Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority
2600 Prospect N.E., Albuquerque, NM 87107
Phone: (505) 884-2215 Fax: (505) 884-0214
Website: www.amafca.org

February 4, 2011

Ms. Genny Donart, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

By E-mail

Re: Journal Center Office Building, Tracts A2 & A3, ZAP D-17
Preliminary Plan Review

Dear Ms. Donart:

I reviewed the plan with respect to the water quality pond and outfall connection to the North Diversion Channel (NDC). Attached is the detail layout sheet with my mark-ups. I am not ready to approve the preliminary layout; I will need to see the site plan to determine the site drainage pattern. On the detail sheet, it appears that only the loading dock area and the internal access road drain to the water quality pond. The intent of the water quality treatment is to take the first flush rainfall over the entire site through the pond.

I discussed the status of the Essayons Boulevard project with the AMAFCA Executive Engineer, Jerry Lovato. The project is a few years out and has not been approved by the AMAFCA Board of Directors or the U.S. Army Corps of Engineers. Therefore, we will require a concrete rundown connection to the existing NDC rundown structure as you have shown on the plan. We will also require it to extend to the south to capture the flow in the existing side inlet channel.

As mentioned previously, a Turnkey Agreement will be required for the work within the NDC right-of-way. I will prepare the document and present it to the AMAFCA Board of Directors for consideration. We don't have to have the final approved plan before it is presented to the Board, but I would like the preliminary plan in approved form.

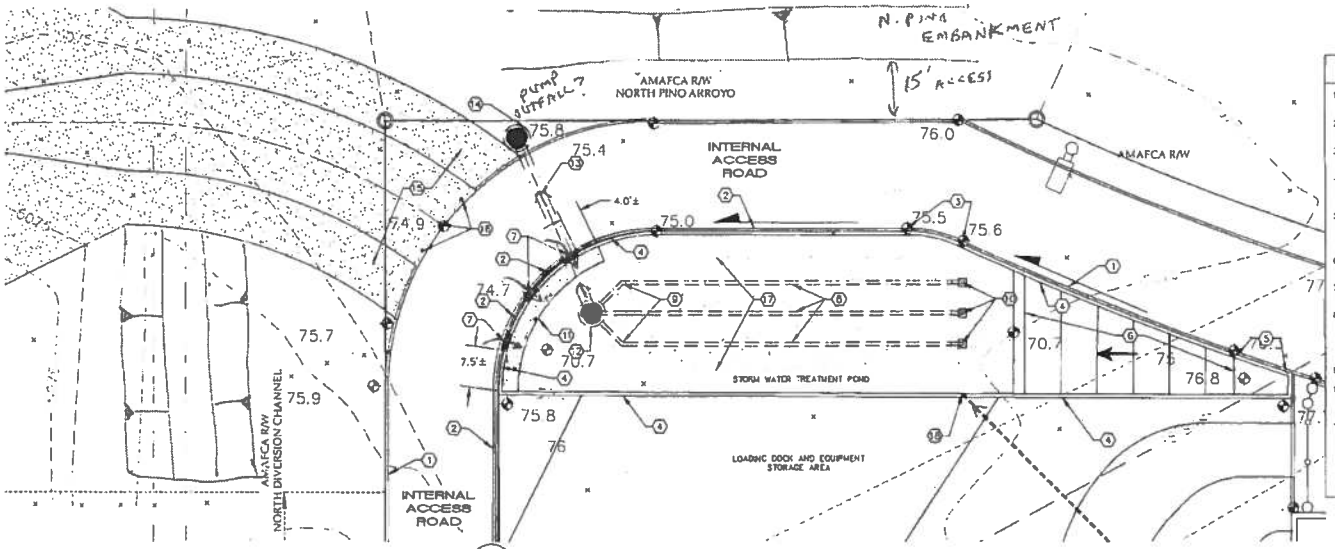
Another issue I would like to reiterate is the new FEMA requirement to have a 15-foot clear access at the toe of slope of our drainage facilities. We have the North Pino confluence embankment directly north of the internal access road. Let me know when the site right-of-way is staked so I can check that distance. We may have to request an access easement on the site access road. This can be done with a paper document.

If you have any questions, please call me at 884-2215.

Sincerely,
AMAFCA

Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer

Cc: Curtis Cherne, City Hydrology



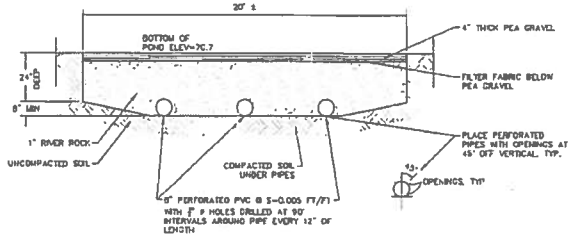
A STORM WATER TREATMENT POND
PLAN VIEW

SCALE: 1"=10'

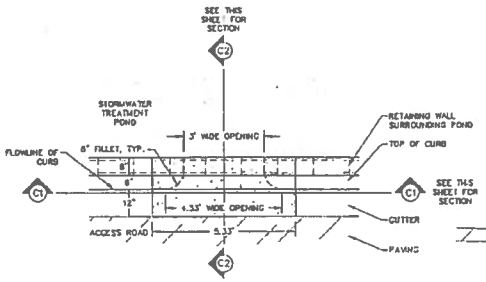
KEYED NOTES

1. 6" HIGH CURB & GUTTER PER DETAIL ON SHEET CG-502.
2. 12" HIGH CURB & GUTTER PER DETAIL ON SHEET CG-502.
3. TRANSITION FROM 12" HIGH TO 6" HIGH CURB OVER 10 LF.
4. RETAINING WALL WITH CHAIN LINK FENCE ON TOP PER DETAIL C2 ON THIS SHEET.
5. 8' WIDE GATE IN CHAIN LINK FENCE FOR MAINTENANCE ACCESS PER COA STD DWG #2752.
6. DIRT RAMP FOR MAINTENANCE ACCESS 8.5:1 MAX SLOPE.
7. CURB OPENINGS PER DETAILS C, C1, & C2 ON THIS SHEET
8. 3 - 80 LF PERFORATED PIPES AS PART OF UNDERDRAIN SYSTEM PER DETAIL B ON THIS SHEET. WATER IN POND INFILTRATES INTO UNDERDRAIN.
9. 6" 45° BEND
10. 4" CLEANOUT WITH ACCESS LID IN CONCRETE PAD PER DETAILS B1 & B2 ON THIS SHEET.
11. 4' THICK, 3' WIDE CONCRETE SPLASH PAD AT BASE OF RETAINING WALL.
12. 6' DIA TYPE 'C' MANHOLE PER COA STD DWG #XXXX. RIM ELEV = XX.X INV (8" PIPES)=87.83 INV (12" PIPE)=87.50
13. 35 LF 12" ADS N-12 HDPE PIPE @ 1% SLOPE. INV (SE)=87.50 INV (NW)=87.15
14. SUMP PUMP PER DETAIL ON SHEET CG-503.
15. CONCRETE RUNDOWN TO BE BUILT PER PUBLIC IMPROVEMENT PLANS. (N.I.C.) (CPN #XXXXXX)
16. 3 BOLLARDS CENTERED IN RUNDOWN TO BE BUILT PER PUBLIC IMPROVEMENT PLANS. (N.I.C.) (CPN #XXXXXX)
17. GRAVEL BED FOR PERFORATED INFILTRATION PIPES PER DETAIL B ON THIS SHEET.
18. 10C PIPE FROM LOADING DOCK DRAINS PENETRATION THROUGH WALL AT INV=XX.X

WIDE ENOUGH? ANY TRAJECTORY?



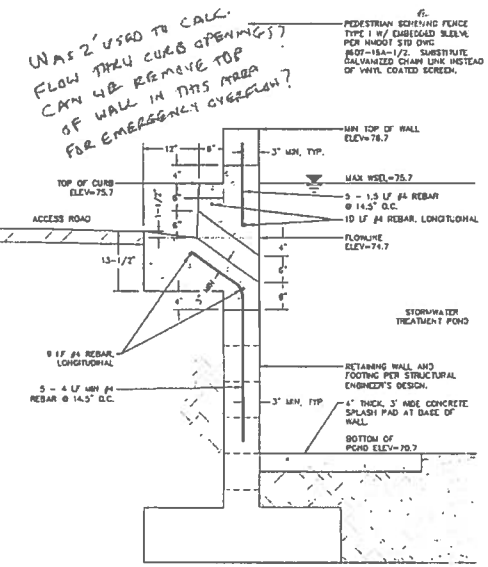
B PERFORATED PIPE UNDERDRAIN SYSTEM
NTS



C POND INLET CURB OPENINGS
PLAN VIEW

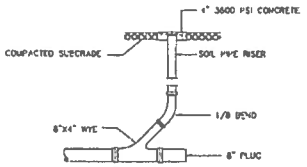
SCALE: 1"=2'

WAS 2' USED TO CALC. FLOW THRU CURB OPENINGS? CAN WE REMOVE TOP OF WALL IN THIS AREA FOR EMERGENCY OVERFLOW?

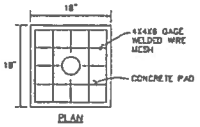


C2 POND INLET CURB OPENINGS
SIDE VIEW

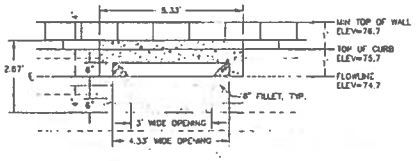
SCALE: 1"=1'



B1 4" SINGLE CLEANOUT
NTS



B2 CONCRETE PAD FOR CLEANOUT
NTS



C1 POND INLET CURB OPENINGS
FRONT VIEW

SCALE: 1"=2'

CLAUDIO VIGIL ARCHITECTS
1801 Rio Grande Boulevard, N.W.
Albuquerque, New Mexico
Phone: (505) 842-1113
Fax: (505) 842-1330

CONSULTANTS

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 Fax 505-268-2632

PROFESSIONAL SEAL

FRED C. ARFMAN NEW MEXICO 7422 LICENSED PROFESSIONAL ENGINEER

BRUNACINI JOURNAL CENTER
OFFICE BUILDING
TRACTS A2 & A3
9721 RUTLEDGE STREET, N.E.
ALBUQUERQUE, NEW MEXICO

MARK	DATE	DESCRIPTION

PROJECT NUMBER:	09175
DRAWING FILE:	
DRAWN BY:	BJB
CHECK BY:	FCA
COPYRIGHT:	CLAUDIO VIGIL ARCHITECTS 2010
DATE:	FEBRUARY 28, 2010

SHEET TITLE

SHEET NUMBER

mtg w/ Amafca 2-28

Amafca is willing to do the maintenance if the property owner feels to do so.

N

maintain pump if needed in

provide justification for ~~for~~ pump

Spoke to Gerry 2-28-11

told her I need a public drainage easement and a Drainage Covenant prior to site plan approval AND we want a gravity solution - most likely pipe over San Jose than pipe

CALCULATIONS: Brunacini Journal Center : 0/2/10/11

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE

AREA OF SITE: 235604 SF = 5.4

100-year, 6-hour

HISTORIC FLOWS:

		Treatment SF	%
Area A	=	0	0%
Area B	=	0	0%
Area C	=	235604	100%
Area D	=	0	0%
Total Area	=	235604	100%

DEVELOPED FLOWS:

		Treatment SF	%
Area A	=	0	0%
Area B	=	11780	5%
Area C	=	23560	10%
Area D	=	200263	85%
Total Area	=	235604	100%

EXCESS PRECIP:

Precip. Zone 2

E_A = 0.53

E_B = 0.78

E_C = 1.13

E_D = 2.12

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E = $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$

Historic E	=	1.13 in.		Developed E	=	1.95 in.

On-Site Volume of Runoff: V360 = E*A / 12

Historic V_{360}	=	22186	CF	Developed V_{360}	=	38364 CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43{,}560$

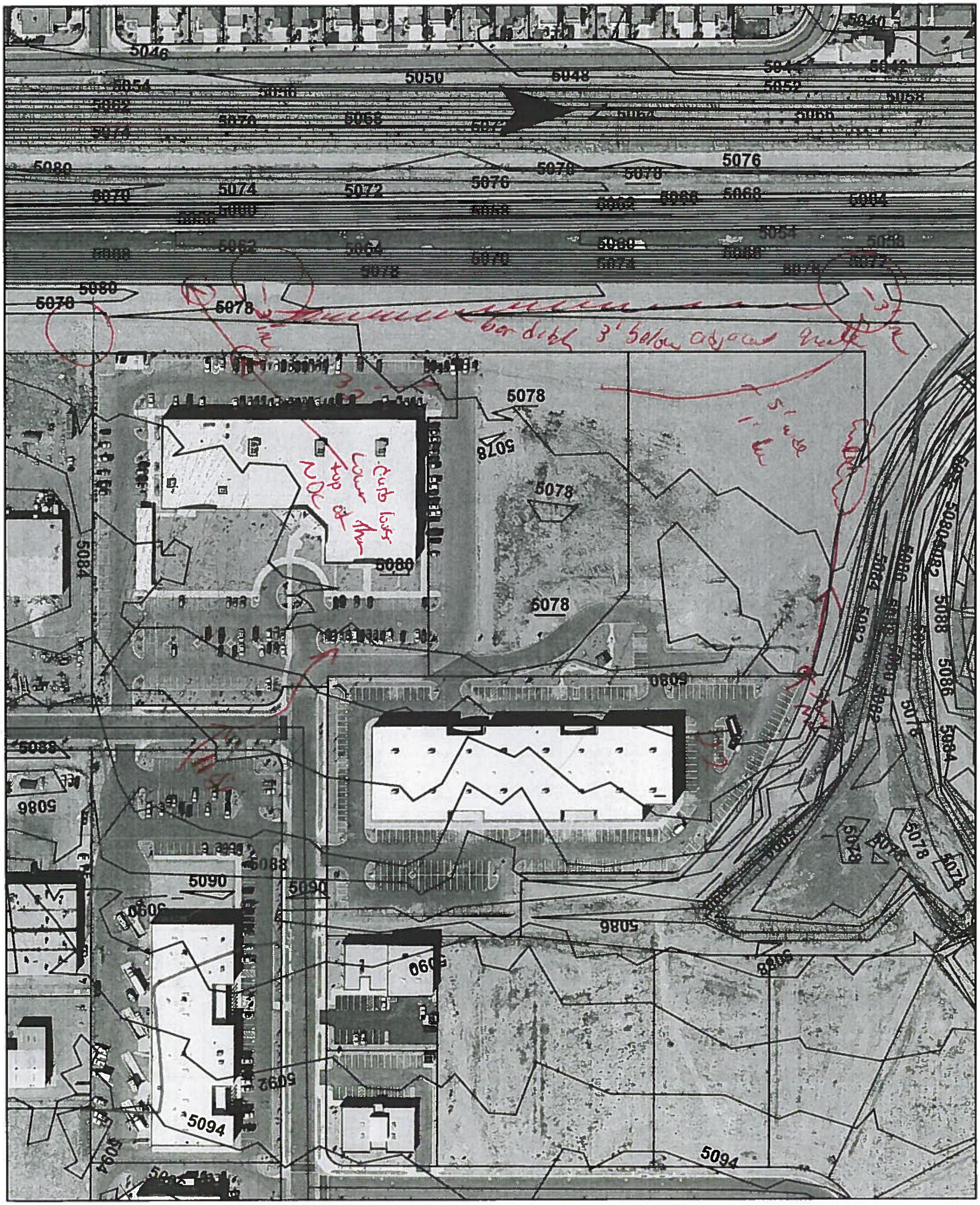
For Precipitation Zone 2

Q_{pA}	=	1.56	Q_{pC}	=	3.14
Q_{pB}	=	2.28	Q_{pD}	=	4.70

Historic Q_p	=	17.0	CFS	Developed Q_p	=	23.9 CFS

The overall site consists of 5.40872359963269 acre(s) located in Zone 2 which is designated as properties D. The 100-year, 6-hour historic discharge is 17 cfs. The proposed developed discharge is 23.9 cfs.

6.9 A


5046
5050
5048
5076
5074
5072
5078
5080
5084
5086
5088
5090
5092
5094
bar ditch 3' below adjacent grade

Cherne, Curtis

From: Mazur, Lynn [lmazur@amafca.org]
Sent: Wednesday, February 23, 2011 9:14 AM
To: Genny Donart
Cc: Cherne, Curtis
Subject: RE: Brunacini at Journal Center

Genny,
See my responses below.

From: Genny Donart [gennyd@iacivil.com]
Sent: Monday, February 07, 2011 2:58 PM
To: Mazur, Lynn
Cc: 'Curtis Cherne'
Subject: RE: Brunacini at Journal Center

Hi Lynn,

Thanks for the letter and markups.
In response to your comments on 02/04/11:

"I will need to see the site plan to determine the site drainage pattern."

· I apologize, I should have included the full site plan with my earlier email. I've included it as an attachment this time.

O.K. Seeing the entire plan answered my question.

"On the detail sheet, it appears that only the loading dock area and the internal access road drain to the water quality pond. The intent of the water quality treatment is to take the first flush rainfall over the entire site through the pond."

· While you are correct that the treatment pond collects all its water from the loading docks and access road, what you couldn't see on that detail sheet is that the access road collects all the offsite water from the east and south. The pond is set up to treat storm water from the entire area.

O.K.

"The [Essayons Boulevard] project is a few years out and has not been approved by the AMAFCA Board of Directors or the U.S. Army Corps of Engineers. Therefore, we will require a concrete rundown connection to the existing NDC rundown structure as you have shown on the plan."

· Thanks for the information about the Essayons Blvd project. My plan was to make that rundown shotcrete to help keep skateboarders off of it and to reduce costs. I mis-labeled it in the notes. Does that create any difficulties?

Shotcrete is acceptable.

"We will also require it to extend to the south to capture the flow in the existing side inlet channel."

· When you say we need to extend the rundown to the south, how far does that extension need to go? Will a dip extending 5' to 10' to the south in the side of the channel be sufficient?

10 feet will be sufficient.

"a Turnkey Agreement will be required for the work within the NDC right-of-way."

· I'll make sure the owner is informed about the turnkey agreement.

Let me know by next week, if possible, if he will be ready to be on the March 24 Board meeting agenda.

"Another issue I would like to reiterate is the new FEMA requirement to have a 15-foot clear access a the toe of slope of our drainage facilities."

· The existing topo from the surveyor shows spots at least 20' north of the North Pino right-of-way line that indicate a flat area at least 20' wide. (Please see attached.) We don't show where the slope begins, but since it's flat that far out, we should be OK for the 15' access requirement to be within the AMAFCA R/W. Please let me know if this information is sufficient.

It looks like it will be sufficient room. I see there are rebar R/W markers, so I will go out and check soon.

Genny Donart, P.E.
[cid:image001.jpg@01CBC6BF.13CF3170]Design Engineer
Isaacson & Arfman, P.A.
Consulting Engineering Associates
128 Monroe St. N.E.
Albuquerque, NM 87108
Phone: (505)268-8828
Fax: (505)268-2632
Email: gennyd@iacivil.com<mailto:gennyd@iacivil.com>

From: Mazur, Lynn [mailto:lmazur@amafca.org]
Sent: Friday, February 04, 2011 1:09 PM
To: Genny Donart
Cc: Curtis Cherne
Subject: Brunacini at Journal Center

Attached are my review letter and mark-ups.

Albuquerque Metropolitan Arroyo
Flood Control Authority
Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer
Phone: (505) 884-2215
www.amafca.org

Cherne, Curtis

From: Mazur, Lynn [lmazur@amafca.org]
Sent: Monday, May 03, 2010 11:23 AM
To: Bingham, Brad L.; Genny Donart
Cc: Cherne, Curtis
Subject: Brunacini Office Warehouse

Re: DRB Project # 1008265 – Brunacini Office Warehouse at Journal Center, Ph. 2

AMAFCA asks for deferral of this item until certain issues are worked out with the owner. Generally speaking they are:

1. Since all the flow from the original Tract A, approx. 67 cfs from the entire 16 acres, will discharge to the one rundown to the North Diversion Channel (NDC), we need a retention pond in the northwest corner to hold and treat the ¼" rainfall for water quality. We have crudely worked out a detail for a holding pond with a subdrain and inverted pipe spillway. This will involve rerouting the perimeter road on Tract A3A.

2. AMAFCA will need a Turnkey Agreement for the site channel connection to the NDC rundown that will be within the AMAFCA right-of-way. The agreement will need to be approved by the Board of Directors.

3. There is a new FEMA requirement for 15-foot access at the toe of levees. We need to determine how much room we have at the toe of the North Pino Inlet levee. We may need additional easement on Tract A3A.

Genny, I will send you a sketch of the pond we are thinking about unless you come up with another option.

Albuquerque Metropolitan Arroyo Flood Control Authority
Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer
Phone: (505) 884-2215
www.amafca.org

Cherne, Curtis

From: Mazur, Lynn [lmazur@amafca.org]
Sent: Wednesday, March 09, 2011 8:01 AM
To: Genny Donart; Cherne, Curtis
Cc: 'Angelo Brunacini'; 'Edward Avila'; 'fred c arfman'
Subject: RE: Brunacini Journal Center - gravity discharge of pond

The AMAFCA engineers also discussed the directional bore and concluded that it is not a good policy. We are concerned with future piping (water draining down along the bored pipe) and water collecting behind the North Diversion Channel (NDC). We know that there is currently about a 2" gap between the NDC and finished grade so that parts of the channel are "floating" in this area.

Albuquerque Metropolitan Arroyo
Flood Control Authority
Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer
Phone: (505) 884-2215
www.amafca.org

From: Genny Donart [mailto:gennyd@iacivil.com]
Sent: Tuesday, March 08, 2011 5:16 PM
To: Mazur, Lynn; Curtis Cherne
Cc: 'Angelo Brunacini'; 'Edward Avila'; 'fred c arfman'
Subject: Brunacini Journal Center - gravity discharge of pond

Hi Lynn & Curtis,

Regarding AMAFCA and the City's request to gravity discharge the pond on the Brunacini site:

I've pulled up some as-builts of the San-Juan Chama water transmission line that's in between the site and the channel. (See attached.) What I found out was that the 72" San-Juan Chama has approx 5' of bury in that area. (aka the bottom of pipe is 11' deep.) ABCWUA apparently STRONGLY discourages going under the pipe and any kind of boring near the pipe. (I get that. I don't want to be anywhere near responsible for breaking that thing.)

I also found out that between the site and the San-Juan Chama line there is an old 12" C.I. waterline that parallels it that has approx 4' bury, AND an old 12" VCP sanitary sewer that's about 10' deep.

Since the bottom of the pond is about 4' below the existing ground, and the discharge pipes would need to be another2' min. below that (6' deep), I don't see how I can gravity discharge this pond.

I'm sorry, but I think I'm going to have to keep the pump.

Genny Donart, P.E.

Design Engineer
Isaacson & Arfman, P.A.
Consulting Engineering Associates
128 Monroe St. N.E.
Albuquerque, NM 87108
Phone: (505)268-8828
Fax: (505)268-2632
Email: gennyd@iacivil.com

Cherne, Curtis

To: Genny Donart; 'Mazur, Lynn'

Cc: Dourte, Richard H.

Subject: RE: Brunacini Journal Center - gravity discharge of pond

Genny,

AMAFCA has asked the City to enter into a Drainage Covenant for the pond, meaning that AMAFCA or the City would have to maintain the pond in case the property owner fails to do so. We do not want to enter into an agreement if a pump is involved.
It seems to discharge at 0.33 cfs (output of pump) would require a small diamater storm drain. If it can't be squeezed between the two water lines, it could be run over the 12" water line. Of course this means the pond would most likely be not as deep. The invert of this drain could also be higher than the bottom of the pond. Removing some rock form the pond would provide additional volume, allowoing you to raise the Bottom of Pond elevation.

Curtis

From: Genny Donart [mailto:gennyd@iacivil.com]
Sent: Tuesday, March 08, 2011 5:16 PM
To: 'Mazur, Lynn'; Cherne, Curtis
Cc: 'Angelo Brunacini'; 'Edward Avila'; 'fred c arfman'
Subject: Brunacini Journal Center - gravity discharge of pond

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I'm sorry, but I think I'm going to have to keep the pump.

Genny Donart, P.E.

Design Engineer
Isaacson & Arfman, P.A.
Consulting Engineering Associates

Cherne, Curtis

From: Dourte, Richard H.
Sent: Friday, February 25, 2011 4:11 PM
To: 'Mazur, Lynn'; Cherne, Curtis
Cc: Lovato, Jerry
Subject: RE: Brunacini at Journal Center

Lynn,

Since this drainage facility will involve public storm water and a drainage covenant that will include City participation if this facility fails. We will need to have the engineer redesign because of the incorporation of a pump and the high likelihood of this being a high maintenance system.

Thanks for your time.

Richard

-----Original Message-----
From: Mazur, Lynn [mailto:lmazur@amafca.org]
Sent: Friday, February 25, 2011 1:24 PM
To: Dourte, Richard H.; Cherne, Curtis
Cc: Lovato, Jerry
Subject: RE: Brunacini at Journal Center

Some clarification. The water quality pond will be onsite and will be the responsibility of the owner. I thought the City obtained maintenance covenants for onsite, private drainage facilities. If a detention pond silted in, overflowed and caused erosion on AMAFCA's property, couldn't the City require the owner to clean it out? I see this as a similar situation.

From: Dourte, Richard H. [RDourte@cabq.gov]
Sent: Friday, February 25, 2011 2:01 PM
To: Mazur, Lynn; Cherne, Curtis
Cc: Lovato, Jerry
Subject: RE: Brunacini at Journal Center

Lynn,

Has this been done before?? I do not have a means to enforce such a regulation.

Richard

-----Original Message-----
From: Mazur, Lynn [mailto:lmazur@amafca.org]
Sent: Friday, February 25, 2011 9:07 AM
To: Cherne, Curtis ; Dourte, Richard H.
Cc: Lovato, Jerry
Subject: RE: Brunacini at Journal Center

I forgot to mention that it is paragraph 2.4.

From: Mazur, Lynn
Sent: Friday, February 25, 2011 10:00 AM
To: Cherne, Curtis ; Richard Dourte
Cc: Lovato, Jerry
Subject: RE: Brunacini at Journal Center

Yes, I can approve for Site Plan. I will request that the Turnkey Agreement be put on the March Board meeting agenda. I will need to follow up with Richard to make sure he is O.K. with including a paragraph in the agreement that the City will enforce the maintenance

covenant for the onsite water quality pond if AMAFCA staff finds that it is not functioning.

Richard, Attached is an example of similar agreements we have done with the County on recent projects. The City is not a party to the agreement. We just mention the enforcement of the maintenance covenant.

From: Cherne, Curtis [CCherne@cabq.gov]
Sent: Thursday, February 24, 2011 6:28 PM
To: Mazur, Lynn
Subject: RE: Brunacini at Journal Center

Lynn,
I read the e-mail. I don't want to approve the plan for Site Plan for Building Permit until AMAFCA is satisfied that the project can be built. Overall the concept and pond size are acceptable for me to approve it for Site Plan. I have some comments to be addressed at Building Permit. Are you OK for Site Plan approval?

Curtis

-----Original Message-----
From: Mazur, Lynn [mailto:lmazur@amafca.org]
Sent: Wednesday, February 23, 2011 9:14 AM
To: Genny Donart
Cc: Cherne, Curtis
Subject: RE: Brunacini at Journal Center

Genny,
See my responses below.

From: Genny Donart [gennyd@iacivil.com]
Sent: Monday, February 07, 2011 2:58 PM
To: Mazur, Lynn
Cc: 'Curtis Cherne'
Subject: RE: Brunacini at Journal Center

Hi Lynn,

Thanks for the letter and markups.
In response to your comments on 02/04/11:

"I will need to see the site plan to determine the site drainage pattern."

* I apologize, I should have included the full site plan with my earlier email. I've included it as an attachment this time.

O.K. Seeing the entire plan answered my question.

"On the detail sheet, it appears that only the loading dock area and the internal access road drain to the water quality pond. The intent of the water quality treatment is to take the first flush rainfall over the entire site through the pond."

* While you are correct that the treatment pond collects all its water from the loading docks and access road, what you couldn't see on that detail sheet is that the access road collects all the offsite water from the east and south. The pond is set up to treat storm water from the entire area.

O.K.

"The [Essayons Boulevard] project is a few years out and has not been approved by the AMAFCA Board of Directors or the U.S. Army Corps of Engineers. Therefore, we will require a concrete rundown connection to the existing NDC rundown structure as you have shown on the plan."

* Thanks for the information about the Essayons Blvd project. My plan was to make that rundown shotcrete to help keep skateboarders off of it and to reduce costs. I mis-labeled it in the notes. Does that create any difficulties?

Shotcrete is acceptable.

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* When you say we need to extend the rundown to the south, how far does that extension need to go? Will a dip extending 5' to 10' to the south in the side of the channel be sufficient?

10 feet will be sufficient.

"a Turnkey Agreement will be required for the work within the NDC right-of-way."

* I'll make sure the owner is informed about the turnkey agreement.

Let me know by next week, if possible, if he will be ready to be on the March 24 Board meeting agenda.

"Another issue I would like to reiterate is the new FEMA requirement to have a 15-foot clear access a the toe of slope of our drainage facilities."

* The existing topo from the surveyor shows spots at least 20' north of the North Pino right-of-way line that indicate a flat area at least 20' wide. (Please see attached.) We don't show where the slope begins, but since it's flat that far out, we should be OK for the 15' access requirement to be within the AMAFCA R/W. Please let me know if this information is sufficient.

It looks like it will be sufficient room. I see there are rebar R/W markers, so I will go out and check soon.

Genny Donart, P.E.
[cid:image001.jpg@01CBC6BF.13CF3170]Design Engineer
Isaacson & Arfman, P.A.
Consulting Engineering Associates
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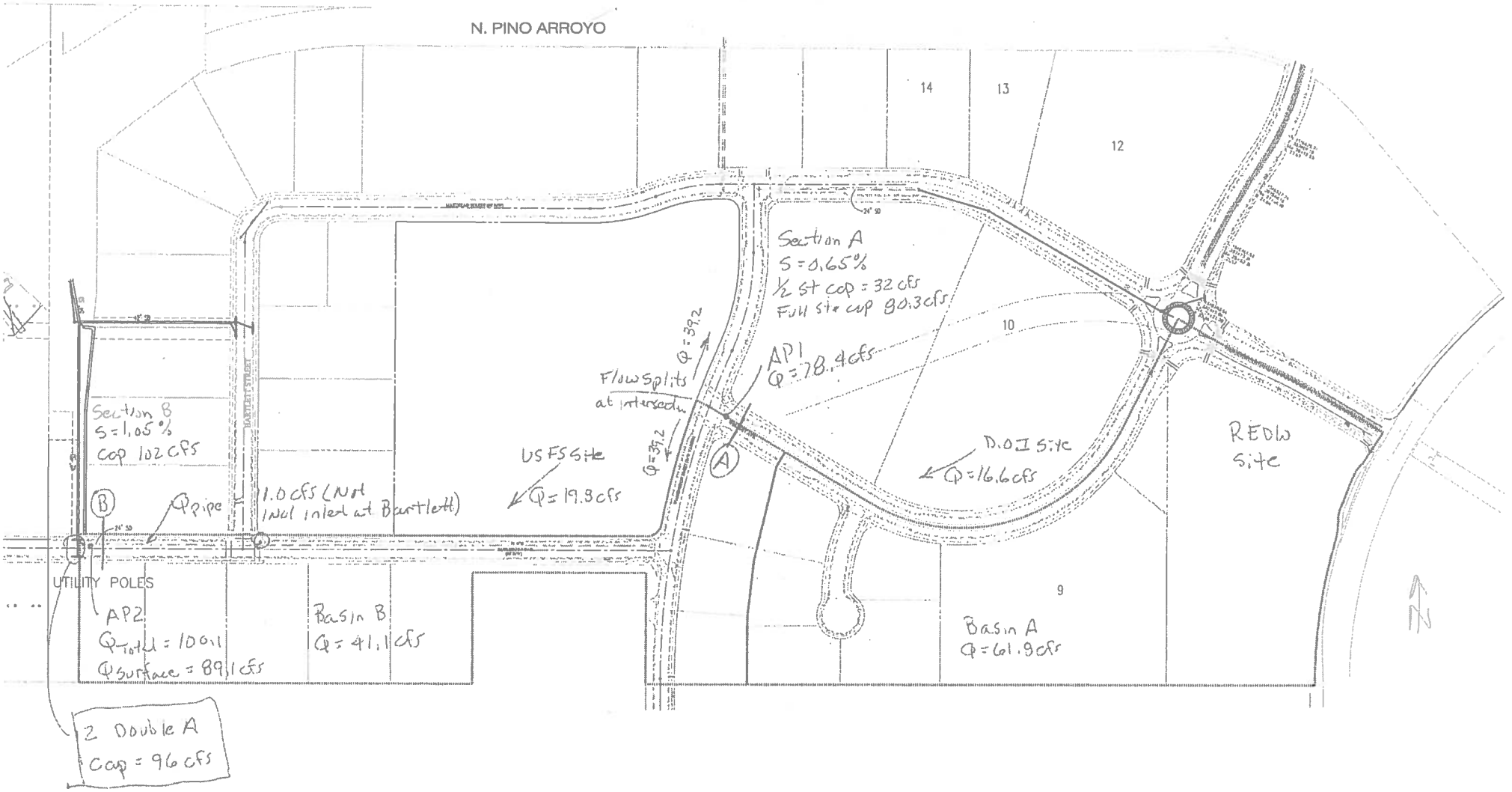
From: Mazur, Lynn [mailto:lmazur@amafca.org]
Sent: Friday, February 04, 2011 1:09 PM
To: Genny Donart
Cc: Curtis Cherne
Subject: Brunacini at Journal Center

Attached are my review letter and mark-ups.

Albuquerque Metropolitan Arroyo
Flood Control Authority
Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer
Phone: (505) 884-2215
www.amafca.org


N. PINO ARROYO
14
13
12
10
9
Section A
S = 0.65%
½ St cap = 32 cfs
Full site cap 90.3 cfs
AP1
Q = 78.4 cfs
Q = 39.2
Flow Splits
at intersection
Q = 39.2
Section B
S = 1.05%
cap 102 cfs
BARTLETT STREET
Q pipe
1.0 cfs (Not
incl inlet at Bartlett)
US FS Site
Q = 19.3 cfs
D.O.I Site
Q = 16.6 cfs
REDW
Site
UTILITY POLES
AP2
Q Total = 100.1
Q surface = 89.1 cfs
Basin B
Q = 41.1 cfs
Basin A
Q = 61.9 cfs
2 Double A
Cap = 96 cfs