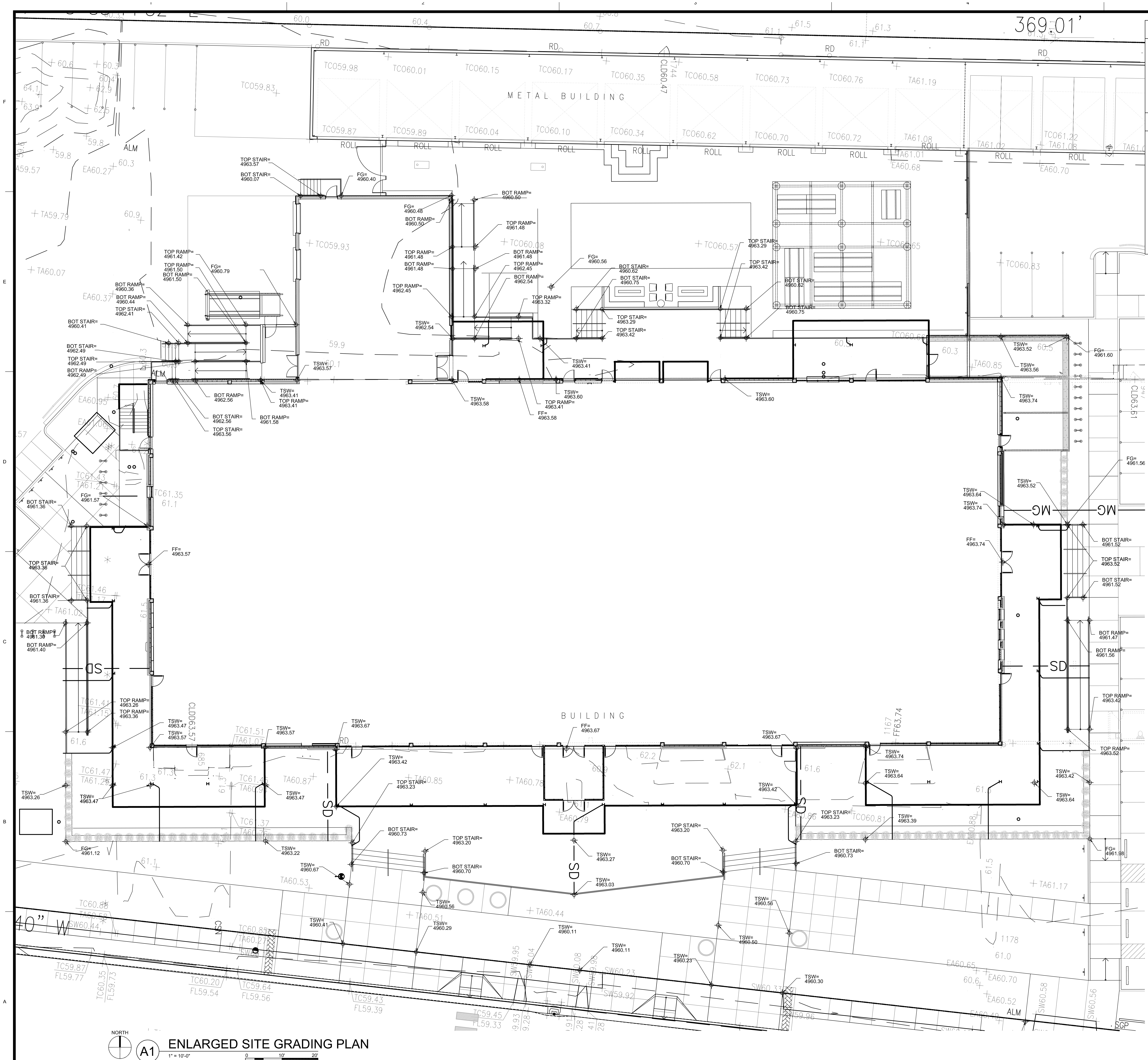
Stamp

DAVID A. AUBE
14271
7-11-18

SAWMILL MARKET, PHASE 1
SITE, SHELL, COMMON AREAS

1909 BELLAMAH AVENUE NW
ALBUQUERQUE, NEW MEXICO

Date	7-11-2018
Revised	
Drawn by	DAA
Checked by	DAA
Scale	1"=20'
Sheet Title	SITE GRADING PLAN
Job Number	-
Sheet No.	C-201



A1 ENLARGED SITE GRADING PLAN

1" = 10'-0"

0 10' 20'

GENERAL SHEET NOTES

SHEET KEYED NOTES

HERITAGE
HOTELS & RESORTS, INC

ERIC HASKINS, AIA
ARCHITECT

201 THIRD STREET NW
SUITE 1140
ALBUQUERQUE, NM
87102

505.212.9148

Consultant

Stamp

DAVID A. AUBE
STATE OF NEW MEXICO
14221
REGISTERED PROFESSIONAL ENGINEER
7-11-18

SAWMILL MARKET, PHASE 1
SITE, SHELL, COMMON AREAS

1909 BELLAMAH AVENUE NW
ALBUQUERQUE, NEW MEXICO

Date	7-11-2018
Revised	
Drawn by	DAA
Checked by	DAA
Scale	1"=20'

Sheet Title

SITE
GRADING
PLAN

Job Number	-
Sheet No.	C-202