Meeting Minutes

City of Albuquerque

Technical Standards Committee

April 4, 2013

Location:

 Plaza del Sol Building

 600 2nd Street NW

 Albuquerque, NM 87102

 8th Floor Conference Room @ 2: 00 pm

Committee Members:

SCOTT STEFFEN P.E.

JEFF MORTENSEN P.E.

R. P. BOHANNAN P.E.

KEVIN PATTON P.E.

CHAIRMAN STEVE METRO P.E.,

CHAIRMAN METRO: Just to do some clean-up work. This is an appeal of the City Engineer’s decision under 14-5-2-12 the City Drainage Ordinance. This appeal is brought pursuant to 14-5-2-15 of the Drainage Ordinance which allows appeals to the Technical Standards Committee. By incorporation and by reference of the City Ordinance, in Chapter 22, the City Development Process Manual will be part of this record. As a preliminary matter the Committee needs to approve the minutes of the last meeting that this hearing had. Jeff I know that I just gave you a copy of the draft I don’t know if you have had a chance to look at it that much but if we can get a motion to approve the minutes and a second we will vote on it.

R. P. BOHANNAN: I move to approve the minutes.

(40)SPEAKER?: I second it.

CHAIRMAN METRO: Okay, motion and a second?

CHAIRMAN METRO: Jeff are you ready to follow the generally what we did at the last meeting?

JEFF MORTENSEN: Yeah I am half way there I forgot that there was a meeting today. I think there is on page 8 at the bottom where I supposedly said: “That’s all done, everything is done. I will just have to burn a disc.” I don’t believe that was me.

CHAIRMAN METRO: That probably was Mark, your right.

JEFF MORTENSEN: So that should be corrected and probably the statement above that is credited to me should be replaced too because . . . well . . .

CHAIRMAN METRO: I don’t know who to assign that one to . . .

JEFF MORTENSEN: These are the only comments that I have.

CHAIRMAN METRO: Any other comments from the members? Okay we gotta to have a motion and a second to approve the draft meeting minutes as amended. All those in favor say yes.

COMMITTEE SAYS YES

CHAIRMAN METRO: Any no’s? No okay.

MS. DAVIS: Mr. Chair, could I just say that I never received a copy of the draft of the minutes of the meeting. I doubt that I have any objections and I don’t think it would necessarily be part of the record proper but I just wanted to reserve a chance to look at them at a later time and submit any corrections if necessary.

CHAIRMAN METRO: Sure that’s fine. Beyond that if they will corrected the two items there and send an e-mail

KEVIN CURRAN: It is proper that the Committee send an amended version of the minutes to Ms. Davis so she can comment on it and . . . unintelligible (137) . . . if she has comments on it the Committee should also consider those comments as well.

CHAIRMAN METRO: Okay. Do we need a motion or anything on that or can we just accept that?

KEVIN CURRAN: Just accept it.

CHAIRMAN METRO: We accept that.

KEVIN CURRAN: Okay

CHAIRMAN METRO: Okay kind of before the hearing starts I kind of wanted to go over what we agreed basically last time was the City will go first with the presentation for 15 minutes and the appellant will speak for 20 minutes to make their case and if there is any other interested parties they will have 3 minutes and there will be a 5 minute rebuttal by the City at the end. The . . . after each person speaks we would ask that, ask any questions at that time to the person that just spoke. With that I would like to swear in all those who are going to testify today if you would raise your right hand, “Do you swear to tell the truth?” “Say I do.”

ALL WHO SWORE IN SAID: “I DO”.

CHAIRMAN METRO: Thank you. Any other business did you want to raise to comment to present your. . unintelligible (177) . . . reservations

JASON DASKALOS: I was just asked to come by Kathy and Gary as the adjacent property owner. I own the two lots east of the subject property.

CHAIRMAN METRO: Could we get your name?

JASON DASKALOS: Jason Daskalos, D. A. S. K. A. L.O. S. and basically the wall is you know half on my property and half on the subject property and as you know my point of view you know being the adjacent property I would like to say I actually think the wall is beautiful and it actually adds value to the neighborhood that is you know that I am here to say that. Gary did get permission from me to build the wall.

CHAIRMAN METRO: I guess the only question that I would have would be the . . . your property’s and one of my concerns has been the structure there associated with the wall and its ability to let the water through or block it back up water. But you’re okay with the way it is constructed as it is now and you don’t have concerns now.

JASON DASKALOS: Yes, and I am also a general contractor so I mean I have gone out look at the site and I am okay with the way built, I don’t feel that you know that it is going to be any detriment to my property at all.

CHAIRMAN METRO: Okay. Thank you. Was there anything any other comments or questions from anyone with Mr. Daskalos?

CURTIS CHERNE: I guess my comment would be that he currently owns the property but he can’t speak for any future property owners.

JASON DASKALOS: I’m sorry?

CURTIS CHERNE: You currently own the property but if you sell you still can’t speak for future property owners.

JASON DASKALOS: Oh I understand.

. . . unintelligible . . .

KEVIN PATTON: So Jason do you understand the impact that it may or may not have on your property?

JASON DASKALOS: I do, I do understand the impact and I mean I built many houses in North Albuquerque Acres and you know that I am not a novice at this at all. I feel there is no, I mean the only water that it is taking is from my two lots, the two houses east have been mitigated um there is no flow coming from the two hou, the two lot, the two houses east of mine. It is basically just my two lots, so where the flow is coming down to the Padilla property. Um I don’t feel that it (loud music plays) um, I don’t feel there is adverse effect (music shuts off).

CHAIRMAN METRO: All right thank you. So with that we will go ahead and start with the uh do we have a time keeper is somebody going to watch the 15 minutes and the 20 minutes . . . pause . . . 5 okay. Uh . . .

Talking/mumbling

CURTIS CHERNE: Can I set up over there? Chair and committee members good afternoon you’re here today to hear an appeal for a drainage report and the case is a little more complicated than that it is also about responsibility. The City’s responsibility for public safety, the City’s responsibility for complying with the National Flood Insurance Program, and Mr. Padilla’s responsibility to his neighbors and the community.

Uh I will just give a brief history; a complete history was given to you in your packet at the site. In 2010 the City acts as the Zoning personal. The City received a call from a citizen who was concerned because they saw an arroyo being filled in on Mr. Padilla’s property. It was Mr. Padilla who was filling in the arroyo and at the time he didn’t have a grading plan. In early 2011, I met with Mr. Padilla, a licensed contractor who built this project on his property and his engineer Mr. Hightower to develop a grading drainage plan and to get a Federal Flood plan development permit.

In June of 2012 during a routine inspection the City discovered that Mr. Padilla had built in blatant disregard for its approved grading drainage plan and the federal floodplain development permit. Shortly after the City began issuing letters requiring litigation of the site and they are providing Exhibits 4, 5, & 11. Since then Mr. Burak has submitted two drainage reports and included a third report with his appeal. None of the reports adequately justify the numerous violations existing on Mr. Padilla’s property.

First I would like to discuss the approved grading drainage plan and the floodplain permit and I gave you all a copy hopefully you have it with you. The three main objectives of the approved grading drainage plan is: number one don’t build the house in the flood zone, number two don’t construct any items in the floodplain and the arroyo except the scour wall and third one was to build a retention pond on the back of the lot to mitigate the increase of flow (crumpling of paper) hydrology approved (crumpling of paper) water through this area (crumpling of paper) and allowed for North Albuquerque Acre master drainage plan because the grading drainage plan was going to make up the volume difference in the retention pond.

Then Exhibit 6 the floodplain development permit, I gave you a copy of it, right here, it required that they be in compliance with the National Flood Insurance Program, every time there is any work, any construction work not just houses but any work at all, in a designated floodplain FEMA requires we fill out these forms. So on this one we filled out the information we just cited specific instructions to do the work for the drain pipe. Which is common for whenever a drain plan is involved with a floodplain permit instead of putting all these instructions on the space on the floodplain permit we just reference these drainage plans through the work.

When the City went out every quarter we do a routine inspection of all our floodplain development permits. So we went out to look at this one what did we find, one we found a house built on a flood zone, when it floods Exhibit 7 & 8, Exhibit H shows the flood map effective at the time, 2008 map, which shows you can see that the home is in the AO Zone what you don’t see is this little fade line that runs right here which separates it from AO1, AO2, AOB1 deep and AO2 feet. And then uh this is permanent in the OA map because this grading plan was approved in eleven, so that was in the sector map. The current sector map is from 2012 floodplain is still in the same place . . .

MS. DAVIS: Excuse me Mr. Chair?

CHAIRMAN METRO: Yes

MS. DAVIS: Typically there is a chance to object for Exhibits going into the record and I just wanted to say that I am objecting to 7 & 8 as not accurately depicting the existence of the floodplain. We are going to present testimony regarding that but also Mr. Briggs is here from the County, he is going to testify to it being on the fact that the 2012 floodplain moved to the north.

CURTIS CHERNE: That is why I am showing these because they did not move. This is exactly the same uh and I will be getting into that because the current maps

Talking over each other

KEVIN CURRAN: My sense is the committee should reserve ruling on Ms. Davis’s objection until the committee hears the rebuttal testimony in response to what Mr. Cherne is presenting.

CHAIRMAN METRO: And I would also uh, what I would like is the reserve the comments and questions till after the presentation just in case time becomes an issue if that is all right.

 . . . mumbling . . .

CURTIS CHERNE: So the current maps are done digitally, these are d-firms so we get a disc or a GIS group maps then we basically snap some in so they fit the local data. When Mr. Burak made reference in his appeal about how the floodplain moved some 1996 map or something but the 1996 map is really irrelevant because when you are building a building you have to build with an effective map not from some old map and in addition the old maps were all done, you got a printed map. Printed from FEMA and they sent them to you and on a 500 scale you really couldn’t see 20 feet on those things anyway.

All right so the home was built in the flood zone, number two numerous items were built in the arroyo and the flood zone. Exhibit 4 is a completed list of all the items that are not in compliance, there are 17 of them. I am just going to read a few of them.

Portion of the home in the floodplain, a wall in the floodplain which is in the eastern and southern part of the property line, a concrete driveway bridge in the floodplain, then there is numerous more. But you know all these items that were built in the floodplain the one thing that he didn’t build was the scour wall. That was the one thing I told Mr. Padilla when we were first doing this project was that’s the cheapest insurance policy he’s got was to build the scour wall to protect his home.

Then the basketball court was built where the retention pond is supposed to be. So when the City told Mr. Padilla to mitigate the construction that was built in blatant disregard of his approved plan and floodplain permit, he had Mr. Burak start submitting drainage reports to justify his actions.

Mr. Burak’s initial drainage report was not approved because it uses flow rate of 660 cfs, far below the accepted flow rate of 3100 cfs. Mr. Burak had done a LOMR way up stream in 2007 in the County of Ventura that was 3100 cfs and that LOMR is just down the street in the same arroyo.

Hydrology did not approve Mr. Burak’s second drainage report because he arbitrarily split the flows from one arroyo into three arroyos and inserted levy commands in his Hec-ras and there aren’t any levees. This erroneous assumption would not be accepted by FEMA and not be made by others in the drainage community. And then we asked Mr. Burak to run the model with one arroyo with 3100 cfs and he refuses to do so. I think if he refuses to do so because he knows what it will show.

So Mr. Burak submits a third model, I guess he didn’t like the second one which this appeal is really for. He puts it on a disc with 187 files on it and all I can think of is that his goal must have been was to make it cumbersome and overwhelming to look at it all. So what I did I tried to find a file looking for his assumptions because that is the prompt I had for the first two drainage reports is the assumptions that were made to go into the model. I couldn’t find one file on the whole disc that said how he built it.

So Mr. Burak is probably going to show us awesome graphics of this model output but if his input in his latest assumptions are not known and are similar to his first two submittals, using invalid assumptions to get his desired output then the output file have little or no relevancy.

I would like to give a couple of examples of why this is a public safety hazard. Say a 10 year lesser storm, we got 2 inches of water in Glendale and we have a wall built there and maybe the flow depth is 10 to 12 inches and the product that passes is two inches of water so it won’t be able to pass a foot of water or say it was also built in the arroyo I think it might have washed into the road and then a car could drive into it.

A couple of examples why this is poor public policy if the site is not constructed according to the approved floodplain development permit. So it becomes a violation of the City’s Flood Hazard Control Ordinance and the National Flood Insurance Program. So I would like, Exhibit number 1 is from Mr. Dale Hoff at FEMA at Region 6 with the mitigation division because I was concerned about this project being built so I gave him a call. I am just going to read one sentence out of the whole thing but everyone has a copy of it. (Reading sentence: “The fact that the project was not constructed as described in your original permit, it becomes a violation of your flood damage protection ordinance.” and he goes on to mention some other things. He also told me if we don’t mitigate it that the next time we come up for an audit he will be writing the City up for it. So in conclusion this appeal is about a drainage report and responsibility; the City’s responsibility for public safety, the City’s responsibility to the National Flood Insurance Program, and Mr. Padilla’s responsibility to his neighbors and community.

I would like the committee to find that Hydrology exercised proper judgment in not approving the drainage reports. The first report for using the 660 cfs versus 3100, the second report for arbitrarily creating three arroyos and inserting levy commands where levees don’t exists and the third report it is safe to assume that he made invalid assumptions like he did in his first two . . . trash in and trash out. Mr. Burak’s assumptions for his Hec-ras models are not acceptable to built condition at 8801 Glendale and poses a public safety risk and causes the potential for property damage and is also bad public policy. The built condition is in violation of the Drainage Control Ordinance and the Flood Hazard Control Ordinance. That is all I got. So are there any questions?

CHAIRMAN METRO: Okay. Ms. Davis do you have questions?

MS. DAVIS: Thank you Mr. Chair. First what I would like to do is object to Exhibit #1 as being only hearsay and first before I start Ordinance 14-5-2-15, it states: “At the hearing the Technical Standards Committee may consider such facts, exhibits, and engineering principles as may be presented by the appellant or the City Engineer or his designee, or of which the members may have knowledge or experience, and may affirm, reverse or modify the decision appealed from, and attach as conditions to their decision such requirements”, and then it goes on.

The key is this Committee needs to consider facts, exhibits, and engineering principles. Exhibit 1 starts out in after it says thank you for joining me on the phone today it says based on our discussion this structure received a Floodplain Development Permit but this is all based on hearsay because nowhere does Dale Hoff say that he went out to the site. He just based it on a discussion with Curtis Cherne. And also I would move to strike the statement about that Dale Hoff told him that this could subject the City to an audit that is also hearsay there is not any evidence that has been presented to Mr. Hoff that this commission or this committee could consider.

CURTIS CHERNE: We do audits regularly here in 2010 as part of the community system visit that is a regular function that they do.

MS. DAVIS: However your statement that he stated that there is no evidence before the committee it is just your hearsay so that’s why my objection is based on that and then I am saving in my argument later my objections to 7 & 8 and we are going to present testimony and I already made that. But I do have a couple of questions for Mr. Cherne.

I would like you to go to your Exhibit 3, and Exhibit 3 is a letter that was sent from the Senior Engineer from the Planning Department to Mr. Burak, correct?

CURTIS CHERNE: Yes.

MS. DAVIS: In that, in the first bullet frame it said the flow rate utilized at the reach of this project was much lower than the 3100 cfs used for that Hec-ras analysis. Did you see that?

CURTIS CHERNE: Yes.

MS. DAVIS: And isn’t it true that in the both second Hec-ras analysis and in the 2-D model that the 3100 cfs was used?

CURTIS CHERNE: The 3100 cfs was split into three arroyos so I would say it was not used in this analysis.

MS. DAVIS: And then if you could also

CURTIS CHERNE: And the 2-D and the thing was just a mess, I didn’t really even get in to it.

MS. DAVIS: Okay, that is the series of my next questions. You never examined the 2-D model did you?

CURTIS CHERNE: How am I supposed to examine it if there is nothing printed, there are 187 files on a disc and I don’t even think this appeal is over this over the third one it is over the first and second one.

MS. DAVIS: But you didn’t have or don’t have any engineering principles that you can site to state that the 2-D model is incorrect do you?

CURTIS CHERNE: I haven’t approved or disapprove the third one.

MS. DAVIS: So you have no evidence to present on behalf of the City as to or if there is anything incorrect in the 2-D model.

CURTIS CHERNE: This third one wasn’t submitted right.

MS. DAVIS: That’s all the questions that I have.

CHAIRMAN METRO: Okay. All the, is there anyone else before I go to the members of the committee that have questions of Mr. Cherne?

R. P. BOHANNAN: I di (speaker cut off, inaudible)

CHAIRMAN METRO: Go ahead.

R. P. BOHANNAN: Curtis this question is for you. It used to be the City’s policy if an improvement was funded it was assumed to be in place. Is that still a policy?

CURTIS CHERNE: Or as far as requiring infrastructure

 . . . Curtis and? talk over each other . . .

CURTIS CHERNE: That requirement applies to requiring infrastructure in planning actions and yes it is still in the Drainage Ordinance today.

CHAIRMAN METRO: My questions was . . . and again our decisions is going to be whether to uphold the engineer’s the City Engineer’s decision on this case and I just want to verify is it the City Engineer’s decision from the letter of January 23 where the orders put conditions is that the City Engineer’s decision or has it been modified any with things that have developed over time?

CURTIS CHERNE: …crumpling paper…oh are you speaking of the letter, Exhibit 11 Violations of Property 8801 Glendale?

CHAIRMAN METRO: That’s correct.

CURTIS CHERNE: The January 23rd it’s that one?

CHAIRMAN METRO: January 23rd

CURTIS CHERNE: Yeah.

CHAIRMAN METRO: Basically

 . . . Chairman and Curtis Cherne talk over one another…

CURTIS CHERNE: Is that still the City’s position, is that what you’re asking?

CHAIRMAN METRO: The decision I did want to make clear that the committee and I, we understand what were exactly voting on today. We gotta hold up the City Engineer’s decision which is this item here right? Nothing has been modified with that and I thought maybe I’d if you could go through those or we’re going to uphold the appellants and I will ask you the same questions or will do one with conditions or whatever conditions we put on it.

CURTIS CHERNE: This was the last notice to go out. It was dated in January and I think it was given to 936. . . unintelligible. . . reactions on or before March 1st. That’s when we uh it was known that there was going to be appeal coming so this was the last one.

CHAIRMAN METRO: The position is to remove everything from the floodplain, correct? The first item?

CURTIS CHERNE: Yup.

CHAIRMAN METRO: And then to remove the basketball court and convert that to a retention pond, I guess? And a through the analysis with the Hec-res that they are doing you approve show that the resident was not construction in the floodplain

CURTIS CHERNE: Yah and there is another way they could do that is also by the use of the elevation certificate the home and that was recommended to Mr. Padilla also that he obtain an elevation certificate. I couldn’t quite tell in the existing grades in Mr. Hightower’s plan versus the finished floor if the home was above because you could be in plan view be in the flood zone but in profile be out of flood zone based on your elevation. I think he is going to have to do an elevation certificate anyway so that when he sells the home the new homeowner hopefully won’t have to pay flood insurance.

CHAIRMAN METRO: And then you want them to a remove the concrete channel that is there now as well as the driveway and put in. . construct the scour wall as per the original

CURTIS CHERNE: Yeah I want to go back not having any built items in the arroyo and the flood zone except for the scour wall.

CHAIRMAN METRO: Is that I mean there are driveways that I have seen that are built in the floodplain out there. . just across the street.

CURTIS CHERNE: You mean south?

CHAIRMAN METRO: Yeah, I am just asking is that standard practice up there or do you allow

CURTIS CHERNE: Standard practice would not be to build anything that would increase the water surface elevations

CHAIRMAN METRO: I agree with that, I mean I understand that. I mean that you can build driveways within the floodplain

…Chairman Metro And Curtis Cherne Talk Over One Another…

CURTIS CHERNE: . . . this thing is about this thick and goes up to a little space about this wide and underneath it is not ordinary . . .it is not just a driveway at grade that goes in at Glendale, it is more of a driveway bridge is what I call it.

CHAIRMAN METRO: Yes Jeff go ahead.

JEFF MORTENSEN: So if this driveway had been built to follow the contour of the arroyo would you have an objection with that?

CURTIS CHERNE: No.

JEFF MORTENSEN: So it is my understanding that the fact that it was built up within the arroyo.

CURTIS CHERNE: It is part of the whole fill problem.

CHAIRMAN METRO: Could you say that again?

CURTIS CHERNE: It is the whole fill problem you know filled up with planters and driveways it is all filled up with things that block the flow out there.

JEFF MORTENSEN: Did the approved plan show a driveway crossing the arroyo?

CURTIS CHERNE: Nah, the approved plan shows the driveway off to the west. They weren’t supposed to put the driveway starting along west of the property line and it went up to the house and the one I am asking the removal for is near the eastern property line near the arroyo into the floodplain …crumpling paper…

KEVIN PATTON: Is this indicated on the approved plan? …crumpling paper…

CURTIS CHERNE: YES

CHAIRMAN METRO: Is there any more questions for Mr. Cherne from the committee?

R. P. BOHANNAN: Was there any other exhibits submitted with this plan or is this a single sheet.

CURTIS CHERNE: Yeah there was a cover sheet there was eleven of them altogether.

R. P. BOHANNAN: No I mean from a drainage submittal perspective? Was this the entire plan that was submitted?

CURTIS CHERNE: Yes

CHAIRMAN METRO: With that we are ready for the appellant to have their 20 minutes.

MS. DAVIS: Thank you Mr. Chairman and members of the committee. I will start by saying that Gary Padilla the homeowner has been cited for violations 14-5-2-12 of the Ordinances. If you go 14-5-2-12 of the Ordinances under number 1 it say, “Construction, grading or paving on any lot within the jurisdiction of the city shall not increase the damage potential to upstream, downstream or adjacent properties or public facilities.

So we are going to present evidence that the construction that has occurred with the grading and the paving does not increase the damage potential to upstream, downstream or adjacent properties or public facilities. And in addition the City admits that in Exhibit 5, which is the letter from Shahab Biazar to Mark Burak dated November 9th, it states, “in order for the unpermitted improvements to remain the amendments contained in the proposed report must adequately demonstrate the uncommitted improvements would neither increase the risk of harm to human life nor increase the risk of damage to public and private property. So I would move as part of the record our items which were listed as one through seven described in my letter to the Chair of March 13, 2013. And those will be Exhibits that will be discussed throughout and also we will have testimony from Mr. Tim Hightower and I’ll have testimony from Mr. Mark Burak regarding that. In addition I don’t object to the admission to the record of any of the other Exhibits other that 1, 7, & 8 that I previously noted that the City submitted.

I would like the City to note that the permit, which is Exhibit 6 I believe, the Floodplain Development Permit form, is dated September 27, 2011. So what that needed to be analyzed under and what is continues to be the floodplain map that needs to be used for the purpose of this project is the 2008 floodplain map because it was approved before the 2012 map came into existence. So with that I am going to move to Mr. Hightower who will present evidence based on his as-built report which we attached as Exhibit 2 that is described as Exhibit 2 that you received.

MR. HIGHTOWER: Mr. Chairman and committee I am Tim Hightower and I am the engineer of record of original approved grading drainage plan and what you have in front of you is I think is Exhibit 10, is that correct? Which is the certified as-built plan and I am the engineer on those plans …crumpling paper…

MS. DAVIS: Excuse me Tim aren’t those the originals

MR. HIGHTOWER: The originals? Ten is the original as-built

MR. HIGHTOWER: Ten is has the original as-built approved drainage plan dated 9-1-11? And 2 is the as-built certification. And I am here to talk about the as-built certification and I have a couple of points to make on that plan. First of all the residence, the current location of the residence is not within the flood plain.

We do have a digital version of that that Mr. Burak will show you. On the as-built certification the heavier line weights are the as-built and current conditions, the half scale lines weights are the original plan, and the heavier line weights are was as-built that was super-imposed on top of the approved plans.

So you can see there is a line on the original grading & drainage plan showing the floodplain boundary limits. That is not as accurate as the digital that was scaled off of a map but we do have a digital representation of the development made of the floodplain. You will see that the house, the residence is not constructed in the floodplain.

Second point that I would like to make is on site improvements that have been made and certified. If you want to look at the calculations chart that is up at the top of the left hand corner, just below that table you will see a couple of numbers, North Albuquerque Acres allowable is a runoff is 2124 cubic feet. This current lot produces as you see; let me pull mine out so I can get those numbers.

It actually produces 5419 cubic feet of runoff that is based on current as-built conditions, which includes all items that are in place. The sand volley ball court, the hardscape, the concrete basketball court, the gravel driveway, the concrete driveways that are on the property, the concrete blocks, the concrete curbs, landscaping and all of that is included in the calculations. This lot produces 5419 cubic feet, minus the allowable, what is required, the detention volume required on the lot is 3295 cubic feet and on the lot provided currently we have 3642 cubic feet of the detention provided.

You will also notice from the back yard to the west of the property there is shown a drainage pipe, the retention ponds in the back yard next to the house in front of the basketball court are tied into the retention pond at the west end of the residence, which is tied into the retention pond in the front of the residence, which then exits with an over flow pipe into Glendale avenue.

So again the as-built conditions are reflected of what the run-off is maximum cfs is 2.09 in that chart. So we do meet the requirements the City wants for the as-built to conditions being able to the run-off on the lot.

The third point I would like to make is there is a scour wall on the property. It is not built according to the original design but there is a scour wall. If you will notice on the concrete channel, that is on the eastern, southeastern portion of the property, there is a concrete channel that has an 8” concrete block wall, and it has a large 24” by 24” concrete footing, three feet below grade. So the bottom of that footing is at the elevation that it needs to be according to the scour wall calculations. So there is a scour wall in place. The top elevation of that scour wall may not be what was on original plans but the bottom of the footing elevations of the scour wall is in place.

And in my professional opinion, what is in place with the concrete channel and that concrete block scour wall and the footing is there is superior that was originally designed. What was originally designed was just a shotcrete wall as part of the landscaping to basically to hold that slope of that arroyo that was there because of the in the stage of construction you are doing a grade and drainage plan prior to construction, you really don’t have an idea of what the homeowner might want in that case. So that was the original intent of that scour wall was a landscape type of wall shotcrete and what we have place or what is in place now is superior to what was originally designed.

Fourth point that I would like to make is I don’t think this is really, it hasn’t come up yet but there has been some discussion the concrete block is currently surrounding the resident that was originally shown on the plans. There is a portion that was not but there has been some discussion in the past about that wall not being on the plans, wasn’t supposed to be there. But there was a wall plan for the perimeter of the property from the beginning.

In conclusion I would like to say the on-site as-built conditions do meet the City of Albuquerque’s requirements, they do not affect downstream properties, or public structures, and they have. . there is no negative impact of the as-built conditions on downstream properties.

MS. DAVIS: Mr. Hightower just one point that you forgot to mention, can you discuss the finished floor elevation.

MR. HIGHTOWER: Oh yes. On the as-built certification the finished floor elevations 5532.29. The original design was 5532.00 so the finish floor is roughly where the finish floor was originally designed. And I do understand it is a little difficult to see some of these elevations they are technically kind of small. But the elevations do follow the existing contours so Glendale Avenue never changed so the elevations at Glendale Avenue didn’t change so the flow line, the elevation coming into Glendale Avenue are what was there originally. Raising the elevation of that arroyo did not occur and the elevation of the finished floor of the residence is .29 or 4 ½ inches higher that what was originally proposed. So the residence is out of the profile stand point the residence is out of the floodplain damage to the floodplain 32by profile and it is not in the floodplain limit boundary.

MS. DAVIS: Next we have Mr. Burak. Did you want to hold the questions for Mr. Hightower?

CHAIRMAN METRO: I was going to ask Kevin if we could stop the clock and ask questions after each testimony rather than trying to go back to it if that’s all right.

KEVIN CURRAN: I think the time that the committee takes to ask questions should not be counted against the presentation time.

CHAIRMAN METRO: I think it makes more sense to ask questions of Mr. Hightower right now than to wait the end and try to come back at the end if that is okay.

KEVIN PATTON: I have a question.

CHAIRMAN METRO: Okay go ahead.

KEVIN PATTON: So, on your as-built plan I notice the diluted FEMA floodplain line.

MR. HIGHTOWER: Yes

KEVIN PATTON: And I noticed that you indicated that and the bold line is the as-built condition?

MR. HIGHTOWER: Yes

KEVIN PATTON: Are you indicating that the diluted FEMA floodplain line shown on your as-built is indeed not correct? Is that

MR. HIGHTOWER: Well what I am going to tell you is that diluted line is a not a digital line that is a drawn line. So that was just a drawn line scaled off the FEMA map. So that particular line there is not digital is not specifically correct. You are going to see in our presentation a digital line that Curtis mentioned earlier, you are going to see that line and you’re going to see that the house is not in that particular floodplain area. But so what I am telling you there is a quarter of the residence that is looks like it is in that line that is what I am looking at yes, but that line is not an accurate depiction of the true floodplain limit according to FEMA.

KEVIN PATTON: Another question? Do you still show a scour wall section on your as-built plan so

MR. HIGHTOWER: Right.

KEVIN PATTON: That was not built right. So in essence this does not exist is that correct?

MR. HIGHTOWER: That is correct. It does not exist.

KEVIN PATTON: Okay.

MR. HIGHTOWER: But the reason I left it on the plan, I think it was a good reason at this point because of what we’re here today. I took my original plan and I just gray scaled everything on the original approved graded drainage plan it is what I always do on my certifications. So at least you have an idea of what was approved originally. I did go through at one time and cross that out and said not used and then I thought because this certification was done after this whole process started. What I left that on there for was the calculations, so you could at least review the calculations and see the elevations, see the flow rate that was used, see some of the assumptions etc. that I made for the scour wall calculation. That’s why it is still there. Otherwise it would have been crossed through and said not used or deleted completely.

KEVIN PATTON: You mentioned in lieu of this scour wall section a CMU scour wall in lieu of this is that correct?

MR. HIGHTOWER: Yes

KEVIN PATTON: But you don’t show this detail on yours is that correct?

MR. HIGHTOWER: Yes that is correct that detail is not on there.

KEVIN PATTON: You also mentioned that the scour wall is 3 foot below finish grade but your scour wall shows 5 is that correct?

MR. HIGHTOWER: That may be correct I don’t remember the number.

SPEAKER: Is it 3 foot or 5 you mentioned 3 am I correct

CHAIRMAN METRO: That’s what he mentioned.

MR. HIGHTOWER: Did I say 3?

KEVIN PATTON: Yeah verses this unintelligible the 5 foot minimum

SCOTT STEFFEN: As a follow up to that on the last question about the scour wall. Was there a design of that scour wall? How did they build it, how did they know what to put . . .

MR. HIGHTOWER: They didn’t. They just built it.

SCOTT STEFFEN: Are there as-built on it? Are there any pictures?

MR. HIGHTOWER: Yes uh. I believe there are pictures of the scour wall, that wall, yes. On the scour wall the critical dimension is the dimension below the flow line. So to answer your question we do have a discrepancy of between 3 feet and 5 feet but I can’t tell you where that is. The wall that is in place now is 3 feet below grade; the bottom of that footing is 3 feet below grade. That I know.

SCOTT STEFFEN: Below the grade of

MR. HIGHTOWER: Below the channel? Below the channel elevation, yes.

SCOTT STEFFEN: The concrete channel?

MR. HIGHTOWER: The concrete channel?

SCOTT STEFFEN: Not the historic channel but the concrete channel.

MR. HIGHTOWER: Correct, correct. But if you look at those numbers those elevations, that concrete channel elevations are about grade elevations on this plan and relative to the finish floor elevation there is that difference.

SCOTT STEFFEN: A follow up on the concrete channel. What are the treatments on the upstream and downstream and of those channels? The City has indicated that they could under mined and was wondering what the design was upstream and downstream of the concrete channel is. Was there a turn down section?

over talking

MR. HIGHTOWER: I do not know that the turn down deserves turn out section there. I do believe there is but I haven’t seen those pictures and I don’t recall seeing those pictures.

SCOTT STEFFEN: So there was no design to this concrete channel

MR. HIGHTOWER: No not by me.

SCOTT STEFFEN: Not by you.

MR. HIGHTOWER: Not by me. I do believe that there was a design for the concrete channel and a design for the concrete bridge but I did not do that.

KEVIN PATTON: By a licensed engineer?

MR. HIGHTOWER: No I don’t know.

KEVIN PATTON: You don’t know?

MR. HIGHTOWER: No I don’t know. Currently what they have on the upstream side of that concrete is a 6 inch riprap for I guess about 10 feet in front of that and on the downstream side there is the same riprap into Glendale Avenue.

KEVIN PATTON: I saw that.

MR. HIGHTOWER: Here are the pictures of these ???

over talking

KEVIN PATTON: In your opinion, on your as-built plan you show one of the landscapes detention ponds within the FEMA floodplain. Is it your opinion that it still remains within the digital FEMA floodplain?

MR. HIGHTOWER: Yes, that’s retention pond that is in the front of the house, in that horseshoe area is in the floodplain, yes sir.

KEVIN PATTON: Okay and is that included in your calculations as far as the retention . . .

MR. HIGHTOWER: Right. The calculations for the lot are from all 4 property corners, part of this property is in the floodplain, but it includes everything in that property.

SCOTT STEFFEN: Does the as-built survey I see no as-built shots on the pond. Was there a survey done on the ponds to verify the volume over talking

MR. HIGHTOWER: The contours that you show, those are the survey contours.

over talking

SCOTT STEFFEN: Those are as-built surveys based on shots; they were generated based on topographic.

over talking

MR. HIGHTOWER: That’s right they were based on topographic survey that went through

over talking

SCOTT STEFFEN: So the volume provided up here the 603642 cubic feet is the volume of those contours?

MR. HIGHTOWER: Of all of those

SCOTT STEFFEN: All of those added together before

MR. HIGHTOWER: Correct.

SCOTT STEFFEN: Okay.

MR. HIGHTOWER: There are a number of detention ponds in this case. There are a number of them so it is cumulative.

SCOTT STEFFEN: Okay

CHAIRMAN METRO: Jeff or RB?

R. P. BOHANNAN: I had a question. Was there any analysis done on the entrance conditions were the channel enters into the top

MR. HIGHTOWER: You mean the current concrete channel?

R. P. BOHANNAN: The existing channel enters into the concrete channel and through that wall with the piers

MR. HIGHTOWER: I did not. I did not do any calculations into the pond. The as-built conditions I did not do the calculations on that.

CHAIRMAN METRO: Okay,

JEFF MORTENSEN: Looking at the as-built superimposed on the as-approved there is a significant departure in the extended building improvements and yet you have certified that it is a substantial compliance with the design intent. How did you arrive at that?

MR. HIGHTOWER: Certification is the City of Albuquerque language. That certification is straight out of the City of Albuquerque. The design intent of this lot was to detain or retain runoff developed by the lot hence the original retention pond in the back and there was no detention or retention design in the original plan in the front of the property because that was a floodplain anything coming from the front of the property into the house was going into the floodplain. That was the original intent was to hold some of the water in the rear. What has happened in this case is we are still holding some of the water in the rear but now we are taking that water and moving it into the front and exiting out on Glendale. The design intent of this original grade and drainage plan was not to impact any adjacent lots with runoff at all generated by the lot. So I can say by this certification, even though it is a departure from your approved grade and drainage plan, what the homeowner has done is provided detention to not impact any adjacent lots.

JEFF MORTENSEN: Did you find the grading in the floodplain to be in compliance with your design intent?

MR. HIGHTOWER: There was if, I couldn’t have because there was no grading of the floodplain to begin with.

JEFF MORTENSEN: Right. Therein lays my dilemma with the certification. You didn’t except that from your certification but you didn’t analyze what was done in the floodplain.

MR. HIGHTOWER: I am not following you.

JEFF MORTENSEN: Okay. Your certification speaks to the entire plan.

MR. HIGHTOWER: Okay

JEFF MORTENSEN: However there are exceptions what I am hearing because you did not analyze the grading within the floodplain or did you?

MR. HIGHTOWER: No, I am here to talk about the as-built on site conditions I am not referencing anything upstream. That is coming soon. So if you are asking me did I analyzed the flow from upstream and how it is going to impact what has been approved, what is in place now? No, I did not do that. What I am telling you is that the improvements that are in place now on the lot .89 acres do meet the intent of the City’s guidelines, which is not to impact downstream. That is what I am saying.

SCOTT STEFFEN: I am going to follow-up on that. On your certification you are saying on the approved plan dated 3-01-12 is that just a typo in that certification statement.

MR. HIGHTOWER: Could be, it should be 9-1-11???

SCOTT STEFFEN: And then I think the question that Mr. Mortensen’s asked

MR. HIGHTOWER: Do you know what that has got to be a typo yeah.

SCOTT STEFFEN: I just wanted to clarify this is the only thing that I have seen approved was back in September 2011.

MR. HIGHTOWER: Right. 9-01-11 was the original approved grade plan. This is not approved by any means we are not arguing that.

SCOTT STEFFEN: No, no I understand that it is an as-built

MR. HIGHTOWER: That is correct.

SCOTT STEFFEN: So Mr. Mortensen’s point of about the grading and I understand your explanation the drainage intent. The grading intent in the original plan was not to grade even in the floodplain and the as-built condition is greater than the floodplain. And that’s not; I would not consider that substantial compliance with the intent of the original grading plan.

MR. HIGHTOWER: Okay

SCOTT STEFFEN: Grading plan

CHAIRMAN METRO: Was the intent to move the floodplain? Did you do a LOMR on this or is the floodplain outside the building right now.

MR. HIGHTOWER: It is outside of the residence, yes but it is not outside of the property.

CHAIRMAN METRO: And Mr. Burak will go over that? , okay. Any other questions?

SCOTT STEFFEN: I have one more question to ask on the as-built. You are showing 12 inch CMP culverts at the driveways?

MR. HIGHTOWER: Yes.

SCOTT STEFFEN: I am assuming that you have no knowledge of any design as they, your just stating they are just as-built.

MR. HIGHTOWER: That is correct.

SCOTT STEFFEN: You don’t know what they convey, why they are there?

MR. HIGHTOWER: They don’t convey anything. They should have never been put in, honestly. They didn’t need to put it in but I will tell you that every lot in North Albuquerque Acres requires some kind of mitigation at the driveway entrance whether it’s a culvert or some kind of dip section, if you are doing a paved driveway. The County requires that, the City requires that, its common practice, contractors just go out and put in culverts. They don’t need culverts there. They are not going to do any good because if we do have a design storm, all that flow on Glendale will just go right over the top of them. It is not going to

SCOTT STEFFEN: I convey a small

MR. HIGHTOWER: They wouldn’t even convey a 10 year storm.

SCOTT STEFFEN: Right

MR. HIGHTOWER: I don’t think they are necessary. They’re there shown as as-built, they weren’t shown originally

SCOTT STEFFEN: Yeah that’s

MR. HIGHTOWER: So there was no design of those. But they do not

SCOTT STEFFEN: So they were just installed by the contractor and you noted it

MR. HIGHTOWER: That’s correct, that’s correct. But I don’t think they need there necessary with the other improvements that are there.

SCOTT STEFFEN: Okay.

MR. HIGHTOWER: I think that is just a standard deal that we put in culverts in North Albuquerque Acres.

CHAIRMAN METRO: Go ahead Kevin.

KEVIN PATTON: Did you have any correspondence or coordination with the Corp of Engineers concerning work in the field of floodplain?

MR. HIGHTOWER: No.

CHAIRMAN METRO: Any go ahead Jeff.

JEFF MORTENSEN: Tim you indicated that the scour wall that was built was not was not consistent with the one you designed.

MR. HIGHTOWER: It was not what I designed correct.

JEFF MORTENSEN: How do you know what was designed?

MR. HIGHTOWER: I saw pictures of it.

JEFF MORTENSEN: Did you see it under construction?

MR. HIGHTOWER: No not under construction but I saw pictures during construction.

JEFF MORTENSEN: Do you know if there are any as-built survey data for what got built?

MR. HIGHTOWER: I do not know that.

JEFF MORTENSEN: Okay so how?

MR. HIGHTOWER: How do I say 3 feet?

JEFF MORTENSEN: Yeah that’s the question.

MR. HIGHTOWER: Because when I was out there at the lot, I am sorry, when I saw the pictures, um I um I was out at the lot after that had been constructed and I said you do you guys have pictures of this and they said yes we can get these pictures for you. Saw the pictures what was built and the pictures showed the grades that were there and I was able to determine in my mind that this was what was in place based on the existing grade based on where those grades are now; I was confirmed in my mind that 3 feet was the right elevation. The concrete footing is there 2 foot by 2 foot concrete footing and again when I saw the pictures and my comment was, “Why did you guys build this, you didn’t need to build something like this.” It seemed like over kill. Then the um on one course of block underneath that and in the concrete channel comes up on the existing block about half way to the next course, so that is where the 3 feet comes from. So that’s where I came up with that conclusion of 3 feet based on the pictures. We have a course and a half below grade then a 2 foot by 2 foot concrete footing.

CHAIRMAN METRO: Any other . . .

JEFF MORTENSEN: And that too is from the photographs?

MR. HIGHTOWER: That’s from the photographs correct.

CHAIRMAN METRO: Any other questions for Mr. Hightower? Okay. You can start the time again.

MS. DAVIS: Next we have Mr. Burak to testify.

MR. BURAK: Crumpling of paper . . . Chairman and board members I was contacted by Mr. Padilla last July after he received his letter from the City about having his wall in the floodplain. And after reviewing the letter there was some comments about there was definitely going to be upstream damage in you know the property damage and things and I told Mr. Padilla that we don’t know what the impact is because no one has looked at impact that the wall has on the floodplain. So he asked me to look into it and I explained to him the extent of modeling that is required and he wanted to know if it would work and I said well if it works it works and if it doesn’t then you’re going to be tearing the wall down.

So I conducted a Hec-ras analysis and I had a copy of the approved grading drainage plan that showed 850 cfs at the property which I wasn’t sure where that had come from and then from of previous experience of the North Albuquerque Drainage Master Plan, 850 is just downstream from where another little branch comes in. So realistically it should have been 660 at the main branch at the arroyo is 660 and 290 that comes in from the south, south branch just downstream of Mr. Padilla’s residence so I assumed that’s where the 850 on the approved drainage plan comes from. So that’s when I assumed that the 660 would be what you assess as-built and built constructed features.

In the County, they we did a project a few years ago that triggered a letter of map revision on just the other side of Ventura and we had to build a channel to carry the 660 but on the I guess it was the EGL of 660 and HDL of 30 confident. So there was a mix of things going on and that was in 2007. 2007 also Lynn Mazor of AMAFCA assuring us the upstream avulsion located east of Tramway would be taken care of relatively soon. So we were still required to assess the floodplain with 3100 instead of 660.

So what happened when I went out there, I noticed this was the downstream outflow of the concrete channel. This is somebody pointed out to everybody when I noticed that this thing had shifted north that it had, my 1998 FEMA boundaries is based on the master plan. I have all the files for 1998 master plan so all the FEMA boundaries are already drawn on it for my video stuff, so when I bring in a new file it has it already drawn there. So when I inserted this 2012 map, I thought it was interesting that it was exactly 30 feet north and we ran into that exact same thing last summer or maybe a year ago . . . I don’t know now. Just up east of Ventura where we ran into the same thing.

When you look at the 2012 floodplain maps and you can see where the sagebrush is and the sand where the arroyo is and the blue stuff is not in there. The blue stuff is up on houses and there is no floodplain where the arroyo is so that seems a little odd. I didn’t know it continued down this far but it is a moot point it and doesn’t matter with the analysis that I was undertaking. I just called it to Don’s attention and Curtis’s attention. So at one point when I was out there, this is standing at the opening in the wall looking east, I thought that gees this was a pretty puny arroyo and it’s full of weeds and a lot of vegetation and stuff and I was curious of the capacity of what that thing would be so I ran a capacity analysis and found it right at the wall and it was limited at 112 cfs so all it would do is carry. So I thought the 3100 this channel is only going to be able to carry 112. The wall opening alone handled 75 cfs the way it is which is still inadequate and the channel will carry all but the little bridge opening 9 inches maybe a foot higher there is something and has a capacity of only 40 cfs . So when adequate over tops the water is going to come through there down the little channel, over top and run down the concrete driveway back into Glendale where it originally goes. The water that goes under the bridge continues around to the outflow holes in the wall, that thing is limited at 17 CSF that wall. So the channel isn’t going to carry the impact of this monster flow very well at all.

What is it going to do is make the water back up and go around the wall. Here is the picture of it, the channel, the 2 foot concrete channel and the inflow picture with the riprap and the outflow and you can see here at the concrete driveway how it ties into the asphalt. It has riprap downstream where you would normally have a bardage or something but whatever runoff comes through the channel . . .coughing . . . through the hole in the wall, in the channel most likely is going to overtop the driveway and run down the driveway back into the street. This location here is approximately where the old arroyo, the original arroyo dumped into the floodplain . . .

KEVIN CURRAN: For clarification you are referring to pictures that are numbered so for clarification of the record, can you somehow identify picture you are referring to as you are speaking about it? Is it numbered somewhere?

MR. BURAK: No.

KEVIN CURRAN: Okay.

MS. DAVIS: You can refer to them as showing the front of the house or something . . .

MR. BURAK: Front of the house sure okay. Looking north from Glendale, this is looking east from the top of the bridge at the constructed improvements, this is looking south, and I guess where you can see right in this area,

SPEAKER: I can see it okay.

MR. BURAK: That’s where the overtop, the little bridge run down the arroyo which is really a concrete channel at that point. So I put together a Hec-res model and that’s when it became apparent that this is a complicated little area. This is not typical but it is not atypical for North Albuquerque Acres and in that is because, oh it’s right here (looking for something) in this area is the only location that water can get into this north branch of the arroyo that is going to impact the wall. So figuring how to assess how much water is going to split at that point is beyond the capability of a Hec-res model. So what I ended up doing was I took the first few cross sections, the largest cross sections in there that had the greatest capacity of that channel and ran them at 600 or 650 cfs in the northern channel. Because what you can see with this green line, can you see the green line, this green line is a large ridge. It is a ridge line where it flows I placed the levy commands, and I know there are no levies out there, but there is a definite ridge that very largely, as you can see in the photos and to assess what the actual capacity of that arroyo was I set the levy commands on the top the elevations at the top of the ridge, to figure out how much this channel could carry. What I found out was these are 25 foot sections spacing per section so every 25 feet the capacity would drop. I have one minute? Oh

MS. DAVIS: Can we ask for additional time so he can finish his presentation Mr. Chairman?

KEVIN CURRAN: How much more additional time does he need?

MS. DAVIS: About another

MR. BURAK: A half hour . . . laughing . . .

MR. BURAK: Okay I will try and blast through . . . over talking . . . it but this is the guts of the whole situation so, so . . .

CURTIS CHERNE: Another 15 minutes?

MR. BURAK: But this is the guts of the whole situation so, so. .

CHAIRMAN METRO: What

MR. BURAK: So basically I will get it done

. . . over talking . . .

CHAIRMAN METRO: Out of time

MS. DAVIS: Mr. Chairman we need additional time

CHAIRMAN METRO: What do you think it will take it through this because I

MR. BURAK: I can do it in 10 minutes I don’t know

CHAIRMAN METRO: Why don’t we . . . is the members okay an additional 15 minutes to complete the presentation and we’ll add time too yours to Curtis

MS. DAVIS: Now we have an equipment failure Mr. Chairman that’s what is happening

R. P. BOHANNAN: So you don’t need any more time?

. . . over talking . . . discussing how to fix equipment

KEVIN CURRAN: Should we take a 5 to 10 minute recess to see . . .

CHAIRMAN METRO: Yeah why don’t we do that to see if they get . . . over talking . . . come back.

Discussion going on

CHAIRMAN METRO: Wait we have a motion on the time extension here . . . discussion going on . . .

Let’s extend your time by 15 minutes if that is okay with the committee. Do we need a motion on that? Is this committee okay with that?

COMMITTEE MEMBERS SAID YES

 . . . more discussion . . .

BREAK

CHAIRMAN METRO: Quicker the better

MR. BURAK: I will go as fast as I can

CHAIRMAN METRO: But I want to understand the your part

MR. BURAK: The process um basically what I found out after the Hec-res analysis that the little northern branch channel has limited capacity. I placed levy commands in the Hec-res model to force the water stay in that in that northern branch until it overtopped the ridge line which you would call the levy. So what I found was as you move downstream the capacity decreased until you got to the wall and it was shown as about 150 cfs. The difference between the 150 and the 112, I calculated at the 112 off of the survey data, survey points. This thing is totally calculated itself up to the total flow, so it is still not enough to get the whole flow through the wall. Then what I found was the Hec-res can’t assess the lateral movement of the flow, from the northern branch into the main branch. So I set that, the analysis to the top of the ridge line, where anything in excess of this is going to go south into the main branch. Then I did the same thing where I set levy commands to force the flow to stay in the main branch of the arroyo. You can see another green ridge line to the south, so I set levy commands on that ridge line so it wouldn’t leak out to the main, uh bigger arroyo that is south of everything. And what I found there is that the main branch of this thing only had a capacity of only 700 cfs.

 So if the northern branch is limited to 150 and the main branch in Glendale is limited to 700 cfs, there is a whole lot of lateral movement going to the south to the main to that arroyo south of everything when I extended the contours or the cross sections I made. So you can see in this area (here we go) where I started to extended the cross sections to this very southern arroyo is where the main channel lost capacity. So it went from 3200 cfs capacity and it dropped down to a loss of 2000 cfs or something within that 25 feet, which doesn’t make any sense. That’s the sort of limitations you’re dealing with Hec-res models.

But like I said this thing bifurcates, it can’t with its ridgeline between the main channel and the northern branch, it can’t go back and forth because there is no way for it leak unless it overtops. So that was the logic of this thing, to try an assess it. That’s why I broke it into 3 branches because it is three branches. This just shows the results of the 660 on this thing which is pretty minor and this is the results of the 3100.

And another issue that came up is the house across the street is 2 feet underwater and it isn’t even shown on the floodplain maps on any of them ever. But that’s just to show the complexity of this little teeny area here in which I had no idea when I got started on that it would be this bad, this complicated. But that’s the story of the breaking it into the 3 branches. The northern branch can only carry a certain amount, the middle branch, the main branch can only carry a certain amount, and the remainder only goes into the branch that is south. So that was the basis of the second report where I reran the 3100. I did run the whole thing with 3100 and if you do that without any levy commands or anything all the water goes into the southern branch and leaves nothing in the northern branches and that’s the nature of the Hec-res that takes the lower portion of the cross section and fills it without any regard of these natural levies or ridge lines or strip flows or any of these sort of things. It doesn’t know any of this stuff. And so this is the new flood map overlaid on top of my Hec-res analysis which shows it is pretty close except around the house. Can you go back to that last slide?

KEVIN PATTON: Does the floodplain show on that slide?

MR. BURAK: Yes, this is just a photo inserted into the AutoCAD file.

MS. DAVIS: Is that the digital floodplain and does it show the house in the photo?

MR. BURAK: This is the digital floodplain and it does show the corner of the house being impacted by the floodplain.

MS. DAVIS: Is this the 2012

MR. BURAK: This is the 2012, correct.

MS. DAVIS: Okay so you still haven’t gotten to the 2008, you haven’t shown that yet, the digital.

MR. BURAK: This is digital, just let me keep going I will get there. So we get to the limitations of the Hec-res which is mainly junction splits flows. This Hec-res analysis cannot handle split flows and when I bought that up with Curtis early on his response was to make the cross sections longer and show that and that doesn’t help. That is when I said what this really needs is a two-dimension model because they take into account things like the split flow and do massive amount of calculation. I had a class on this about 20 years ago on this stuff and it has improved a lot since then so that’s really good. So I got a hold of a two-dimension model called Flow 42-D after talking to Don Briggs of the County, he is using it and really likes it. I set up this project and I thought I wanted a lot of detail so I set up 4 foot cells, so there is over 270 thousand cells in this analysis. It does a finite element analysis of each cell, it generates a TIN of the contours 2010 mapping that I got from the County and includes area reduction factors, which are areas that you can outline the existing buildings so they don’t impact the, so that the flood waters will go around the buildings and that gives you some a really good assessment instead of ignoring the fact that the building are there and you able to include levies and any outlaying walls and dykes and boundary conditions of the input and Manning’s hydrographic and roughness coefficients with this, uh site specific for each 4 by 4 foot cell.

So you don’t have to estimate overall, basic, rounded roughness coefficient like you would do in a Hec-res model. Normally Hec-res model would run this with a .03 in the channel .035 or .038 in the outlying overbank area. This one is so detailed that I set the sagebrush at a point .06, pavement at 017 and native ground at 0103. The 06 is because I digitized each bush in this thing, set each bush to a 06 and the next slide should show that. The input hydrograph is the SES hydrograph and I also found out from Don that feet flow at Ventura according to master plan is 3304, 33hundred and 04 cfs.

So this model, the Flow 2-D model, you assess a number of cells, you put a portion in the hydrographic in each cell, so this is in 30 cells and this is just a spread sheet that I used for that. The 30 cells and the hydrograph over the 30 cells add up 3304 cfs. This is the grid element area that you can see here is Mr. Padilla’s house way down on the bottom. I wanted to, run it far to the east so any boundary conditions, any kind of problems like that would be worked out by the time we got down here, it is about a half a mile. This is the Manning’s Reference Coefficients, the red stuff are the bushes and the dark blue is the pavement and the rest is the 03, which is pretty typical of northern dirt. What I found out just assessing this, when you have a lot of bushes piled up there it makes difference versus averaging your rough-in coefficients. 5 minutes? Okay cool we are good.

The Flow 2-D model output shows the bifurcation and leaking. One of the main concerns was when the arroyo crosses Ventura, right in this area, Ventura is so flat, it’s like pancake flat. We always sort of assumed that the momentum of this amount of water would just tend to push it straight over the streets so as not to worry about this wide, flat area. And what the Flow 42-D model came up with was that quite a bit leaks to the south. It comes back around, comes back around to that southern branch. This shows the results of the Flow 2-D model on top of the floodplain analysis. And what this shows is this is the red one. The red one is existing conditions, the red line and the blue line is the conditions with the wall in place. The green blob out in the middle is calculated from taking cross sections every 12 feet away from the back wall, and 12 feet from the wall and getting the data and plotting it. What it shows is that dark blue stuff is half a foot increase in flow depth and the lighter patch shows a foot increase in flow depth there is a little bulb, a little teeny one 6 feet wide shows 18 inch increase in the flow depth compared to existing conditions.

It shows that the run off will come down and slap against this wall and build up and wave and run around so it makes sense. Also, I will read some of this stuff, so what this shows here is this is my cross section at the wall. This little place right here is the channel, the northern branch channel, this area over here Glendale Blvd. and this over here is, the channel behind the house itself. I ran these six different runs and to let you know the size of this thing the Hec-res models for this ran is about 3 seconds. Each one of these takes about thirty hours, it runs 30 hours on a computer to generate this information. And so what I have here is right at the wall we have existing conditions which is this lowest line right here, which is the light blue line. Then the wall impact is the bright yellow line that shows it bumps it up over a foot up to eighteen inches in one little spot.

The thing that was hard for my brain to get around was these flow profiles are not flat and in all the Hec-res they are flat they are horizontal. This illustrates the lateral flow of motion going from the northern branch to the southern branch and all the different velocities going out of each cross section. I also ran the light green up here at the top that shows if there is no opening in the wall, if the wall is totally blocked, you can see the difference. So this is at the wall and I did it again 12 feet east of the wall and 24 feet east and as you can see each 12 feet you go either way these lines all get closer together . What you can note is the maximum okay is maximum elevation doesn’t change much. It puts a bump in the middle of this cross section which only happens in the Flow 2-D exhibit.

I ran it all the way to 60 feet out and you can see here at 60 feet away from the wall that its impact goes back to almost nothing. This illustrates what I had on the green blob a little earlier because what this also illustrates is the impact to the floodplain limits which is negligible and it also shows that in Gary’s uh Mr. Padilla’s property decreases the limits of the floodplain which makes sense since it is pushing most of the water around the wall.

MS. DAVIS: So what is the red?

MR. BURAK: The red line is the existing floodplain limits; the dark blue line is the impact with the wall.

MS. DAVIS: Does that show the house is in the existing floodplain?

RUDY RAEL: Times up?

MS. DAVIS: Okay

MR. BURAK: Great. Calculating . . .

CHAIRMAN METRO: Are you about ready to wrap up Mark?

MR. BURAK: Uh, this just illustrates the output for the flow 2-D model and you can get the BFE line base elevation line which is far superior to the AO zone which is kind of an estimated floodplain flood.

MS. DAVIS: Mark do you have an opinion as to whether the letters of construction is going to impact or damaged property upstream, downstream, or adjacent properties based on what this model showed.

MR. BURAK: What this shows is the wall has an impact on the floodplain it makes it bubble if you get this 3300 cfs. It puts a bubble out in the middle of it, what it also shows it is not a flat, horizontal flow plain. It is sloped to take into account the lateral movement of so much of this water and it also show that the extensive flood limits haven’t really changed a slight teeny bit.

MS. DAVIS: Do you know if AMAFCA improvements have been funded to fix the avulsion?

MR. BURAK: No I don’t know if AMAFCA improvements have been funded but the funding is not the problem with the avulsion fix it has to do with something with Sandia Pueblo and they are trying to get a deal with Sandia Pueblo upstream to fix it avulsion erosion thing. They were working on it in 2005, which they said would be any day then in 2007 they said for sure we’re almost there and then AMAFCA bought the property just upstream from here at Ventura and Glendale for the intake structure for the storm drain that is planned here.

A 72 inch storm drain that is in the Master Plan that the City’s been collecting money for years, it is $30,000.00 per lot that they charge each property owner when they develop their property. So they got their money and all this is based on the 660 and it is not based on this 3304. So the 3304 is a temporary, you can ask Lynn Mazor I guess, but it is a temporary situation and based on the 3304 this wall doesn’t have a significant impact to the floodplain. I have never seen anything like this and I told Curtis that I didn’t manipulate this to come out any way shape or form but I find it extremely interesting. So . . .

CHAIRMAN METRO: Let’s go ahead to the questions and answers and hopefully you will have comments you can work those in to your answers to add to that but kind of similar to what I asked of Mr. Cherne was what are the appellants wanting to get out this? Do you want everything to stay in just as it is because I certainly didn’t hear that. You implied that there are some real restrictions with those structures that are at the wall . . . over talking . . . and the entrance.

MR. BURAK: Right. I ran a model with the holes in the wall the way they were. I ran another model with that section of wall removed between pilasters, which is 16 feet and I ran it with a holes blocked crumpling of paper . . . none of them impact the extensive floodplain . . .

CHAIRMAN METRO: I guess, I am sorry I didn’t mean to cut you off but to move on, in your report that you submitted at the last go round, you had a figure in there that was figure 11. You had a list of recommendations that you said, like open the wall to match the . . . over talking . . . capacity.

MR. BURAK: Different alternatives

CHAIRMAN METRO: Are those, I guess that is what I am asking are these what you are asking to do or are you asking to do nothing and leave everything like it is, what is it you’re asking?

MS. DAVIS: We are in agreement in opening the wall at the bottom. We believe that with the detention pond and the retention that there is nothing that needs to be done on the rest of the site involving the grading and the drainage. We also presented evidence that the house is not in the floodplain so nothing needs to be done to the house.

CHAIRMAN METRO: Okay. Does the committee understand what the appellant is asking for?

KEVIN PATTON: No, not clear yet

. . . a lot of people start over talking . . .

MR. BURAK: What I would like . . . I haven’t got that far yet. My point is leaving this totally alone is going to work fine, it is not going to impact the floodplain. It does not increase the limits of the floodplain; it puts a little bump in the middle of the floodplain but I have never run across that situation because I have never had the ability to calculate something like that before.

JEFF MORTENSEN: Okay. The illustration that you did show indicates, suggests a shift to the south of the floodplain is that correct? The red versus the blue.

MR. BURAK: The red is existing and the blue is proposed as the impact of the wall and it shows that east ah north of the little northern branch it looks like about 8 to 10 feet or something additional floodplain but this is so much more detailed than the existing FEMA map is my guess is my point. That it is an AO based on estimated . . . over talking . . .

JEFF MORTENSEN: To answer my question

JEFF MORTENSEN: My question more specifically is if the floodplain based upon this modeling is shifting from the red line to the blue line, that’s shifting from north to south?

MR. BURAK: Right.

R.P. BOHANNAN: you can . . . nothing, you can see the only impact of the . . . is that blue bold (?126)

JEFF MORTENSEN: Okay, okay but if the dark

over talking

CHAIRMAN METRO: Okay. What happens on the south end of the flood plain?

R.P. BOHANNAN: Or in the middle?

JEFF MORTENSEN: I guess we’re not seeing the rest of it. It’s hard to go I don’t understand that.

CHAIRMAN METRO: Go back a couple slides where you had the red and the blue.

MR. BURAK: What I’m showing is the blue bold is the only change to the existing flood plain. It puts it at home in the middle of it.

MS. DAVIS: But it does not change the boundaries.

MR. BURAK: It doesn’t change the boundary, because it’s not changing the elevation within the flood plain limits. Yes, that’s 18 inches that that little blue knot right there is 18 inches higher than the existing flood plain elevation and this lighter patch…. This lighter patch area in here is a foot, 12 inches higher than the existing flood plain elevation. And then the darker patch is 6 inches higher than the existing flood plain elevation. So it shows the impact, but it doesn’t impact the limits of the flood plain. This you know this stuff's in the flood plain and it’s still in the flood plain.

SCOTT STEFFEN: So everywhere outside the home as described

MR. BURAK: The same

SCOTT STEFFEN: Has the same water surface elevation.

MR. BURAK: Right.

SCOTT STEFFEN: So the house to the south…

MARK BURAK: Hosed

MR. BURAK: 2 feet under water

SCOTT STEFFEN: Under the existing condition.

MR. BURAK: Under existing condition.

SCOTT STEFFEN: You’re not changing this. Okay your analysis here shows is not changing that condition as what you’re saying. In this model does not do the whole break it in to 3 channels any more.

MR. BURAK: Right, no this sets up the 270,000 (179) 4 x 4 cells and it calculates it at each cell that looks at all 8 cells around it make a decision on which direction the water is going to go next. So that’s what it takes so long run.

SCOTT STEFFEN: So there is no splitting. You’re using the 30… 3304 which is higher than the 31, which is …

MR. BURAK: Right.

SCOTT STEFFEN: Okay.

MR. BURAK: Trying to be as accurate as possible, I really was just curious exactly what happens. So this is the output for the Flow 2-D model and you can see, you can zoom in even more where you see the little arrows that show the direction and the color shows the magnitude of the velocity and you can see down in the bottom, that right there says it’s 1 foot deep and it’s 4.27 feet per second and as you move down it so it’s showing it’s about a foot over the tops the bridge at about a foot. The velocity if you’re heading south along the wall is about 4 ½ feet per second.

SCOTT STEFFEN: So do you know then based on this model what the flow is at the wall in the channel where….?

MR. BURAK: CFS, no. I’m new to this thing and that was an interesting thing, ‘cause that’s what I first started asking Don. I there’s a way to get hydrographs. You can get… you can get a hydrograph output from it, but I’m not real sure… I don’t know how to do that. It gives you velocities and depths and so it took me a little while to get my brain around that. You don’t really know what that… what it also does is it takes in to account localized depressions and retention and continuation of the peak. So… yeah it’d be kind of cool to know what’s…

SCOTT STEFFEN: So your proposed condition model has the wall, has the concrete channel, the wall on the downstream end. All that’s in there?

MR. BURAK: Right.

R.P. BOHANNAN: Could we go back to that exhibit. That’s the bubble exhibit.

MR. BURAK: Right

R.P. BOHANNAN: It’s curious to me, if the water is stacking against up against the wall and a good portion of it is running around the wall, why is it that the water surface profile doesn’t increase immediately south of the southeast corner of the lot?

MR. BURAK: its hauling right there. Down…southeast corner?

R.P. BOHANNAN: Just right there at the corner, immediately south of the lot. I mean the bubble pretty much doesn’t extend past the east property line.

MR. BURAK: Okay. Actually, that could be because I didn’t look there. I looked at the wall and moved 60 feet to the west; I haven’t even thought to look…

R.P. BOHANNAN: Where the real…

MR. BURAK: west of the wall.

R.P. BOHANNAN: impact is going to be is when that flow rises and runs around the wall, the impact is going to be downstream and not upstream or not as much upstream.

MR. BURAK: ..look at that. I could look at that.

SPEAKER: Well.

MR. BURAK: I could look at it really fast but it just never crossed my mind to look downstream.

R.P. BOHANNAN: And then your comment about trying to be accurate, I feel like we’ve got a whole lot of precision and not much accuracy because my sense is the contours that we are working with out there are only good plus or minus half of a contour interval.

MR. BURAK: Okay.

R.P. BOHANNAN: And we are going through something that’s you know, variable by foot and we are all of a sudden measuring something that’s a tenth.

MR. BURAK: Okay.

R.P. BOHANNAN: And to me, that would require an extra hedge, if you will, to make sure that the inherent inaccuracy in the data needs to be given extra factor of safety to make sure that no impact.

MR. BURAK: I understand what you are saying.

JEFF MORTENSEN: That leads to the question, what is the contouring interval of the mapping that you used?

MR. BURAK: I use the actual ETM points, not contours…

JEFF MORTENSEN: The mapping is presented in contours, is it not?

MR. BURAK: No. The model doesn’t look at contours.

SCOTT STEFFEN: Well…

MR. BURAK: It generates contours.

SCOTT STEFFEN: It is mapped at a certain level of accuracy.

MR. BURAK: Right.

SCOTT STEFFEN: It’s mapped at a 2 foot level of accuracy in the Northeast Heights.

MR. BURAK: Right. Okay.

JEFF MORTENSEN: So it’s plus or minus a foot.

CHAIRMAN METRO: Plus or minus a foot. Okay.

MR. BURAK: That would be the same if we’re using doing Hec-Ras assessment or whatever assessment.

CHAIRMAN METRO: (INAUDIBLE) if you had those graphs that showed the elevations on those cross sections, they were getting up above 32, between 32 and 33, which I assume it’s the same datum and your first floor is 32.2.

MR. BURAK: Right but its downhill, its moving uphill it slopes like a 3.5 % or 3.2 or something so as you move upstream then, yeah, the elevations will go up.

SCOTT STEFFEN: I’m assuming if you did cross sections downstream of the wall because you only went upstream of the wall to the rest that what would have been the far left elevation is lower than the finished floor on the building?

MR. BURAK: Right. And that’s shown on the limits.

SCOTT STEFFEN: Based on the limit of the flow.

MR. BURAK: Right.

CHAIRMAN METRO: But are there ordinances with regard to placing fences or walls in the floodplain as well as raising it above certain elevation that you raise the backwater?

MR. BURAK: We were just talking about impacting the flood plain, which like I said to me, impacting the limits of the flood plain or expanding the flood plain or making the flood plain larger, which is this a totally new thing. I’ve never seen a bubble in the middle of the flood plain analysis like this before. Once you said, "What is the downstream impact on that." it’s never crossed my mind. That would be good to know.

MS. DAVIS: Mr. Chairman, in answer to this, I went through the article 5, which is Flood Hazard and Drainage Control, I read through that and there is nothing that specifically says you are prohibited from putting items in the flood plain. Basically, it all comes down to that 14-5-2-12 that says construction, grading or paving on any lot within the jurisdiction of the City shall not increase the damage potential of upstream, downstream or adjacent properties or public facilities. So inherent in that, obviously you can have construction in it as long as it’s not damaging upstream, downstream or adjacent properties.

CHAIRMAN METRO: Thank you.

MR. BURAK: That’s kind of what we feel we’ve shown here is that the impact is pretty minimal, putting the wall out there. It’s not going to create damage or hazards or any of that stuff. Just having 3300 cfs cruise down the streets would do that but…

SCOTT STEFFEN: So with the flood plain, there’s no jurisdictional control by the Corp here?

CURTIS CHERNE: Are you asking me? It’s not a flood way…

SCOTT STEFFEN: There’s no Corp. So the Corp does not have jurisdiction here. Just wanting to make sure.

MS. DAVIS: Yes. We are in the AO Zone so the floodways are regulated a little different and treated differently in the ordinances.

CHAIRMAN METRO: Any other questions from the members?

JEFF MORTENSEN: Looking through the DPM, I don’t see Flow 2D listed as an accepted methodology. What steps have been taken to ensure that this would be the accepted methodology?

MR. BURAK: It’s accepted by FEMA. I talked to Chuck Easterling about it since he’s updating the DPM and he says he’s only getting rid of a high AHYMO and limiting his assessment to just hydrology and not hydraulics. The Flow 2D does have a hydrology component to it but you can emulate the SES methods and so that would be kind of neat, too. He didn’t mention that he had any authority or whatever to include that. I talked to Don Briggs at the County, Lynn Mazur, they are happy that we are getting into the 21st Century with technology that can do what this thing can do. Like I said, this is the first time I’ve used it and it’s pretty powerful so hopefully it will end up in the DPM I guess.

JEFF MORTENSEN: Do you know if any other municipalities in the southwest that are using this?

MR. BURAK: No. Do you know any Don?

DON BRIGGS: Yes, Pima County, Maricopa County, Arizona. The Corp uses it. The Corp used it to model the whole Rio Grande River. Somebody else, Chuck Easterling used it in the South Valley for something going on down there. It’s really good for things like in the valley where you don’t have a very defined flood rate or flow path and you have a bunch of houses or something in the way. You can incorporate storm drains into it, culverts and bridges and it’s pretty neat but….

CHAIRMAN METRO: Any other questions from the members? Now, if there are other interested parties that would like to give any testimony, I’ll hold them to 5 minutes but…Don Briggs with the County, I didn’t know if you had anything you wanted to…

DON BRIGGS: I actually didn’t come here to testify at all. I was just observing the process.

CHAIRMAN METRO: Okay. Thank you. So, with that, Curtis, since we were so free with time you can take, I know you are not very long winded so you can take more than the 5 minutes.

MR. CHERNE: Yes. I like to get right to the point as usual. Ms. Davis mentioned she objected to my flood plain limits. She has no basis to do that. If you go on FEMA’s website and pull up a flood map, you would get this flood plain. I have no idea where Mr. Burak found that squiggly thing he was showing earlier. You would get this. This data also came to us on a CD directly from FEMA, our GIS group loads it onto a server that, it doesn’t get any better than this. This is from the source. He must have got some from some old master plan, hand drawn…

MR. BURAK: It’s not hand drawn.

MR. CHERNE: This is the floodplain; there is no question about it. I mean, I am the Albuquerque Flood Plain Administrator. I use this data every day. This is the flood plain not what was shown. Mr. Hightower’s certification, one thing he mentions is he’s provided detention volume, now the approved plan required for retention to meet the increase in the imperviable, is not the same. I’m sure you are all aware of that detaining it would slow it down a little bit, it’s still leaving. It was supposed to stay on site. About the scour wall, Mr. Hightower testified that it’s 3 feet down, there’s no as built grades, I guess he’s going off a photograph of that. We really have no idea how deep that is. In addition I think he misses the point of a scour wall. The point of a scour wall is when the arroyo in degradation, you’ve got some scour protection there so as it slowly goes down, you’re not going to get erosion of your slope. They’ve got nothing underneath that concrete channel. It’s just going to go right underneath there, erode it out and then we are losing who knows what in the road.

I mentioned that there is always a plan for a wall around the lot. I didn’t see that, I’ve never approved that, there was never an approved grading plan. Also if you look at this certification, Hydrology would not accept this certification. It doesn’t have any inverts in his pipes probably because he doesn’t know where they are. He conveniently left off the top of wall, bottom of wall, and wall grades on the west wall because he is retaining like 6 to 8 feet without an engineered design. Let’s see what I probably have on Mr. Hightower’s submittal. Oh, Mr. Burak’s model shows an increase, whether it’s a foot or 18 inches in Glendale Boulevard. It was exactly what I was talking about and it’s a public safety hazard. It also seems like it’s the first time he’s ran this, what kind of confidence can you really have?

On the avulsion…. I mentioned the avulsion in AMAFCA; you know it’s one of these things they think about doing. I’ve even heard of them planning for that. You see in some capital plan that they had a long time ago but it could be four years, it could be twenty years, we really don’t know. I don’t want to leave this existing until maybe they get around to doing that. Oh! He mentioned the Flow 2D model as accepted by FEMA. FEMA accepts Flow 2D with a solution of fully dynamic equations of motion from 1D and open channels and two-dimensional flow in the flood plain, which culvert computations must be accomplished external to Flow 2D using methodologies or models accepted for Flood Insurance Program inter pipe usage. So he could have submitted a model in Flow 2D from FEMA as it goes through that wall under the property.

The ordinance does speak to, I was going to grab it…Standard purpose and approach, its design to protect human lives, minimize damage to public facility and utilities, insure that potential buyers are notified that properties in the area. Preventing or regulating the construction of flood barriers which would unnaturally divert flood waters or which may increase flood hazards in other areas. This project is definitely in violation of that. There is no question about that.

MS. DAVIS: Which section are you citing?

MR. CHERNE: That is section 14-5-1-3-B-5. It also mentions controlling filling and grading, dredging on other development, which may increase flood damage and controlling the alteration of natural flood plains, stream channels and natural protective barriers which help accommodate your channel flood waters. This project is in violation of those three.

Also the drainage ordinance mentions, Miss Davis mentioned that all construction activity…it has to do with potential development…construction grading, paving should not increase in damage potential upstream, downstream or adjacent properties. I think what we’ve seen a definite potential for that. That’s all I have.

CHAIRMAN METRO: Okay. Any members have any questions of Mr. Cherne? It has been stated.

SCOTT STEFFEN: I do.

CHAIRMAN METRO: Go ahead, Scott?

SCOTT STEFFEN: Do you have any objection to the Flow 2D analysis using it as an analysis tool that if you were to submit a drainage report with that data, not with on a disc with 187 files for you to go through, but in a format that you can review, are you opposed to that?

MR. CHERNE: If it were submitted like a normal drainage report with some explanation of his assumptions and his flows, that’s where the problems were with the first two. We never saw any input stuff when we went through his proceedings.

SPEAKER: (INAUDIBLE)

MR. CHERNE: I’m not opposed to but what I am essentially dragging out since last May and one report, then a second report, he could report us to death basically and keep submitting reports, one after another after another, meanwhile, I got a public safety hazard and a compliance problem that I need to get taken care of.

KEVIN PATTON: Curtis, at any point did the City agree to a lesser flow? What flow are you asking him to analyze upstream?

MR. CHERNE: 3100.

KEVIN PATTON: 3100? So you never agreed to a lesser flow than the 3100?

MR. CHERNE: The only place we agreed to the lesser flow is in the design of the scour wall. I realize the flow was 3100. Well I wanted to work with the home builder and the engineer and not have this scour wall be 12 feet deep. We also used knowing the avulsion could be fixed later, it’s just a halfway point I met with them.

SCOTT STEFFEN: That was like 800 or something.

KEVIN PATTON: That’s just for the scour wall?

MR. CHERNE: Right. That’s just for the scour wall. I let him use the …. I thought it would provide adequate protection for.

CHAIRMAN METRO: Jeff, go ahead?

JEFF MORTENSEN: The certification that we all looked at today, is that something that has been submitted to you or…

MR. CHERNE: No. It only came in with the appeal package.

JEFF MORTENSEN: Okay.

MR. CHERNE: I didn’t ask for it, there is no reason to submit one yet.

JEFF MORTENSEN: Okay.

CHAIRMAN METRO: Any other questions on that? Then with that, I’m going to go ahead and close the floor…

KEVIN CURRAN: Mr. Chair, before you close the floor, I think the committee needs to make a ruling on Ms. Davis’ objection to the Exhibits 7, 8 and 9. Just a couple of points on that; in these types of hearings, hearsay evidence is freely admitted, number one. Number two, it seems like some of the earlier testimony perhaps Mr. Hightower’s testimony, it included hearsay already so with that in mind, the committee needs to make a decision on whether or not to either include or exclude those exhibits from the record.

CHAIRMAN METRO: Okay. Is everybody familiar with the three exhibits that have been objected to, exhibits 1, 7 and 8? Exhibit 1 was the email from FEMA basically was the hearsay item. Personally I read that one and it was kind of FEMA was going to work with them, gave them proof that they would, I didn’t read it quite as solid as that so I don’t have a problem personally with that one being excluded from the exhibits, what do the members think?

JEFF MORTENSEN: I don’t have a problem with leaving it in because it’s just informational, is the way I read it. I didn’t read it as a firm mandate or necessarily a firm opinion on this specific case. I just saw it as generalizations.

KEVIN PATTON: I agree with Jeff.

CHAIRMAN METRO: And I was basically saying the same thing. It didn’t sway me one way or another. That’s why I didn’t…so you are saying leave it in because it’s really not presented as anything factual but just as…

JEFF MORTENSEN: I don’t see it as a deal maker or breaker.

CHAIRMAN METRO: Right. Okay.

KEVIN PATTON: I agree with leaving it in as well.

CHAIRMAN METRO: Okay. It’s the consensus of this committee to leave exhibit 1 in.

COMMITTEE SAID: YES

CHAIRMAN METRO: Exhibits 7 and 8, those had to do with the flood plain which was shown. Again, Ms. Davis, what was your objection to those two?

MS. DAVIS: Well, my objection was it’s not showing, depicting accurately where the flood plain boundary is in relation to the house. You put on evidence to Mr. Hightower with his as built, which shows approximately where that flood plain line is and then you put on the digitized version which Mr. Burak, so maybe it’s a question of weight of the evidence, which one you are going to think is accurate.

CHAIRMAN METRO: I think this…

KEVINPATTON: The floodplain touches the house.

CHAIRMAN METRO: That’s correct.

JEFF MORTENSEN: That’s what I think, too.

SPEAKER: (INAUDIBLE DUE TO MULTIPLE PEOPLE SPEAKING AT ONCE) stuff I calculated.

CHAIRMAN METRO: You calculated with the improvements so it basically pushed the flood plain over.

MR. BURAK: Well, the existing and the proposed conditions it doesn’t match the FEMA maps.

JEFF MORTENSEN: I think the question then is what mapping has the official status? That’s the key question.

KEVIN PATTON: I didn’t see anybody specifically disapprove the FEMA. No one actually said hey we went to the site and had FEMA agree that what’s figure 7 & 8 aren’t correct so I didn’t hear any testimony.

JEFF MORTENSEN: I’ve had cases where FEMA was completely wrong but what was...

KEVIN PATTON: I agree what is mapped. Jeff you are stuck with it.

R.P. BOHANNAN: And on that occasion, you do a LOMR.

SPEAKER?: Right. Right.

KEVIN PATTON: Whether you break water or not that’s what we live with.

SPEAKER?: Right.

R.P. BOHANNAN: So I would move that exhibits 7 and 8 be included.

KEVIN PATTON: I concur.

CHAIRMAN METRO: Consensus. Scott?

SCOTT STEFFEN: Yes.

CHAIRMAN METRO: I concur also. Okay.

So therefore, exhibits 1, 7 and 8 will be left in as evidence as presented by the City for the purposes that we talked about as a committee; so then are we ready to close the floor? Okay. So kind of where we are, the committee should be able to make a motion that either we support the City Engineer’s decision or whether we support the appellant’s request for changes or we can make any necessary conditions or requirements that we feel fit the thing. What we want to do is kind of follow the City Council does, we’ll make a motion, get a second and then go into discussion if that’s okay with everybody? Or would you rather follow a different…

KEVIN PATTON: Chairman, could you explain what the appellant’s request is as far as what they are wanting?

CHAIRMAN METRO: I probably go over both. First the order is presented by the City Engineer’s decision was all things within the flood plain be removed, that includes walls, fills, driveways, driveway bridge, concrete beginning at the east edge of the property and curbing to Glendale and any other items in existing flood plains. Number two, to comply with the impervious requirements and remove the basketball court from the property and constructed pond as required by the original site, grading and drainage plan. To demonstrate that the resident was not constructed in the flood plain and three, construct the scour wall per the approved grading and drainage plan for this site, stamped 9111. If I understood the appellant and Ms. Davis please add if you want, because it was getting a little bit conflicting because I think Mark was saying leave everything like it is, don’t change anything because it will work.

MS. DAVIS: We agreed that the way it is constructed works. If that would be more on line of the condition if the board thought that something else should be done but our position is that it’s constructed, it doesn’t cause damage to adjacent or adjoining downstream, upstream property as constructed.

CHAIRMAN METRO: So those are two that we are looking at and assuming this committee is going to have some conditions based on where in between, if anyone is ready to make a motion to open discussion and as we get into discussion we can always amend it to either add or change or have different conditions. Is anyone ready to do that? Do you want me to give it a shot?

R.P. BOHANNAN: I think to make a motion on the whole thing just to see where people stand. Then if necessary, break it into parts.

CHAIRMAN METRO: Help me out there. What do you mean by the whole thing?

R.P. BOHANNAN: I’m not sure where any of the other committee members….

JEFF MORTENSEN: Let me ask a quick question, then? To make sure that I’m looking at the four items, the City Engineer wrote a letter dated January 23rd of this year and stipulated as four requirements and I’m reading it as four requirements to address the violations. There are only four items, am I correct in reading it that way?

CHAIRMAN METRO: That is how I read it.

KEVIN PATTON: Okay. Is it eleven and the four bullets; is that what you are talking about, Jeff?

JEFF MORTENSEN: Yes. I’m just making sure that there wasn’t something beyond that.

SPEAKER?: Okay.

KEVIN PATTON: RP are you saying that you are looking for everyone’s opinion on where they are at?

R.P. BOHANNAN: No…well I’m saying I don’t know that and I think I don’t know if there is unanimous support for one side or the other on this. Maybe we make a motion to either find in favor of the City Engineer, find in favor of the appellant and we start with one or the other and see where we land. If we are mixed, then I think we go into a point by point discussion and resolve it that way.

CHAIRMAN METRO: Yes.

MS. DAVIS: Mr. Chairman my point is that at the previous meeting we decided it wasn’t unanimous but a majority vote.

CHAIRMAN METRO: That is correct.

R.P. BOHANNAN: Okay. Majority vote.

CHAIRMAN METRO: But I think your idea is exactly what I had in mind. I guess the motion that I was looking at was to…I guess I could go in favor of either because it’s really conditions that are kind of put on here but I’m going to call it in favor of the appellant with the following conditions. I guess I have…I’ll go into discussion further after I make it, but one was to, I believe that wall and structure that are in the flood plain or the concrete channel area, those should be removed to get rid of that bump that was occurring that was backing up the water.

I think that was just a factor of public safety and good policy within the flood plains up in the north, North Albuquerque Acres. Then the other would be to modify that driveway, I don’t mind leaving it in there because I think we’ve seen them but they would have to be modified to allow the flood plain water to flow over that. I’m trying to think of anything else that kind of popped in as I was going through that. So why don’t, otherwise I felt that it would…there would also be verifications that the scour wall would work so that we could leave the house where it is at but give some assurance that we’re not going to get undermining or something that occurs in there that will damage the house, would remain in there.

Why don’t I stop it there because I wasn’t quite sure what to do with the on-site ponding and retention and the basketball court. So if I could get a second…basically all I did was said I find in favor of the appellant with the conditions that the obstacles within the flood plain, the wall, the structures be removed and grading of the driveway be modified to allow the flows to go over the top, number one. Then number two that the scour wall that protects that house be validated to show that it will be adequate for scour protection with the design flow.

JEFF MORTENSEN: And me, that’s a second. That sounds like a good solution.

CHAIRMAN METRO: I’m looking for a second.

KEVIN CURRAN: (INAUDIBLE). Motion to essentially reverse the City Engineer’s decision with conditions that you’ve explained. There needs to be a second and then there should be some more discussion on that before there is a vote.

CHAIRMAN METRO: I agree. I’m waiting for a second. Not hearing one, I’m waiting for another motion.

SCOTT STEFFEN: Can you do a second on…the initial motion is really in favor of the appellant, should there not be a second on that and then there should be a motion on any conditions with the second on conditions with a second on the conditions because he’s made a motion with conditions.

CHAIRMAN METRO: That’s correct.

SPEAKER?: That’s correct.

KEVIN CURRAN: There can be a motion to affirm the City Engineer’s decision, a decision to reverse the City Engineer’s decision or a decision to modify the City Engineer’s decision in conjunction with a reversal or an affirmation. Unfortunately the ordinance doesn’t allow you to remand to the City Engineer, the decision has to be made of one of those three decisions have to be made or a combination thereof.

CHAIRMAN METRO: Yes and that is what I said. I could have made the motion in favor of the City Engineer with the following changes to the conditions required but like I said, it’s the conditions that I’m interested in discussing and (INAUDIBLE).

KEVIN CURRAN: I’d rather, that’s my preference. I’d like to make a motion to find favor with the City Engineer with conditions.

CHAIRMAN METRO: Okay. Go ahead and make the motion. (INAUDIBLE).

SPEAKER?: (INAUDIBLE).

SCOTT STEFFEN: Yes, we have two motions.

KEVIN CURRAN: I think the first motion failed for a lack of the second and now we are going on to the second motion.

CHAIRMAN METRO: That’s correct.

R.P. BOHANNAN: I second that motion.

CHAIRMAN METRO: Say your motion.

KEVIN PATTON: My motion is to find in favor of the City Engineer with modifications to the recommendations; or with conditions.

R.P. BOHANNAN: And I second that motion.

JEFF MORTENSEN: So what are your conditions?

R.P. BOHANNAN: And now we go into discussion.

CHAIRMAN METRO: Okay.

KEVIN PATTON: And I would like to go into discussion concerning those conditions.

MS. DAVIS: Excuse me but doesn’t there have to be a vote though, on the conditions?

CHAIRMAN METRO: Yes. I need to….Okay. Well, normally we will open the discussion then we will…

KEVIN CURRAN: He’s got a second so now the floor is open to discussion on that subject.

SCOTT STEFFEN: I think we voted discussion so…

CHAIRMAN METRO: And then any condition we’ve put on we’ll add as an amendment to the motion, is that correct?

KEVIN CURRAN: Correct.

JEFF MORTENSEN: I’m sorry. I didn’t hear that.

CHAIRMAN METRO: Any of these conditions we will add on, we will make an amendment to the motion.

SPEAKER?: Correct.

CHAIRMAN METRO: Okay. So…

KEVIN PATTON: Considering conditions, I obviously think that the approved plan was not built in accordance as the certification language has indicated in substantial compliance. Looking at it, to me it looks like it’s significantly different. Things being built within the flood plain that weren’t originally shown in the flood plain. So I think that’s definitely part of the discussion. I do not agree that the house has to be moved. I think that should remain where it is and whether or not they can prove whether or not they are in the flood plain or a portion of that house has flood insurance and other things, those are things but that’s another matter. I do think the wall and the driveway and the improvements within the flood plain do have an impact. I don’t think enough information was shared downstream in March to determine what impacts are downstream. I’ve seen a small and up to 60 feet at the wall and 60 feet east, but I’ve seen nothing downstream and what impacts it might have.

You had mentioned before, Chairman again that the wall be removed and if the driveway…I’ve seen driveways in flood plains, the existing road out there is in a flood plain, I think that we need to look at what impacts, whether it’s a different section or something but again, I guess the motion and conditions that the wall be removed, the driveway be modified such that it has minimal impact of the flood plain if any at all. And then I’m concerned on as the City Engineer or the City Hydrologist have mentioned, the concern of the detention versus retention, that is in violation of the plan out there so that needs to be addressed as well. In then locating a detention/retention pond within the flood plain I think has, if that has an effect, I don’t know if you could actually put a pond within that and how that helps the lot.

CHAIRMAN METRO: Why don’t we start? Scott do you have any input on that?

SCOTT STEFFEN: No, just (INAUDIBLE)

CHAIRMAN METRO: RP.

R.P. BOHANNAN: I agree with a lot of what Kevin offered. I would go further to say that the as-built plan should look more specifically at the contours. I think some of the contours on the current plan are erroneous. There needs to be a thorough review of the ponding and how those ponds interact to each other hydraulically, to see whether that total volume is really achieved and again, the detention/retention concern should be addressed. I believe that there was some discussion of the retaining wall on the west side of the property and I don’t know whether that is a City Engineer issue or a Code Enforcement issue, but I think that should be reviewed as well.

I think as far the removal of the items, I think there is an obstruction of the flood plain, I don’t know how you can cut off that much of the flood plain and not expect some impact to the south. I think the only way you could get around that is with weasel words and I’m not saying that the engineers don’t do that but you can never say definitively that it didn’t happen. It’s also well, it’s not significant and it probably won’t cause any problems but I do believe that there is an impact and I don’t believe that it has been proven beyond the shadow of the doubt that it’s not going to impact the property to the south.

The end of that property may already be under water but I think there is an impact, it wasn’t completely analyzed. I just think that a new plan can be submitted perhaps that would deal with what improvements may be constructed down the flood plain but I think that would be subject to City Engineer review and approval. If the driveway is to remain in some format, the grades need to be clear and a detailed plan as to what will be proposed but I agree that the improvements that are in place now should be removed.

CHAIRMAN METRO: In the flood plain?

SPEAKER?: That are in the flood plain. That’s right. The home is I think fine.

CHAIRMAN METRO: Okay. Jeff?

JEFF MORTENSEN: I’m going to pretty much echo what others have said. My suggested conditions would be to remove the following items built in the flood plain: walls, fill, driveway, driveway bridge and concrete. Second condition would be to satisfy retention ponding requirements to be compliant with the approved plan or prepare and submit a revised plan that must be approved by the City Engineer. And what that means is rather than remove the basketball court, perhaps the ponding can be achieved elsewhere on this site. The third condition would be to protect the house by designing and construction of a scour wall. The scour wall design shall be validated by a plan submitted and subsequently approved by the City Engineer. Then the last condition would be any driveway within the flood plain can be modified to fit the contour of the flood plain by preparation and submission of a revised plan approved by the City Engineer.

KEVIN PATTON: Chairman can I ask a question? Jeff on that scour wall, one thing I want to note is I have concern that Curtis allowed for a certain flow for the scour wall and another flow for the remaining analysis that on yours for the scour wall, what would your suggestion be for the flow that needs to be analyzed associated with that scour wall?

JEFF MORTENSEN: I’m thinking that scour wall protection, as I remember, needs to be, you need to have protection for the 100 years storm plus 30 year of erosion. And I’m going to guess that Curtis was counting on some kind of change within that 30 years which would allow him to reduce that flow. I’m just guessing what he was thinking but I’m not inclined to increase the requirements above which the City Engineer has already agreed to. So in other words, that means if 850 was good…

MR. HIGHTOWER: 850 to 750, but anyway . . .

JEFF MORTENSEN: Whatever it was, I’m not inclined to want to increase that.

KEVIN PATTON: I don’t remember that conversation but that’s what is on the plan.

CHAIRMAN METRO: Is that it?

JEFF MORTENSEN: That was it for me.

CHAIRMAN METRO: Okay. I will concur. I think that was pretty much, I don’t know where we go with that west wall, I was always focusing on the east wall but I don’t know RP when you brought that up, what were you…

R.P. BOHANNAN: I know that was some of the discussion in the case, at least from the City’s standpoint. I don’t really know procedurally whether the City Engineer has the authority to look at that or that is strictly a Code Enforcement issue.

SCOTT STEFFEN: It’s not in their order and I am not inclined to introduce that.

R.P. BOHANNAN: I would concur.

CHAIRMAN METRO: That is what I was thinking, too. Yeah and it was in some of this literature but I agree with Scott on that. Okay, so I guess we need a motion on the conditions I mean an amendment.

KEVIN CURRAN: Could we possibly restate the conditions. We’ve had conditions sort of the (inaudible).

SCOTT STEFFEN: If I make a recommendation, I think Mr. Mortensen’ summarized the conditions very well and I think those should be the conditions put on…

CHAIRMAN METRO: In the decision.

SCOTT STEFFEN: In the decision.

JEFF MORTENSEN: Should I read those again?

KEVIN CURRAN: I don’t think you need to read them again. As long as the committee is in agreement that those are the conditions that will be in…that they are going vote on, in other words, those were just…the motion on the floor right now is to affirm the City Engineer’s decision with conditions as articulated by Mr. Mortensen’ and his comments, correct?

CHAIRMAN METRO AND COMMITTEE SAID: Correct.

KEVIN CURRAN: Okay. If that’s the motion then all we need to do is take the vote. Okay?

CHAIRMAN METRO: We don’t have to amend the motion to include those? We just amend those.

KEVIN CURRAN: As I just explained, it’s already amended by Mr. Mortensen’.

CHAIRMAN METRO: Okay, any other discussion then? Is everybody okay with it? All those in favor, say yes?

COMMITTEE MEMBERS: Votes are yes

CHAIRMAN METRO: Those opposed, say no?

COMMITTEE MEMBERS: Silence

CHAIRMAN METRO: It’s approved. So what we will do is we will issue a written decision with the findings of fact within 10 days that will give us time to…excuse me, Kevin?

KEVIN CURRAN: Mr. Chairman, one recommendation that I might have and if Ms. Davis is in agreement is we might want to reconvene for the committee to vote on the findings of fact we have in support of their decision. Seems like we’ve got a fairly technical subject matter and my sense is instead of having the committee banter among themselves, which we get into all the meetings issues on, I think that decision should be made and discussed, that decision on what the findings of fact are going to be in support of the decision, which is done at another public hearing. I realize that reconvening the committee to have that discussion but due to the technical nature of the subject matter, I think we need to reconvene to vote on the findings of fact in support of the decision.

MS. DAVIS: I don’t have an objection to that.

SCOTT STEFFEN: Are we voting on them or are we discussing, presenting the finding of facts.

KEVIN CURRAN: You would be discussing the findings of fact and voting on them.

SCOTT STEFFEN: Okay. So we will not be doing written findings of facts, we will be doing it in another hearing.

KEVIN CURRAN: What I envision happening is I prepare a draft findings of fact for you and perhaps discuss that with Mr. Mortensen’ because the conditions were his and then present that at the next hearing for discussion and modifications.

CHAIRMAN METRO: And we had talked about 10 days, having that done?

KEVIN CURRAN: Correct. I’m suggesting 10 days. Of course, that 10 days is dependent on the appellant’s schedule because I’m assuming that you probably want to attend that meeting as well.

MS. DAVIS: Yes, I do and I don’t happen to know off the top of my head. When will the next proposed date be?

KEVIN CURRAN: 10 days from today. 18th (INAUDIBLE).

MS DAVIS: And that’s what date?

KEVIN PATTON: Thursday the 18th is 10 days away.

MS. DAVIS: I believe at this point that I’m free for that.

KEVIN CURRAN: If for some reason if that’s not going to be a convenient date, we can set it up for another date.

SPEAKER?: Are we saying 10 days?

JEFF MORTENSEN: 10 working days?

SPEAKER?: 10 working days. Okay.

MS. DAVIS: So at 2 (INAUDIBLE)

CHAIRMAN METRO: I’m saying 10 calendar days. Actually Thursday the 18th is the APWA conference. I’d rather not do on that day if I could.

SPEAKER?: How about the 19th?

CHAIRMAN METRO: Well, both days but I was thinking the 17th, if that would work?

KEVIN CURRAN: That would be Wednesday the 17th?

KEVIN PATTON: What time?

CHAIRMAN METRO: Two o’clock in the afternoon.

KEVIN PATTON: I actually have a current appointment. I could not make the 17th.

CHAIRMAN METRO: You could in the morning?

KEVIN PATTON: I could in the morning.

KEVIN CURRAN: That’s DRB.

CURTIS CHERNE: There’s a flood plain conference coming up Wednesday afternoon, Thursday and Friday. I have to check with the (INAUDIBLE).

CHAIRMAN METRO: In that same week?

CURTIS CHERNE: It’s either that week or the next week.

SPEAKER?: Tuesday the 16th would be better.

KEVIN CURRAN: I may be pressed for time to get the findings.

R.P. BOHANNAN: Want to look at the next week?

KEVIN PATTON: The following week looks good.

MS. DAVIS: The following week is not available for me due to appeals.

CHAIRMAN METRO: Let’s…don’t worry about the APWA conference and let’s go ahead and do it on the 18th if that works for everybody.

KEVIN CURRAN: Two o’clock?

CHAIRMAN METRO: 2 pm. Then the last item was we would announce an appeal to the City Council could be done by either party within 30 days of the date of the written decision, which I assume will be that 18th day.

KEVIN CURRAN: Correct.

CHAIRMAN METRO: Okay.

KEVIN CURRAN: Obviously we won’t have a written decision until the findings are voted on and presumably either that day or the following day would be the date of the written decision.

MS. DAVIS: And a written decision will state that, correct?

KEVIN CURRAN: Correct.

CHAIRMAN METRO: With that then we could close the hearing. Thank you.