Unser Crossing

Existing and Proposed Conditions Basin Data Table

This table is based on the DPM Section 22.2, Zone; 1

Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages A	B	C	D	Q(100) (cfs/ac.)	Q(100) (CFS)	V(100) (inches)	V(100) (CF)
ALLOWABLE FLOWS (AMOLE DEL NORTE STORM DIVERSION FACILITIES TIERRA BAYITA DRAINAGE PHASE III REPORT)										
17E	1169752	26.85	-	-	-	-	4.13	*110.80*	*0.00*	*0*
17W	1016757	23.34	-	-	-	-	3.37	*78.68*	*0.00*	*0*
PROPOSED										
1	635827.8	14.60	0.0%	5.0%	5.0%	90.0%	4.18	*60.98*	*1.86*	*98341*
2	412384.3	9.47	0.0%	5.0%	5.0%	90.0%	4.18	*39.55*	*1.86*	*63782*
3	271401.3	6.23	0.0%	10.0%	5.0%	85.0%	4.06	*25.30*	*1.79*	*40507*
4	236114.3	5.42	0.0%	0.0%	10.0%	90.0%	4.22	*22.87*	*1.87*	*36834*
5	18734.06	0.43	0.0%	0.0%	0.0%	100.0%	4.37	*1.88*	*1.97*	*3076*
6	18126.49	0.42	0.0%	0.0%	0.0%	100.0%	4.37	*1.82*	*1.97*	*2976*
7	5248.73	0.12	0.0%	0.0%	0.0%	100.0%	4.37	*0.53*	*1.97*	*862*
8	5174.885	0.12	0.0%	0.0%	0.0%	100.0%	4.37	*0.52*	*1.97*	*850*
9	31760	0.73	0.0%	0.0%	0.0%	100.0%	4.37	*3.19*	*1.97*	*5214*
10	81221	1.86	0.0%	0.0%	0.0%	100.0%	4.37	*8.15*	*1.97*	*13334*
11	64361.51	1.48	0.0%	20.0%	15.0%	65.0%	3.68	*5.43*	*1.56*	*8393*
11.1	99162.35	2.28	0.0%	20.0%	15.0%	65.0%	3.68	*8.37*	*1.56*	*12916*
12	29927.83	0.69	0.0%	10.0%	5.0%	85.0%	4.06	*2.79*	*1.79*	*4467*
12.1	58096.99	1.33	0.0%	10.0%	5.0%	85.0%	4.06	*5.42*	*1.79*	*8671*
13	217737	5.00	0.0%	0.0%	5.0%	95.0%	4.30	*21.47*	*1.92*	*34856*
TOTAL	**2185279**	**50.17**	-	-	-	-	-	***208.27***	-	***335067***

Orifice Plate Sizing Table

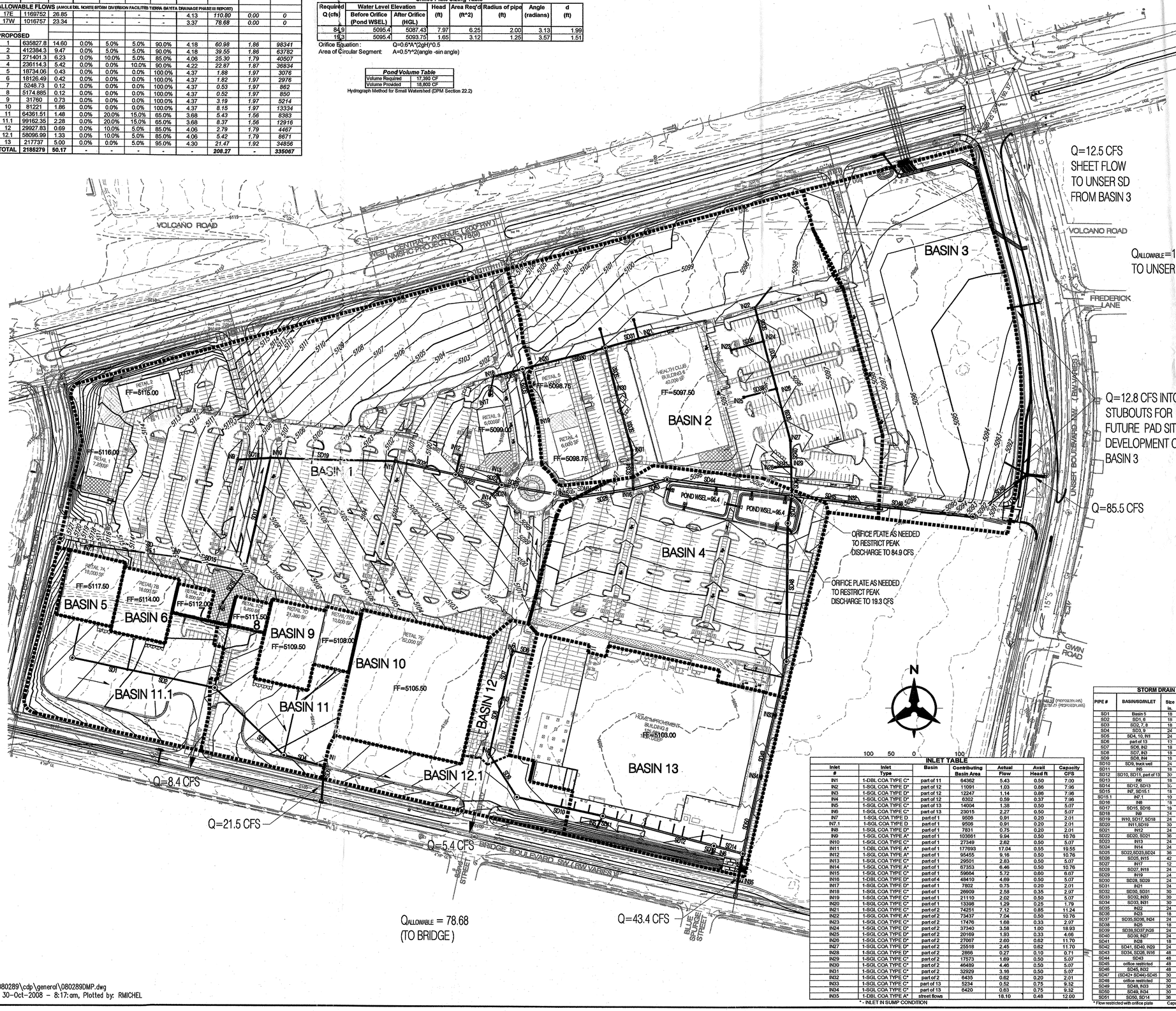
Required Q (cfs)	Water Level Elevation Before Orifice (Pond WSEL)	After Orifice (HGL)	Head (ft)	Area Req'd (ft^2)	Radius of pipe (ft)	Angle (radians)	d (ft)
84.9	5095.4	5087.43	7.97	6.25	2.00	3.13	1.99
19.3	5095.4	5093.75	1.65	3.12	1.25	3.57	1.51

Orifice Equation: Q=0.6*A*(2gH)^0.5
Area of Circular Segment: A=0.5*r^2(angle -sin angle)

Pond Volume Table

Volume Required	17,360 CF
Volume Provided	18,800 CF

Hydrograph Method for Small Watershed (DPM Section 22.2)



INLET TABLE

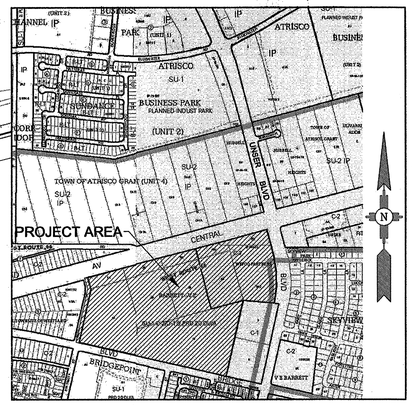
Inlet #	Inlet Type	Basin	Contributing Basin Area	Actual Flow	Avail Head ft	Capacity CFS
IN1	1-DBL COA TYPE C*	part of 11	64362	5.43	0.50	7.00
IN2	1-SGL COA TYPE D*	part of 12	11091	1.03	0.86	7.96
IN3	1-SGL COA TYPE D*	part of 12	12247	1.14	0.86	7.96
IN4	1-SGL COA TYPE D*	part of 12	6302	0.59	0.37	7.96
IN5	1-SGL COA TYPE C*	part of 13	14904	1.38	0.50	5.07
IN6	1-SGL COA TYPE C*	part of 13	23015	2.27	0.50	5.07
IN7	1-SGL COA TYPE D	part of 1	9505	0.91	0.20	2.01
IN7.1	1-SGL COA TYPE D	part of 1	9505	0.91	0.20	2.01
IN8	1-SGL COA TYPE D*	part of 1	7831	0.75	0.20	2.01
IN9	1-SGL COA TYPE A*	part of 1	103861	9.94	0.50	10.76
IN10	1-SGL COA TYPE C*	part of 1	27349	2.62	0.50	5.07
IN11	1-DBL COA TYPE A*	part of 1	177693	17.04	0.55	19.55
IN12	1-SGL COA TYPE A*	part of 1	95455	9.16	0.50	10.76
IN13	1-SGL COA TYPE C*	part of 1	29501	2.83	0.50	5.07
IN14	1-SGL COA TYPE A*	part of 1	67353	6.46	0.50	10.76
IN15	1-SGL COA TYPE C*	part of 1	59664	5.72	0.60	6.67
IN16	1-DBL COA TYPE D*	part of 4	48410	4.69	0.50	5.07
IN17	1-SGL COA TYPE D*	part of 1	7852	0.75	0.20	2.01
IN18	1-SGL COA TYPE C*	part of 1	26909	2.58	0.35	2.97
IN19	1-SGL COA TYPE C*	part of 1	21110	2.02	0.50	5.07
IN20	1-SGL COA TYPE C*	part of 1	13398	1.29	0.25	1.79
IN21	1-SGL COA TYPE C*	part of 2	74251	7.12	0.85	11.24
IN22	1-SGL COA TYPE A*	part of 2	73437	7.04	0.50	10.76
IN23	1-SGL COA TYPE C*	part of 2	17476	1.68	0.33	2.97
IN24	1-SGL COA TYPE D*	part of 2	37340	3.58	1.00	18.93
IN25	1-SGL COA TYPE D*	part of 2	20169	1.93	0.33	4.66
IN26	1-SGL COA TYPE D*	part of 2	27067	2.60	0.62	11.70
IN27	1-SGL COA TYPE D*	part of 2	25518	2.45	0.62	11.70
IN28	1-SGL COA TYPE D*	part of 2	2866	0.27	0.10	0.71
IN29	1-SGL COA TYPE C*	part of 2	17573	1.69	0.50	5.07
IN30	1-SGL COA TYPE C*	part of 2	46489	4.46	0.50	5.07
IN31	1-SGL COA TYPE C*	part of 2	32929	3.16	0.50	5.07
IN32	1-SGL COA TYPE C*	part of 2	6435	0.62	0.20	2.01
IN33	1-SGL COA TYPE C*	part of 13	5234	0.52	0.75	9.32
IN34	1-SGL COA TYPE C*	part of 13	6420	0.63	0.75	9.32
IN35	1-DBL COA TYPE A*	street flows		18.10	0.48	12.00

* - INLET IN SUMP CONDITION

STORM DRAIN PIPE TABLE

PIPE #	BASIN/SD/INLET	Size in.	Slope	Capacity* cfs	ACTUAL FLOW cfs
SD1	Basin 5	18	2.00%	14.96	1.88
SD2	SD1, 6	18	2.00%	14.86	3.70
SD3	SD2, 7, 8	18	1.00%	10.50	4.74
SD4	SD3, 9	24	0.50%	16.00	7.93
SD5	SD4, 10, IN1	24	1.97%	31.75	21.51
SD6	part of 13	12	4.72%	7.74	3.16
SD7	SD6, IN2	18	1.00%	10.50	4.20
SD8	SD7, IN3	18	2.33%	16.21	5.34
SD9	SD8, IN4	18	3.90%	20.74	5.93
SD10	SD9, truck well	24	0.72%	19.59	6.37
SD11	IN5	18	8.00%	29.71	1.38
SD12	SD10, SD11, part of 13	30	0.75%	35.52	20.99
SD13	IN6	18	8.00%	29.71	2.27
SD14	SD12, SD13	30	0.75%	35.52	23.26
SD15	IN7, SD15.1	18	2.00%	14.86	1.82
SD15.1	IN7.1	10	3.72%	4.23	0.91
SD16	IN8	18	8.00%	29.71	0.75
SD17	SD15, SD16	18	2.00%	14.86	2.57
SD18	IN9	24	5.00%	50.74	9.94
SD19	IN10, SD17, SD18	24	7.10%	37.85	15.14
SD20	IN11,SD19	30	1.60%	41.02	32.18
SD21	IN12	24	3.99%	45.02	9.16
SD22	SD20, SD21	36	1.77%	88.74	41.34
SD23	IN13	24	3.00%	39.18	2.83
SD24	IN14	24	3.00%	39.18	6.46
SD25	SD22,SD23,SD24	36	2.00%	105.46	50.63
SD26	SD25, IN15	42	1.00%	100.61	56.35
SD27	IN17	12	1.00%	3.56	0.75
SD28	SD27, IN18	24	2.60%	36.62	3.33
SD29	IN19	24	1.10%	22.62	2.02
SD30	SD28, SD29	24	1.60%	22.62	5.35
SD31	IN21	24	6.57%	18.00	7.12
SD32	SD30, SD31	30	1.00%	41.02	12.48
SD33	SD32, IN30	30	1.00%	41.02	16.93
SD34	SD33, IN31	30	3.35%	75.07	20.00
SD35	IN22	24	1.60%	22.62	7.04
SD36	IN23	18	1.01%	10.56	1.68
SD37	SD35,SD36, IN24	24	1.00%	22.62	12.30
SD38	IN25	18	1.83%	14.21	1.93
SD39	SD38,SD37,IN26	24	1.00%	22.62	16.63
SD40	SD39, IN27	24	1.00%	22.62	19.28
SD41	IN28	18	6.55%	26.90	0.27
SD42	SD41, SD40, IN29	24	6.00%	63.99	21.24
SD43	SD34, SD26, IN16	48	0.50%	101.57	81.13
SD44	SD43	48	0.50%	101.57	81.13
SD45	orifice restricted	48	0.50%	101.57	84.88
SD46	SD45, IN32	48	0.50%	101.57	85.50
SD47	(SD42+ SD44)-SD45	30	0.50%	29.00	17.49
SD48	orifice restricted	30	0.50%	29.00	19.30
SD49	SD48, IN33	30	0.50%	29.00	19.82
SD50	SD49, IN34	30	0.50%	29.00	20.45
SD51	SD50, SD14	36	1.67%	86.19	43.71

* Flow restricted with orifice plate — Capacity Based on Manning's Eq w/ N=0.013



VICINITY MAP
ZONE ATLAS PAGES K-09-Z & K-10-Z

DRAINAGE NARRATIVE

I. INTRODUCTION
The purpose of this submittal is to present a grading and drainage plan for the proposed Unser Crossing development in SW Albuquerque. The project will include multiple retail buildings with pedestrian plazas, parking, and landscaping on approximately 50 acres. This Drainage Management plan is submitted for Building Permit approval.

II. SITE LOCATION
The site is located within zone atlas maps K-9-Z and K-10-Z. The site is bounded along the north by Central Ave., along the east by Unser Blvd., along the south by Bridge Blvd. and along the west by 86th St. In reference to the Federal Emergency Management Agency map #35001C0328E, there is a 1% annual chance flood zone adjacent to the site in Bridge Blvd.

III. EXISTING HYDROLOGIC CONDITIONS
The site encompasses approximately 50 acres and is undeveloped. Slopes for the site range between 1 to 3% to the east and there is sparse vegetation cover. Currently, the majority of the site drains via surface flow into inlets located in Bridge Blvd. and Unser Blvd.
These flows discharge through storm drain to a concrete lined channel near the southeast corner of Bridge and Unser.
The drainage report titled Final Design Report, Amole Del Norte Storm Diversion Facilities, Tierra Bayita Phase III, dated March 1998 describes the master drainage plan for the area. According to the master plan, the existing storm drain lines in Bridge Blvd. and Unser Blvd. were designed to accept flow from the site in the developed condition. (Q=169.48cfs) The allowable flows for discharge from the site into the existing storm drain are based on the master drainage report. Please see the basin table for calculations.

IV OFFSITE DRAINAGE
There are currently five culverts that divert flow across Central Ave. to the northeast corner of the site. In existing conditions, the culvert flow travels across the site via a natural channel into an end section of the existing storm drain system along Unser Blvd. In developed conditions, the five culverts will be directly connected to the storm drain system in Unser with a junction box and storm drain pipe. There is no additional offsite flow that reaches the site.

IV. PROPOSED HYDROLOGIC CONDITIONS
The proposed site drains over surface and through a series of storm drains. Flows will then drain to either the 90" storm drain in Bridge Blvd. or the 96" storm drain in Unser Blvd. per the existing Drainage Management Plan. Basins 5 thru 13 outfall directly south to the 90" storm drain in Bridge Blvd. Basin 3 drains directly to the 96" storm drain in Unser Blvd. The rest of the site (Basins 1, 2, and 4) drains overland and into the on site storm drain which leads to the detention pond. The flow in to the pond is approx. Q=125.24cfs and the flow out of the pond is Q=104.18cfs. The outfall of the pond is controlled by orifice plates in two locations to ensure that the allowable flow is not exceeded.

V. CONCLUSION
The drainage management plan is capable of safely passing the 100 year storm and meets city requirements. The peak discharge for this site is lower then the allowable described in the approved drainage report. All analysis was completed in accordance with section 22.2 of the Development Process Manual.

LEGEND

- PROPERTY LINE
- 5301 — EXISTING CONTOURS
- 5301.15 — EXISTING GROUND SPOT ELEVATION
- EXISTING ELECTRICAL POLE
- 65.23 — PROPOSED SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE TW=TOP OF WALL, BW=BOTTOM OF WALL EX=EXISTING, TG=TOP OF GRATE
- S=2.0% — PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED RETAINING WALL
- 5305 — PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED CURB & GUTTER
- EASEMENT
- EXISTING TREE
- SD — PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE

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REVISIONS
◇ PRE-BID SET ISSUE DATE — △ POST BID SET ISSUE DATE

DATE	DESCRIPTION

BRUCE J. STIDHAM NEW MEXICO 14523 REGISTERED PROFESSIONAL ENGINEER 10/27/08

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

ARMSTRONG DEVELOPMENT PROPERTIES, INC.

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000(V) 336.658.3257(F)

LOWE'S

UNSER CROSSING
DRAINAGE MANAGEMENT PLAN
LOWE'S OF:
SW ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO
PROJECT No: 080289 DRAWN BY: RML CHECKED BY: BJS

CRITERIA
ISSUE DATE: 10.27.08
PERMIT SET
ISSUE DATE:
CONSTRUCTION
SET ISSUE DATE:
DRAWING NUMBER:
DMP

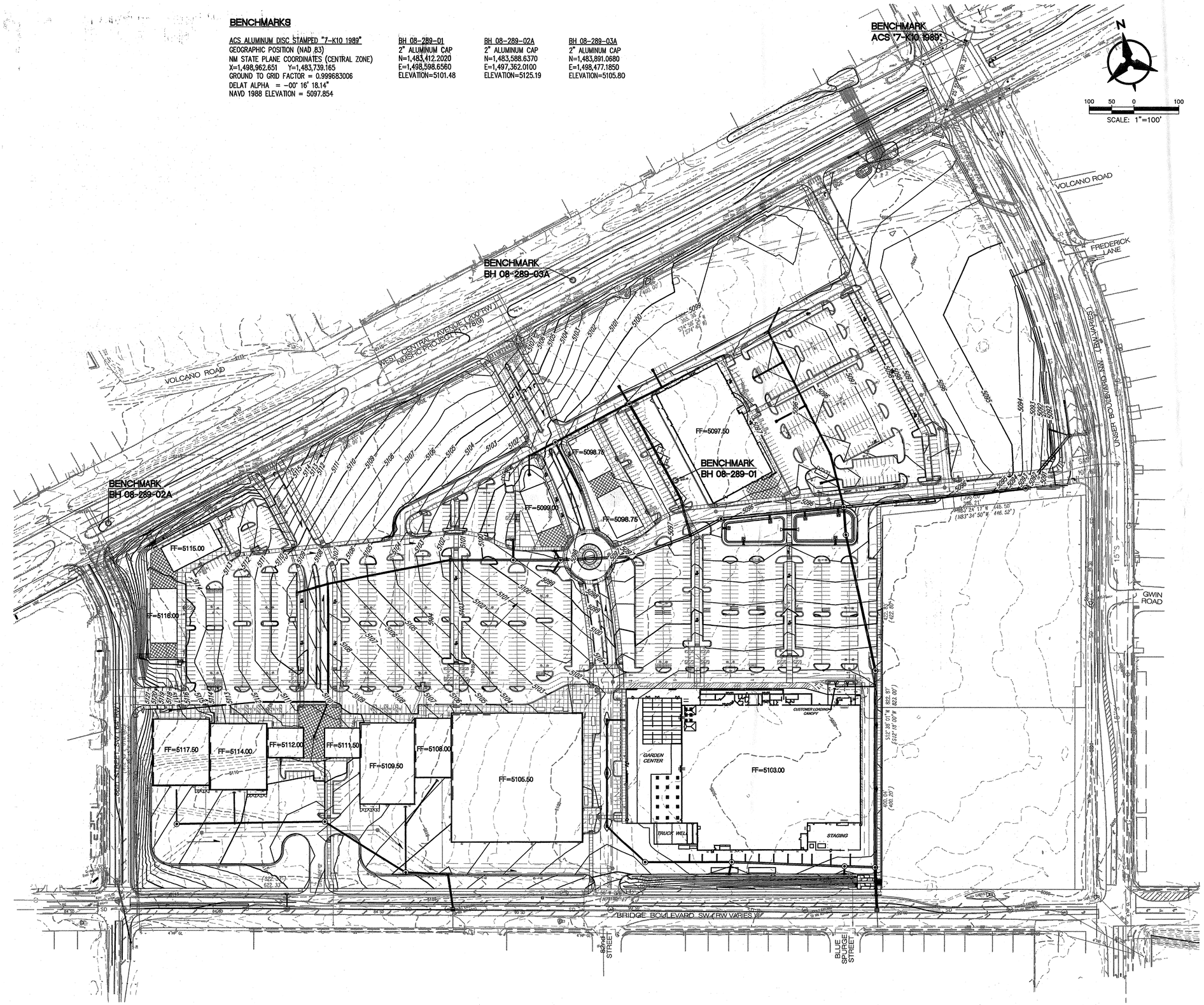
BENCHMARKS

ACS ALUMINUM DISC STAMPED "7-K10 1989"
GEOGRAPHIC POSITION (NAD 83)
NM STATE PLANE COORDINATES (CENTRAL ZONE)
X=1,498,962.651 Y=1,483,739.165
GROUND TO GRID FACTOR = 0.999683006
DELAT ALPHA = -00° 16' 18.14"
NAVD 1988 ELEVATION = 5097.854

BH 08-289-01
2" ALUMINUM CAP
N=1,483,412.2020
E=1,498,598.6560
ELEVATION=5101.48

BH 08-289-02A
2" ALUMINUM CAP
N=1,483,588.6370
E=1,497,362.0100
ELEVATION=5125.19

BH 08-289-03A
2" ALUMINUM CAP
N=1,483,891.0680
E=1,498,477.1850
ELEVATION=5105.80



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 AND INCLUDED IN CONTRACTOR'S BID.

3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION OVER EXCAVATION, 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. 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.

6. 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.

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

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

9. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, & ETC. WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE. ANY BURNING ON SITE IS NOT ALLOWED.

10. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED PER CITY CODES AND SPECIFICATIONS..

11. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

12. SITE GRADING SHALL NOT PROCEED UNTIL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED.

13. AFTER PERMITS HAVE BEEN OBTAINED & EROSION CONTROL MEASURES INSTALLED, THE CONTRACTOR SHALL GRADE BUILDING PAD, GARDEN CENTER & APRONS TO 0" - 1/2" OF SUBGRADE AS PER SECTION 02300, DIVISION 2 OF LOWE'S STANDARD SITE SPECIFICATIONS.

14. IMMEDIATELY APPLY & COMPACT STONE BASE FOR BUILDING PAD TO +/- 1/2" PRIOR TO EXCAVATING INTERIOR & PERIMETER FOOTINGS.

15. GENERAL CONTRACTOR SHALL PROVIDE 2' x 2' x 6" THICK CONCRETE APRON AT ALL CLEANOUTS OUTSIDE OF BUILDING.

16. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE SPECIFICATIONS.

17. ALL ROOF DRAINS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END, WITH IDENTIFYING MARKERS FOR FUTURE LOCATING.

LEGEND

- PROPERTY LINE
- 5301 — EXISTING CONTOURS
- 5301.15 — EXISTING GROUND SPOT ELEVATION
- EXISTING ELECTRICAL POLE
- 65.23 — PROPOSED SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE TW=TOP OF WALL, BW=BOTTOM OF WALL EX=EXISTING, TG=TOP OF GRATE
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- PROPOSED STORM DRAIN INLET
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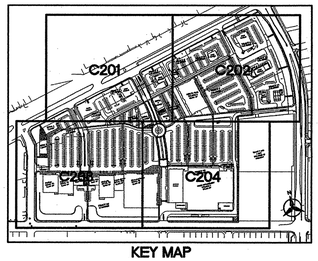

KEY MAP

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REVISIONS

◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE		DESCRIPTION

BRUCE J. STIDWORTHY NEW MEXICO 14523 REGISTERED PROFESSIONAL ENGINEER 10/31/08

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

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1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000(V) 336.658.3257(F)

LOWE'S®

RECEIVED NOV 05 2008 HYDROLOGY SECTION

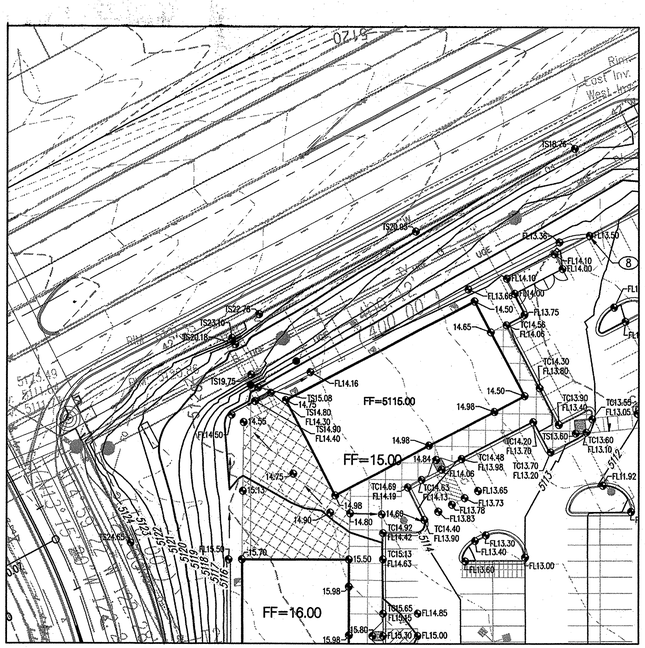
RECEIVED NOV 03 HYDROLOGY SECTION

UNSER CROSSING
OVERALL GRADING PLAN
LOWE'S OF:
SW ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO

PROJECT No: 080289 DRAWN BY: RML CHECKED BY: BJS

CRITERIA ISSUE DATE: 10.27.08
PERMIT SET ISSUE DATE:
CONSTRUCTION SET ISSUE DATE:

DRAWING NUMBER:
C200



NW CORNER OF SITE
SCALE: 1"=40'

STRUCTURE TABLE NOTES

1. MANHOLES SHALL BE BUILT PER COA STD. DWG 2102 (TYPE "E") AND 2101 (TYPE "C").
2. ALL STORM DRAIN STUB-OUTS LABELED AS "CAPS" ABOVE SHALL BE PROVIDED WITH TEMPORARY PLUGS & IDENTIFYING MARKERS FOR FUTURE LOCATING.
3. ALL TYPE "A", "Double A" and TYPE "C" INLETS SHALL BE MODIFIED FROM THE COA STD DRAWINGS AS REQUIRED FOR A 6" CURB HEIGHT.
4. STRUCTURES IDENTIFIED AS TEE'S SHALL BE CONSTRUCTED FROM A PRE-MANUFACTURED TEE AND INSTALLED IN ACCORDANCE TO MANUFACTURERS RECOMENDATIONS OR WITH "INSERTA-TEE" BY ADS OR APPROVED EQUAL.
5. COA TYPE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH STANDARD 2'X2' (221.3 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).
6. COA TYPE "D" INLETS PER COA STD DWG 2206 MAY BE SUBSTITUTED WITH NYOPLAST ROAD AND HIGHWAY DRAINAGE INLET STRUCTURE WITH 2'X3' STEEL BAR GRATE (261.2 SQ. IN. APPROXIMATE DRAIN AREA) H-25 RATED GRATE (OR APPROVED EQUAL).
7. COA TYPE DOUBLE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH 2-STANDARD 2'X2' (442.6 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).

N

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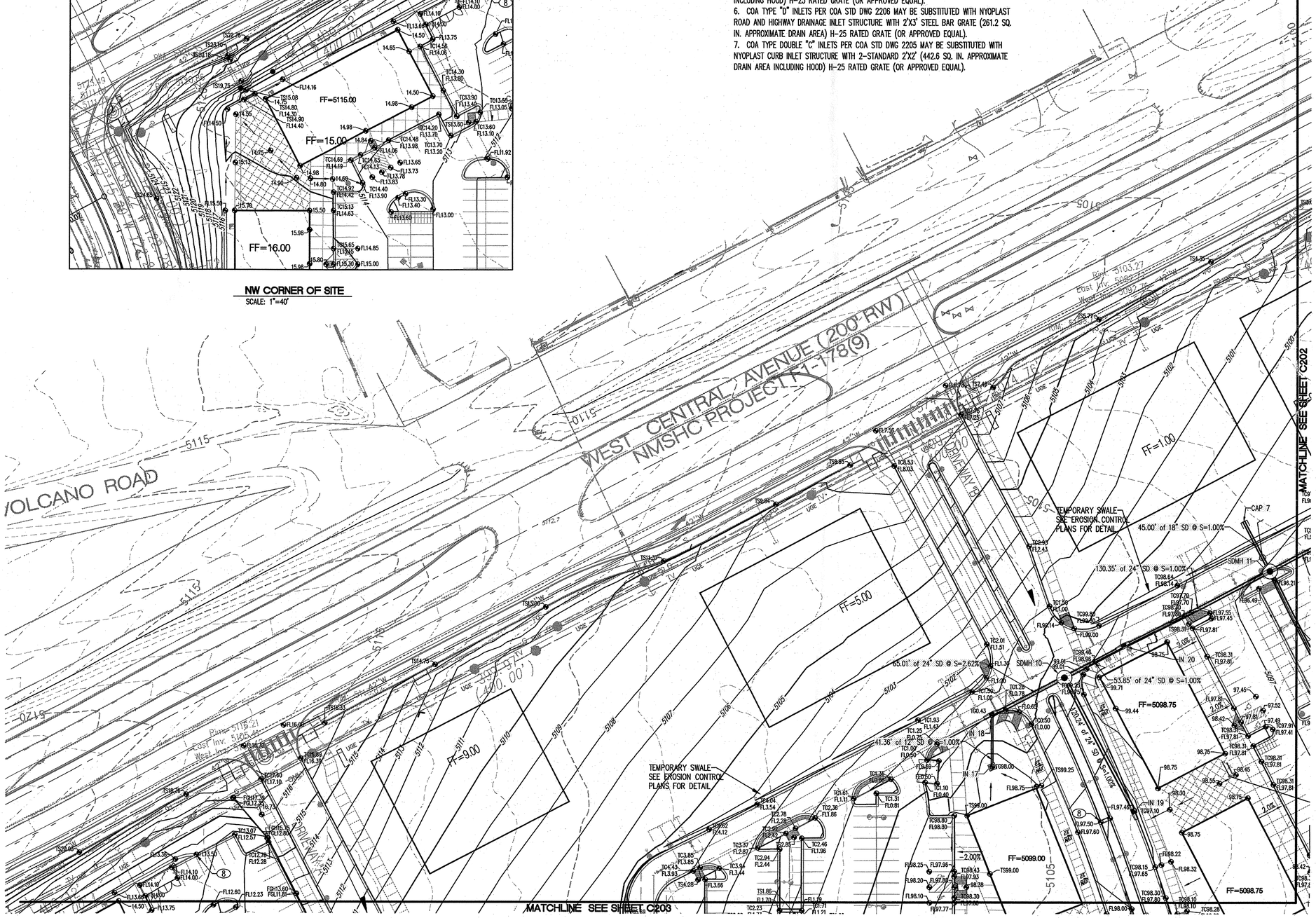
SCALE: 1"=40'

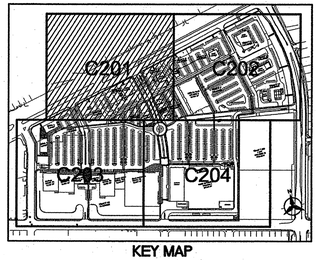


GRADING KEYED NOTES

1. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5098.25
2. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
3. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5095.50
4. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5099.25
5. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
6. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5099.75
7. INSTALL 10'x10' RIP RAP BLANKET PER DETAIL 6, SHEET C205.
8. INSTALL CURB OPENING PER DETAIL 8, SHEET C205.
9. INSTALL 4' CURB CUT WITH CONCRETE RUNDOWN PER DETAIL 5, SHEET C205.
10. INSTALL 24" SIDEWALK CULVERT PER COA STD DWG 2236.
11. SEE NOTE 4 UNDER STRUCTURE TABLE NOTES FOR CONNECTION TO MAIN. CONTRACTOR SHALL CONFIRM ROOF DRAIN TIE IN LOCATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
12. WATER HARVESTING ISLAND PER DETAIL 8, SHEET C502.
13. INSTALL CURB CUT PER DETAIL 7, SHEET C205.
14. INSTALL ORIFICE PLATE IN SD MANHOLE AT 48" SD OPENING. SEE DETAIL 3, SHEET C205.
15. INSTALL ORIFICE PLATE IN SD AREA INLET AT 30" SD OPENING. SEE DETAIL 4, SHEET C205.

Structure Table

Structure Name	Structure Type	Northing	Easting	Rim\Grate	Invert
CAP 7	SD Cap	1483641.56	1498528.26		INV OUT=5090.56
IN 18	COA Type "C" SD Inlet	1483534.05	1498299.27	5100.43	INV IN=5093.70 INV OUT=5093.60
IN 20	COA Type "C" SD Inlet	1483564.85	1498414.07	5098.76	INV IN=5091.16 INV OUT=5091.06
SDMH 11	COA Type "E" SD Manhole	1483598.14	1498540.11	5096.89	INV IN (W)=5089.76 INV IN (E)=5089.76 INV IN (N)=5090.11 INV OUT=5089.66
IN 17	COA Type "D" SD Inlet	1483479.03	1498300.41	5098.00	INV OUT=5094.25
IN 19	COA Type "C" SD Inlet	1483434.76	1498393.22	5097.10	INV OUT=5093.00
SDMH 10	COA Type "E" SD Manhole	1483550.89	1498362.06	5099.43	INV IN (W)=5091.90 INV IN (S)=5091.80 INV OUT=5091.70



KEY MAP

REVISIONS
◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE	DESCRIPTION

BRUCE J. STIDWORTHY NEW MEXICO 14523 REGISTERED PROFESSIONAL ENGINEER
10/30/08

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

ARMSTRONG DEVELOPMENT PROPERTIES, INC.

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000(V) 336.658.3257(F)

LOWE'S

UNSER CROSSING
GRADING & DRAINAGE PLAN
LOWE'S OF:
SW ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO

PROJECT No: 080289 | DRAWN BY: RML | CHECKED BY: BJS

CRITERIA
ISSUE DATE: 10.27.08
PERMIT SET
ISSUE DATE:
CONSTRUCTION
SET ISSUE DATE:

DRAWING NUMBER:
C201

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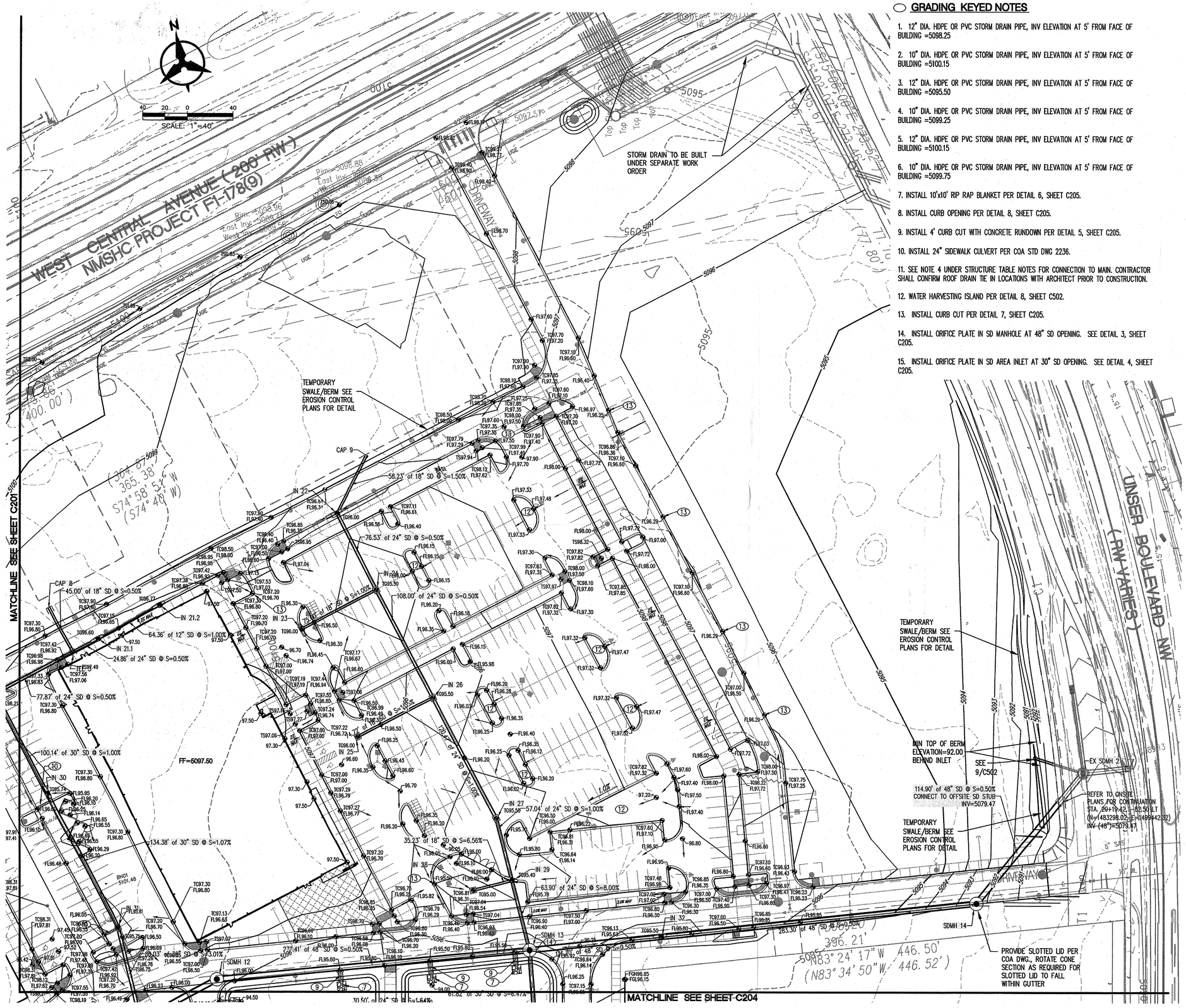

GRADING KEYED NOTES

1. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5098.25
2. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
3. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5095.50
4. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5099.25
5. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
6. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5099.75
7. INSTALL 10'x10' RIP RAP BLANKET PER DETAIL 6, SHEET C205.
8. INSTALL CURB OPENING PER DETAIL 8, SHEET C205.
9. INSTALL 4' CURB CUT WITH CONCRETE RUNDOWN PER DETAIL 5, SHEET C205.
10. INSTALL 24" SIDEWALK CULVERT PER COA STD DWG 2236.
11. SEE NOTE 4 UNDER STRUCTURE TABLE NOTES FOR CONNECTION TO MAIN. CONTRACTOR SHALL CONFIRM ROOF DRAIN TIE IN LOCATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
12. WATER HARVESTING ISLAND PER DETAIL 8, SHEET C502.
13. INSTALL CURB CUT PER DETAIL 7, SHEET C205.
14. INSTALL ORIFICE PLATE IN SD MANHOLE AT 48" SD OPENING. SEE DETAIL 3, SHEET C205.
15. INSTALL ORIFICE PLATE IN SD AREA INLET AT 30" SD OPENING. SEE DETAIL 4, SHEET C205.

Structure Table

Structure Name	Structure Type	Northing	Easting	Rim\Grate	Invert
IN 21.1	COA Type "C" SD Inlet	1483625.25	1498639.20	5096.60	INV IN=5090.37 INV OUT=5090.27
IN 21.2	COA Type "C" SD Inlet	1483641.93	1498701.36	5096.77	INV OUT=5091.01
IN 22	COA Type "A" SD Inlet	1483687.84	1498872.51	5096.00	INV IN=5091.68 INV OUT=5091.58
IN 23	COA Type "C" SD Inlet	1483594.44	1498819.70	5096.00	INV OUT=5091.95
IN 24	COA Type "D" SD Inlet	1483613.87	1498892.14	5095.50	INV IN=5091.20 INV IN=5091.20 INV OUT=5091.10
IN 25	COA Type "D" SD Inlet	1483490.27	1498847.94	5096.00	INV OUT=5092.03
IN 26	COA Type "D" SD Inlet	1483509.56	1498920.13	5095.50	INV IN=5090.56 INV IN=5090.66 INV OUT=5090.46
IN 27	COA Type "D" SD Inlet	1483393.21	1498951.34	5095.50	INV IN=5089.26 INV OUT=5089.16
IN 28	COA Type "D" SD Inlet	1483335.16	1498917.80	5095.00	INV OUT=5091.00
IN 29	COA Type "C" SD Inlet	1483336.20	1498953.02	5095.40	INV IN=5088.59 INV IN=5088.69 INV OUT=5088.49
IN 30	COA Type "C" SD Inlet	1483501.42	1498566.06	5095.74	INV IN=5088.66 INV OUT=5088.56
IN 31	COA Type "C" SD Inlet	1483371.63	1498600.88	5095.80	INV IN=5087.12 INV OUT=5087.02
IN 32	COA Type "C" SD Inlet	1483258.92	1499070.82	5095.50	INV IN=5081.67 INV OUT=5081.57
SDMH 12	COA Type "E" SD Manhole	1483307.03	1498678.65	5096.06	INV IN=5083.84 INV OUT=5083.74
SDMH 13	COA Type "E" SD Manhole	1483272.33	1498954.89	5095.64	INV IN=5085.00 INV IN=5083.38 INV IN=5082.35 INV OUT=5082.25
SDMH 14	COA Type "E" SD Manhole, Connect to Existing 48" Stub	1483226.65	1499352.28	5092.35	INV IN=5080.15 INV OUT=5080.05
CAP 8	SD Cap	1483662.10	1498603.35	5097.90	INV OUT=5090.38
Cap 9	Null Structure	1483732.80	1498909.51	5095.35	INV OUT=5092.55

STRUCTURE TABLE NOTES

1. MANHOLES SHALL BE BUILT PER COA STD. DWG 2102 (TYPE "E") AND 2101 (TYPE "C").
2. ALL STORM DRAIN STUB-OUTS LABELED AS "CAPS" ABOVE SHALL BE PROVIDED WITH TEMPORARY PLUGS & IDENTIFYING MARKERS FOR FUTURE LOCATING.
3. ALL TYPE "A", "Double A" and TYPE "C" INLETS SHALL BE MODIFIED FROM THE COA STD DRAWINGS AS REQUIRED FOR A 6" CURB HEIGHT.
4. STRUCTURES IDENTIFIED AS TEE'S SHALL BE CONSTRUCTED FROM A PRE-MANUFACTURED TEE AND INSTALLED IN ACCORDANCE TO MANUFACTURERS RECOMENDATIONS OR WITH "INSERTA-TEE" BY ADS OR APPROVED EQUAL.
5. COA TYPE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH STANDARD 2'X2' (221.3 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).
6. COA TYPE "D" INLETS PER COA STD DWG 2206 MAY BE SUBSTITUTED WITH NYOPLAST ROAD AND HIGHWAY DRAINAGE INLET STRUCTURE WITH 2'X3' STEEL BAR GRATE (261.2 SQ. IN. APPROXIMATE DRAIN AREA) H-25 RATED GRATE (OR APPROVED EQUAL).
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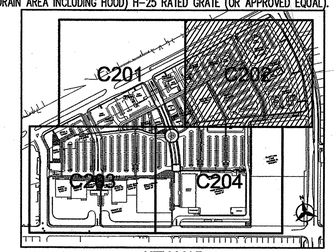

KEY MAP

NOV 06 2008
HYDROLOGY SECTION

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Wed, 5-Nov-2008 - 8:28:am, Plotted by: RMICHEL

REVISIONS
◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE		DESCRIPTION

BRUCE J. STIDWELL III
NEW MEXICO
14523
REGISTERED PROFESSIONAL ENGINEER
10/30/08

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ◆ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

ARMSTRONG DEVELOPMENT PROPERTIES, INC.

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000(V) 336.658.3257(F)

LOWE'S

UNSER CROSSING
GRADING & DRAINAGE PLAN
LOWE'S OF:
SW ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO

PROJECT No: 080289 | DRAWN BY: RMI | CHECKED BY: BJS

CRITERIA
ISSUE DATE: 10.27.08
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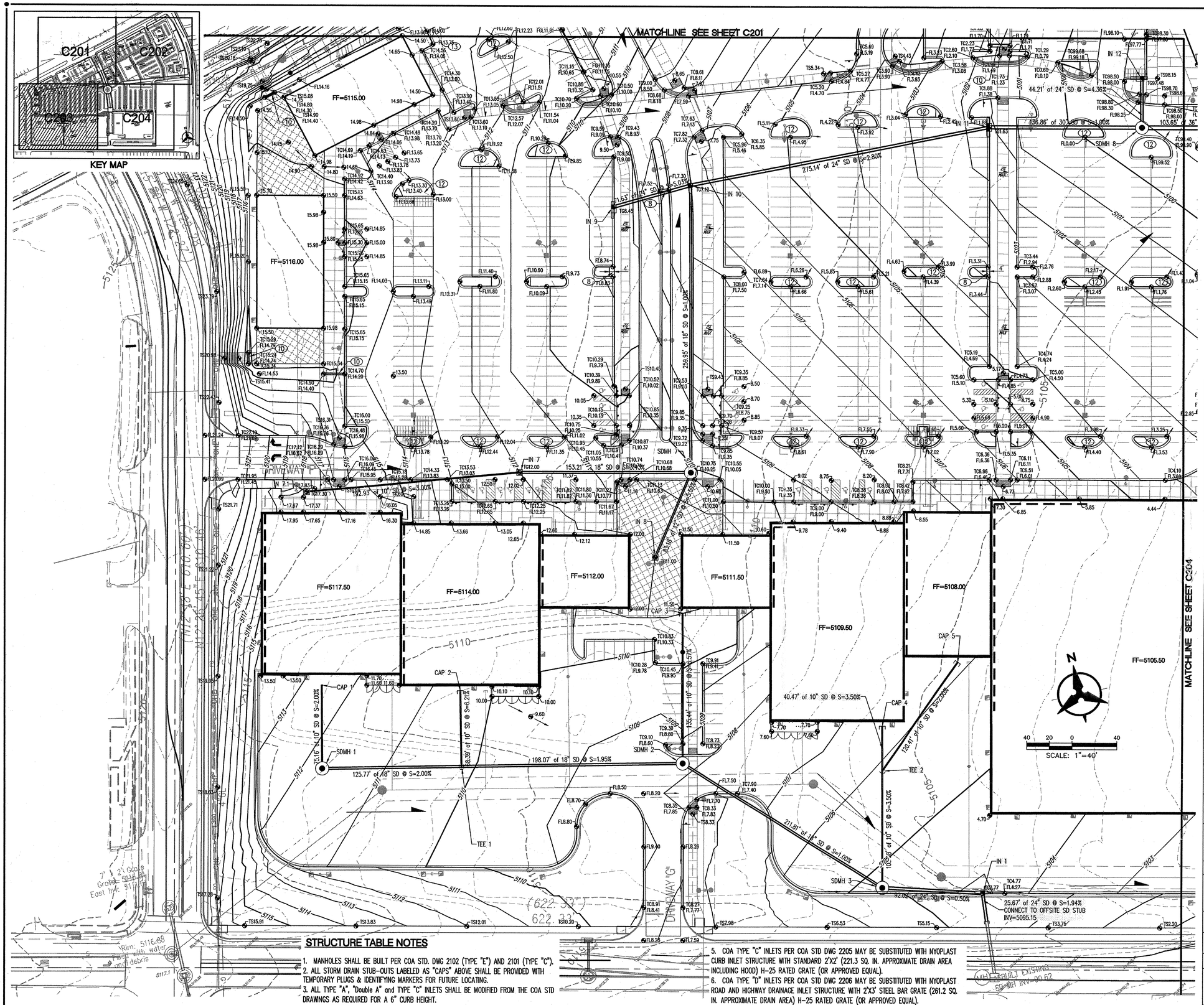
DRAWING NUMBER:
C202



GRADING KEYED NOTES

1. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5098.25
2. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
3. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5095.50
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12. WATER HARVESTING ISLAND PER DETAIL 8, SHEET C502.
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15. INSTALL ORIFICE PLATE IN SD AREA INLET AT 30" SD OPENING. SEE DETAIL 4, SHEET C205.

Structure Table

Structure Name	Structure Type	Northing	Easting	Rim\Grate	Invert
SDMH 2	COA Type "C" SD Manhole	1482843.88	1497687.41	5108.21	INV IN (W)=5098.53 INV IN (N)=5098.63 INV OUT=5098.43
IN 11	COA Type "Double A" SD Inlet	1483345.98	1498082.04	5101.58	INV IN=5093.00 INV OUT=5092.90
IN 10	COA Type "C" SD Inlet	1483352.73	1497806.98	5106.75	INV IN (S)=5100.80 INV IN (W)=5100.90 INV OUT=5100.70
IN 9	COA Type "A" SD Inlet	1483348.56	1497735.46	5108.45	INV OUT=5104.50
IN 7	COA Type "D" SD Inlet	1483131.80	1497601.46	5112.00	INV IN=5108.85 INV OUT=5108.75
SDMH 7	COA Type "C" SD Manhole	1483098.86	1497751.08	5110.05	INV IN (W)=5103.50 INV IN(SW)=5103.60 INV OUT=5103.40
IN 8	COA Type "D" SD Inlet	1483030.66	1497703.47	5111.00	INV OUT=5108.25
CAP 1	SD Cap	1482982.49	1497386.02		INV OUT=5106.51
SDMH 1	COA Type "C" SD Manhole	1482909.02	1497370.18	5111.76	INV IN=5105.01 INV OUT=5104.91
SDMH 3	COA Type "C" SD Manhole	1482695.55	1497838.62	5104.75	INV IN(NW)=5096.31 INV IN (N)=5096.41 INV OUT=5096.21
IN 1	COA Type "C" SD Inlet	1482671.08	1497927.32	5103.77	INV IN=5095.75 INV OUT=5095.65
IN 7.1	COA Type "D" SD Inlet	1483153.94	1497419.22	5116.75	INV OUT=5114.85
SDMH 8	COA Type "C" SD Manhole	1483316.31	1498215.65	5096.93	INV IN (W)=5091.53 INV IN (N)=5091.63 INV OUT=5091.43
CAP 2	SD CAP	1482950.71	1497507.14		INV OUT=5106.64
TEE 1	SD Tee	1482883.72	1497493.39		INV IN=5102.39 INV IN=5102.39 INV OUT=5102.39
CAP 3	SD CAP	1482976.15	1497716.50		INV OUT=5107.53
CAP 4	SD Cap	1482838.18	1497870.02		INV OUT=5101.52
CAP 5	SD Cap	1482879.52	1497950.54		INV OUT=5102.52
TEE 2	SD Wye	1482798.66	1497861.32		INV IN=5100.11 INV IN=5100.11 INV OUT=5100.11
IN 12	COA Type "A" SD Inlet	1483359.46	1498225.24	5097.60	INV OUT=5093.56

STRUCTURE TABLE NOTES

1. MANHOLES SHALL BE BUILT PER COA STD. DWG 2102 (TYPE "E") AND 2101 (TYPE "C").
2. ALL STORM DRAIN STUB-OUTS LABELED AS "CAPS" ABOVE SHALL BE PROVIDED WITH TEMPORARY PLUGS & IDENTIFYING MARKERS FOR FUTURE LOCATING.
3. ALL TYPE "A", "Double A" and TYPE "C" INLETS SHALL BE MODIFIED FROM THE COA STD DRAWINGS AS REQUIRED FOR A 6" CURB HEIGHT.
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5. COA TYPE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH STANDARD 2'X2' (221.3 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).
6. COA TYPE "D" INLETS PER COA STD DWG 2206 MAY BE SUBSTITUTED WITH NYOPLAST ROAD AND HIGHWAY DRAINAGE INLET STRUCTURE WITH 2'X3' STEEL BAR GRATE (261.2 SQ. IN. APPROXIMATE DRAIN AREA) H-25 RATED GRATE (OR APPROVED EQUAL).
7. COA TYPE DOUBLE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH 2-STANDARD 2'X2' (442.6 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).

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Thu, 30-Oct-2008 - 8:07:am, Plotted by: RMICHEL

REVISIONS
◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE	DESCRIPTION

BRUCE J. STIDWORTHY 14523 REGISTERED PROFESSIONAL ENGINEER 10/30/08

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

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336.658.4000(V) 336.658.3257(F)

LOWE'S

UNSER CROSSING
GRADING & DRAINAGE PLAN
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SW ALBUQUERQUE
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PROJECT No: 080289 | DRAWN BY: RMI | CHECKED BY: BJS

CRITERIA ISSUE DATE: 10.27.08
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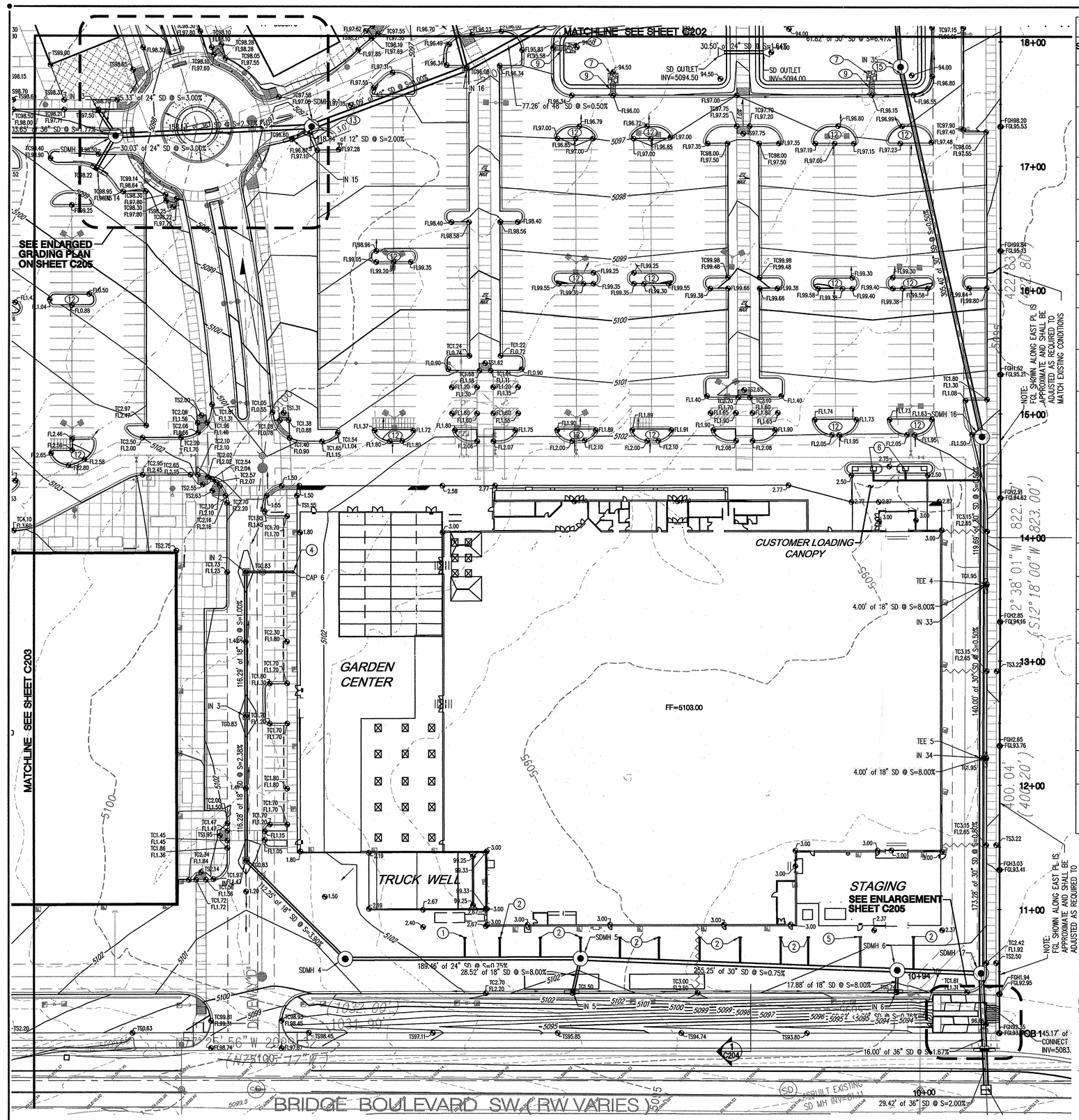
C203



Structure Table

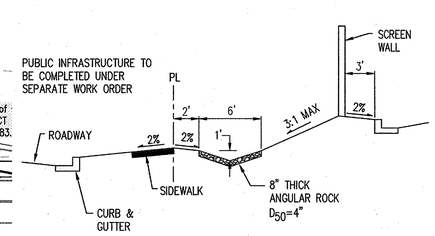
Structure Name	Structure Type	Northing	Easting	Rim\Grate	Invert
SDMH 9.1	COA Type "E" SD Manhole	1483266.88	1498472.65	5096.93	INV IN(SW)=5093.12 INV IN(NW)=5085.76 INV OUT=5085.66
IN 16	COA Type Double "D" SD Inlet	1483285.67	1498604.40	5096.09	INV IN (N)=5084.43 INV IN (W)=5084.33 INV OUT=5084.23
SDMH 17	COA Type "E" SD Manhole	1482483.27	1498849.87	5101.61	INV IN (N)=5086.00 INV IN (W)=5084.68 INV OUT=5084.58
SDMH 16	COA Type "E" SD Manhole	1482905.75	1498944.57	5102.08	INV IN=5088.47 INV OUT=5088.37
IN 2	COA Type "D" SD Inlet	1482927.23	1498342.75	5100.83	INV IN=5097.43 INV OUT=5097.33
IN 4	COA Type "D" SD Inlet	1482700.11	1498292.71	5100.83	INV IN=5093.30 INV OUT=5093.20
SDMH 4	COA Type "E" SD Manhole	1482605.52	1498353.16	5101.21	INV IN=5088.82 INV OUT=5088.72
SDMH 5	COA Type "E" SD Manhole	1482564.78	1498538.18	5102.26	INV IN (W)=5087.30 INV IN (S)=5094.72 INV OUT=5087.20
IN 35	SD Area Inlet (See Detail 9, Sheet C205)	1483211.15	1498946.02	5094.00	INV OUT(S)=5090.00 INV OUT(N)=5089.00
IN 13	COA Type "C" SD Inlet	1483317.51	1498307.80	5097.50	INV OUT=5093.50
IN 14	COA Type "A" SD Inlet	1483271.87	1498296.36	5098.22	INV OUT=5095.18
CAP 6	SD Cap	1482918.94	1498380.39		INV OUT=5099.25
IN 3	COA Type "D" SD Inlet	1482813.66	1498317.74	5100.83	INV IN=5096.17 INV OUT=5096.07
IN 5	COA Type "C" SD Inlet	1482538.98	1498526.02	5101.50	INV OUT=5097.00
IN 6	COA Type "C" SD Inlet	1482482.90	1498780.61	5100.74	INV OUT=5096.74
SDMH 6	COA Type "E" SD Manhole	1482500.20	1498785.13	5097.67	INV IN (W)=5085.29 INV IN (S)=5095.31 INV OUT=5085.19
IN 34	COA Type "C" SD Inlet	1482651.48	1498891.67	5101.95	INV OUT=5087.29
IN 33	COA Type "C" SD Inlet	1482788.09	1498922.29	5101.95	INV OUT=5088.09
IN 15	COA Type "C" SD Inlet	1483260.26	1498455.01	5096.60	INV OUT=5093.50
SDMH 9	COA Type "E" SD Manhole	1483293.84	1498316.83	5098.43	INV IN (W)=5089.60 INV IN(NW)=5092.74 INV IN(SW)=5094.28 INV OUT=5089.50

GRADING KEYED NOTES

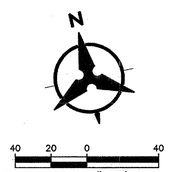
1. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5098.25
2. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
3. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5095.50
4. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5099.25
5. 12" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5100.15
6. 10" DIA. HDPE OR PVC STORM DRAIN PIPE, INV ELEVATION AT 5' FROM FACE OF BUILDING =5099.75
7. INSTALL 10'x10' RIP RAP BLANKET PER DETAIL 6, SHEET C205.
8. INSTALL CURB OPENING PER DETAIL 8, SHEET C205.
9. INSTALL 4' CURB CUT WITH CONCRETE RUNDOWN PER DETAIL 5, SHEET C205.
10. INSTALL 24" SIDEWALK CULVERT PER COA STD DWG 2236.
11. SEE NOTE 4 UNDER STRUCTURE TABLE NOTES FOR CONNECTION TO MAIN. CONTRACTOR SHALL CONFIRM ROOF DRAIN TIE IN LOCATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
12. WATER HARVESTING ISLAND PER DETAIL 8, SHEET C502.
13. INSTALL CURB CUT PER DETAIL 7, SHEET C205.
14. INSTALL ORIFICE PLATE IN SD MANHOLE AT 48" SD OPENING. SEE DETAIL 3, SHEET C205.
15. INSTALL ORIFICE PLATE IN SD AREA INLET AT 30" SD OPENING. SEE DETAIL 4, SHEET C205.

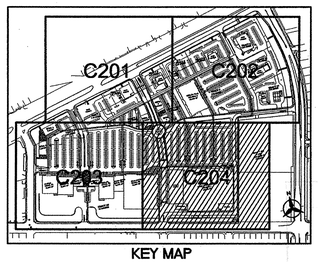
STRUCTURE TABLE NOTES

1. MANHOLES SHALL BE BUILT PER COA STD. DWG 2102 (TYPE "E") AND 2101 (TYPE "C").
2. ALL STORM DRAIN STUB-OUTS LABELED AS "CAPS" ABOVE SHALL BE PROVIDED WITH TEMPORARY PLUGS & IDENTIFYING MARKERS FOR FUTURE LOCATING.
3. ALL TYPE "A", "Double A" and TYPE "C" INLETS SHALL BE MODIFIED FROM THE COA STD DRAWINGS AS REQUIRED FOR A 6" CURB HEIGHT.
4. STRUCTURES IDENTIFIED AS TEE'S SHALL BE CONSTRUCTED FROM A PRE-MANUFACTURED TEE AND INSTALLED IN ACCORDANCE TO MANUFACTURERS RECOMENDATIONS OR WITH "INSERTA-TEE" BY ADS OR APPROVED EQUAL.
5. COA TYPE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH STANDARD 2'X2' (221.3 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).
6. COA TYPE "D" INLETS PER COA STD DWG 2206 MAY BE SUBSTITUTED WITH NYOPLAST ROAD AND HIGHWAY DRAINAGE INLET STRUCTURE WITH 2'X3' STEEL BAR GRATE (261.2 SQ. IN. APPROXIMATE DRAIN AREA) H-25 RATED GRATE (OR APPROVED EQUAL).
7. COA TYPE DOUBLE "C" INLETS PER COA STD DWG 2205 MAY BE SUBSTITUTED WITH NYOPLAST CURB INLET STRUCTURE WITH 2-STANDARD 2'X2' (442.6 SQ. IN. APPROXIMATE DRAIN AREA INCLUDING HOOD) H-25 RATED GRATE (OR APPROVED EQUAL).



LANDSCAPING SWALE
NTS





KEY MAP

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Thu, 30-Oct-2008 - 8:09:am, Plotted by: RMICHEL

REVISIONS

PRE-BID SET ISSUE DATE	POST BID SET ISSUE DATE

DATE	DESCRIPTION

BRUCE J. STIDWORTHY
NEW MEXICO
14523
REGISTERED PROFESSIONAL ENGINEER
10/30/08

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ◆ SPATIAL DATA ◆ ADVANCED TECHNOLOGIES

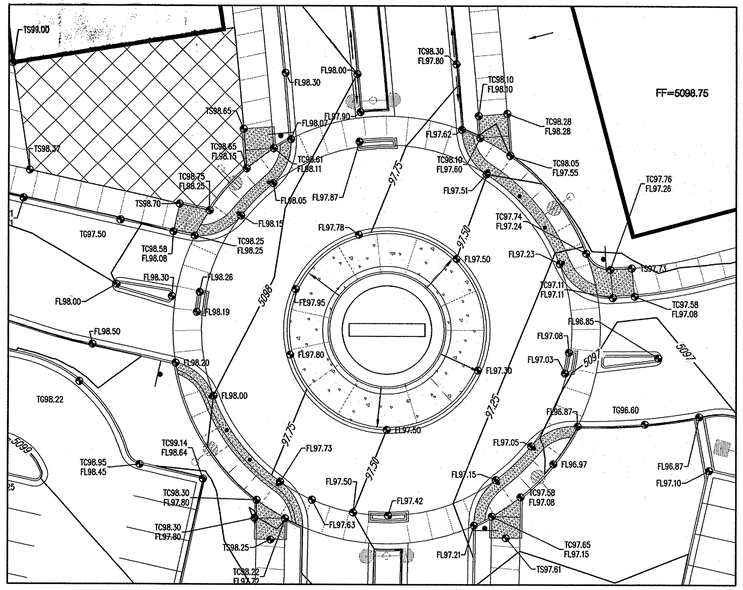
ARMSTRONG DEVELOPMENT PROPERTIES, INC.

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REED DOCK
WILKESBORO, NC 28697
336.658.4000(V) 336.658.3257(F)

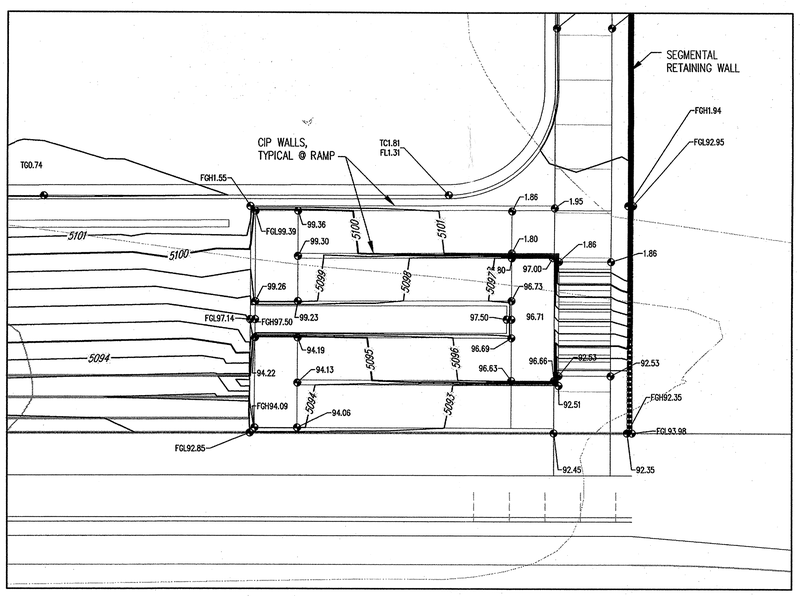
LOWE'S

UNSER CROSSING
GRADING & DRAINAGE PLAN
LOWE'S OF:
SW ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO
PROJECT No: 080289 | DRAWN BY: RML | CHECKED BY: BJS

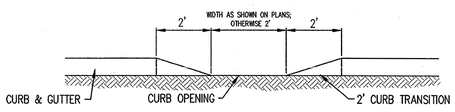
CRITERIA
ISSUE DATE: 10.27.08
PERMIT SET
ISSUE DATE:
CONSTRUCTION
SET ISSUE DATE:
DRAWING NUMBER:
C204



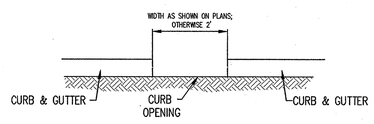
1 ROUNDABOUT DETAIL
SCALE: 1"=20'



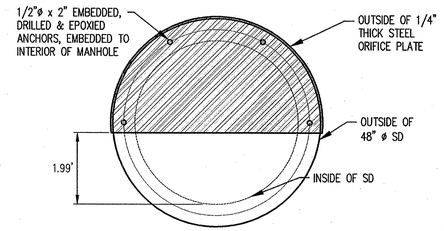
2 RAMP DETAIL
SCALE: 1"=10'



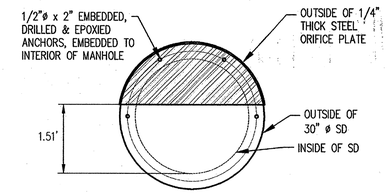
7 TYPICAL CURB CUT
NOT TO SCALE



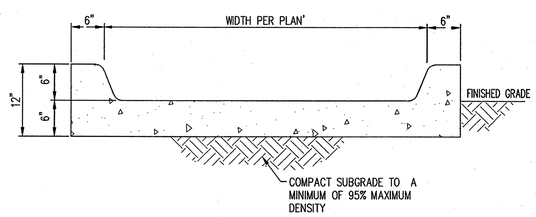
8 TYPICAL CURB OPENING
NOT TO SCALE



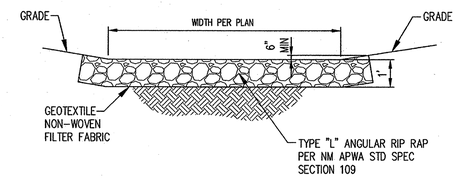
3 ORIFICE PLATE DETAIL FOR 48" SD
NOT TO SCALE



4 ORIFICE PLATE DETAIL FOR 30" SD
NOT TO SCALE



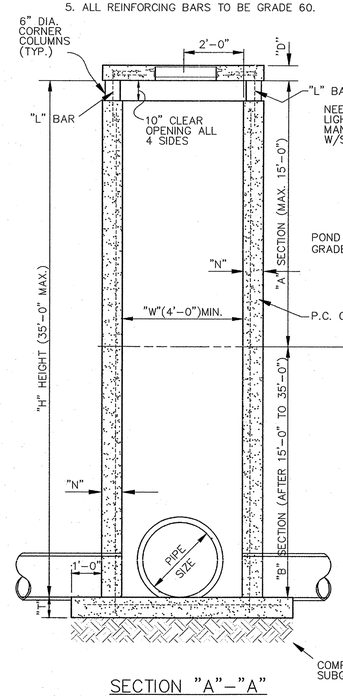
5 CONCRETE RUN DOWN
NOT TO SCALE



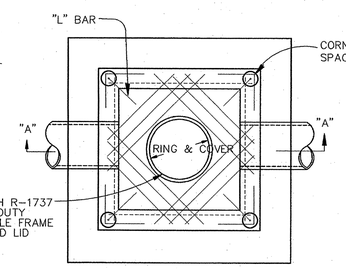
NOTE: TOP OF RIP RAP TO MATCH FINISHED (OR EXISTING) GRADES/CONTOURS SHOWN ON GRADING PLAN

6 RIP RAP BLANKET
NOT TO SCALE

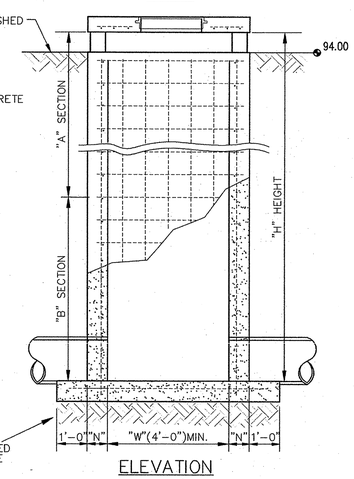
GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT THE CORNERS OF THE INLET.
5. ALL REINFORCING BARS TO BE GRADE 60.



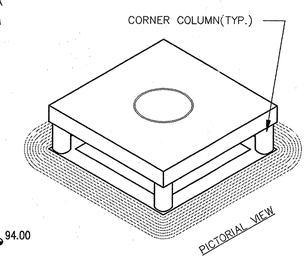
SECTION "A"-"A"

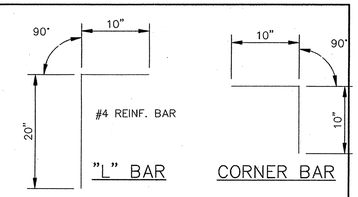


PLAN



ELEVATION





REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#6's @ 6" E.W.

TABLE OF 'W' DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT	30°	45°
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 6"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 6"	#4's @ 10"

TABLE OF "T" & "N" DIMENSIONS				
SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4'S @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER

9 AREA INLET
NOT TO SCALE

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10/30/08

Bohannan ▲ Huston
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LOWE'S

UNSER CROSSING
GRADING DETAILS
LOWE'S OF:
SW ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO
PROJECT No: 080289 DRAWN BY: RML CHECKED BY: BJS

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