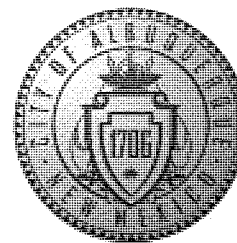


# CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



May 2, 2014

Bruce Stidworthy, PE  
**BOHANNAN-HUSTON, INC.**  
7500 Jefferson Street NE Courtyard I  
Albuquerque, NM 87109

Richard J. Berry, Mayor

**RE: Affinity At Albuquerque Senior Housing - McMahon & Finland  
Drainage Plan for Site Development for Building Permit  
Engineer's Stamp Date 4-25-2014 (File: A11D014)**

Dear Mr. Stidworthy:

Based upon the information provided in your submittal received 4-25-14, the above referenced plan cannot be approved for Site Plan for Building Permit by the DRB until the following comments are addressed:

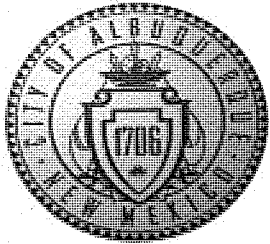
1. Plat indicates 25' pedestrian access easement on north and east boundaries. Water harvesting areas do not accommodate pedestrian access at the given slopes. Is the intent to vacate the easement? Is the intent to vacate the utility easements as well?
2. If the intent is to drain the carport to the parking lot, roof gutters should be shown on all cross-sections.
3. Pond #2 would overflow into Basin 5 as shown. Is the concrete wall intended to separate Pond #2 and Basin #5? Indicate the extents of the concrete retaining wall that is intended to prevent flow to property to the north.
4. Basin #5 along north side of property appears to act as a retention pond. Please provide pond volume calculations and WSEL. How is emergency overflow handled for this pond.

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

Sincerely,

Rita Harmon, P.E.  
Senior Engineer, Planning Dept.  
Development Review Services

Orig: Drainage file  
c.pdf Addressee via Email



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Affinity at Albuquerque Senior Housing Building Permit #: \_\_\_\_\_ City Drainage #: A110014  
DRB#: 1000875 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_  
Legal Description: Lots B-1 & D-1, Fineland Development  
City Address: Northeast corner of McMahon & Fineland

Engineering Firm: Bohannon Huston, Inc. Contact: Bruce Stidworthy  
Address: 7500 Jefferson St NE Courtyard 1  
Phone#: (505) 823-1000 Fax#: (505) 798-7988 E-mail: bwarren@bhinc.com

Owner: Inland Group Contact: Robert Ketner  
Address: 1620 N. Mamer Rd Bldg. B, Spokane, Washington 99203  
Phone#: (509) 321-3204 Fax#: (509) 922-2251 E-mail: robertk@inlandconstruction.com

Architect: Consensus Planning, Inc. Contact: Jim Strozier  
Address: 302 Eight Street NW  
Phone#: (505) 764-9801 Fax#: (505) 842-5495 E-mail: cp@consensusplanning.com

Surveyor: \_\_\_\_\_ Contact: \_\_\_\_\_  
Address: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_  
Address: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT  
☒ DRAINAGE PLAN 1st SUBMITTAL  
☐ DRAINAGE PLAN RESUBMITTAL  
☐ CONCEPTUAL G & D PLAN  
☒ GRADING PLAN  
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)  
☐ ENGINEER'S CERT (HYDROLOGY)  
☐ CLOMR/LOMR  
☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ ENGINEER'S CERT (TCL)  
☐ ENGINEER'S CERT (DRB SITE PLAN)  
☐ ENGINEER'S CERT (ESC)  
☐ SO-19  
☐ OTHER (SPECIFY)

### CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

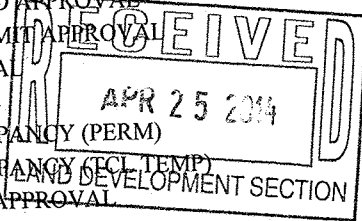
- ☐ SIA/FINANCIAL GUARANTEE RELEASE  
☐ PRELIMINARY PLAT APPROVAL  
☒ S. DEV. PLAN FOR SUB'D APPROVAL  
☒ S. DEV. FOR BLDG. PERMIT APPROVAL  
☐ SECTOR PLAN APPROVAL  
☐ FINAL PLAT APPROVAL  
☐ CERTIFICATE OF OCCUPANCY (PERM)  
☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)  
☐ FOUNDATION PERMIT APPROVAL  
☒ BUILDING PERMIT APPROVAL  
☐ GRADING PERMIT APPROVAL  
☐ PAVING PERMIT APPROVAL  
☐ WORK ORDER APPROVAL  
☐ GRADING CERTIFICATION
- ☐ SO-19 APPROVAL  
☐ ESC PERMIT APPROVAL  
☐ ESC CERT. ACCEPTANCE  
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes ☒ No \_\_\_\_\_ Copy Provided

DATE SUBMITTED: April 25, 2014 By: Bruce Stidworthy

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development



May 9, 2014

voice: 505.823.1000  
facsimile: 505.798.7988  
toll free: 800.877.5332

Ms. Rita Harmon, P.E.  
Senior Engineer  
Development and Building Services  
City of Albuquerque  
600 2nd St NW  
Albuquerque, NM 87102

Re: Affinity at Albuquerque Senior Housing, Hydrology Re-Submittal


Dear Ms. Harmon:

Enclosed for your review is a copy of the revised grading plan and drainage management plan. The revisions are based on comments that you provided in your letter dated May 2, 2014. Below is a brief description of how the comments were addressed:

1. Included in this re-submittal is a copy of the vacation action exhibit showing the 25' pedestrian access easements to be vacated (DRB #1000875).
2. Carports will drain to the parking lot. Garages shown in the cross-sections on the grading plan will also drain to the parking lot. Roof gutters have been shown in the revised cross-sections.
3. The wall is intended to separate Pond #2 and Basin #5. The grading plan has been updated to better graphically represent the extent of the wall.
4. Basin #5 contains a shallow water harvesting area along the north portion of the property. Pond volume and water surface elevation calculations have been provided on the drainage management plan. The water harvesting area was sized to fully retain the 100 year 10 day storm. Calculations for the runoff volume are provided on the updated DMP.

With this submittal we are requesting Hydrology Site Plan for Building Permit Approval. If you have any questions or require further information, please feel free to contact me.

Sincerely,



Matthew Satches, E.I.  
Engineer Intern  
Community Development & Planning

MHS/jcm  
Enclosures

Engineering ▲  
Spatial Data ▲  
Advanced Technologies ▲

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

## CLIENT/COURIER TRANSMITTAL

To: Curtis Cherne P.E.  
City of Albuquerque  
600 2<sup>nd</sup> St. NW  
Albuquerque, NM 87102

Requested by: Bruce Stidworthy

Date: April 25, 2014

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

Phone: 924-3986  
Job No.: 20140292

Job Name: Affinity at Albuquerque

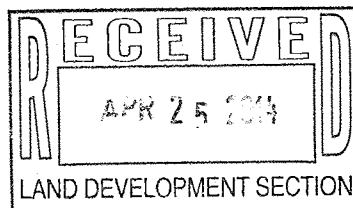
### DELIVERY VIA

☒ 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	Grading Plan (Stamped dated 4-25-2014)
3	1	Drainage Management Plan (Stamped dated 4-25-2014)



### COMMENTS / INSTRUCTIONS

Curtis,

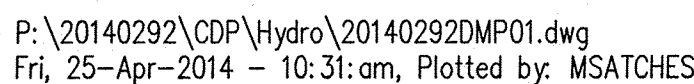
Please find attached the Grading and Drainage Plans for Affinity at Albuquerque. We are requesting Site Plan for Building Permit Approval.

Let me know if you have any questions.

Thanks,  
Bruce

REC'D BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_





25<sup>r</sup> utility & drainage easements

THE PROJECT IS LOCATED NORTHWEST OF THE INTERSECTION OF MCMAHON BLVD AND UNSER BLVD. THIS SITE IS NOT WITHIN A DEFINED FLOOD ZONE AS SHOWN ON FIRM MAP NUMBER 35001C0104H (THIS SHEET). THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE A DRAINAGE MANAGEMENT PLAN FOR THE DEVELOPMENT OF AFFINITY OF ALBUQUERQUE SENIOR HOUSING AND REQUEST DRB SITE PLAN FOR BUILDING PERMIT APPROVAL.

THE 6.59 ACRE SITE IS CURRENTLY UNDEVELOPED. EXISTING FLOW IS APPROXIMATELY EQUAL TO 9.0 CFS. THE SITE SLOPES TO THE NORTH / NORTHWEST WHERE THE RUNOFF FLOWS INTO AN EXISTING 24" STORM DRAIN IN PINNACLE PEAK DRIVE.

BASED ON A DRAINAGE STUDY FOR VILLA DE VILLAGIO SUBDIVISION DATED FEBRUARY 10, 2003 (COA HYDRO FILE #A11/09), ALLOWABLE PEAK DISCHARGE FROM THE SITE IS APPROXIMATELY 9.0 CFS.

THE HYDROLOGIC ANALYSIS PROVIDED WITH THIS DRAINAGE MANAGEMENT PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 22.2 OF THE DPM. THE SITE IS LOCATED WEST OF THE RIO GRANDE WITHIN PRECIPITATION ZONE 1. ALTHOUGH THE SITE IS SMALL ENOUGH TO USE THE "SMALL WATERSHEDS" PROCEDURE GIVEN IN SECTION 4.6, WE ELECTED TO USE AHYMO IN ORDER TO MODEL THE STORMWATER FLOWS THROUGH THE TWO PROPOSED PONDS ON THE SITE. LAND TREATMENT PERCENTAGES WERE CALCULATED BASED ON THE ACTUAL CONDITIONS IN EACH ONSITE BASIN AND ARE SUMMARIZED "PROPOSED CONDITIONS BASIN DATA TABLE" ON THIS SHEET.

ALL ONSITE STORM DRAIN PIPES WILL BE SIZED BASED ON GRAVITY FLOW USING THE MANNING'S EQUATION. DETAILED CALCULATIONS FOR PIPES AND INLETS WILL BE PROVIDED WITH THE FINAL GRADING PLAN WHEN GRADING AND BUILDING PERMIT APPROVAL IS REQUESTED.

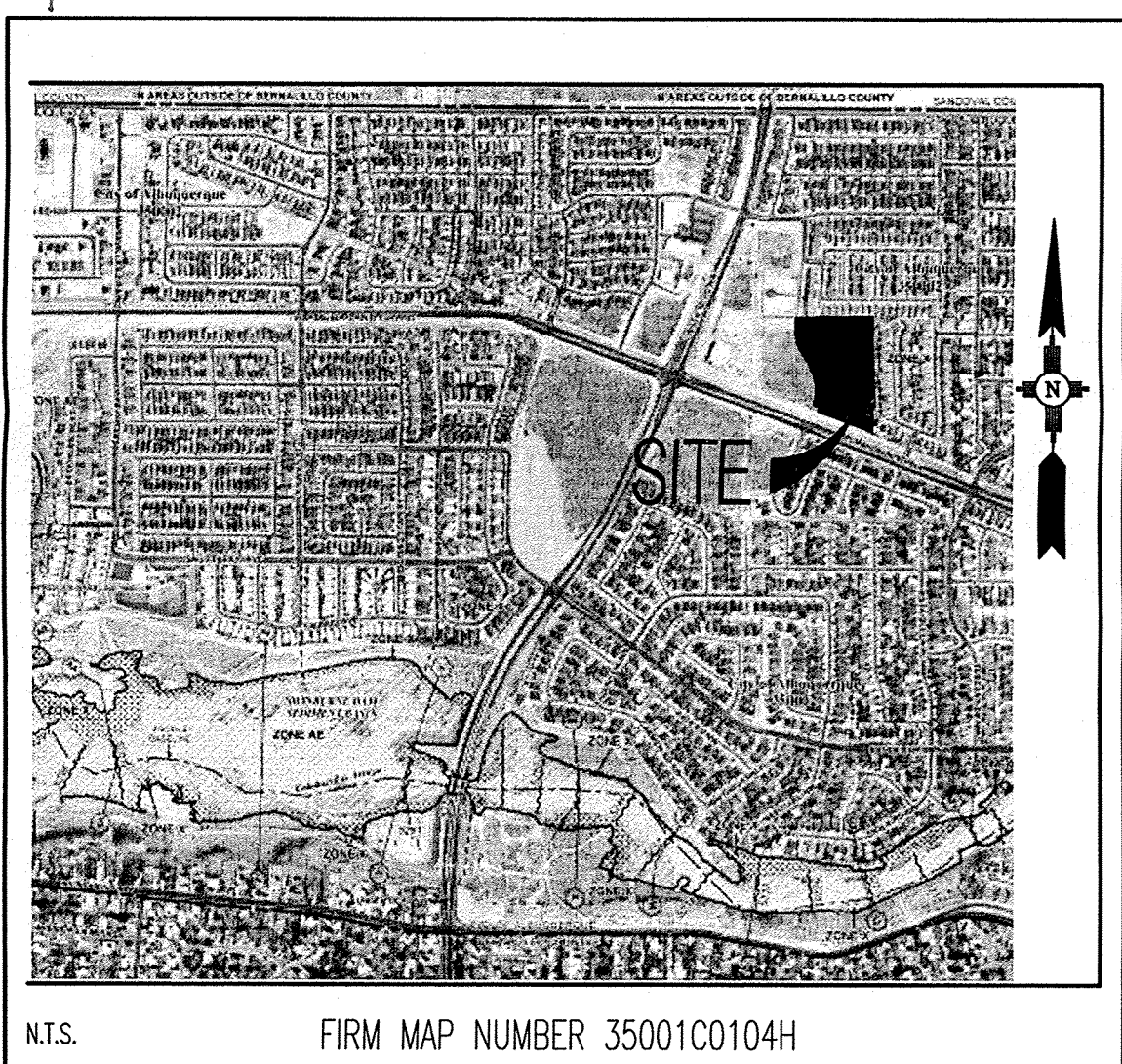
THE ALLOWABLE DISCHARGE FROM THE SITE WAS FOUND TO BE APPROXIMATELY 7.1 CFS WHEN CONSIDERING THE RUNOFF FROM FINELAND DRIVE (BASIN 4). WITH THE DEVELOPMENT OF THE SITE, THE PROPOSED FLOW IS APPROXIMATELY 6.5 CFS WHICH IS LESS THAN THE ALLOWABLE DISCHARGE.

TO MITIGATE PEAK FLOWS GENERATED WITH PROPOSED CONDITIONS, TWO PONDS HAVE BEEN DESIGNED ONSITE. BOTH PONDS WERE ANALYZED USING AHYMO. DISCHARGE FROM THE PONDS WAS CALCULATED USING THE ORIFICE EQUATION.

POND 2 IS LOCATED AT THE NORTHWEST CORNER OF THE STREET. THE PRIMARY DISCHARGE POINT FOR POND 2 IS A NEW STORM DRAIN TO BE CONNECTED TO AN EXISTING PUBLIC STORM DRAIN MANHOLE AT THE INTERSECTION OF PINNACLE PEAK AND CROWN ROAD. IN THE EVENT THAT THE DISCHARGE PIPE IS PLUGGED, OR IN THE EVENT OF A STORM LARGER THAN THE 100 YEAR STORM, THE POND WILL OVERFLOW TO THE RIGHT-OF-WAY OF FINLANDER DRIVE (AKA PINNACLE PEAK). UNDER EXISTING CONDITIONS, THE TOP CURB ELEVATION OF PINNACLE PEAK AT THE INTERSECTION WITH CROWN ROAD IS APPROXIMATELY 5283.78'. THE EXISTING GRADE ALONG THE NORTH PROPERTY LINE OF THE SITE (DELMARKED WITH AN EXISTING CMU WALL) WHICH ADJOINS EXISTING RESIDENTIAL LOTS, VARIES BETWEEN 5281 AND 5282'. THEREFORE, THE EXISTING GRADE ALONG MOST OF THE NORTH PROPERTY LINE IS ABOUT 2' LOWER THAN THE TOP OF CURB OF PINNACLE PEAK. IN ORDER TO ENSURE THAT ANY OVERFLOW FROM POND 2 DOES NOT IMPACT THE RESIDENTIAL LOTS TO THE NORTH, WE ARE PROVIDING A CAST-IN-PLACE CONCRETE WALL ALONG THE NORTH SIDE OF POND 2. THE WALL WILL BE APPROXIMATELY 3' TALL, WITH A TOP-OF-WALL ELEVATION OF 5285.0'.

BASIN 5 CONSISTS OF SMALL LANDSCAPED AREAS BEHIND THE GARAGES ON THE NORTH SIDE OF THE SITE AND A SMALL PORTION OF THE EAST SIDE OF THE SITE. THERE IS NO IMPERVIOUS AREA WITHIN BASIN 5. ALL OF THE GARAGE ROOFS DRAIN TO THE PARKING LOTS AND DRIVEWAYS. FLOWS FROM BASIN 5 (PEAK DISCHARGE IS LESS THAN 1.0 CFS) WILL BE RETAINED IN A SHALLOW WATER HARVESTING AREA WITHIN THE LANDSCAPED AREA NEAR THE NORTH PROPERTY LINE.

THE PEAK DISCHARGE FROM THE SITE IS 6.5 CFS WHICH IS LESS THAN THE ALLOWABLE PEAK DISCHARGE RATE, THEREFORE WE ARE IN CONFORMANCE WITH CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS AND REQUEST BUILDING PERMIT APPROVAL.

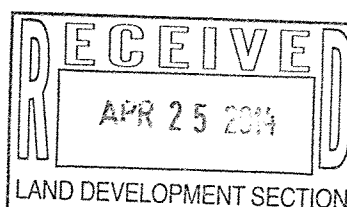
[illegible]

Prepared For:  
Inland Group  
1620 N. Mamer Rd., Bldg. B  
Spokane, WA 99203

Prepared By:  
Consensus Planning, Inc  
Bohannon Huston, Inc.  
The Architects Office,  
PLLC

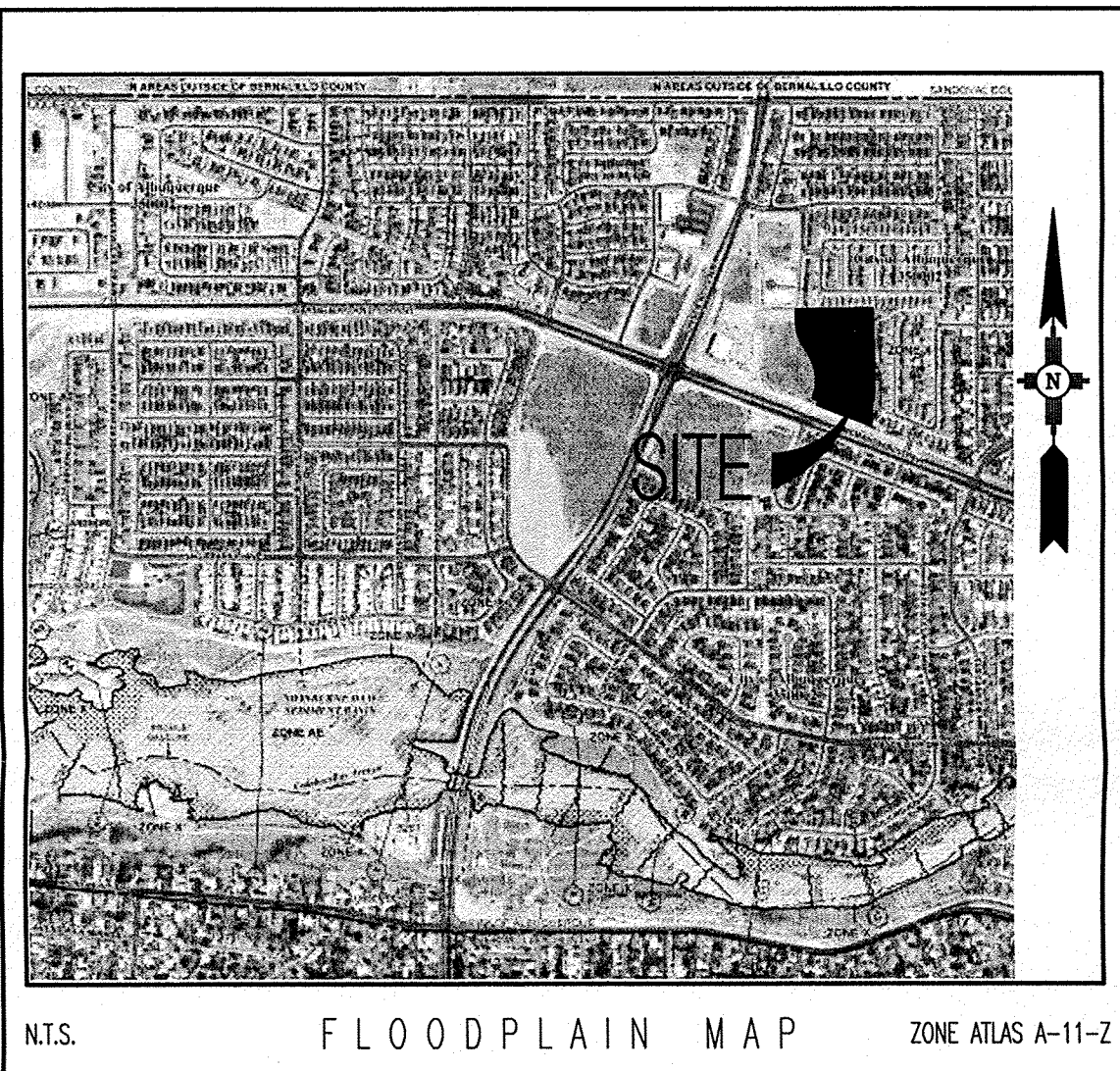
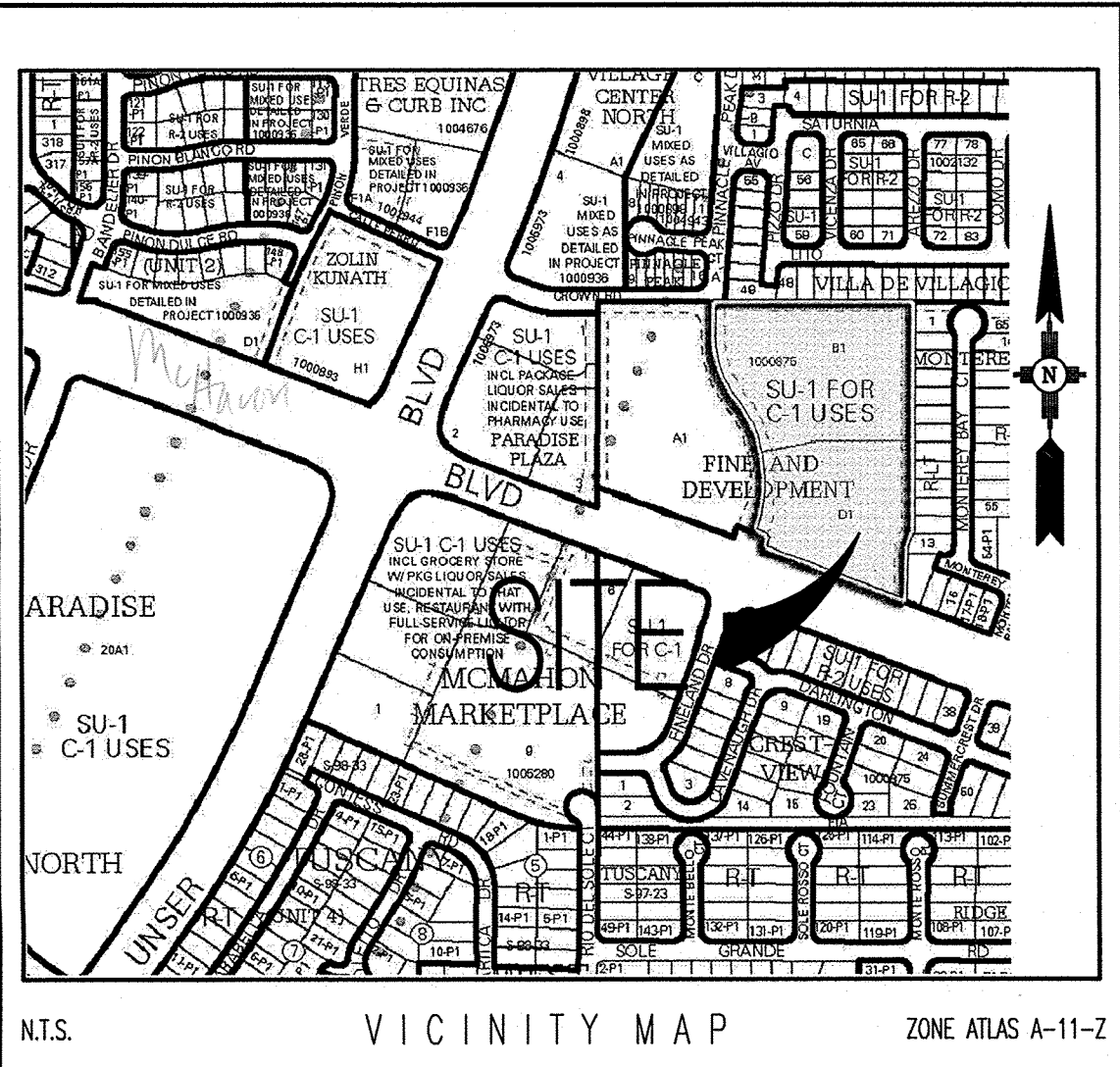


**Bohannon  Huston**  
www.bhinc.com 800.877.5332



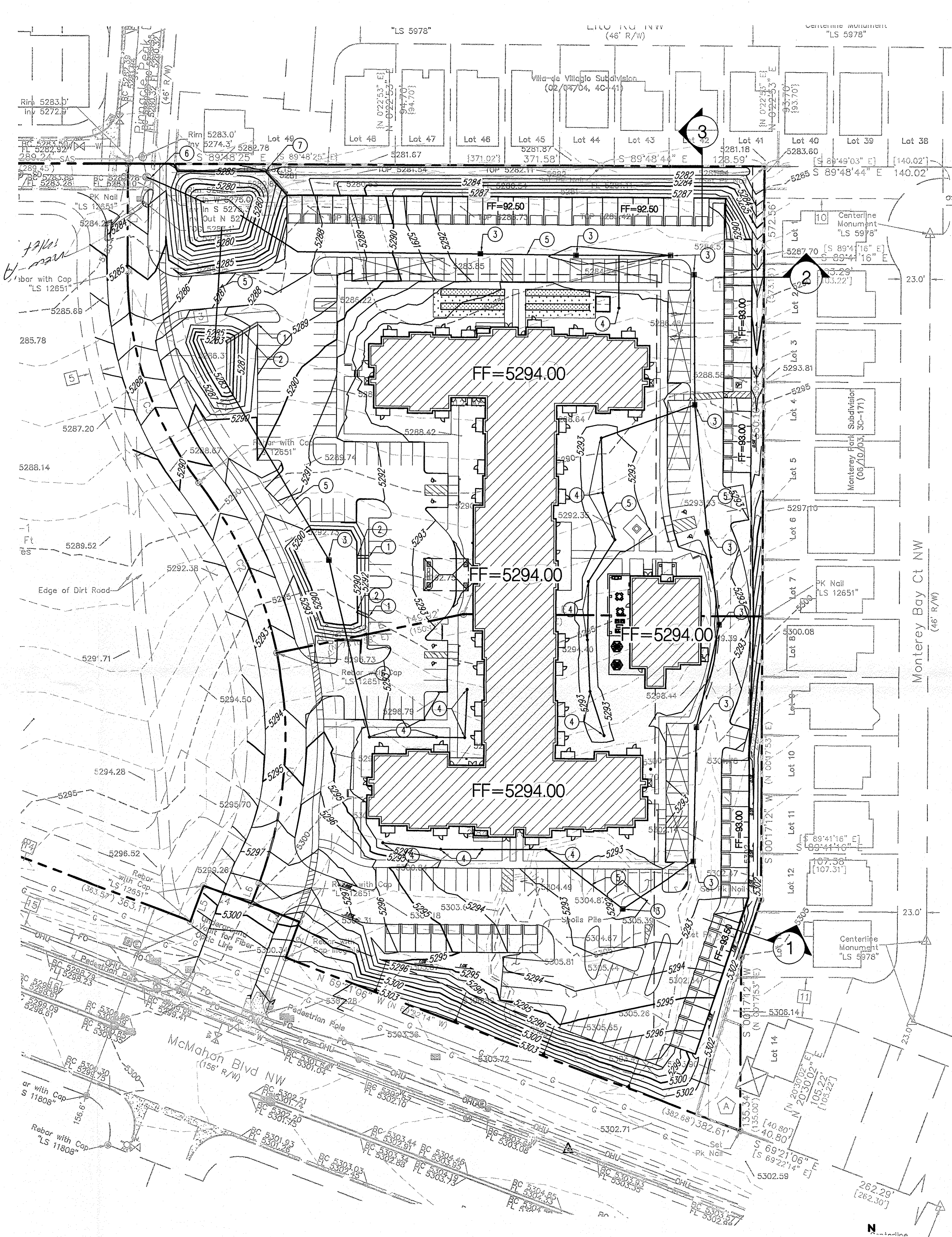
Sheet 1 of X





**Grading Narrative**

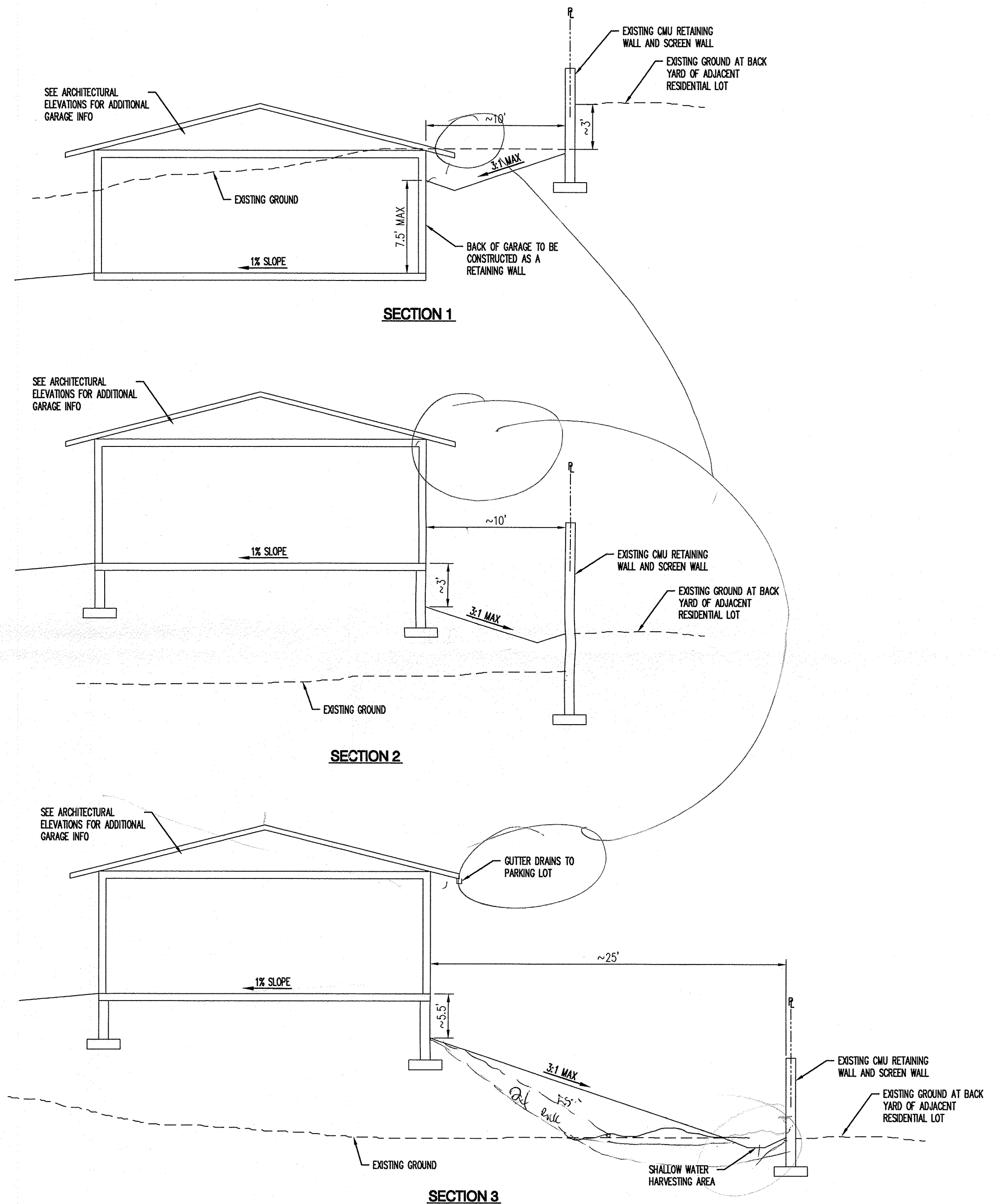
The site is currently undeveloped and contains sandy soil and native vegetation. The site slopes primarily from south to north at slopes ranging from 3% - 5%. The high point of the site is at the southeast corner at an elevation of approximately 5305. The low point of the site is at the northwest corner at an elevation of approximately 5281. Topography surrounding the site is similar with overall slopes to the north. Drainage from the area makes its way to the Black Arroyo via existing city storm drains. McMahon generally runs along a ridgeline, with most of the land south of McMahon sloping to the south and draining to the Calabacillas Arroyo. The finished floor elevation of the main building and pool building are set to match the existing elevation at the middle of the site. The maximum proposed slopes on the site are 3H:1V. These slopes occur within the landscape areas on the south and north edges of the site. 3H:1V slopes also occur at the ponding areas along the west side of the site. These ponding areas are required in order to reduce the peak runoff coming from the site and to comply with the existing master drainage plan for the area.



**GRADING PLAN**

**KEYED NOTES**

1. CURB OPENING FOR DRAINAGE
2. CONCRETE RUNDOWN
3. DROP INLET
4. AREA DRAIN
5. PRIVATE STORM DRAIN
6. CONNECTION TO EXISTING PUBLIC STORM DRAIN
7. CAST-IN-PLACE CONCRETE WALL. TOP OF WALL ELEVATION = 85.0



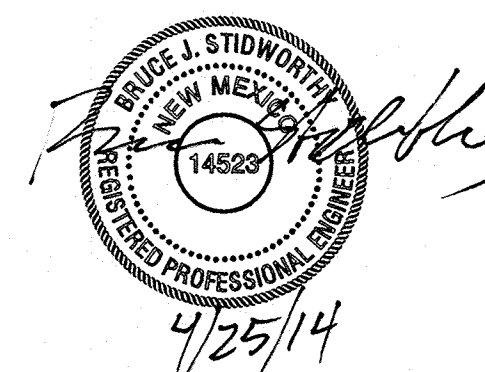
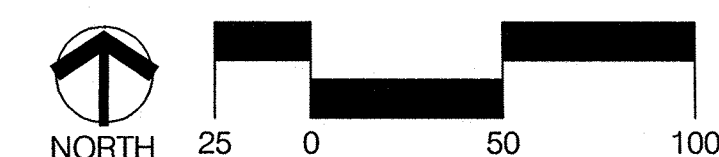
**AFFINITY**

**SITE PLAN FOR BUILDING PERMIT**

Prepared For:  
Inland Group  
1620 N. Mamer Rd., Bldg. B  
Spokane, WA 99203

Prepared By:  
Consensus Planning, Inc  
Bohannon Huston, Inc.  
The Architects Office,  
PLLC

Scale: 1" = 50'



**Bohannon & Huston**  
www.bhinc.com 800.877.5332

