

CITY OF ALBUQUERQUE



March 25, 2016

Richard J. Berry, Mayor

James Craig Hagelgantz, P.E.
ABQ Engineering
8102 Menaul Blvd NE, Suite D
Albuquerque, NM, 87110

**RE: NMAC Building (Gym/Volleyball Courts)
Grading and Drainage Plan
Engineer's Stamp Date 1-20-2016 (File:D16D002F)**

Dear Mr. Hagelgantz:

Based upon the information provided in your submittal received 2-5-2016, the above referenced Grading and Drainage Plan is approved for Building Permit, with the following condition:

1. Increase the volume of the larger first flush pond to offset the lack of flow expected to get to the three parking lot planters (the parking lot planter depressions can be eliminated). Please show the change on the as-built set when submitting the Certification.
2. Submit an ESC Plan and an ESC Grading Permit prior to any earthwork.

Please attach a copy of this approved plan in the construction sets when submitting for the building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

Orig: Drainage file



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

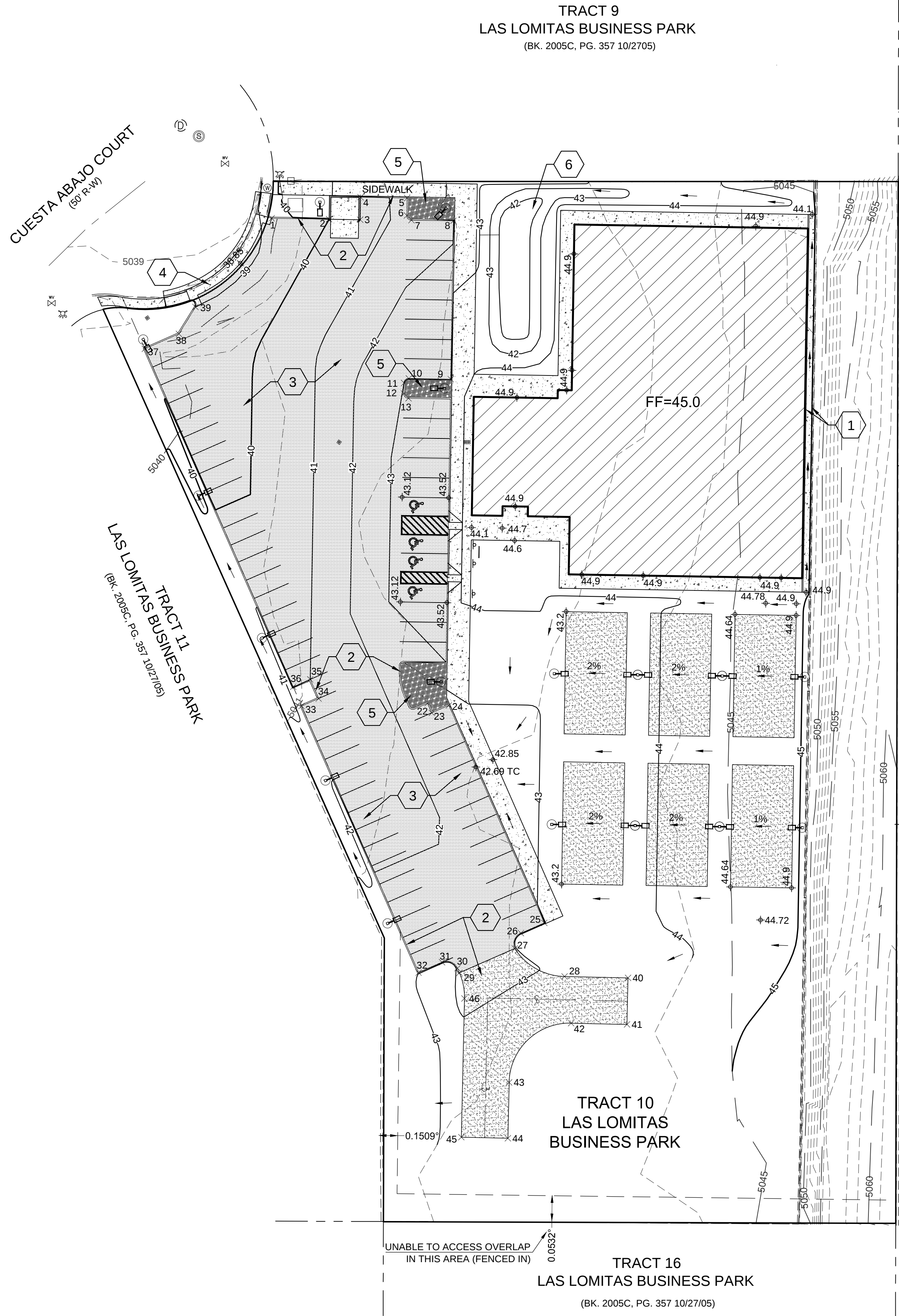
☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

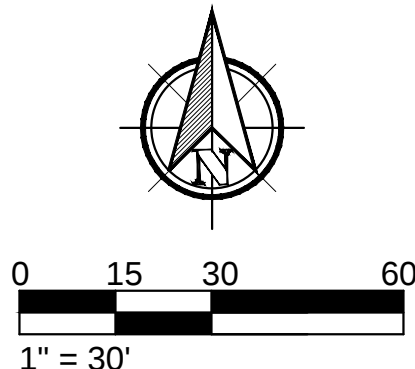
COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

LAST MODIFIED: Jan 20, 2016 - 1:57pm BY USER: Ckyrd
DWG. LOCATION: K:\Projects\2015\15-022 Civil\15-022 Civil.dwg
DWG. NAME: 15-022 Civil.dwg



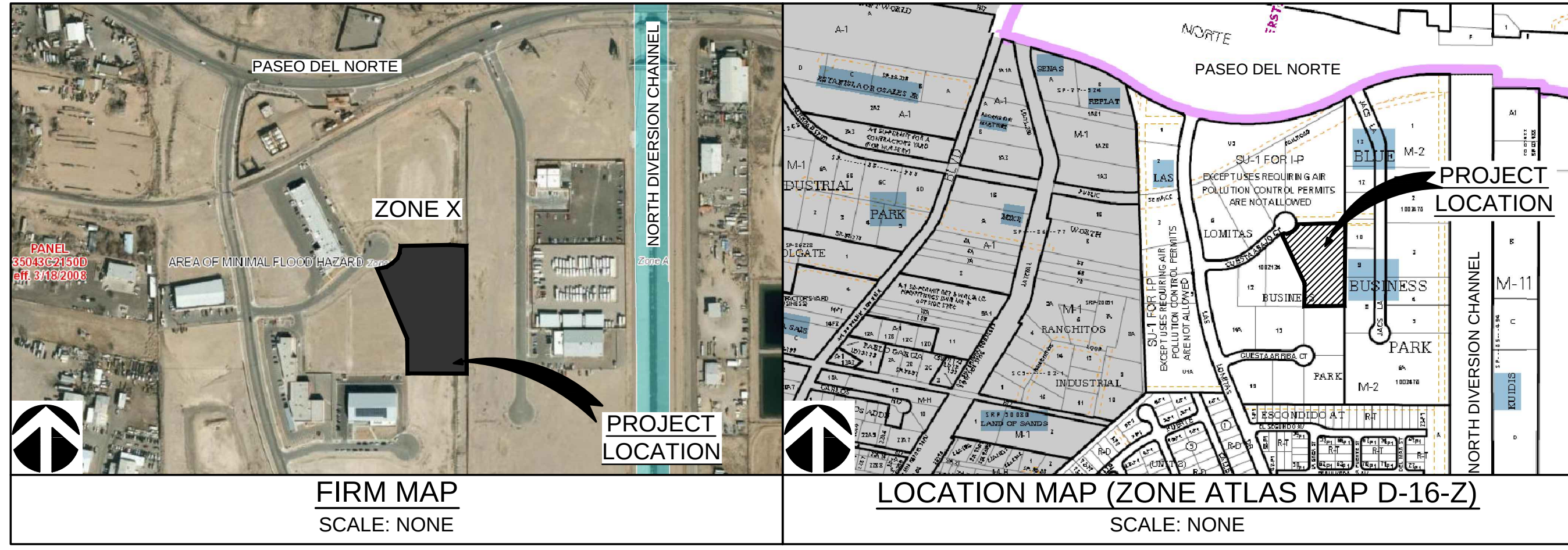
GRADING & DRAINAGE PLAN

Scale: 1" = 30'



POINT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	5039.20	1518094.93	1533315.13	PC 2'R
2	5040.00	1518094.52	1533339.80	CURB @ WALL
3	5040.35	1518094.30	1533353.13	END WALL
4	5040.65	1518103.96	1533353.29	CURB @ WALL
5	5041.15	1518103.63	1533373.29	COR CURB
6	5041.10	1518096.13	1533373.17	PC 2'R
7	5041.20	1518094.10	1533375.13	PT
8	5041.80	1518093.80	1533393.13	COR PKG
9	5043.20	1518025.81	1533392.00	COR PKG
10	5043.00	1518026.11	1533374.01	PC 2'R
11	5043.00	1518024.14	1533371.97	PT
12	5043.07	1518019.64	1533371.90	PC 2'R
13	5043.12	1518017.61	1533373.87	PT
14	5043.40	1518017.31	1533391.86	COR PKG
15	5043.00	1517904.33	1533389.99	COR PKG
16	5042.50	1517904.62	1533371.99	PC 2'R
17	5042.40	1517902.66	1533369.96	PT
18	5042.37	1517900.72	1533369.93	PC 28'R
19	5042.20	1517889.01	1533372.29	PT
20	5042.20	1517885.26	1533373.93	PC 2'R
21	5042.25	1517884.24	1533376.56	PT
22	5042.42	1517886.65	1533382.06	COR PKG
23	5042.42	1517882.53	1533383.87	COR PKG
24	5042.65	1517885.74	1533391.19	COR PKG
25	5042.60	1517792.34	1533432.17	COR PKG
26	5042.50	1517787.92	1533422.10	PC 5'R
27	5042.50	1517781.33	1533419.53	PCC-END CURB
28	5043.20	1517776.75	1533421.54	PT TURNAROUND
29	5042.60	1517766.30	1533397.73	PT-END CURB
30	5042.55	1517772.84	1533394.86	PC 5'R
31	5042.50	1517775.41	1533388.27	PT
32	5042.50	1517770.99	1533378.20	COR PKG
33	5041.20	1517885.46	1533327.98	COR PKG
34	5041.10	1517888.67	1533335.30	COR PKG
35	5041.00	1517896.92	1533331.69	COR PKG
36	5039.90	1517893.70	1533324.36	COR PKG
37	5039.30	1518038.85	1533260.68	COR PKG
38	5039.15	1518045.27	1533275.33	CURB ANGLE
39	5039.00	1518056.82	1533282.45	PC 2'R
40	5043.70	1517768.70	1533468.11	END TURNAROUND
41	5043.80	1517748.71	1533467.66	END TURNAROUND
42	5043.50	1517749.25	1533443.67	PC TURNAROUND
43	5043.30	1517723.84	1533417.09	PT TURNAROUND
44	5043.30	1517699.85	1533416.54	END TURNAROUND
45	5043.10	1517700.30	1533396.55	END TURNAROUND
46	5043.00	1517759.87	1533397.90	PC TURNAROUND

NOTE:
ALL CURB ELEVATIONS ARE FLOWLINE
UNLESS OTHERWISE NOTED.



DRAINAGE NARRATIVE

THIS SITE IS LOCATED AT THE SE END OF CUESTA ABAJO COURT NE IN, WITHIN THE LAS LOMITAS BUSINESS PARK (LLBP) IN ALBUQUERQUE, NM AND CONTAINS APPROXIMATELY 2.71 ACRES. THE SITE IS CURRENTLY UNDEVELOPED WITH NO STRUCTURES AND CURRENTLY DRAINS FROM EAST TO WEST. THIS SITE IS LOCATED ON FIRM MAP NO. 35001C0136G, PANEL 30136G WHICH INDICATES THE ENTIRE SITE IS LOCATED IN ZONE X, AND THAT NO PORTION OF THE SITE IS LOCATED WITHIN A 100 YEAR FLOOD PLAIN. LOT 10 IS INCLUDED IN A MASTER GRADING AND DRAINAGE PLAN PREVIOUSLY DEVELOPED FOR LLBP AND FILED WITH THE CITY OF ALBUQUERQUE.

PER THE COA HYDROLOGY CONFERENCE THE "FIRST FLUSH" RUNOFF VOLUME SHALL BE RETAINED ONSITE WITHIN DEPRESSED LANDSCAPE AREAS AND/OR SITE PONDS. THE PONDING OF THE 90TH PERCENTILE STORM EVENT (100 YEAR, 10 DAY) WILL NOT BE REQUIRED IF THE PROPOSED DISCHARGE Q (1440) IS LESS THAN THE ALLOWABLE MAXIMUM DISCHARGE OF Qa = 8.8 CFS. SEE CALCULATIONS FOR DEVELOPED DISCHARGE. THE DEVELOPED RUNOFF FOR THE SITE WILL BE DIRECTED FROM THE SITE TOWARDS CUESTA ABAJO COURT NE. ONCE THE SITE RUNOFF HAS LEFT THE SITE THE STREET WILL DIRECT THE DRAINAGE INTO THE EXISTING INLET DRAINAGE STRUCTURES LOCATED AT THE WEST END OF CUESTA ABAJO COURT NE.

KEYED NOTES

- CONSTRUCT CONCRETE CURB AND SWALE @ 0.5% LONGITUDINAL SLOPE BETWEEN NEW BUILDING AND EXISTING WALL. SEE DETAIL 7/C-501.
- CONSTRUCT 6" CONCRETE CURB PER DETAIL 6/C-501.
- INSTALL ASPHALT PAVEMENT PER. SEE DETAIL 8/C-501.
- CONSTRUCT CONCRETE VALLEY GUTTER PER COA STD. DWG. 2420, SECTION A-A.
- PLANTING RETENTION AREA. DEPRESS 6" MINIMUM. VOLUME PROVIDED FOR FIRST FLUSH = 303 CF.
- CONSTRUCT RETENTION PONDING AREA. VOLUME PROVIDED FOR FIRST FLUSH = 1208 CF STORAGE.

ENGINEER'S STATEMENT

I, THE ENGINEER OF RECORD CERTIFY THAT I HAVE PERSONALLY VISITED THE SITE AND THE EXISTING GRADES AND CONTOURS DEPICTED ON THIS PLAN MATCH WHAT PRESENTLY EXISTS AT THIS LOCATION.

JAMES CRAIG HAGELGANTZ, NMPE #15559

DRAINAGE CALCULATIONS

Hydrology Calculations				
DPM - Volume 2, October 2008				
Section 22.2 Hydrology				
Precipitation Zone	2			
100 Year Storm Depth, P (360)	2.35			
100 Year Storm Depth, P (1440)	2.75			
Treatment Area	A	B	C	D
Excess Precipitation Factors	0.53	0.78	1.13	2.12
Peak Discharge Factors	1.56	2.28	3.14	4.70
Land Treatment Area	Acres	Existing	Allowable%	Proposed
Type "D" (Impervious, Roof, Drive way, Ect.)	0	1.14		
Type "C" (Compacted Soil, Unpaved Parking)	2.32	0.58		
Type "B" (Landscape Areas, Sand Courts)	0	0.21		
Type "A" (Undeveloped)	0.39	0.39		
Total (Acres)	2.710	2.320		
Excess Precipitation E (in)	1.04	1.48		
Volume (360), acre-ft	0.236	0.287		
Volume (1440), acre-ft	0.274	0.325		
Q (360), cfs	7.893	8.270		
Q (1440), cfs	7.341	7.691		
PER MASTER GRADING AND DRAINAGE PLAN FOR LAS LOMITAS BUSINESS PARK MAXIMUM ALLOWABLE DISCHARGE FOR LOT 10 - Q (1440) = 8.80 cfs AND THE PROPOSED Q (1440) = 7.69 CFS < MAX. ALLOWABLE DISCHARGE RATE.				

ONSITE DRAINAGE RETENTION

FIRST FLUSH STORAGE REQUIRED BY COA HYDROLOGY:

PROVIDE STORAGE FOR FIRST FLUSH RUNOFF PER SECTION 22 OF DPM
TABLE A-6 USE 0.1 - 0.44 = 0.34 IN

FIRST FLUSH (IN) APPLIED OVER IMPERVIOUS AREAS (ACRES)
THEREFORE 0.34/12 x 1.14 x 43560 = 1407 CF

FIRST FLUSH PONDING AREA REQD. = 1407 CF < 1511 CF PROVIDED
(SEE NOTE 5 & 6)

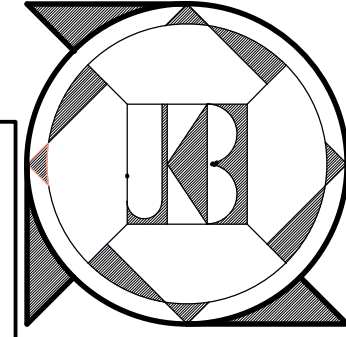
LEGEND

---	6510	---	EXISTING INDEX CONTOUR
---	6509	---	EXISTING INTERIM CONTOUR
---	10	---	NEW INDEX CONTOUR
---	09	---	NEW INTERIM CONTOUR
+	22.8		NEW SPOT ELEVATION
---		---	EXISTING CONCRETE SIDEWALK
---		---	NEW CONCRETE SIDEWALK
---		---	NEW ASPHALT PAVEMENT
---		---	NEW GRAVEL
---		---	NEW BUILDING
FF			FINISH FLOOR ELEVATION
---		---	EXISTING SANITARY SEWER MANHOLE
---		---	NEW SANITARY SEWER CLEANOUTS
---		---	EXISTING STORM DRAIN STRUCTURE
---		---	DIRECTION OF FLOW
---		---	EXISTING FIRE HYDRANT
---		---	EXISTING GATE VALVE
---		---	EXISTING FENCE LINE
---		---	NEW SIGN
---		---	NEW SITE LIGHT

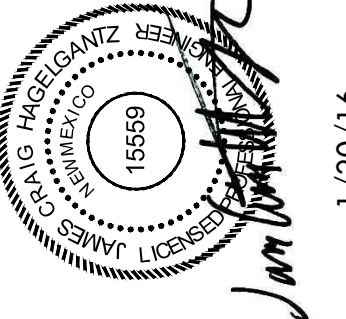
ABQ Engineering
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DATE: 12-15-2015

C-101



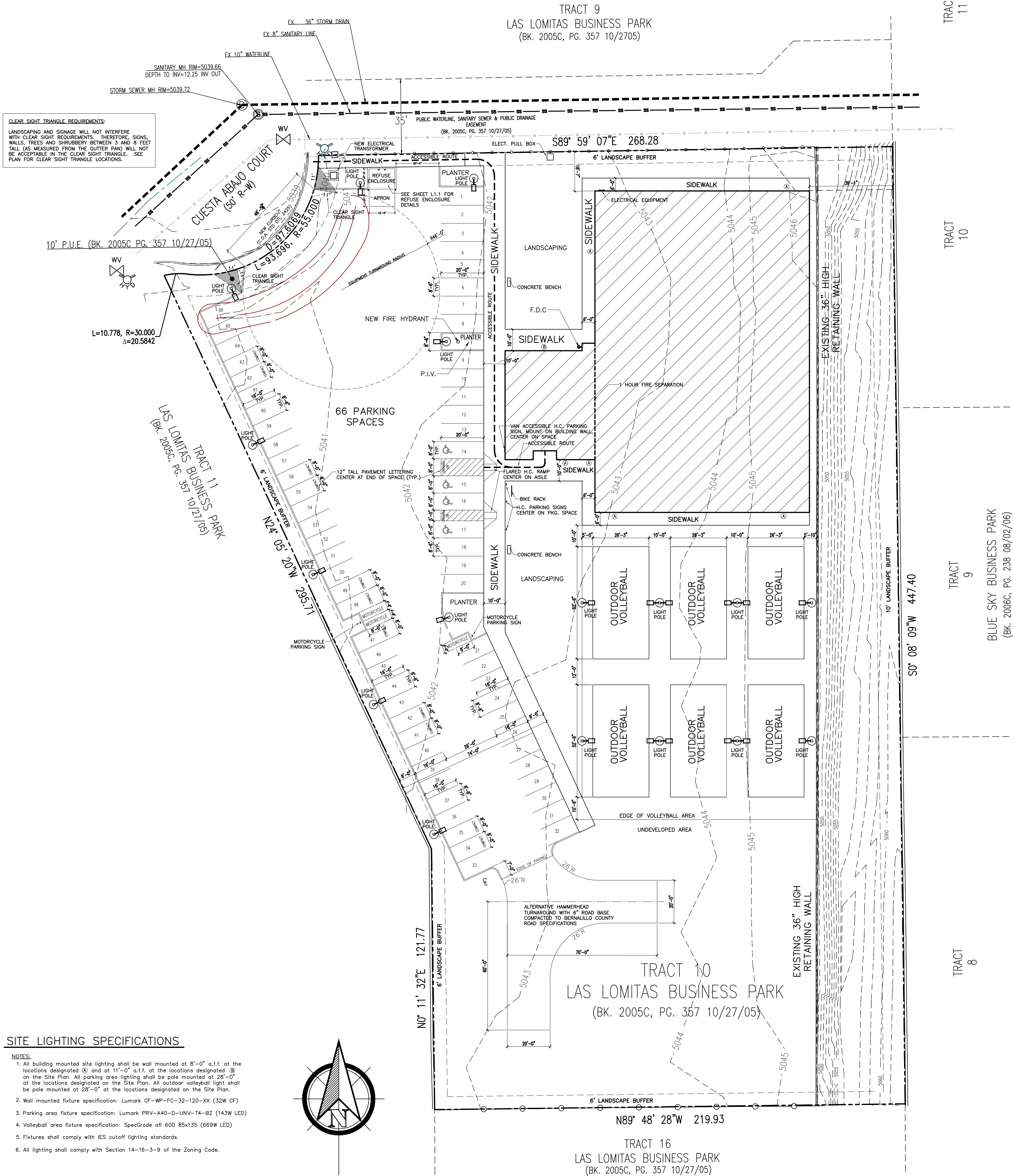
J. KORY BAKER • ARCHITECT
P.O. BOX 254 • ESTANCA • NM • 87016
505 • 384 • 3112 j.k.baker@centurylink.net



N M A C B U I L D I N G
ALBUQUERQUE • NEW MEXICO
GRADING & DRAINAGE PLAN

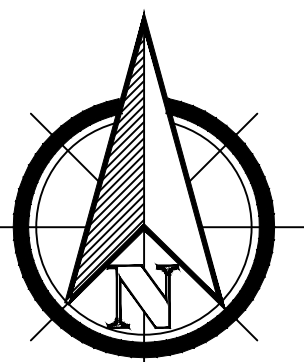
1/20/16

CLEAR SIGHT TRIANGLE REQUIREMENTS:
LANDSCAPING AND SIGNAGE WILL NOT INTERFERE WITH CLEAR SIGHT REQUIREMENTS. THEREFORE, SIGNS, WALLS, TREES AND SHRUBBERY BETWEEN 3 AND 8 FEET TALL (AS MEASURED FROM THE GUTTER PAN) WILL NOT BE ACCEPTABLE IN THE CLEAR SIGHT TRIANGLE. SEE PLAN FOR CLEAR SIGHT TRIANGLE LOCATIONS.



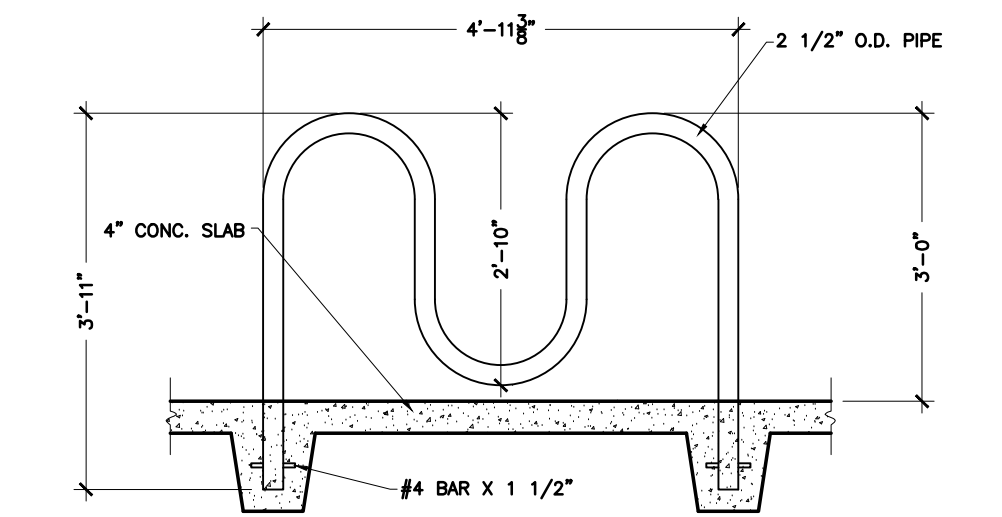
SITE LIGHTING SPECIFICATIONS

1. All building mounted site lighting shall be wall mounted at 8'-0" a.f.f. at the locations designated (A) and at 11'-0" a.f.f. at the locations designated (B) on the Site Plan. All parking area lighting shall be pole mounted at 28'-0" at the locations designated on the Site Plan. All outdoor volleyball light shall be pole mounted at 28'-0" at the locations designated on the Site Plan.
2. Wall mounted fixture specification: Lumark CF-WP-FC-32-120-XX (32W CF)
3. Parking area fixture specification: Lumark PRV-A40-D-UNV-T4-BZ (143W LED)
4. Volleyball area fixture specification: SpecGrade off 600 85x135 (669W LED)
5. Fixtures shall comply with IES cutoff lighting standards.
6. All lighting shall comply with Section 14-16-3-9 of the Zoning Code.

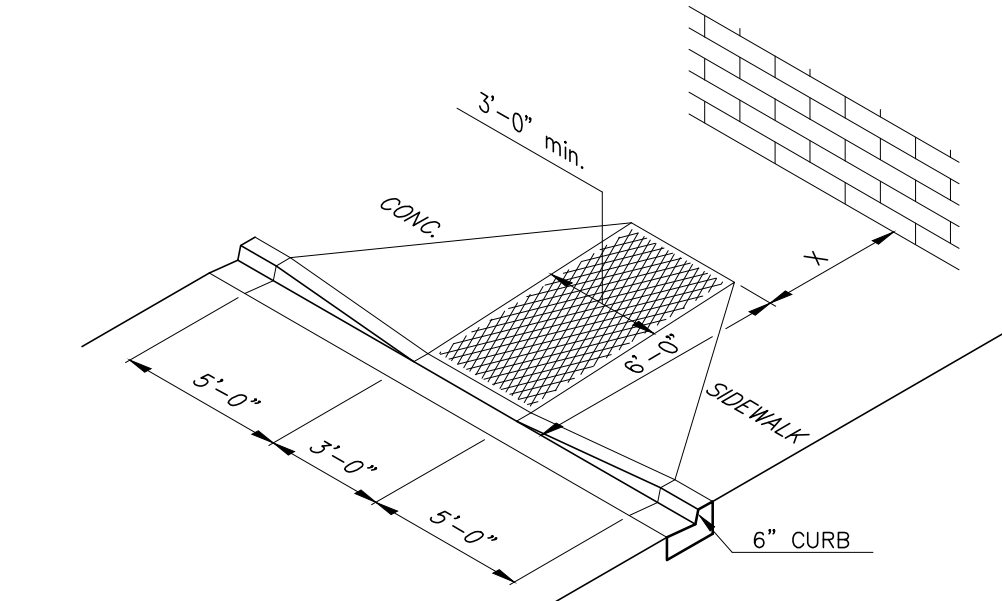


TRAFFIC CIRCULATION LAYOUT

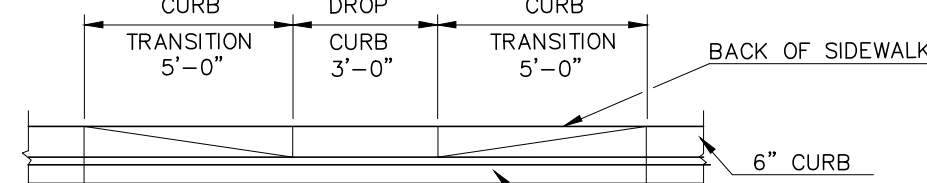
1" = 25'-0"



BIKE RACK DETAIL 1/2" = 1'-0"

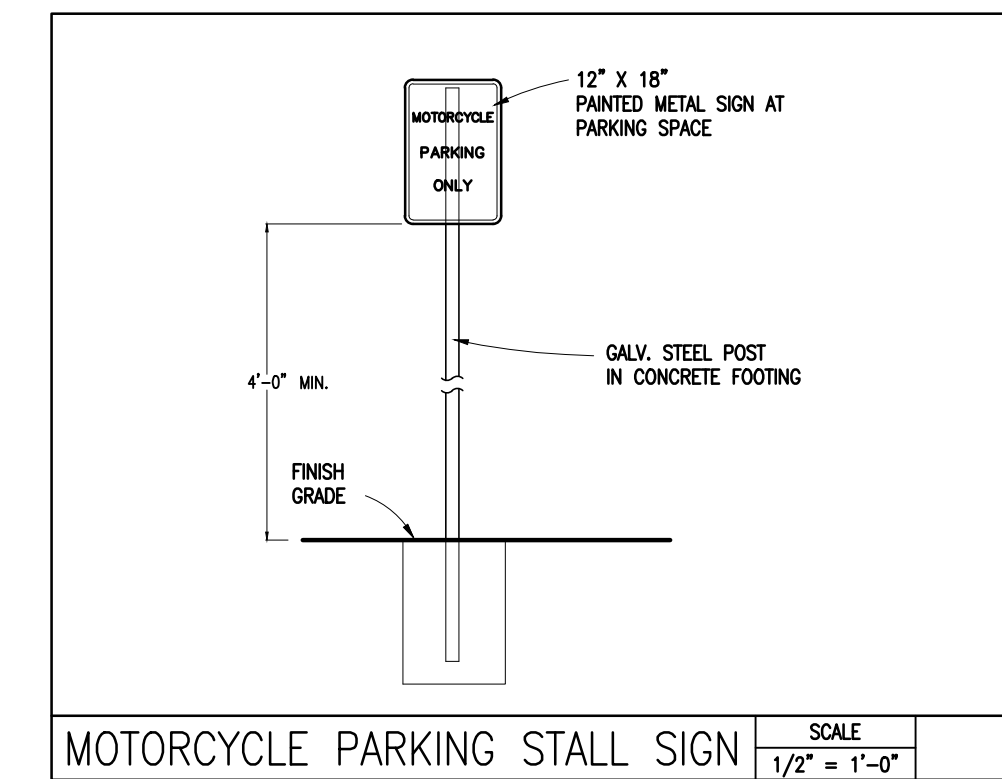


ISOMETRIC VIEW



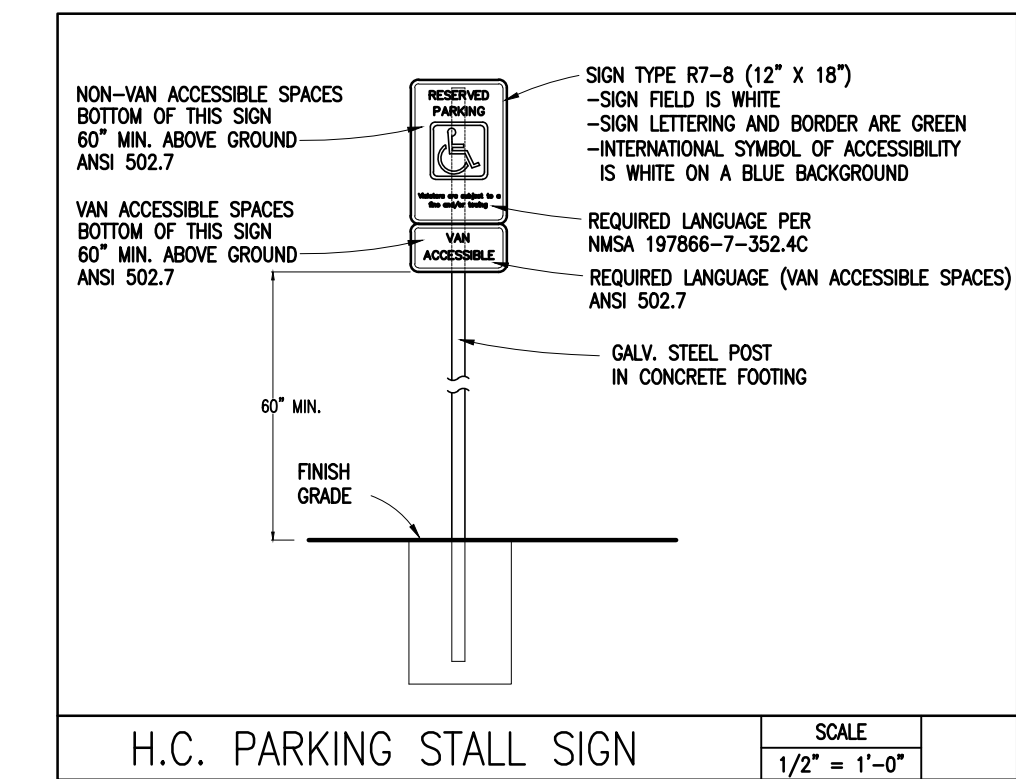
- NOTES:
1. Ramps are designed to the Uniform Federal Accessibility Standards to comply with the Americans with Disabilities Act.
 2. Ramps Shall Have a Tactile Surface, Textured to a Depth Not Exceeding 1/8" by use of Ramp or roller in Conformance with Requirements of FDOT Roadway and Traffic Design Standards, Detail 304 Or Most Recent Modifications.

FLARED H.C. RAMP NO SCALE



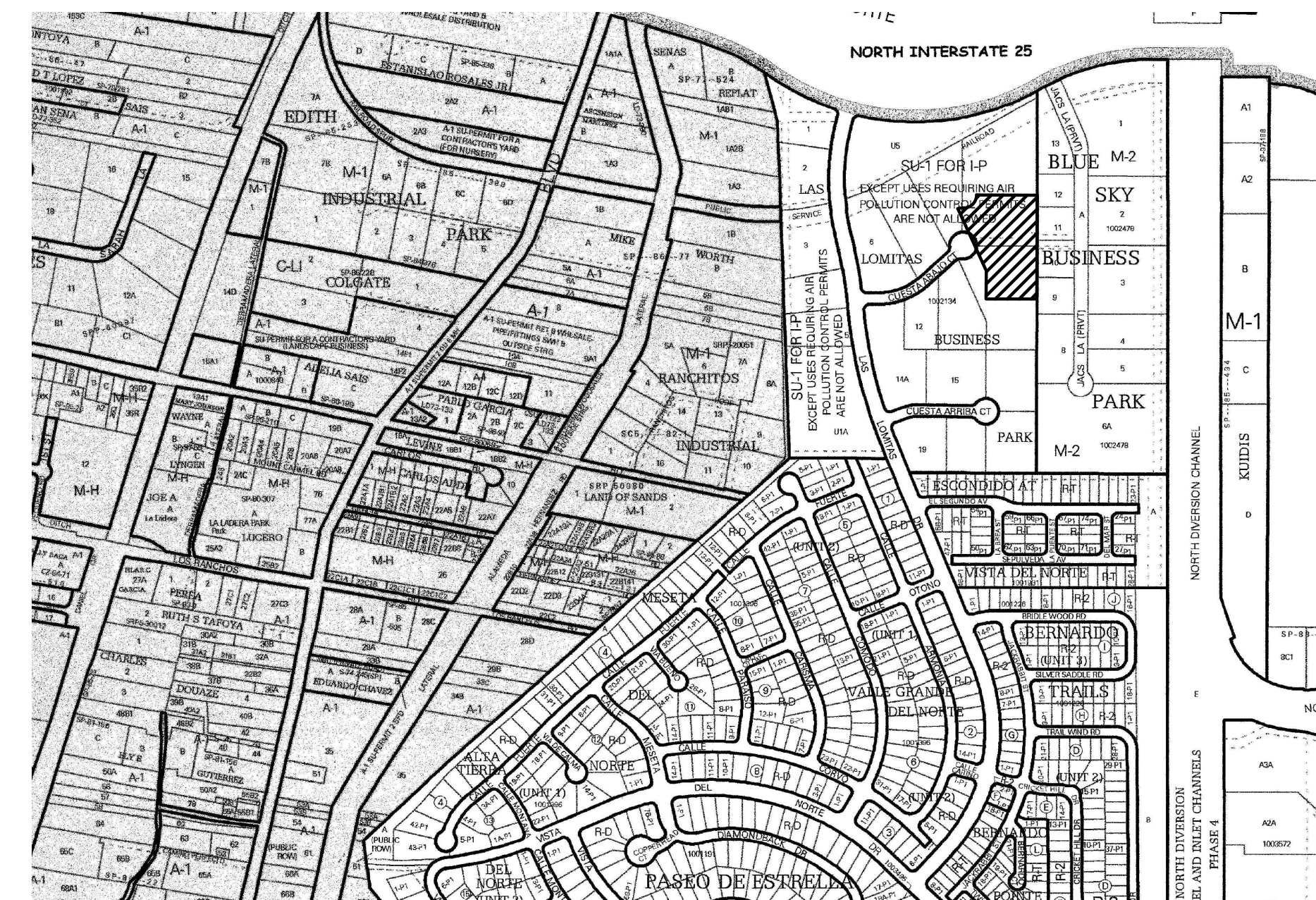
MOTORCYCLE PARKING STALL SIGN

SCALE
1/2" = 1'-0"



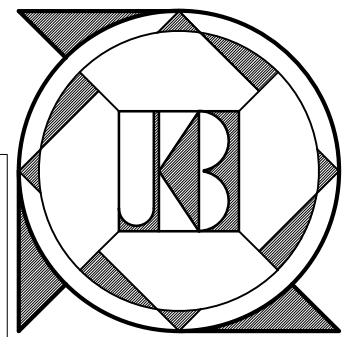
H.C. PARKING STALL SIGN

SCALE
1/2" = 1'-0"



VICINITY MAP (ZONE ATLAS MAP D-16-Z) N.T.S.

CABQ ELECTRONIC STAMP



J. KORY BAKER • ARCHITECT

P.O. BOX 254 • ESTANCIA • NM • 87016

505 • 384 • 3112 j.k.baker@centurylink.net



N M A C B U I L D I N G
ALBUQUERQUE • NEW MEXICO

SITE PLAN

DRAWN BY:
DATE: 1.20.2016



T 1.1