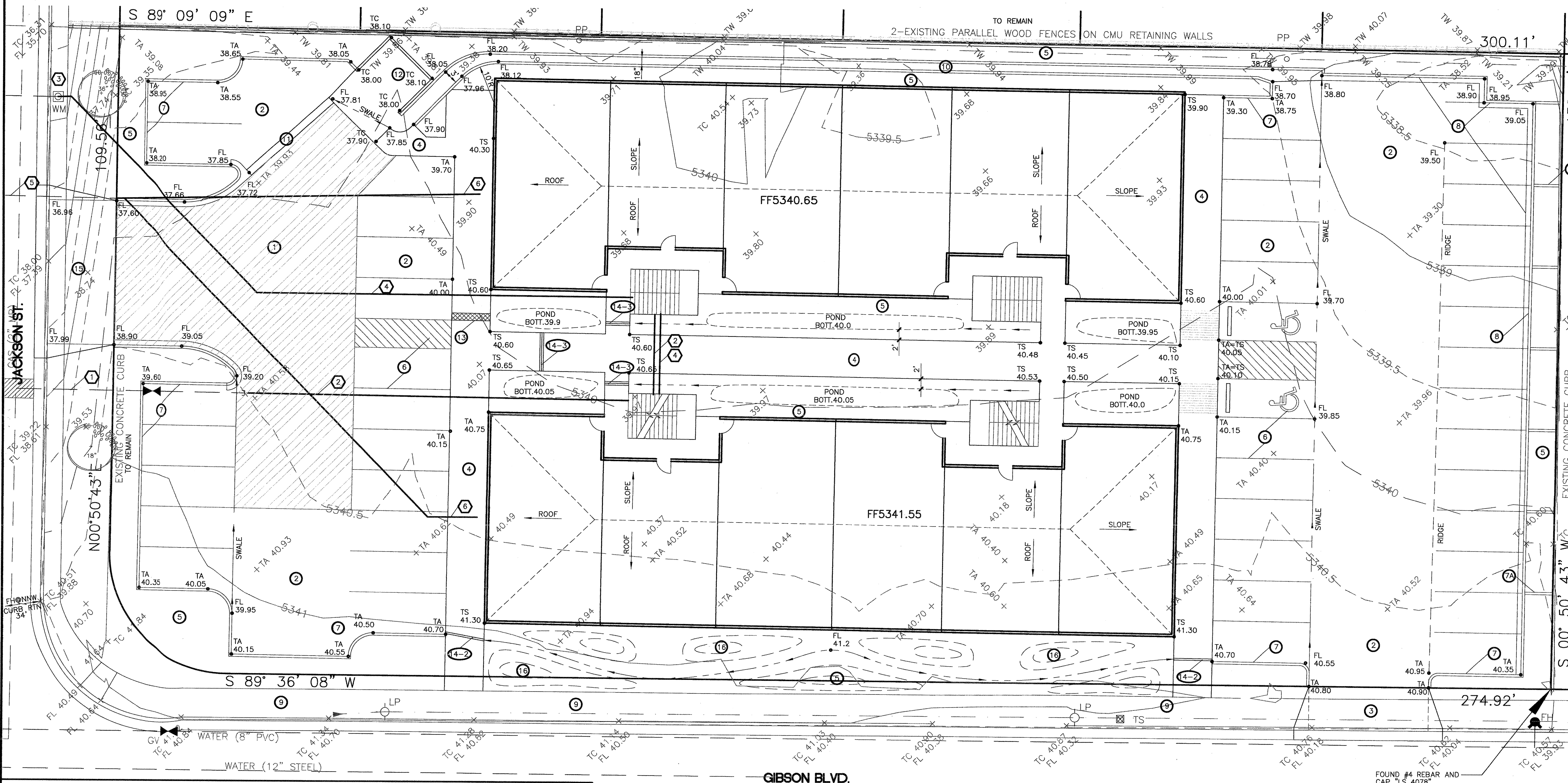


GRADING PLAN



KEYED NOTES

SITE GRADING, DRAINAGE & PAVING

1. INSTALL ASPHALT PAVEMENT - HEAVY DUTY (HATCHED AREA). SEE DETAIL SHEET C-5.
2. INSTALL ASPHALT PAVEMENT - LIGHT DUTY. SEE DETAIL SHEET C-5.
3. REMOVE EXISTING SIDEWALK AND CURB & GUTTER FROM FIRST JOINT WEST OF TO FIRST JOINT EAST OF EXISTING DRIVEPAD AND BUILD SIDEWALK (AND DRIVEPAD AT NEW EASTERLY PARKING AREA) PER COA STD. DET. 2425, SECTION D-0.
4. TURNDOWN SIDEWALK. SEE DETAIL SHEET C-5.
- 4A. SIDEWALK. SEE DETAIL SHEET C-5.
5. LANDSCAPED AREA. SEE ARCHITECTURAL. ALIGN SWALES TO BE CONGRUENT WITH LANDSCAPE DESIGN.
6. PAINTED PARKING STRIPING. SEE TRAFFIC CIRCULATION LAYOUT.
7. BUILD CONCRETE HEADER CURB. SEE DETAIL SHEET C-5.
- 7A. BUILD CONCRETE CURB & GUTTER. SET TOP OF CURB 1/2\"/>
9. REMOVE EXISTING CONCRETE DRIVEPAD. BUILD NEW STANDARD CURB AND GUTTER AND CONCRETE SIDEWALK PER COA STD. DWG. 2415A AND 2430 RESPECTIVELY.
10. BUILD 18\"/>
11. BUILD VALLEY GUTTER. SEE DETAIL SHEET C-5.
12. BUILD REFUSE ENCLOSURE PER COA SOLID WASTE STANDARDS.
13. 12\"/>
15. REMOVE EXISTING SIDEWALK AND CURB & GUTTER FROM FIRST JOINT SOUTH OF TO FIRST JOINT NORTH OF PROPOSED DRIVEPAD AND BUILD SIDEWALK (AND DRIVEPAD AT NEW EASTERLY PARKING AREA) PER COA STD. DET. 2425, SECTION D-0.
16. LANDSCAPED BERMS. LOCATION AND CONFIGURATION TO BE ALTERED TO BE CONGRUENT WITH LANDSCAPE PLAN.

NOTE: ALL TOP OF CURB ELEVATIONS ARE 6\"/>

SITE WATER AND SEWER

1. 6\"/>
2. BUILD 6\"/>
3. EXISTING 3\"/>
4. BUILD 3\"/>
5. EXISTING 6\"/>
6. BUILD 6\"/>

GENERAL

SEE ARCHITECTURAL SITE PLAN FOR SITE DIMENSIONS.

SITE DRAINAGE DATA

| CONDITION | B | STORM | TREATMENT | EXCESS | PEAK | RUNOFF | RUNOFF |
|-----------|---|--------|-----------|---------------|----------|---------|--------|
| | A | RETURN | TYPE | PRECIPITATION | RUNOFF | VOLUME | RATE |
| | I | S | | | | | |
| | N | PERIOD | AREA | | | | |
| | - | year | sq. ft. | in. | cfs/acre | cu. ft. | cfs |
| EXISTING | S | 10 | A | 39952 | 0.13 | 0.38 | 433 |
| | I | | B | 0 | 0.28 | 0.95 | 0 |
| | T | | C | 0 | 0.52 | 1.71 | 0 |
| | E | | D | 0 | 1.34 | 3.14 | 0 |
| | | | TOTAL | 39952 | | 433 | 0.35 |
| | | 100 | A | 39952 | 0.53 | 1.56 | 1765 |
| DEVELOPED | S | 10 | A | 0 | 0.13 | 0.38 | 0 |
| | I | | B | 7634 | 0.28 | 0.95 | 178 |
| | T | | C | 0 | 0.52 | 1.71 | 0 |
| | E | | D | 32318 | 1.34 | 3.14 | 3609 |
| | | | TOTAL | 39952 | | 3787 | 2.50 |
| | | 100 | A | 0 | 0.53 | 1.56 | 0 |
| | | | B | 7634 | 0.78 | 2.28 | 496 |
| | | | C | 0 | 1.13 | 3.14 | 0 |
| | | | D | 32318 | 2.12 | 4.7 | 5710 |
| | | | TOTAL | 39952 | | 6206 | 3.89 |

PERMANENT BENCHMARK

ACS 25-117 ELEVATION 5324.173 NAVD 88

LEGAL DESCRIPTION

LOT 24A, BLOCK 39, RIDGECREST ADDITION

CONCRETE CHANNEL FLOW

ENTRY (Broad Crested Weir)
BASINS A THRU D. SEE SHEET C-5 FOR FLOW DATA TABLE
 $Q = CLH^{1.48}$, where $Q=1.46$ cfs, $C=2.8$, $H=0.45$ ft
Therefore $L = 1.73$ ft
USE 30\"/>

BARREL (Mannings)
BASINS A THRU E. SEE SHEET C-5 FOR FLOW DATA TABLE
 $Q = (1.49/n)AR^{2/3}S^{1/2}$, $Q=1.86$ cfs, $n=0.013$, $W=1.5$ ft, $S=0.004$ ft/ft
Therefore flow depth = 0.42 ft and velocity = 2.95 fps
USE 18\"/>

BARREL TAPER
Taper = 20 Degree Maximum
(2.50 - 1.50)/tan20 = 2.75 ft
USE 3\"/>

SEE DRAINAGE DATA (SHEET C-5) FOR BASIN BOUNDARIES AND CALCULATIONS FOR SIDEWALK CULVERTS.

LEGEND

| | |
|-----|------------------------|
| TBM | TEMPORARY BENCHMARK |
| FF | FINISH FLOOR |
| FG | FINISH GRADE |
| FL | FLOWLINE |
| TA | TOP OF ASPHALT |
| TC | TOP OF CONCRETE |
| BC | TOP BACK OF CURB |
| TP | TOP OF EARTH PAD |
| TS | TOP OF SIDEWALK |
| TW | TOP OF WALL |
| FH | FIRE HYDRANT |
| WM | WATER METER |
| WV | WATER VALVE |
| MH | MANHOLE |
| CB | CATCH BASIN GRATE |
| GM | GAS METER |
| GV | GAS VALVE |
| LP | LIGHT POLE |
| PP | POWER POLE |
| GW | GUY WIRE |
| PED | ELEC. OR TEL. PEDESTAL |
| RD | ROOF DRAINAGE POINT |

| | |
|---------|--------------------------|
| --- | FEMA FLOODPLAIN BOUNDARY |
| --- | DRAINAGE BASIN BOUNDARY |
| --- | EROSION SETBACK LINE |
| --- | EXISTING CONTOUR |
| --- | PROPOSED CONTOUR |
| XX.XX | EXISTING SPOT ELEVATION |
| XX.XX | PROPOSED SPOT ELEVATION |
| -XX.XX- | RECORD SPOT ELEVATION |

DRAINAGE NOTES

1. THE SITE WAS PREVIOUSLY USED FOR APARTMENTS WHICH WERE RECENTLY DESTROYED BY FIRE. THE SITE IS PRESENTLY VACANT AND SLOPES DOWNWARD TO THE NORTH. THE PROPOSED USE IS MULTIFAMILY RESIDENTIAL WITH MOST OF THE SITE BEING IMPERVIOUS SURFACES AND SOUTHWEST LANDSCAPING.
2. THE PEAK DISCHARGE RATE WILL INCREASE BY 1.01 AND 1.08 CFS FOR THE 10 YEAR AND 100 YEAR STORMS RESPECTIVELY AND THE 6 HOUR RUNOFF VOLUMES FOR THE 10 YEAR AND 100 YEAR STORM WILL INCREASE BY 1583 AND 2097 CUBIC FEET RESPECTIVELY.
- ALL DRAINAGE WILL BE DIRECTED TO JACKSON ST. VIA ASPHALT AND CONCRETE SURFACES. WATER HARVESTING IS PROVIDED IN LANDSCAPE AREAS WHERE POSSIBLE.
3. THE SITE IS LOCATED IN A "ZONE X" PER FEMA FIRM MAP NO. 362, DATED SEPTEMBER, 2008.
4. TOPO SURVEY DATA SHOWN ON THIS DRAWING WAS OBTAINED BY WAYJOHN SURVEYING INC., DATED OCTOBER, 2011.

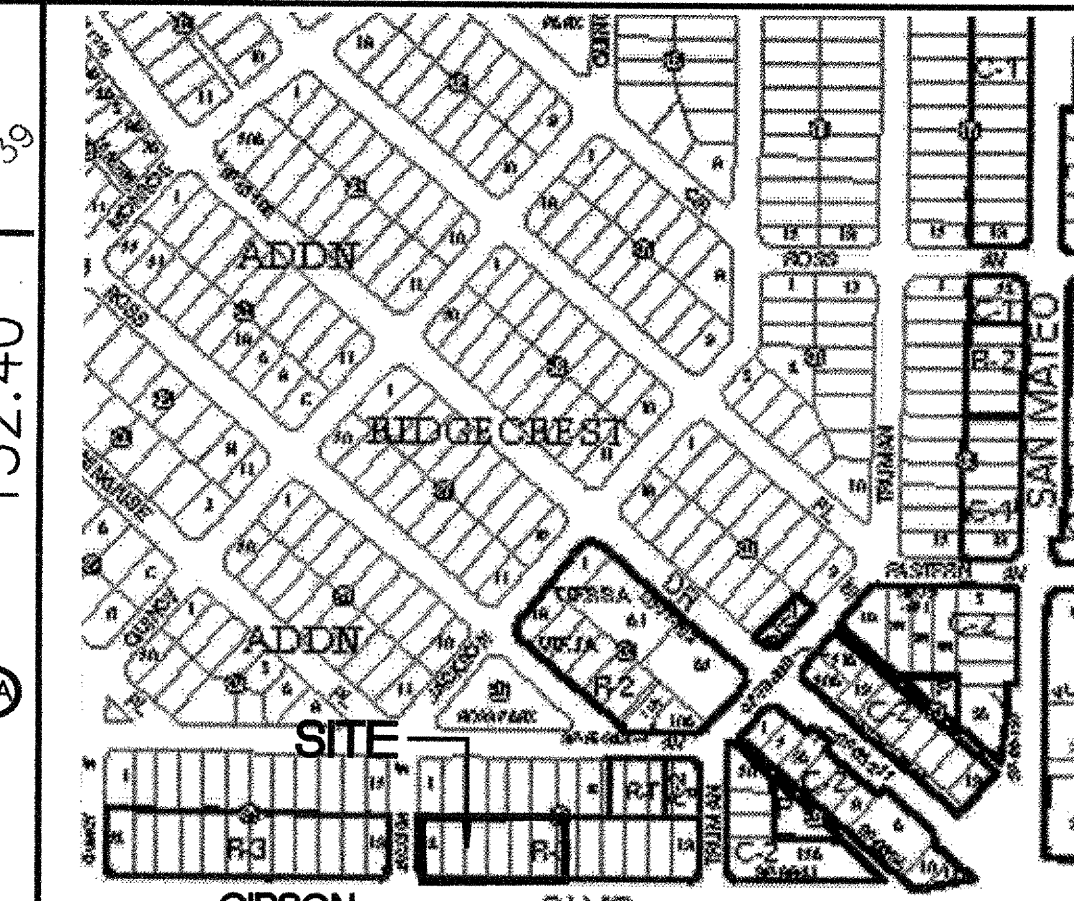
EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERM OR SILT FENCES AT PROPERTY LINES AND WETTING SOIL TO PREVENT IT FROM BLOWING. IF THE SITE IS CONTROLLED BY A SWPPP PLAN, EROSION CONTROL SHALL BE ACCOMPLISHED ACCORDING TO THE PLAN.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE THE APPROPRIATE BARRICADING, TOP SOIL, DISTURBANCE AND EXCAVATION PERMITS FROM THE CITY PRIOR TO BEGINNING CONSTRUCTION.

GRADING NOTES

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION 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.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

VICINITY MAP NO. L-17



FEMA FIRM PANEL NO. 362



ENGINEER'S CERTIFICATION

I, JEAN J. BORDENAVE, NMPE&LS NO. 5110, OF THE FIRM BORDENAVE DESIGNS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 10/10/2011. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

EXCEPTIONS AND/OR QUALIFICATIONS:

THE RECORD INFORMATION PRESENTED ON THE EDITED DESIGN DOCUMENT IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THE EDITED DESIGN DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

DESIGNER

DATE

BY

St Price

DESIGN STUDIO 2011

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REGISTERED PROFESSIONAL ENGINEER

NO. 5110

JEAN J. BORDENAVE

PERMIT

GIBSON APARTMENTS

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ALBUQUERQUE, NEW MEXICO

DESIGN STUDIO

Joseph B. Burwinke Jr.

ARCHITECT

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Albuquerque, New Mexico 87120 505.345.3850

DRAWN

meto

CHECKED

DATE

12.12.11

SCALE

11:16

SHEET

C-4

9

SHEET