From: Carrillo, Abiel X.
To: "Scott Steffen"
Subject: H13D025A - Sawmill Village Phase 2 - SPBP/SPS
Date: Thursday, December 15, 2016 3:45:00 PM

Scott,

Just to formally closeout the submittal for DRB, the Site Plan for Building Permit and Site Plan for Subdivision Plans received 12-02-2016 are approved with the condition that the Work Order address the need for a curb-height water block at the Bellamah entrance.

I will place this email in the file.

Thanks,

Abiel Carrillo, PE, CFM

Principal Engineer - Hydrology
Planning Department
Development Review Services Division
City of Albuquerque
505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: SAWMILL VILLAGE PHASE 2 Building Permit #: _____ City Drainage #: _____

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

Legal Description: Tract "2-D-1" Arbolera de Vida Subdivision

City Address: NWC Bellamah Avenue and 18th Street

Engineering Firm: Bohannan Huston, Inc Contact: Scott Steffen

Address: Courtyard I 7500 Jefferson St. NE Albuquerque NM 87109

Phone#: 505-823-1000 Fax#: 505-798-7988 E-mail: ssteffen@bhinc.com

Owner: _____ Contact: _____

Address: _____

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

Architect: Design Plus Contact: Rupal Engineer

Address: 2415 Princeton NE G.2 Albuquerque NM 87107

Phone#: 505-843-7587 Fax#: _____ E-mail: rupal@designplusabq.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

_____ TRAFFIC/ TRANSPORTATION

_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN

X GRADING PLAN

_____ DRAINAGE MASTER PLAN

_____ DRAINAGE REPORT

_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)

_____ TRAFFIC IMPACT STUDY (TIS)

_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

X OTHER (SPECIFY) Drainage Management Plan

IS THIS A RESUBMITTAL?: _____ Yes X No

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_____ BUILDING PERMIT APPROVAL

_____ CERTIFICATE OF OCCUPANCY

_____ PRELIMINARY PLAT APPROVAL

X SITE PLAN FOR SUB'D APPROVAL

X 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

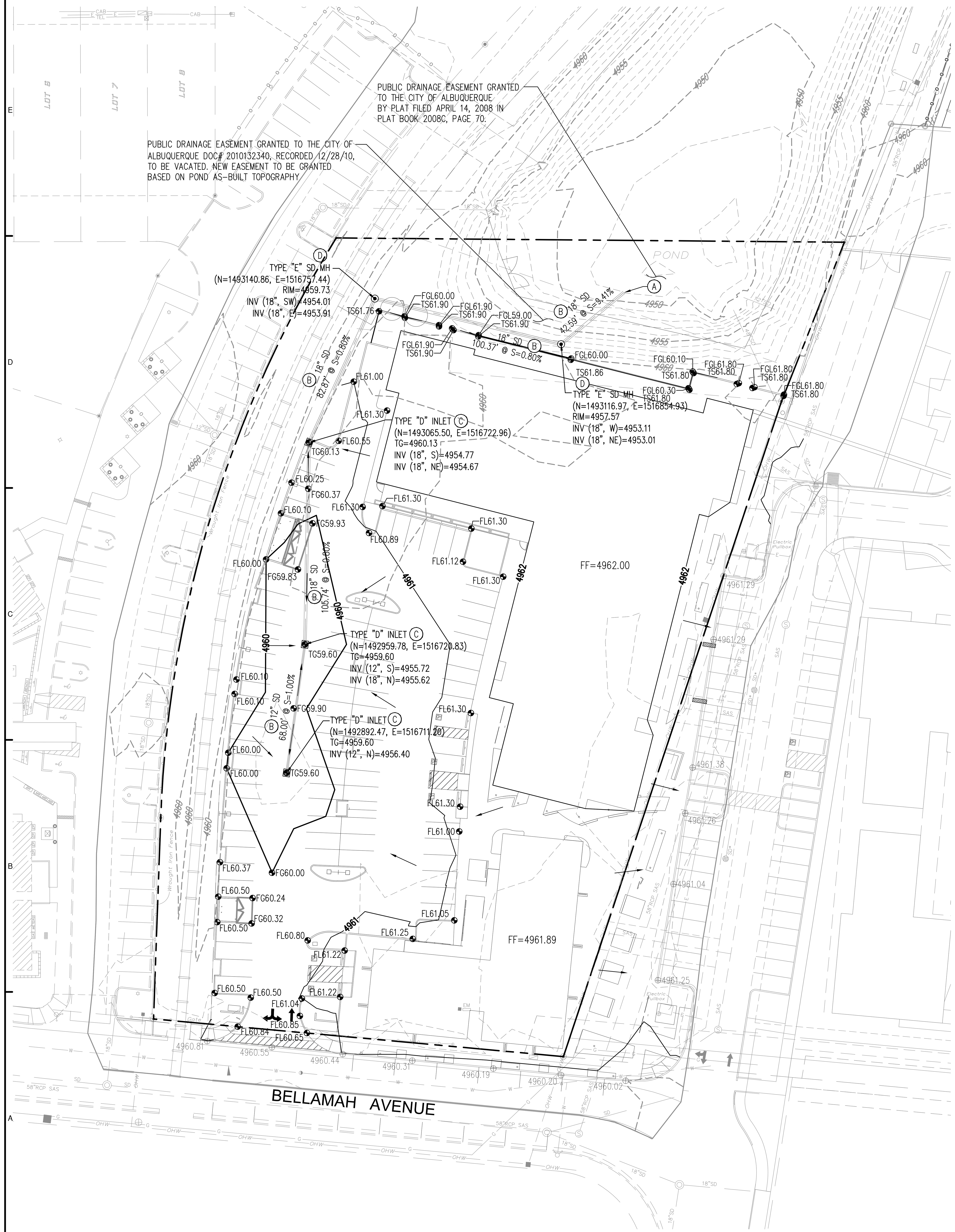
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING

_____ OTHER (SPECIFY) _____

DATE SUBMITTED: 12/02/16 By: Scott J Steffen, PE

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___



GRADING NOTES

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.

2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.

3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).

4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.

5. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.

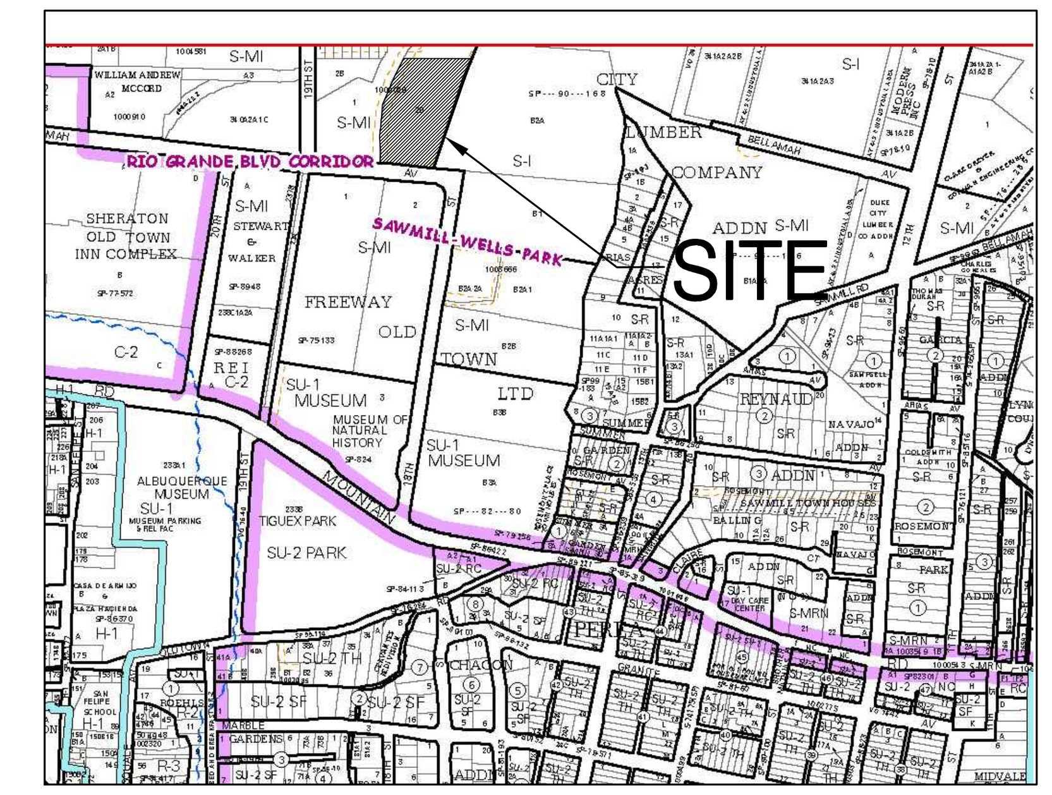
6. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.

7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

8. PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.

9. ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDIANS AND ISLANDS.

10. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.



VICINITY MAP
ZONE ATLAS PAGE J-13-Z

GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT. WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY.

2. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.

3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

4. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.

5. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.

6. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.

7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.

9. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).

10. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.

11. THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE CITY OF ALBUQUERQUE, TRAFFIC ENGINEERING DEPARTMENT, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.

12. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.

13. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.

14. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.

LEGEND

- PROPERTY LINE
- 5301 EXISTING CONTOURS
- 5301.15 EXISTING GROUND SPOT ELEVATION
- 96.25 PROPOSED SPOT ELEVATION
  TC=TOP OF CURB, FL=FLOW LINE
  TW=TOP OF WALL, BW=BOTTOM OF WALL
  EX=EXISTING, TG=TOP OF GRADE
  FGH=FINISH GROUND HIGH SIDE
  FGL=FINISH GROUND LOW SIDE
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- 5305 PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED STORM DRAIN INLET
- PROPOSED MANHOLE
- EXISTING MONUMENT

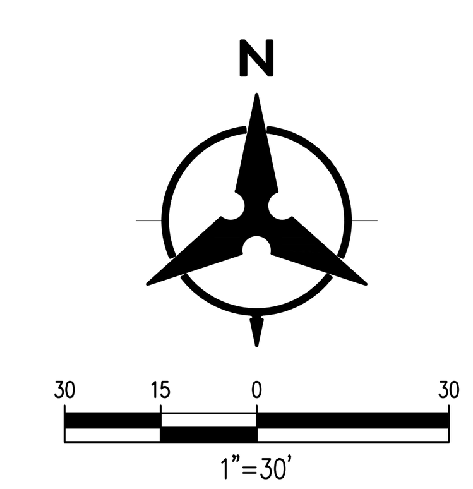
KEYED NOTES

(A) DAYLIGHT PRIVATE STORM DRAIN TO POND WITH RIP RAP BLANKET

(B) HDPE STORM DRAIN, SIZE PER PLAN.

(C) TYPE 'D' INLET PER COA STD DWG 2206

(D) TYPE 'E' STORM DRAIN MANHOLE PER COA STD DWG 2209



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SITE DEVELOPMENT PLAN
FOR BUILDING PERMIT AND SUBDIVISION AMENDMENT
SAWMILL VILLAGE
BELLAMAH AVE NW AND 18TH ST
ALBUQUERQUE, NM

DATE: 9/29/16

REVISIONS

CAD DWG FILE:

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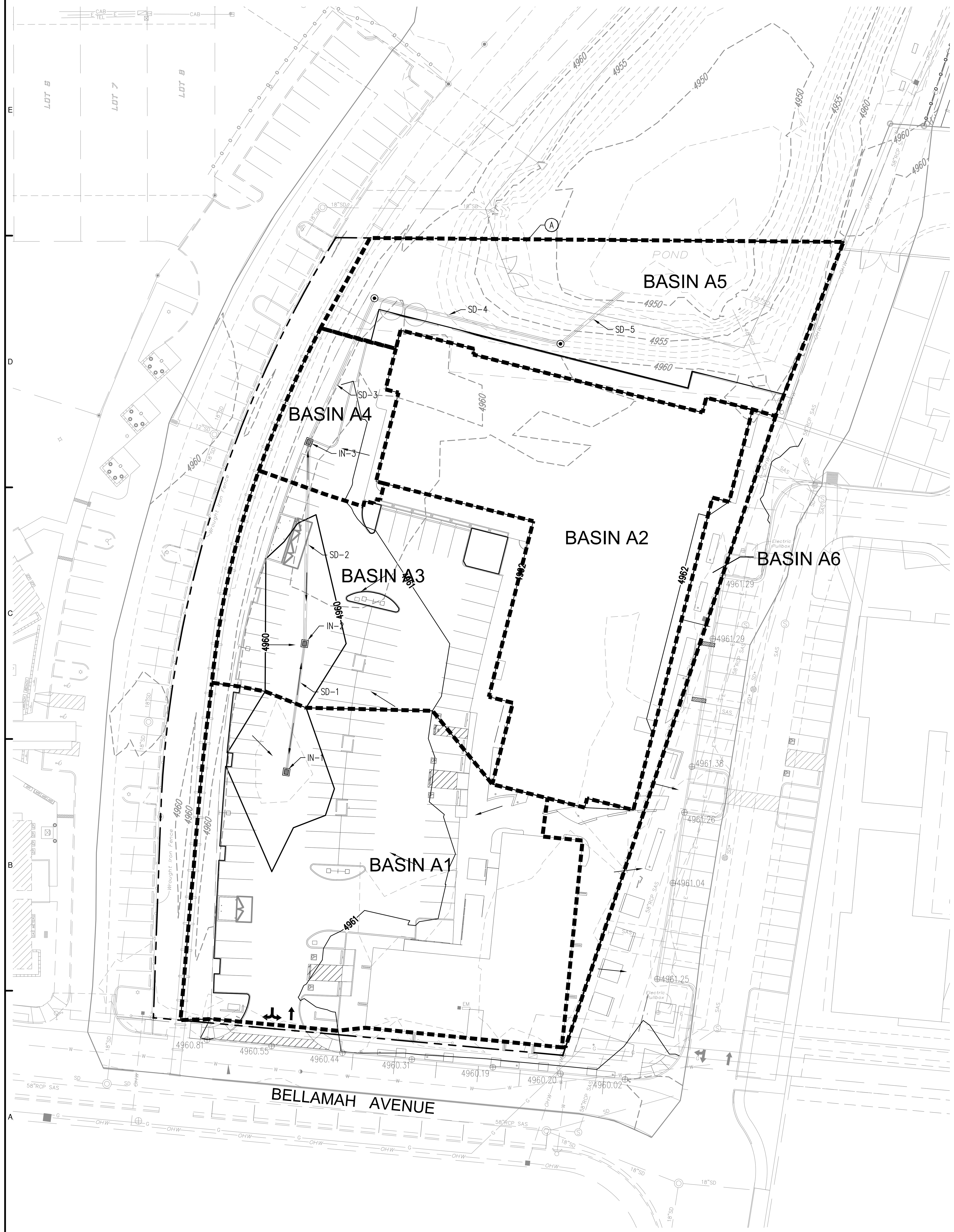
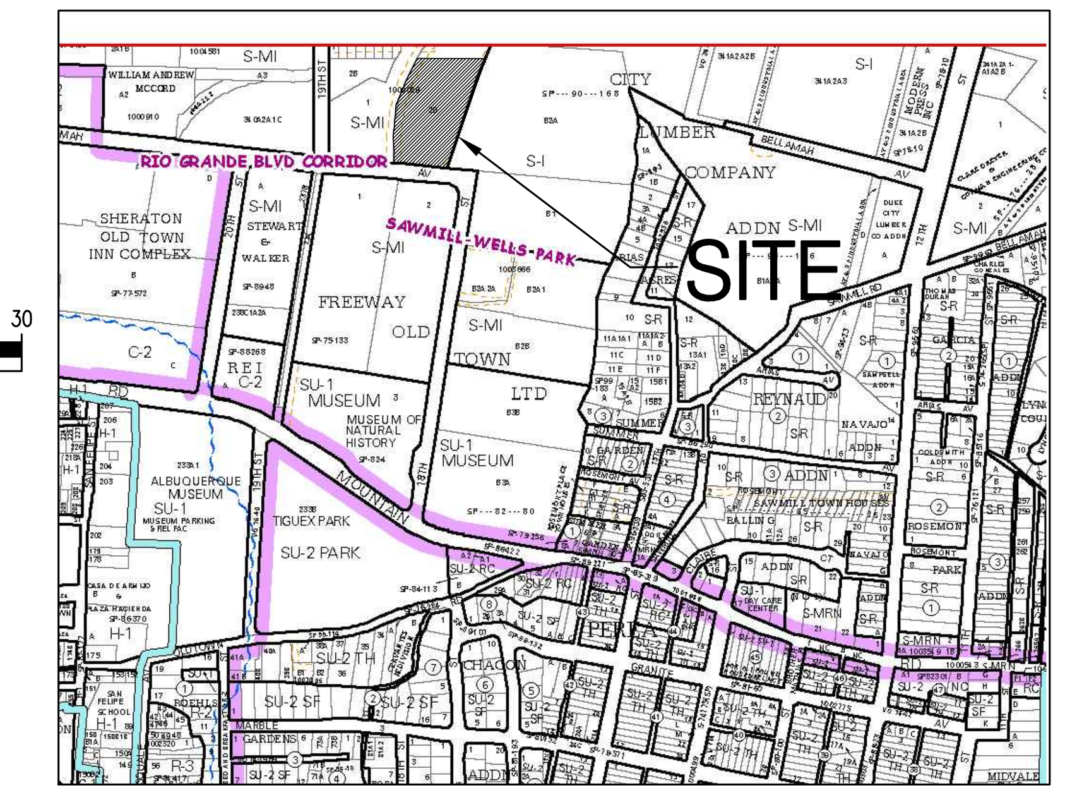
SHEET TITLE

CONCEPTUAL GRADING PLAN

V.3

SHEET SDP 3.0





VICINITY MAP

ZONE ATLAS PAGE J-13-Z

N

1"=30'

STORM DRAIN PIPE TABLE					
PIPE #	INLET/SD/BASIN	Size in.	Slope	Capacity* cfs	ACTUAL FLOW cfs
SD1	IN1	12	1.00%	3.6	3.2
SD2	IN2, SD2, A2	18	0.80%	9.4	7.8
SD3	IN3, SD2	18	0.80%	9.4	8.1
SD4	SD3	18	0.80%	9.4	8.1
SD5	SD5	18	10.40%	33.9	8.1

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

INLET TABLE					
Inlet #	Inlet Type[2]	Basin	Actual Flow (cfs)	Avail Head (ft)	Capacity[3] (cfs)
IN-1	1 - SGL COA TYPE D	A1	3.2	0.3	3.7
IN-2	1 -SGL COA TYPE D	A3	1.8	0.3	3.7
IN-3	1 -SGL COA TYPE D	A4	0.3	0.2	2.8

1. INLETS PLACED IN SUMP CONDITION AND CAPACITIES BASED ON LESSER OF ORIFICE AND WIER EQUATIONS

SAWMILL VILLAGE PHASE 2

Proposed Developed Conditions Basin Data Table

This table is based on the DPM Section 22.2, Zone: 2

Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages A	B	C	D	Q(100yr) (cfs/ac.)	Q(100yr) (CFS)	V(100yr) (inches)	$V_{(100yr-6hr)}$ (CF)	$V_{(100yr-24hr)}$ (CF)	FIRST FLUSH (CF)
ONSITE BASINS												
A1	31243	0.72	0%	10%	0%	90%	4.5	3.2	2.0	5171	6108	797
A2	25757	0.59	0%	0%	0%	100%	4.7	2.8	2.1	4550	5409	730
A3	17199	0.39	0%	5%	0%	95%	4.6	1.8	2.1	2942	3487	463
A4	4471	0.10	0%	54%	0%	46%	3.4	0.3	1.4	522	591	59
A5	16846	0.39	0%	0%	86%	14%	3.4	1.3	1.3	1787	1868	69
A6	5021	0.12	0%	5%	0%	95%	4.6	0.5	2.1	859	1018	135
TOTAL	**100537**	**2.31**	-	-	-	-	-	**10.0**	-	**15831**	**18481**	**2252**

GRADING AND DRAINAGE NARRATIVE

Site Location and Background Information

The purpose of this submittal is to present a grading and drainage plan for the proposed Sawmill Village Phase 2 development located at the northwest corner of Bellamah Avenue and 18th Street. The site legal description is Tract 2–D–1, Arbolera De Vida Subdivision. The proposed development will include two buildings and associated parking and plaza areas. Building A1 is a mixed use building with retail and active use spaces on the ground floor and residential apartments on the second and third floors. Building A2 is a proposed two story Charter School.

The Sawmill Unit 2 Master Drainage Plan,"Drainage Report for Arbolera de Vida Unit 2 (aka Sawmill)" by Bohannan Huston Inc., dated October 16, 2003, and amended on February 24, 2005, allows for free discharge from the proposed development to Sawmill Pond 2 (City Hydrology file: H13–D25). The Sawmill Village Drainage Plan by Bohannan Huston, Inc., dated May 13, 2008, incorporated Sawmill Village Phase 1 into the Sawmill Master Drainage Plan (City Hydrology file: H13–D25A). The Sawmill Village Drainage Plan modified Pond 2 to accept runoff from Phase 1 to be in compliance with the guidelines and recommendations set forth in the Master Drainage Plan. This grading and drainage plan is submitted in support of Hydrology approval for site development plan approval.

Methodology

Section 22.2 of the City of Albuquerque Development Process Manual was used to analyze the site hydrology. The site is in rainfall zone 2 as defined by figure A–1 of the DPM section 22. The onsite storm drain was sized based on Manning's Equation. The onsite storm drain inlets were sized based on the inlets being in a sump condition.

Existing Conditions

The site is currently undeveloped land that has been previously disturbed, with an existing slope across the site of less than 1% from southeast to northwest. Sawmill Pond 2 encroaches on the northern portion of the site, which is encumbered by a drainage easement for the pond. Except for flows entering the pond, there are no offsite flows entering the site that will impact the proposed development. The site is slightly higher than Bellamah Avenue to the south, Sawmill Village Phase 2 to the east, the railroad bed to the west and Pond 2 to the north.

Proposed Conditions

The site is divided into 6 onsite drainage basins based on the proposed grading plan and roof drainage. Basins A1, A3 and A4 drain via the parking lot to a proposed private storm drain system that conveys flows to Pond 2. Basin A2 encompasses the roof for Building 2. The roof drains from Building 2 will connect directly to the storm drain system. Basin A5, which includes the sidewalk on the north side of Building 2 and that portion of Pond 2 that encroaches into the site, drains via surface flow into Pond 2.

Basin A6 encompasses the plaza area on the east side of Buildings A1 and A2, which drains to the existing Sawmill Village Phase 1 parking area to the east of the site. An existing storm drain will collect the flow from Basin A6 and convey it to Pond 2. Basins 8 and 13 of the Sawmill Village Drainage Plan allow for flows from the site to drain east into this existing storm drain, which was constructed with Phase 1.

Pond 2 is sized for a 100yr 24hr volume per the Sawmill Master Drainage Plan. Per the latest drainage certification for Sawmill Village (dated October 04, 2011), the existing volume was determined to be 6.45 acre–ft. The required pond volume for the fully developed Arbolera de Vida subdivision is 5.79 acre–ft (252,167CF), which is lower than the ponding volume provided, 6.45 acre–ft (281,084CF). The outfall of the pond remains to the existing Bellamah storm drain at a maximum of 4 cfs.

First Flush

This project is required to meet the first flush requirements of the City Drainage Ordinance. The first flush requirement is calculated as 0.34 inches (0.44 inches less 0.1 inch initial abstraction) times the the percentage of impervious surface within the development (land treatment D).The first flush requirement for Sawmill Village Phase 2 is approximately 2250 cubic feet. The first flush requirement will be met by existing retention volume in Pond 2, which was created by lowering the pond bottom from the Sawmill Village Phase 2 Grading Plan pond bottom elevation (4950.66). The volume available for the first flush is 21,600 cubic feet, which is greater than what is required for the project.

Flood plain

In accordance with FEMA community map panel #35001C0331H, the site is located within a Zone "X" flood plain. This means the site is either subject to the 500–year flood, located within an area of 1.0% chance of annual flood with average depths less than 1 foot, or is located in an area protected by levees from the 1.0% annual chance flood.

Conclusions

This drainage submittal has been prepared in accordance with City of Albuquerque requirements. This plan clearly demonstrates the proposed grading and drainage concepts. The implementation of these concepts would result in the safe passage of the 100 year storm event. With this submittal we request hydrology department approval of this Grading and Drainage Plan for DRB site plan for subdivision approval. A more detailed Grading Plan will be submitted in support of Building Permit approval. The proposed drainage scheme presented in this plan is not anticipated to change as a result of the more detailed grading plan.

Bohannan Huston
www.bhinc.com 800.877.5332

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FOR BUILDING PERMIT AND SUBDIVISION AMENDMENT
SAWMILL VILLAGE
BELLAMAH AVE NW AND 18TH ST
ALBUQUERQUE, NM

DATE: 9/29/16

REVISIONS

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SHEET TITLE

DRAINAGE MANAGEMENT PLAN

SHEET

LEGEND

- PROPERTY LINE
- 5301 EXISTING CONTOURS
- BASIN BOUNDARY
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- 5305 PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED STORM DRAIN INLET

N

40 20 0 40

1"=40'

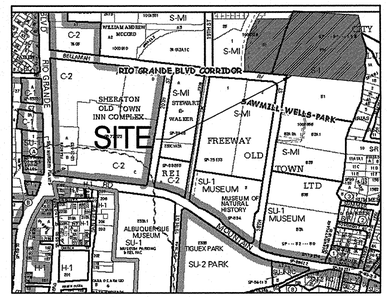
Proposed Ultimate Development Conditions Basin Data Table

This table is based on the DPM Section 22.2, Zone: 2

Basin	Area	Area	Land Treatment Percentages				Q(100)	Q(100)	V(100)	V(100)6HR
ID	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(inches)	(CF)
Tract B-2-A	226055	7.46	0.0%	5.0%	5.0%	90.0%	4.50	***33.58***	*2.00*	*37742*
BASIN 1	32962	0.76	0.0%	10.0%	0.0%	90.0%	4.46	***3.37***	*1.99*	*5455*
BASIN 2	34871	0.80	0.0%	10.0%	0.0%	90.0%	4.46	***3.57***	*1.99*	*5771*
BASIN 3	8640	0.20	0.0%	5.0%	0.0%	95.0%	4.58	***0.91***	*2.05*	*1478*
BASIN 4	13870	0.32	0.0%	5.0%	0.0%	95.0%	4.58	***1.46***	*2.05*	*2373*
BASIN 5	4709	0.11	0.0%	10.0%	0.0%	90.0%	4.46	***0.48***	*1.99*	*779*
BASIN 6	11415	0.26	0.0%	5.0%	0.0%	95.0%	4.58	***1.20***	*2.05*	*1953*
BASIN 7	20804	0.48	0.0%	10.0%	0.0%	90.0%	4.46	***2.13***	*1.99*	*3443*
BASIN 8	16442	0.38	0.0%	10.0%	0.0%	90.0%	4.46	***1.68***	*1.99*	*2721*
BASIN 9	2706	0.06	0.0%	5.0%	0.0%	95.0%	4.58	***0.28***	*2.05*	*463*
BASIN 10	25127	0.58	0.0%	5.0%	0.0%	95.0%	4.58	***2.64***	*2.05*	*4299*
BASIN 11	30743	0.71	0.0%	5.0%	0.0%	95.0%	4.58	***3.23***	*2.05*	*5260*
BASIN 12	42740	0.98	0.0%	10.0%	0.0%	90.0%	4.46	***4.37***	*1.99*	*7073*
BASIN 13	21398	0.49	0.0%	5.0%	0.0%	95.0%	4.58	***2.25***	*2.05*	*3661*
BASIN 14	22666	0.52	0.0%	55.0%	0.0%	45.0%	3.37	***1.75***	*1.38*	*2612*
BASIN 15	6813	0.16	0.0%	15.0%	0.0%	85.0%	4.34	***0.68***	*1.92*	*1090*
BASIN 16	29822	0.68	0.0%	5.0%	0.0%	95.0%	4.58	***3.13***	*2.05*	*5102*
BASIN 17	12858	0.30	0.0%	65.0%	0.0%	35.0%	3.13	***0.92***	*1.25*	*1338*
BASIN 18	62175	1.43	0.0%	10.0%	0.0%	90.0%	4.46	***6.36***	*1.99*	*10290*
BASIN 19	7620	0.17	0.0%	5.0%	0.0%	95.0%	4.58	***0.80***	*2.05*	*1304*
BASIN 20	9458	0.22	0.0%	0.0%	0.0%	100.0%	4.70	***1.02***	*2.12*	*1671*
BASIN 21	8464	0.19	0.0%	15.0%	0.0%	85.0%	4.34	***0.84***	*1.92*	*1354*
TOTAL	426303	9.79	0.0%	12.2%	0.0%	87.8%	4.40	***43.10***	*1.96*	*69490*

STORM DRAIN PIPE TABLE

PIPE #	Contributing Basins and Storm Drains	Size in.	Slope	Capacity cfs	ACTUAL FLOW cfs
NORTH					
SD1	BSN 2	18	0.50%	7.43	3.57
SD2	BSN 5	8	0.50%	0.85	0.48
SD3	BSN 2,5	18	1.00%	10.50	4.05
SD4	BSN 1,2,5	18	1.00%	10.50	7.42
CENTRAL					
SD5	SD6,15 + BSN19	30	1.00%	41.02	25.65
SD6	SD7,21 + BSN3	30	0.50%	29.00	20.92
SD7	SD8, BSN9	24	0.50%	16.00	14.20
SD8	SD9,20 + BSN10	24	0.50%	16.00	13.92
SD9	BSN 11,12,14	24	0.50%	16.00	9.36
SD10	BSN 12	18	0.50%	7.43	4.37
SD11	BSN 14	12	0.50%	2.52	1.75
SD12	SD13 + BSN4	18	1.00%	10.50	4.79
SD13	BSN 6,7	12	1.00%	3.56	3.33
SD14	BSN 7	12	0.50%	2.52	2.13
SD15	BSN 8,13	18	1.00%	10.50	3.93
SD16	BSN 13	12	1.00%	3.56	2.25
SD20	BSN 21	12	1.00%	3.56	1.92
SD21	SD12 + BSN20	18	1.00%	10.50	5.81
WEST					
SD17	BSN 15,16	12	2.00%	5.04	3.81
SD18	BSN 15	8	1.00%	1.21	0.68
SD19	BSN 16	12	1.00%	3.56	3.13



VICINITY MAP

ZONE ATLAS PAGE J-13-Z

GRADING AND DRAINAGE NARRATIVE

Site Location and Background Information

The purpose of this submittal is to present a drainage and grading plan for the proposed Sawmill Village development to the North of Bellamah and 18th street. The design site proposes mixed use development. There will be some residential townhomes, and some commercial sites. The site is in rainfall zone 2 as defined by figure A-1 of the DPM section 22. The existing legal description of the site is Tract 2-D, Arboleda De Vida and Lot B-2-A, Duke City Lumber Company Addition. Please see the vicinity map on this sheet for a graphic depiction of the site location. This conceptual grading and drainage plan is submitted in support of site plan approval.

The Sawmill Master Drainage Plan Area, prepared by Bohannan Huston Inc., addresses drainage off the western site and the surrounding area to the west and north (city hydrology file: H13-D25). This submittal integrates the eastern Lot B-2-A into the Sawmill Master Drainage Plan and modifies the pond construction to be in compliance with the guidance and recommendations set forth in that report.

Existing Conditions

This entire site (Tracts 2-D & B-2-A) is approximately 10 acres and is an old industrial sawmill. The natural slope of the site is very flat. The slope across the site is less than 1% from the northeast to the southwest. There is an existing pond north of Tract 2-D that is part of the Sawmill Master Drainage Plan. It currently discharges into the storm drain in Bellamah at a maximum flow of 4 C.F.S. The site is approximately level with Bellamah and the surrounding properties.

Proposed Conditions

Under proposed conditions the site will slope slightly to the pond north of Tract 2-D and utilize storm drain systems to convey runoff to the pond w/ functional surface slopes. The site will be mostly impervious treatment D and the rest landscaped treatment B and C. The Sawmill Master Drainage Plan sizes the existing pond as a retention system to be conservative. The pond is a retention pond to elevation 4954 at which it can discharge 4 C.F.S. in a detention condition. The existing pond is sized to accept runoff from the Tract 2-D (the portion of the site west of 18th St.). The pond expansion is sized to accept additional runoff from Lot B-2-A. With this project, we propose to expand the volume of the existing pond by approximately 59,000 CF. This expansion can be accomplished without lowering the pond bottom. Accordingly, the depth of retained water below the invert of the outlet pipe will not be increased with this project. The proposed pond expansion volume exceeds the 100yr, 6hr storm volume generated by tract B-2-A.

Flood plain

In accordance with FEMA community map panel #35001C0331 E, the site is not located within a flood plain.

Offsite Flows

There are no significant upstream offsite flows which will impact this site.

Conclusions

This drainage submittal has been prepared in accordance with City of Albuquerque requirements. This plan clearly demonstrates the proposed, general surface grading and drainage. The implementation of this design will result in the safe passage of the 100 year storm event. With this submittal we request hydrology department approval of this Grading and Drainage Plan for building permit.

INLET TABLE

Inlet #	Inlet Type	Top of Grate	Actual Flow	Avail Head ft	Capacity
IN1	2'x2' Nyloplast Road & Highway Grate	57.07	3.37	0.5	6.00
IN2	2'x2' Nyloplast Road & Highway Grate	58.00	3.57	0.5	6.00
IN3	2'x2' Nyloplast Road & Highway Grate	58.38	0.91	0.5	6.00
IN4	2'x2' Nyloplast Road & Highway Grate	58.38	1.46	0.5	6.00
IN5	2'x2' Nyloplast Road & Highway Grate	58.76	0.48	0.5	6.00
IN6	2'x2' Nyloplast Road & Highway Grate	59.15	1.20	0.5	6.00
IN7	2'x2' Nyloplast Road & Highway Grate	59.16	2.13	0.5	6.00
IN8	2'x2' Nyloplast Road & Highway Grate	57.97	1.68	0.5	6.00
IN9	2'x2' Nyloplast Road & Highway Grate	59.39	0.28	0.5	6.00
IN10	2'x2' Nyloplast Road & Highway Grate	58.64	2.64	0.5	6.00
IN11	2'x2' Nyloplast Road & Highway Grate	58.45	3.23	0.5	6.00
IN12	2'x2' Nyloplast Road & Highway Grate	58.81	4.37	0.5	6.00
IN13	2'x2' Nyloplast Road & Highway Grate	57.97	2.25	0.5	6.00
IN14	24" Standard Nyloplast Grate	58.80	1.75	0.5	3.60
IN15	2'x2' Nyloplast Road & Highway Grate	57.90	0.68	0.5	6.00
IN16	2'x2' Nyloplast Road & Highway Grate	57.75	3.13	0.5	6.00
IN19	2'x2' Nyloplast Road & Highway Grate	57.30	0.80	0.5	6.00
IN20	2'x2' Nyloplast Road & Highway Grate	57.15	1.02	0.5	6.00
IN21	18" Pedestrian Nyloplast Grate	57.00	0.84	0.5	2.20

* The actual head available varies with each inlet, but in no case is the available head less than 0.5'.

architecture
interiors
planning
engineering

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ARCHITECT

ENGINEER

BRUCE J. STIDWORTHY
NEW MEXICO
14523
REGISTERED PROFESSIONAL ENGINEER
5/13/08

PROJECT

Sawmill Village
1751 Bellamah Avenue, NW
Albuquerque, New Mexico

REVISIONS

DRAWN BY	CP
REVIEWED BY	BJS
DATE	May 19, 2008
PROJECT NO.	06124
DRAWING NAME	

DRAINAGE MANAGEMENT PLAN

SHEET NO.

OF

P:\070249\cdp\general\070249DMP01.dwg
Thu, 22-May-2008 - 9:49:am, Plotted by: JSMITH

CITY OF ALBUQUERQUE

May 14, 2008

Bruce J. Stidworthy, P.E.
Bohannan Huston, Inc.
7500 Jefferson St NE – Courtyard I
Albuquerque, NM 87109

Re: Sawmill Village Grading and Drainage Plan
Engineer's Stamp dated 5-13-08 (H13/D025A)

Dear Mr. Stidworthy,

Based upon the information provided in your submittal received 5-13-08, the above referenced plan is approved for Building Permit conditional on compliance with the SWPPP. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

PO Box 1293

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. You are required to send a copy of your SWPPP on a CD to the following address:

Albuquerque

Kathy Verhage, Department of Municipal Development, Storm Drainage Division, P.O. Box 1293, One Civic Plaza, Rm. 301, Albuquerque, NM 87103

NM 87103

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

www.cabq.gov

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: file
Kathy Verhage, DMD