

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION

From: George Dunham

04/22/02

RECEIVED

APR 23 2002

Rapid City
Planning Department

Attached you will find my comments related to agenda items 45, 46, 58, 59, 60, and 61. Items 45, 59, and 60 relate to phase 1 of the project and 46, 58 and 61 relate to phase 2.

Several issues have been discussed, at length, with the city staff and we remain in disagreement. I therefore decided that I must present my side of these issues so you could make your decision in the most informed way.

The major issues, where I disagree with the staff recommendation, can be summarized as follows:

Phase 1

- **Agenda Item 45**
 - Any amendment of the city comprehensive land use plan should not delay my project.
 - In my opinion, some kind of traffic calming means must be planned to prevent the collector street through the sub-division from becoming a race track. In a residential area, pedestrian safety is the most important consideration. Early in the project, planting islands were planned to calm the traffic. They were abandoned because staff resisted their use.

- **Agenda Item 59**
 - Corrugated metal pipe should be allowed for the special application where it is applied.
 - The storm water retainage and metering means proposed should be accepted.
 - The sewer connection, as designed, should be accepted.
 - The revised overall sewer layout should be accepted.
 - A revised street design is being submitted. The street design scheme for the cul de sacs, as now proposed, should be accepted

- **Agenda Item 60**
 - A variance to delete the requirement for sidewalk along the south side of Nicklaus Drive and the east portion of Meadowbrook Drive should be allowed.

- The revised street design for Ward Court using standard curb with curbside sidewalk for the straight street where parking is allowed and roll curb with curbside sidewalk in the cul de sac bulb where parking is not allowed now meets all the requirements of the street design manual and a variance is not required.


Phase 2

- Agenda Item 46
 - Any amendment of the city comprehensive land use plan should not delay my project.
 - The revised road layout, as proposed, should be approved.
- Agenda Item 58
 - The storm water retainage and metering, as proposed, should be accepted.
 - We should not be required to do a complete design of the total subdivision sewer system at this time. The preliminary design, already submitted, should be accepted.
 - Street widths, as now proposed, should be accepted.
 - Temporary turnarounds should be required only where shown on our plans.
 - No design should be required for the offsite portion of Severson Drive.
 - Heidiway Lane improvements should be waived at this time.
- Agenda Item 61
 - The revised street design for Dixon Court using standard curb with curbside sidewalk for the straight portion of the street where parking is allowed and roll curb with curbside sidewalk in the cul de sac bulb where parking is not allowed meets all the requirements of the street design manual and a variance is not required.

I realize that some of these items are quite technical. I appreciate your efforts to study them so that your recommendation to the council will be a well informed one.

I thank you for your deliberation on these matters and for your service to Rapid City.

Respectfully Submitted



George F. Dunham, P.E.

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION
AGENDA ITEM #45

From: George Dunham
Phase 1
04/22/02

I request that this item not be continued, but be considered for action at this time.

COMMENTS ON:

STAFF REVIEW:

Under item #4, the amendment to the Comprehensive Land Use Plan seems to be an internal issue for the City. Hopefully this will not delay my project.

Under item #4, staff requested a revised road design layout and plat showing a continuous north-south road. That layout is being prepared and will be submitted to staff. I still have a major concern that this street should not become a race track, such as Park Drive. During the early stages of this project I proposed planting islands along the road to beautify the development and to calm the traffic, but abandoned them because they received too much staff resistance to their use. The design speed for the street is 25 MPH; and in an effort to keep the traffic speed near that level, I still have shown tee intersections in a future portion of that street. I believe that pedestrian safety should have the highest priority in a residential neighborhood. I ask approval for that layout.

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION
AGENDA ITEM #46

From: George Dunham
Phase 2
04/22/02

I request that this item not be continued, but be considered for action at this time.

COMMENTS ON:

STAFF REVIEW:

Under item #4, the amendment to the Comprehensive Land Use Plan seems to be an internal issue for the City. Hopefully that will not delay my project.

Under item #4, staff requested a revised road design layout and plat showing a continuous north-south road. That layout is being prepared and will be submitted to staff. I still have a major concern that this street should not become a race track, such as Park Drive. During the early design stages I proposed planting islands to beautify the area and to calm the traffic, but abandoned them because of staff resistance to their use. The design speed for the street is 25 MPH; and in an effort to keep the traffic speed near that level, I still have shown tee intersections in a future portion of that street. I believe that pedestrian safety should have the highest priority in a residential neighborhood. I ask approval of that layout.

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION
AGENDA ITEM #58

From: George Dunham
Phase 2
04/22/02

I request that this item not be continued, but be considered for action at this time.

PROPOSED LEGAL DESCRIPTION:

The street name "Dixon Drive" should be "Dixon Court".

COMMENTS ON:

STAFF REVIEW:

Drainage: The development as proposed has a very low density and creates a very small change in the storm drainage flows in the area. However staff required us to try to evaluate the impact of the change to some indeterminate location, downstream in the drainage basin. Staff stated that detention of the drainage flow was an acceptable alternative. This whole matter is perplexing to me when the change in drainage flows from my development is much less than the change created by projects up stream, such as Coral Park apartments, Autumn Hills, or Stoney Creek. Yet we seem to be singled out to mitigate our change. I came to the conclusion that trying to do the analysis was an effort that would be impractical and costly from an engineering standpoint and would be an exercise in futility. Therefore, in an effort to deal with the staff concerns about drainage impact, we are designing a means of detaining the added storm drainage flows and metering their delivery to the drainage basin. The detention pond will be located in the southeast corner of the project. The detention design will be submitted to the staff as soon as it is done. I request approval. I do ask that the city go on record that they will operate and maintain the detention facility.

Sanitary Sewer: We believe that the requirement to accomplish a complete design for the future sewer work is unreasonable. We have already done a preliminary design to show the proposed route of future sewer and have verified that the sewer flows can be achieved. Doing additional design work would be a waste of engineering time and money as the final design should only be done when the final lot layout is done. The lot layout for future phases will change and any sewer design will also change. We believe that the preliminary design, already done, satisfies the need to show the feasibility of the proposed sewer route.

We accept the fact that the phase immediately north of this current phase may not be practical unless or until a sewer is run in Heidiway Lane. Our alternate plan for that area, if sewer is not run in Heidiway Lane, is not to develop that phase of the overall project or to run a sewer across our property to the east and make a connection across Arrowhead country club. I hold an easement allowing me to cross Arrowhead to make such a connection.

Non-Access Easements: Non-access easements have been added to the plat and will be submitted to staff.

Street Widths: The proposed street design, as revised, meets the city street design manual requirements. The straight portion of the street leading into the cul de sac is wide enough to allow parking on both sides. That parking meets the "on-street" parking requirement for the development. This section of street will have a standard curb. The street design manual allows curbside sidewalk for a local street with standard curb and parking on both sides. The cul de sac bulb is designed at the minimum diameter allowed in the design manual and no parking is planned in that area of the street. The design manual allows curbside sidewalk to be used with roll curb when no parking is allowed. I would like to point out that parking is unlikely in a cul de sac such as this in the first place, because most of the perimeter is used up by the driveway accesses. As an example, over 160 feet of the 245 foot perimeter is used for street and driveway access leaving only about 85 feet of curb. That means that for every one foot of curb there are two feet of space with no curb. Also, such a detail is presently used elsewhere in the city, Elks Country Estates, Broadmoor, and Parkridge Village are a few examples. Many others exist.

I request that the design as presented be allowed since it meets the requirements of the street design manual.

Temporary Turnarounds: We have already provided temporary turn arounds where the distance from the dead-end of the street and the nearest turn around point is excessive. A turn around is being designed at the southeast corner of the site, in conjunction with the storm water detention facility. We have canvassed several other developments, which are in progress, and have found that the dead-end distance without a turn around is often as much as 200 feet. Elks Country Estates has dead-end conditions where the street extends without a turn around. Stoney Creek also has such a dead end; however it appears that a turn around may be intended. All weather surfacing has not been placed, so the turn around is functional only in dry weather. The end of Severson Street, just south of this proposed development, has a dead-end which is in excess of 210 feet. Other dead end conditions exist at Red Rock, Mountain Shadows, Skyline Pines, and nearly every other development in the city. My proposed dead-end is just 170 feet and is in an area where no lot is developed which is not accessible before the dead-end. The road is also quite flat in that area with a grade of about 5% making the maneuvering of a vehicle easier than if the grade were steep.

I request approval of the design as it is presented.

Severson Street/Dunham Drive Intersection: A revised design has been submitted to staff.

Road Connection to Coral Drive: I believe that the direction given in the 5th line of the staff review is wrong. "East-west" should be "north-south".

First, I would like to point out that there is precedent to make a connection to a street that may not meet all current street design standards. Again I use Elks Country Estates as an example. Both Jolly Lane, which provides access from the East, and South Valley Drive, which provides access from the West are hard surfaced streets with a narrow street surface and no curb, gutter or sidewalk. I believe that Heidiway Lane is a better street than either of these and will not be required to handle nearly the amount of traffic that either of the Elks Country Estates streets must handle.

Connection to Severson Street is my ultimate goal; however that completion is dependent on when the intervening property owner decides to develop his property. Why should I be required to design a road for property that I do not own; a road which may never be built as I design it to be built?

I request approval of the layout as it is presented.

Heidiway improvements: A variance application will be submitted on April 26 requesting waiver for the improvements on Heidiway Lane. If improvements were done at this time, the improvements would be along only a very short portion of the entire road. It seems unusual to do the improvements on less than 20% of a road. Such improvements have obviously been waived for other developments. We ask that you go on record supporting such a request.

I request that the variance be granted.

Utility Easement: A utility easement exists and has been submitted to staff. We have asked that the city attorney draft the required wording for an amendment to the easement so that we may go to the property owner and obtain the amended easement. It is my understanding from my attorney, that the city attorney may not require any significant amendment to the existing easement.

Street Lights: Revised design plans showing the street light locations will be submitted to staff. The design will show street lights at the street intersections and at the end of cul de sacs. We request approval of these locations as the only required light locations.

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION
AGENDA ITEM #59

From: George Dunham
Phase 1
04/22/02

I request that this item not be continued, but be considered for action at this time.

COMMENTS ON:

STAFF REVIEW:

Drainage: The development as proposed has a very low density and creates a very small change in the storm drainage flows in the area. However staff required us to try to evaluate the impact of the change to some indeterminate location, downstream in the drainage basin. Staff did say that a storm water detention pond would be an acceptable alternative. The whole matter is perplexing to me when the change in flows created by my project is much less than the change created by projects up stream such as Coral Park apartments, Autum Hills, or Stoney Creek. Yet my project seems to be singled out to mitigate my change in flows. I came to the conclusion that doing such an analysis would be an effort that would be impractical and time consuming from an engineering standpoint and would be an exercise in futility. Therefore, in an effort to deal with the staff concerns about drainage impact, we are designing a means of detaining the added drainage flows and metering their delivery to the drainage basin. The detention pond will be located in lot 3 of block 1. However the final design will be dependent upon whether or not we are required to build sidewalk on the south side of Nicklaus. The fill required for the sidewalk would fill the area intended for the detention pond. The detention design will be submitted to the staff. We request approval. I do ask that the city go on record agreeing that they will operate and maintain the facility.

A standard within the engineering profession and throughout South Dakota, including on state DOT projects, is to use corrugated metal pipe for storm drain pipes where the pipe must be installed at a steep slope. The CMP slows the water velocity. We have two locations on this project where storm drains are installed at a steep pitch and we believe it to be good engineering practice to use CMP pipe for steep slope applications. The city has used CMP in similar steep locations along Catron Boulevard. I request your approval to apply our engineering judgment in this matter.

Sanitary Sewer: We believe that the requirement to accomplish a complete design for the future sewer work is unreasonable. We have already done a preliminary design to show the proposed route of future sewer and have verified that the sewer flows can be achieved. Doing additional design work would be a waste of engineering time and money as the final design should only be done when the final lot layout for the future phases is done. The lot layout for future phases will change and any sewer design will also change. We believe that the preliminary design, already done, satisfies the need to show the feasibility of the proposed sewer route.

We do not have a "parallel sewer" designed for the project. A parallel sewer is an installation where two pipes, carrying the same sewage, run parallel to each other. **We do not have that condition.**

We have a situation where the sewer from the sub-division is too low in elevation to connect to the sewer main in Nicklaus Drive at the location where the street intersects Nicklaus. If we could offset the street intersection, we would do that to a location down the hill and the problem would be solved. However, we cannot do that because we cannot gain the required intersection separation and still maintain a reasonable grading within our street.

So, the street intersection must remain where it is shown, but the sewer must connect down the hill. Two ways exist to make that happen. One is to offset the new sewer to the east somewhere before it enters Nicklaus so that the new sewer invert matches the invert of the sewer main in Nicklaus. That offset could be made several hundred feet to the south of Nicklaus. Then the sewer could proceed to the north and connect to the sewer main in Nicklaus. The terrain is hilly and such an offset is not practical until the sewer is close to Nicklaus. We therefore opted to make the offset next to Nicklaus within a dedicated utility easement. This pipe happens to parallel the pipe in Nicklaus, but **IS NOT** a parallel sewer because it is carrying different sewage than the pipe in Nicklaus. The sewage in the pipe is still on its way to be input into the Nicklaus line.

A second way to make the connection is to dig up and replace the sewer main in Nicklaus from the street intersection going to the east until the main is deepened enough so the new sewer from the sub-division can be connected to it.

The first solution has been chosen for cost, time and disturbance reasons:

- Cost: Our choice will cost between \$15,000 and \$20,000 less than the second choice. The cost difference is because choice two requires digging up about 140 feet of Nicklaus Drive, temporarily plugging the flow in the existing sewer main, temporarily pumping that sewage flow around the work area, providing traffic control for the entire construction period as a large excavation will be open, and providing temporary sewer connections for the houses that front on the replacement area.

- Time: Our choice has a much shorter construction time. Digging into the street to install the required manhole can be done in about two days. The second choice will take up to two weeks to finish; because all the work is done in the street, the street must be torn up and replaced, and traffic control must be asserted.
- Disturbance: The work in choice one is substantially done off the street. In choice one, the disturbance in the street happens only to install the new manhole and make the required connection. Even then, the traffic can use one half of the street. Then remainder of the work is done on our property, in the utility easement. Choice two required 140 feet of sewer line, in the middle of the street be torn up. Because the new line must be lower than the existing line, the sewage flow in the pipe must be diverted for the entire construction period and the existing pipe must be removed before the new pipe can be installed. The fact that the line is in the middle of the street, and because an excavator takes a 14 foot wide placement, the entire street probably will be blocked for the entire construction period. A contractor has estimated that the pipe replacement would take up to two weeks, depending on the problems encountered, notably rock or gypsum.

Choice one is clearly the best choice under the special circumstances of this project and I ask approval of the design as it is now presented.

As with all construction items for this project, we are required to furnish surety to the city. The surety remains in force until required construction is complete. I assume the service lines fall into this category.

The cost estimate is being revised and will be submitted to staff.

Water Main: This staff statement is noted, but I cannot see how it affects the project at this time. I assume that any construction within the project limits will proceed in a timely manner and any work outside the project limits will be done at some future time when a future phase of my project is accomplished.

Section Line Right of Way: It is correct that I am vacating a portion of the section line right of way. The revised overall land layout, submitted to staff, shows that the 25 foot strip is, at this time, considered to be a flag for a large future lot. The revised plat also shows the portion of the section line right of way that has already been vacated.

Street Widths: The proposed street design, as revised, meets the city street design manual requirements. The straight portion of the street leading into the cul de sac is wide enough to allow parking on both sides. That parking meets the "on-street" parking requirement. That section of street is designed using standard curb with curbside sidewalk which is allowed in the street design manual. The cul de sac bulb is designed at the minimum diameter allowed in the design manual and no parking is planned in that area of the street. The cul de

sac uses roll curb along with curbside sidewalk, which is also allowed in the street design manual. I would like to point out that parking is unlikely in a cul de sac such as this in the first place, because most of the perimeter is used up by the driveway accesses. As an example, over 160 feet of the 245 foot perimeter is used for the entry street and for driveway access. That leaves only about 85 feet of actual curb. For every one foot of curb, two feet of curb cut exists. Also, such a detail is presently used elsewhere in the city; Elks Country Estates, Broadmoor, and Parkridge Village are a few examples.

I request that the design as presented be allowed.

Wildland Fire Mitigation Plans: We have agreed to work with the Fire Department on any mitigation plans that they wish within the limits of this proposed project.

Street Lights: Revised design plans showing the street light locations are being submitted to staff. The design shows street lights at intersections and at the end of cul de sacs. We believe this to meet the city requirements.

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION
AGENDA ITEM #60

From: George Dunham
Phase 1
04/22/02

I request that this item not be continued, but be considered for action at this time.

COMMENTS ON:

STAFF REVIEW:

Reserve Strip: A revised master plan has been submitted.

Sidewalk along Nicklaus Drive and Meadowbrook Drive: Existing grades drop off very steeply along the south side of Nicklaus. The sidewalk is therefore very difficult and expensive to build. If sidewalk is required, fill must be added to the point that the fill will start filling the existing drainage way and the proposed location for the detention pond. It is therefore not practical to build the sidewalk on the south side of Nicklaus Drive. Sidewalk already exists on the north side of the street. Granting variance to allow sidewalk on only one side of a street is common in Rapid City.

I again ask approval of this variance request.

Roll curb and curbside sidewalk: I believe that the street in question in this item is "Ward Court".

Curbside sidewalk used in conjunction with roll curb is common in Rapid City. Three examples where such a detail is used are the existing Parkridge Village area, existing Broadmoor, and the detail is currently being used at Elks Country Estates. The requested location where we propose to use the detail is at the cul de sac bulb. The street design for the incoming street has been changed so that the curb there is a standard curb. These design sections meet the requirements of the street design manual. The drainage design meets all the city storm water design requirements, even for a 100 year storm.

In my opinion, the revised design meets the street design manual and a variance is no longer required.

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION
AGENDA ITEM #61

From: George Dunham
Phase 2
04/22/02

I request that this item not be continued, but be considered for action at this time.

COMMENTS ON:

STAFF REVIEW:

Roll curb and curbside sidewalk: Curbside sidewalk used in conjunction with roll curb is common in Rapid City. Three examples where such a detail is used are in the existing Parkridge Village area, Broadmoor, and the detail is currently being used at Elks Country Estates. The requested location where we propose to use the detail is at the cul de sac bulb. The design of the incoming street has been changed to use a standard curb with a curbside sidewalk. Both these sections meet the requirements of the street design manual. A 5% cross slope is allowed by the street design manual where the terrain is difficult, however Dixon Court is designed with only a 2% cross slope. Ward Court, at the other end of the development is designed with a 5% cross slope, but that still meets the street design manual. The drainage study shows that no storm water overtopping occurs on Dixon Court. Lots 8 and 9 of block 2 are at the other end of the development. The drainage design meets all the city storm water design requirements, even for a 100 year storm.

The revised design, in my opinion, meets all the requirements of the street design manual and a variance is no longer needed.

MEMORANDUM

To: Rapid City Planning Commission

From: George Dunham

Re: Dunham Development Issues

Date: May 6, 2002

Again I thank the Commission for your efforts on this matter. The last two weeks of effort has produced little constructive compromise on the part of city staff. Although we have met several times and I have tried to go the extra mile to address the issues; we remain at wide variance on the same issues as before. In fact new requirements, which were not at issue before, have been added by city staff. The following attempts to give a brief overview of the major issues and the attached documents discuss my position on all issues, in detail.

The major unresolved issues are as follows:

- **PHASE ONE-- the North end of the project, Agenda items #20,46,47**

1. Stipulation #2 of #46 asks that the sewer line, as designed, be changed. We object to this requirement because the present design is a good and cost effective solution to the sewer depth problem and the city has given no any valid reason to change the design.
2. At this late date, the city has added a requirement in stipulation #4 of #46 to coordinate the development work with a possible new water main. The routing and design of the main have not yet been done by the city. The funding for construction has not even been mentioned. If we must comply with this stipulation, a delay of unknown duration will be placed on our development.
3. Stipulation #7 of #46 sounds innocuous. However, it must be read in conjunction with stipulations #4 and #8. We proposed the idea of installing the sidewalk within 3 feet of the curb so that it would be practical to install the sidewalk at all. However, in order for that to happen, the city must direct BHP, Mid-continent, and Qwest to bury their utility lines. The city staff seems reluctant to do that. Also, with the Fibercom line already buried in this location, burying the power line, the cable TV line, the telephone line, and the water line in the same location seems like an unlikely fit. In the mean time and until those problems are worked out, my development will be delayed indefinitely.

4. The cul de sac and incoming street design as proposed meet or exceed all the requirements of the street design manual. No further work should be required by the city and stipulation #12 of item #46 should be deleted.

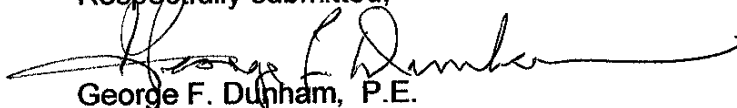
- **PHASE TWO—the South end of the project, Agenda items #21,45,48**

1. Stipulation #7 of #45 is not acceptable because the present design meets or exceeds all the requirements of the street design manual.
2. Stipulation #9 of #45 is not acceptable because it requires me to design work to be constructed on some other private landowner's property. It also must be considered in conjunction with stipulation #10 which requires me go even further.
3. Stipulation #10 of #45 is not acceptable because it requires me to obtain an access and roadway easement from another private landowner who may not wish to grant me such an easement. And the stipulation makes my development contingent on being able to obtain such an easement. This is the same as just denying my application to develop this land.

I conceived the proposed development with the belief that developments should be encouraged, not discouraged, by any growing city. I also believe that any city should encourage, even more, those developments which are infill and make the best use of undeveloped land already within the boundaries of the city. Such developments maximize the use of existing infrastructure while adding tax base to the city and county. In fact, this project will add in excess of \$25 million dollars of tax base and will generate more than \$460,000 in annual tax revenue.

I request your support for the project and hope that the stipulations and recommendations which the planning commission passes along to the Council will allow me to continue with this project.

Respectfully submitted,



George F. Dunham, P.E.

AGENDA ITEM # 45

**MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION**

From: George Dunham
Phase 2
Written 04/22/02
Revised 05/06/02

Comments added on 05/06 are in bold italics

PROPOSED LEGAL DESCRIPTION:

The street name "Dixon Drive" should be "Dixon Court".

COMMENTS ON:

Stipulations: (Stipulations 1 through 4, 6, 8, 10 & 14 should be deleted because they either have already been done. Stipulations 5, 7, & 9 are not acceptable to me.)

Engineering Recommendations:

- 1. Complete engineering plans have already been submitted and this stipulation should be deleted.***
- 2. A complete sewer master plan has already been submitted and this stipulation should be deleted.***
- 3. A complete grading plan has been submitted and this stipulation should be deleted.***
- 4. A complete drainage report has already been submitted and this stipulation should be deleted.***
- 5. Complete road designs for the roads within the development area have been completed and submitted. We do not intend to submit road designs for roads outside the development area. This stipulation should be deleted.***
- 6. Appropriate non-access easements are already shown on the plat and this stipulation should be deleted.***
- 7. The design as submitted complies with the city street design manual and this change will not be made. This stipulation should be deleted.***
- 8. A revised estimate has already been submitted. This stipulation should be deleted.***
- 9. We will not design streets that are outside the boundary of our development. This stipulation must be deleted.***
- 10. A utility easement exists and has been submitted to the city. That meets the requirements necessary to connect the utilities for the project. This stipulation should be deleted.***

Fire Department recommendations:

11. No Comment

12. No Comment

13. Noted

14. Turnarounds have been coordinated with the fire department. This stipulation should be deleted.

Urban Planning

15. Noted

16. Noted

STAFF REVIEW:

Drainage: The development as proposed has a very low density and creates a very small change in the storm drainage flows in the area. However staff required us to try to evaluate the impact of the change to some indeterminate location, downstream in the drainage basin. Staff stated that detention of the drainage flow was an acceptable alternative. This whole matter is perplexing to me when the change in drainage flows from my development is much less than the change created by projects up stream, such as Coral Park apartments, Autumn Hills, or Stoney Creek. Yet we seem to be singled out to mitigate our change. I came to the conclusion that trying to do the analysis was an effort that would be impractical and costly from an engineering standpoint and would be an exercise in futility. Therefore, in an effort to deal with the staff concerns about drainage impact, we are designing a means of detaining the added storm drainage flows and metering their delivery to the drainage basin. The detention pond will be located in the southeast corner of the project. The detention design will be submitted to the staff as soon as it is done. I request approval. I do ask that the city go on record that they will operate and maintain the detention facility.

The detention facility design has been completed and has been submitted. Again I ask that the city agree to operate and maintain the detention facility that they required.

Sanitary Sewer: We believe that the requirement to accomplish a complete design for the future sewer work is unreasonable. We have already done a preliminary design to show the proposed route of future sewer and have verified that the sewer flows can be achieved. Doing additional design work would be a waste of engineering time and money as the final design should only be done when the final lot layout is done. The lot layout for future phases will change and any sewer design will also change. We believe that the preliminary design, already done, satisfies the need to show the feasibility of the proposed sewer route.

We accept the fact that the phase immediately north of this current phase may not be practical unless or until a sewer is run in Heidiway Lane. Our alternate

plan for that area, if sewer is not run in Heidiway Lane, is not to develop that phase of the overall project or to run a sewer across our property to the east and make a connection across Arrowhead country club. I hold an easement allowing me to cross Arrowhead to make such a connection.

The plans as submitted do show the alternate route and the staff comment is in error.

Non-Access Easements: Non-access easements have been added to the plat and will be submitted to staff.

The 50 foot requirement is a distance from the end of the corner curb radius. However, we have provided corner curb radii that are larger than the minimum required in the city street design manual. Conversely, we have reduced the non-access slightly to offset the larger corner radius. The net result is similar. The intent of that requirement is met. The dimension shown on the plans is from the intersecting property line. The easement as proposed is appropriate and should be accepted.

Street Widths: The proposed street design, as revised, meets the city street design manual requirements. The straight portion of the street leading into the cul de sac is wide enough to allow parking on both sides. That parking meets the "on-street" parking requirement for the development. This section of street will have a standard curb. The street design manual allows curbside sidewalk for a local street with standard curb and parking on both sides. The cul de sac bulb is designed at the minimum diameter allowed in the design manual and no parking is planned in that area of the street. The design manual allows curbside sidewalk to be used with roll curb when no parking is allowed. I would like to point out that parking is unlikely in a cul de sac such as this in the first place, because most of the perimeter is used up by the driveway accesses. As an example, over 160 feet of the 245 foot perimeter is used for street and driveway access leaving only about 85 feet of curb. That means that for every one foot of curb there are two feet of space with no curb. Also, such a detail is presently used elsewhere in the city; Elks Country Estates, Broadmoor, and Parkridge Village are a few examples. Many others exist.

Although the previous design met the requirements of the street design manual, I agreed to increase the diameter of the cul de sac in an effort to satisfy the needs of the fire department for a larger turning surface in the cul de sac. The street design manual specifies a minimum diameter for the cul de sac of 75 feet where parking is not permitted. The present design has increased the diameter to 90 feet. Making one bigger certainly does not violate the manual. The design manual does not prohibit a combination of roadway sections such as we have used. In fact the city regularly combines sections. West Boulevard is one example. The design as

presently accomplished meets or exceeds all the requirements of the street design manual.

I request that the design as presented be allowed since it meets the requirements of the street design manual.

Temporary Turnarounds: We have already provided temporary turn arounds where the distance from the dead-end of the street and the nearest turn around point is excessive. A turn around is being designed at the southeast corner of the site, in conjunction with the storm water detention facility. We have canvassed several other developments, which are in progress, and have found that the dead-end distance without a turn around is often as much as 200 feet. Elks Country Estates has dead-end conditions where the street extends without a turn around. Stoney Creek also has such a dead end; however it appears that a turn around may be intended. All weather surfacing has not been placed, so the turn around is functional only in dry weather. The end of Severson Street, just south of this proposed development, has a dead-end which is in excess of 210 feet. Other dead end conditions exist at Red Rock, Mountain Shadows, Skyline Pines, and nearly every other development in the city. My proposed dead-end is just 170 feet and is in an area where no lot is developed which is not accessible before the dead-end. The road is also quite flat in that area with a grade of about 5% making the maneuvering of a vehicle easier than if the grade were steep.

The temporary turnarounds as presently shown in the design have been coordinated with the fire department and should be approved.

I request approval of the design as it is presented.

Severson Street/Dunham Drive Intersection: A revised design has been submitted to staff.

Road Connection to Coral Drive: I believe that the direction given in the 5th line of the staff review is wrong. "East-west" should be "north-south".

First, I would like to point out that there is precedent to make a connection to a street that may not meet all current street design standards. Again I use Elks Country Estates as an example. Both Jolly Lane, which provides access from the East, and South Valley Drive, which provides access from the West are hard surfaced streets with a narrow street surface and no curb, gutter or sidewalk. I believe that Heidiway Lane is a better street than either of these and will not be required to handle nearly the amount of traffic that either of the Elks Country Estates streets must handle.

Connection to Severson Street is my ultimate goal; however that completion is dependent on when the intervening property owner decides to develop his

property. Why should I be required to design a road for property that I do not own; a road which may never be built as I design it to be built?

The design as submitted does not include a design for roads that are outside the development area.

I request approval of the layout as it is presented.

Heidiway improvements: A variance application will be submitted on April 26 requesting waiver for the improvements on Heidiway Lane. If improvements were done at this time, the improvements would be along only a very short portion of the entire road. It seems unusual to do the improvements on less than 20% of a road. Such improvements have obviously been waived for other developments. We ask that you go on record supporting such a request.

The design, as submitted, shows the extension of utilities in Heidiway court and an increase in the pavement width. We do request approval of our request to waive the curb and gutter requirement.

I request that the variance be granted.

Utility Easement: A utility easement exists and has been submitted to staff. We have asked that the city attorney draft the required wording for an amendment to the easement so that we may go to the property owner and obtain the amended easement. It is my understanding from my attorney, that the city attorney may not require any significant amendment to the existing easement.

Street Lights: Revised design plans showing the street light locations will be submitted to staff. The design will show street lights at the street intersections and at the end of cul de sacs. We request approval of these locations as the only required light locations.

AGENDA ITEM #46

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION

From: George Dunham
Phase 1
Written 04/22/002
Revised 05/06/02

Comments added on 05/05 are in bold italics

COMMENTS ON:

Stipulations: (Stipulations 1, 3, 5, 10, 11, 13, &16 should be deleted as they have already been done. Stipulations 2, 4, 8, 12, &17 are not acceptable.)

Engineering Recommendations:

- 1. Complete engineering plans have already been submitted and this stipulation should be deleted.***
- 2. No valid engineering reason has been given to us for this request. We do not intend to comply. This stipulation should be deleted.***
- 3. Complete grading plans have been submitted and this stipulation should be deleted.***
- 4. Timing of this request makes compliance impossible. The city staff has not yet done the design work for the water main. Asking us to delay our project to accommodate this demand is unreasonable. This stipulation should be deleted.***
- 5. A complete drainage report has been submitted and this stipulation should be deleted.***
- 6. I agree.***
- 7. This issue is much bigger than this item as it also relates to the fact that the city must direct BHP to move their power line, direct the telephone company to move their lines, and direct Mid-continent to move their lines.***
- 8. This comment sounds as though this item will delay my project indefinitely. That is not acceptable to me. This stipulation should be deleted.***
- 9. No comment.***
- 10. A revised estimate has been prepared and submitted. This stipulation should be deleted.***
- 11. Appropriate non-access easements are already shown on the plat and this stipulation should be deleted.***

- 12. The design as submitted complies with the city street design manual and this change will not be made. This stipulation should be deleted.**
- 13. This is essentially the same as stipulation 10. They have already been complied with and should be deleted.**

Fire Department recommendation

- 14. No Comment**
- 15. No Comment**
- 16. Turnarounds as agreed to by the fire department are shown on the plans submitted. This stipulation should be deleted.**

Emergency services

- 17. Presently, Ward Court is the name of the cul de sac that comes off Ward Drive. That street naming scheme has existed in Rapid City for, at least, fifty years. The street names should remain as proposed and this stipulation should be deleted.**

Urban Planning

- 18. No Comment**
- 19. No Comment**

STAFF REVIEW:

Drainage: The development as proposed has a very low density and creates a very small change in the storm drainage flows in the area. However staff required us to try to evaluate the impact of the change to some indeterminate location, downstream in the drainage basin. Staff did say that a storm water detention pond would be an acceptable alternative. The whole matter is perplexing to me when the change in flows created by my project is much less than the change created by projects up stream such as Coral Park apartments, Autumn Hills, or Stoney Creek. Yet my project seems to be singled out to mitigate my change in flows. I came to the conclusion that doing such an analysis would be an effort that would be impractical and time consuming from an engineering standpoint and would be an exercise in futility. Therefore, in an effort to deal with the staff concerns about drainage impact, we are designing a means of detaining the added drainage flows and metering their delivery to the drainage basin. The detention pond will be located in lot 3 of block 1. However the final design will be dependent upon whether or not we are required to build sidewalk on the south side of Nicklaus. The fill required for the sidewalk would fill the area intended for the detention pond. The detention design will be submitted to the staff. We request approval. I do ask that the city go on record agreeing that they will operate and maintain the facility.

The detention facility design has been submitted to the city. The sidewalk fill has been modified by moving the sidewalk to within 3 feet of the curb and by using a 3:1 slope on a section of the sidewalk fill. We assume that

those adjustments will be accepted. Again I ask that the city agree to operate and maintain the storm water detention facility that they required.

A standard within the engineering profession and throughout South Dakota, including on state DOT projects, is to use corrugated metal pipe for storm drain pipes where the pipe must be installed at a steep slope. The CMP slows the water velocity. We have two locations on this project where storm drains are installed at a steep pitch and we believe it to be good engineering practice to use CMP pipe for steep slope applications. The city has used CMP in similar steep locations along Catron Boulevard. I request your approval to apply our engineering judgment in this matter.

Sanitary Sewer: We believe that the requirement to accomplish a complete design for the future sewer work is unreasonable. We have already done a preliminary design to show the proposed route of future sewer and have verified that the sewer flows can be achieved. Doing additional design work would be a waste of engineering time and money as the final design should only be done when the final lot layout for the future phases is done. The lot layout for future phases will change and any sewer design will also change. We believe that the preliminary design, already done, satisfies the need to show the feasibility of the proposed sewer route.

The design as previously submitted has not been changed because the staff has not presented us with a single valid engineering reason why the design should be changed!

We do not have a "parallel sewer" designed for the project. A parallel sewer is an installation where two pipes, carrying the same sewage, run parallel to each other. **We do not have that condition.**

We have a situation where the sewer from the sub-division is too low in elevation to connect to the sewer main in Nicklaus Drive at the location where the street intersects Nicklaus. If we could offset the street intersection, we would do that to a location down the hill and the problem would be solved. However, we cannot do that because we cannot gain the required intersection separation and still maintain a reasonable grading within our street.

So, the street intersection must remain where it is shown, but the sewer must connect down the hill. Two ways exist to make that happen. One is to offset the new sewer to the east somewhere before it enters Nicklaus so that the new sewer invert matches the invert of the sewer main in Nicklaus. That offset could be made several hundred feet to the south of Nicklaus. Then the sewer could proceed to the north and connect to the sewer main in Nicklaus. The terrain is hilly and such an offset is not practical until the sewer is close to Nicklaus. We therefore opted to make the offset next to Nicklaus within a dedicated utility easement. This pipe happens to parallel the pipe in Nicklaus, but **IS NOT** a

parallel sewer because it is carrying different sewage than the pipe in Nicklaus. The sewage in the pipe is still on its way to be input into the Nicklaus line.

A second way to make the connection is to dig up and replace the sewer main in Nicklaus from the street intersection going to the east until the main is deepened enough so the new sewer from the sub-division can be connected to it.

The first solution has been chosen for cost, time and disturbance reasons:

- Cost: Our choice will cost between \$15,000 and \$20,000 less than the second choice. The cost difference is because choice two requires digging up about 140 feet of Nicklaus Drive, temporarily plugging the flow in the existing sewer main, temporarily pumping that sewage flow around the work area, providing traffic control for the entire construction period as a large excavation will be open, and providing temporary sewer connections for the houses that front on the replacement area.
- Time: Our choice has a much shorter construction time. Digging into the street to install the required manhole can be done in about two days. The second choice will take up to two weeks to finish; because all the work is done in the street, the street must be torn up and replaced, and traffic control must be asserted.
- Disturbance: The work in choice one is substantially done off the street. In choice one, the disturbance in the street happens only to install the new manhole and make the required connection. Even then, the traffic can use one half of the street. Then remainder of the work is done on our property, in the utility easement. Choice two required 140 feet of sewer line, in the middle of the street be torn up. Because the new line must be lower than the existing line, the sewage flow in the pipe must be diverted for the entire construction period and the existing pipe must be removed before the new pipe can be installed. The fact that the line is in the middle of the street, and because an excavator takes a 14 foot wide placement, the entire street probably will be blocked for the entire construction period. A contractor has estimated that the pipe replacement would take up to two weeks, depending on the problems encountered, notably rock or gypsum.

Choice one is clearly the best choice under the special circumstances of this project and I ask approval of the design as it is now presented.

As with all construction items for this project, we are required to furnish surety to the city. The surety remains in force until required construction is complete. I assume the service lines fall into this category.

The cost estimate is being revised and will be submitted to staff.

Water Main: This staff statement is noted, but I cannot see how it affects the project at this time. I assume that any construction within the project limits will

proceed in a timely manner and any work outside the project limits will be done at some future time when a future phase of my project is accomplished.

Delaying my project while coordination of the water main location takes place is an unusual burden on me. Especially when the need for the water main has been known by the city since the first layouts of this project were submitted nearly a year ago.

Section Line Right of Way: It is correct that I am vacating a portion of the section line right of way. The revised overall land layout, submitted to staff, shows that the 25 foot strip is, at this time, considered to be a flag for a large future lot. The revised plat also shows the portion of the section line right of way that has already been vacated.

Street Widths: The proposed street design, as revised, meets the city street design manual requirements. The straight portion of the street leading into the cul de sac is wide enough to allow parking on both sides. That parking meets the "on-street" parking requirement. That section of street is designed using standard curb with curbside sidewalk which is allowed in the street design manual. The cul de sac bulb is designed at the minimum diameter allowed in the design manual and no parking is planned in that area of the street. The cul de sac uses roll curb along with curbside sidewalk, which is also allowed in the street design manual. I would like to point out that parking is unlikely in a cul de sac such as this in the first place, because most of the perimeter is used up by the driveway accesses. As an example, over 160 feet of the 245 foot perimeter is used for the entry street and for driveway access. That leaves only about 85 feet of actual curb. For every one foot of curb, two feet of curb cut exists. Also, such a detail is presently used elsewhere in the city; Elks Country Estates, Broadmoor, and Parkridge Village are a few examples.

Although the previous design met the requirements of the street design manual, I agreed to increase the diameter of the cul de sac from 75 feet to 90 feet in an effort to satisfy the needs of the fire department for a larger turning surface in the cul de sac. The street design manual specifies a minimum diameter for the cul de sac. Making one bigger certainly does not violate the manual. The design manual does not prohibit a combination of roadway sections such as we have used. In fact the city regularly combines street sections. West Boulevard is one example. The design as presently accomplished meets or exceeds all the requirements of the street design manual.

I request that the design as presented be allowed.

Wildland Fire Mitigation Plans: We have agreed to work with the Fire Department on any mitigation plans that they wish within the limits of this proposed project.

Street Lights: Revised design plans showing the street light locations are being submitted to staff. The design shows street lights at intersections and at the end of cul de sacs. We believe this to meet the city requirements.

Sidewalks along Nicklaus Drive and Meadowbrook Drive: We accidentally discovered that the city can, if they choose, direct the various utility companies to move or bury their lines along Nicklaus Drive. That would allow us adequate room to build the desired sidewalk, if we are allowed to place it within 3 feet of the street. We are willing to do this work, if we have the cooperation of the city. The water transmission line is a completely separate issue. It is a new complication that has not yet been designed, has just recently been revealed to us, and should not hold up our project. If the water line has been planned since 1999, why has staff waited until now to raise this issue?

AGENDA ITEM #47

MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION

From: George Dunham
Phase 1
Written 04/22/02
Revised 05/06/02

Comments added on 05/06 are in bold italics

COMMENTS ON:

RECOMMENDATION

In my opinion, a variance for the curbside sidewalk at the roll curb section in the cul de sacs is not needed as the street design manual allows the sidewalks as shown in the present design.

The total issue of the sidewalk along Nicklaus Drive must be resolved, see below.

STAFF REVIEW:

Reserve Strip: A revised master plan has been submitted.

Sidewalk along Nicklaus Drive and Meadowbrook Drive: Existing grades drop off very steeply along the south side of Nicklaus. The sidewalk is therefore very difficult and expensive to build. If sidewalk is required, fill must be added to the point that the fill will start filling the existing drainage way and the proposed location for the detention pond. It is therefore not practical to build the sidewalk on the south side of Nicklaus Drive. Sidewalk already exists on the north side of the street. Granting variance to allow sidewalk on only one side of a street is common in Rapid City.

I again ask approval of this variance request.

The sidewalk issue has only one reasonable solution and that solution has been proposed in the revised design. However staff has added conditions to acceptance of the proposed design that may not be reasonable to meet. Either I must have approval of the proposed sidewalk design as submitted or I must continue to ask for this variance.

Roll curb and curbside sidewalk: I believe that the street in question in this item is "Ward Court".

Curbside sidewalk used in conjunction with roll curb is common in Rapid City. Three examples where such a detail is used are the existing Parkridge Village area, existing Broadmoor, and the detail is currently being used at Elks Country Estates. The requested location where we propose to use the detail is at the cul de sac bulb. The street design for the incoming street has been changed so that the curb there is a standard curb. These design sections meet the requirements of the street design manual. The drainage design meets all the city storm water design requirements, even for a 100 year storm.

In my opinion, the revised design meets the street design manual and a variance is no longer required.

I guess, when dealing with city staff, no good deed goes unpunished. I made the cul de sac diameter bigger as a favor to the fire department. Now staff is using that good deed as an excuse to argue against allowing me to build the cul de sacs as designed. They meet or exceed all street design manual requirements. Combination of sections is not prohibited in the manual. I don't understand this issue.

Staff has not seen fit to share any information relating to any calls from anyone on this matter. To my knowledge, only one e-mail was received and that quite positive and was shared with me. I have received several enthusiastic and no negative calls.

AGENDA ITEM #48

**MEMORANDUM
TO THE
RAPID CITY PLANNING COMMISSION**

From: George Dunham
Phase 2
Written 04/22/02
Revised 05/06/02

Comments added on 05/06 are in bold italics.

COMMENTS ON:

RECOMMENDATION:

In my opinion, a variance for curbside sidewalk at the roll curb section in the cul de sacs is not needed as the street design manual allows the sidewalks as shown in the present design.

STAFF REVIEW:

Roll curb and curbside sidewalk: Curbside sidewalk used in conjunction with roll curb is common in Rapid City. Three examples where such a detail is used are in the existing Parkridge Village area, Broadmoor, and the detail is currently being used at Elks Country Estates. The requested location where we propose to use the detail is at the cul de sac bulb. The design of the incoming street has been changed to use a standard curb with a curbside sidewalk. Both these sections meet the requirements of the street design manual. A 5% cross slope is allowed by the street design manual where the terrain is difficult, however Dixon Court is designed with only a 2% cross slope. Ward Court, at the other end of the development is designed with a 5% cross slope, but that still meets the street design manual. The drainage study shows that no storm water overtopping occurs on Dixon Court. Lots 8 and 9 of block 2 are at the other end of the development. The drainage design meets all the city storm water design requirements, even for a 100 year storm.

The revised design, in my opinion, meets all the requirements of the street design manual and a variance is no longer needed.

I guess, when dealing with city staff, no good deed goes unpunished. I made the cul de sac diameter bigger as a favor to the fire department. Now staff is using that good deed as an excuse to argue against allowing me to build the cul de sacs as designed. They meet or exceed all the requirements of the street design manual. Combination sections are not prohibited in the manual. I do not understand this issue.

Staff has not seen fit to share any information relating to any calls from anyone on this matter. To my knowledge, only one e-mail was received and that was quite positive and was shared with me. I have received several enthusiastic calls and no negative calls.