

MEMORANDUM
For Meeting of February 24, 2009

TO: Mayor and Councilmembers
THROUGH: Steve Worthington
FROM: Russ Blount
SUBJECT: **New Business** – 70th & Valley Avenue Corridor Improvements
Phase 1 Valley Avenue and Intersection Improvements

REPORT IN BRIEF: Receive an update on project progress, for the 70th and Valley Corridor, and discuss phasing, detours, and impacts on neighboring property owners and the travelling public.

BACKGROUND: Fife has retained David Evans and Associates (DEA) to provide engineering services for this project, has received necessary environmental permits, except a NEPA reevaluation to incorporate tribal lands, and is acquiring necessary right-of-way towards construction in 2009. The City's funding program for this and several other street projects relied on cash flow from sales taxes and federal grants that have come in lower than anticipated.

ATTACHMENTS: DEA project schedule and detour map and separate memos regarding:

- Issues and DEA Comments or recommendations
- Deferred Work Possibilities
- Project Cost Information

DISCUSSION: Key issues for which Council guidance is sought include:

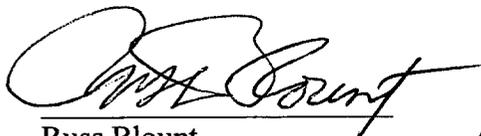
1. Road closure, restricted one-way traffic, or no closure
2. Early completion incentive pay
3. Work hours, including potential to revise noise control ordinance and require night work
4. Provision of electrical services for decorative holiday lighting
5. Deferral of illumination system
6. Deferral of street trees
7. Deferral of top lift of asphalt

FISCAL IMPACT: For Phase 1 of the 70th and Valley Corridor, the overall project budget is approximately \$24.8 million, with approximately \$20.9 million of that amount yet to be spent.

ALTERNATIVE COURSES OF ACTION: Direct staff to prepare bid specifications setting parameters for each of the key issues described, or defer decisions on some issues until after bids have been received.

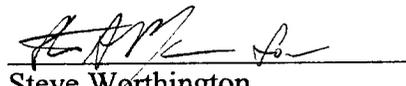
RECOMMENDATIONS: Make final decisions on as many items as possible, and then direct staff to require bid alternatives for the remaining items, such that decisions can be made after bids are received.

SUGGESTED MOTION: Individual motions regarding each of the key issues described.



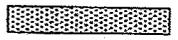
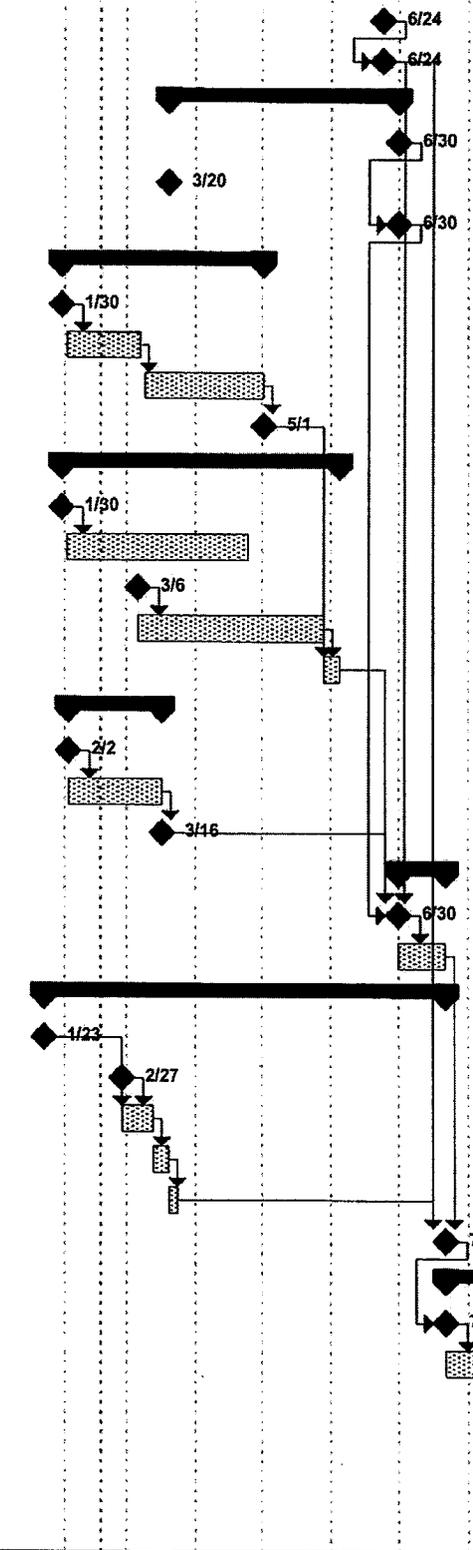
Russ Blount
Public Works Director

Approved for Agenda



Steve Worthington
City Manager

3	Non PTOI parcels acquired for the project	0 days	Wed 6/24/09	Wed 6/24/09	2
4	WSDOT Right-of-way Acquisition and City Agreement	73 days	Fri 3/20/09	Tue 6/30/09	
5	WSDOT lease to Cerqui Sr. expires	0 days	Tue 6/30/09	Tue 6/30/09	
6	WSDOT acquires MoHotel and Hauge parcels (WSDOT anticipated schedule)	0 days	Fri 3/20/09	Fri 3/20/09	
7	WSDOT and City complete agreement for needed R/W	0 days	Tue 6/30/09	Tue 6/30/09	5
8	Construct 36th Street East	65 days	Fri 1/30/09	Fri 5/1/09	
9	DEA delivers bid documents to the City	0 days	Fri 1/30/09	Fri 1/30/09	
10	City enters into agreement w/utilities and utilities finish their work	25 days	Mon 2/2/09	Fri 3/6/09	9
11	Road contractor completes work	40 days	Mon 3/9/09	Fri 5/1/09	10
12	36th Street East finished	0 days	Fri 5/1/09	Fri 5/1/09	11
13	PTOI Land Acquisition/Transfer Process	89 days	Fri 1/30/09	Thu 6/4/09	
14	City reaches agreement w/Turnipseed and receives approval letter	0 days	Fri 1/30/09	Fri 1/30/09	
15	BIA approves Turnipseed land transaction	60 days	Mon 2/2/09	Fri 4/24/09	14
16	City reaches agreement w/Cross (Anticipated---Still in negotiations process)	0 days	Fri 3/6/09	Fri 3/6/09	
17	BIA approves Cross land transaction	60 days	Fri 3/6/09	Thu 5/28/09	16
18	Cross and Turnipseed land transaction complete	5 days	Fri 5/29/09	Thu 6/4/09	12,17
19	NEPA Re-evaluation Work	30 days	Mon 2/2/09	Mon 3/16/09	
20	DEA submits NEPA reevaluation to WSDOT for review and approval	0 days	Mon 2/2/09	Mon 2/2/09	
21	WSDOT/FHWA review and approval process for the NEPA reevaluation	30 days	Tue 2/3/09	Mon 3/16/09	20
22	WSDOT/FHWA approves NEPA reevaluation	0 days	Mon 3/16/09	Mon 3/16/09	21
23	Final R/W Approval Process	15 days	Tue 6/30/09	Tue 7/21/09	
24	WSDOT commences audit for the right-of-way certification process	0 days	Tue 6/30/09	Tue 6/30/09	7,18,22,3
25	WSDOT audit process complete	15 days	Wed 7/1/09	Tue 7/21/09	24
26	Final Construction Plans	128 days	Fri 1/23/09	Tue 7/21/09	
27	DEA submits final plans to City for review	0 days	Fri 1/23/09	Fri 1/23/09	
28	DEA submits final plans to WSDOT	0 days	Fri 2/27/09	Fri 2/27/09	
29	City and WSDOT review and comment	10 days	Fri 2/27/09	Thu 3/12/09	28,27
30	DEA makes revisions and goes to 99% complete (all except R/W commitments)	5 days	Fri 3/13/09	Thu 3/19/09	29
31	Project plans finalized including R/W commitments	2 days	Fri 3/20/09	Mon 3/23/09	30
32	WSDOT approves construction funds	0 days	Tue 7/21/09	Tue 7/21/09	31,25,7,3
33	Construction Phase	290 days	Tue 7/21/09	Tue 8/31/10	
34	City advertises for public bids	0 days	Tue 7/21/09	Tue 7/21/09	32
35	City bidding and award process	30 days	Wed 7/22/09	Tue 9/1/09	34
36	City awards contract	0 days	Tue 9/1/09	Tue 9/1/09	35
37	Contractor begins work	10 days	Wed 9/2/09	Tue 9/15/09	36
38	Contractor and utility work period	250 days	Wed 9/16/09	Tue 8/31/10	37
39	Contractor work complete	0 days	Tue 8/31/10	Tue 8/31/10	38





DAVID EVANS
AND ASSOCIATES INC.

Trans Pacific Trade Center Building
3700 Pacific Hwy. East, Suite 311
Tacoma, Washington 98424
Phone: 253.922.9780
Facsimile: 253.922.9781

CITY ISSUES DOCUMENT	
PROJECT: 70 th Avenue East/ Valley Avenue East	DATE: February 17, 2009
PROJECT #: FIFE0000-0062	TIME:
DESCRIPTION: Issues and DEA comments or recommendations	PLACE:
Prepared by: Randy Anderson	

Russ---As you are aware DEA is in the process of finalizing the plans and specifications for this project. We want to finish this work and then put them on the shelf until all right-of-way is acquired for the project and it is ready to go to the public bid process.

You have asked us for additional information regarding the finalization of this project as follows:

1. A memorandum (which will be this one) that outlines a number of issues that need clarification or direction from the city council or city manager.
2. A cost spreadsheet that shows the differences between the 60% cost estimate and the 90% cost estimate. I have already provided you with a memorandum that provides this information but not in spreadsheet format.
3. A draft detour plan for Valley Avenue East if the decision is made to close that road to all but local or business traffic while critical work is being done by the contractor.
4. A spreadsheet or similar document that provides cost information regarding work that is in the project now but could possibly be deferred into the future when additional funds are available for this project.
5. A revised project schedule was forwarded to you last week for review and comment.

Items 2 through 4 are being prepared at this time and will be submitted to you as separate documents.

The following are issues that involve the 70th Avenue East/Valley Avenue East Phase 1 project that need to be addresses or resolved before DEA can finalize the bid documents for this project. DEA has provided comments or information on some of these items as you requested.

Anywhere days are used in this document it means working days (Monday through Friday) and not calendar days. Additionally working days are actual contractor working days where weather has not impeded the contractor's work.

Road closure, restricted one-way traffic or no road closure issue

Road closures or restricted traffic through a work site is a significant issue for this project. Both 70th Avenue East and Valley Avenue East are arterial roads and convey local access traffic and through traffic, much of which is commercial in nature. There are three general options for dealing with traffic on an existing road. They include a complete closure of the road (except local access and business traffic which would not be denied), restricting traffic to one-way using traffic control measures or no closure at all.

Complete closure means the road is closed for a certain period of time to all but local access traffic and business traffic and through traffic would be required to use a detour route for a certain period of time.

Pros to a complete closure:

- This option gives the contractor the most flexibility to get the work done without impacts from moving traffic.
- Traffic control costs are lower because the need for flaggers or pilot cars are reduced or eliminated.

-
- The less traffic a contractor has to deal with during construction the faster he/she can get the work done, which should be reflected in a lower cost of work.
 - Work zone safety is improved when through traffic is removed from project area for both the traveling public and the contractor's employees.

Cons to a complete closure:

- Through traffic has to use a detour route and will likely increase their time of travel.
- Property along the detour route will be subject to more traffic than usual.
- Emergency vehicles could be impacted depending on the work being done by the contractor at any particular time.
- Property owners along the closed road are impacted to some degree.

Restricted one-way traffic means the road would remain open but only in one direction at a time. Flaggers and possibly pilot cars would be used to direct traffic through the work site. Traffic would move in one direction for a period of time and then traffic would be allowed to move in the opposite direction.

Pros to restricted one-way traffic:

- This gives the contractor some relief from moving traffic as it can be moved from one existing lane to another to accommodate contractor work.
- There is no requirement for a longer detour route.

Cons to restricted one-way traffic:

- The contractor still has to deal with moving traffic which will impact work activities.
- Traffic control costs are higher because flaggers and possibly pilots cars are needed to control traffic flows.

No closure at all. This option does not necessarily mean that traffic would not be impacted. The road would remain open to traffic but certain contractor work tasks will require that the road be subject to one-way traffic at certain times. As an example any work that requires trenching across the road means that the road will be temporarily subject to one-way traffic. It is noted that for Valley Avenue East there are an unusually high number of crossings that will need to be made for this project.

Pros to no road closure:

- The least impact to the motoring public.

Cons to no road closure:

- The most inconvenient to the contractor which would be reflected in higher bid costs.
- Working days will be higher because the contractor simply cannot work as fast when work is impacted by moving traffic adjacent to the contractor's work.
- Traffic delays will still occur and a five minute wait for someone in a hurry turns into an hour when they call their elected official.

Valley Avenue East road closure---DEA estimates that it would take approximately 50 days to complete critical work on Valley Avenue East. This would include making all needed crossings, removing the existing cement concrete panels and constructing a two-lane road up to a first lift of asphalt concrete pavement. It is estimated that it would take approximately 100 days to complete all work on Valley Avenue East that would be impacted by through traffic.



The current cost estimate for work on Valley Avenue East is approximately \$8,588,000. From discussions with contractors and DEA's opinion it is estimated that a contractor's bid will be approximately 10% to 30% lower for work done under a complete road closure versus no closure.

There are a substantial number of options and alternatives that can be made for road closures on this project but a basic decision on how the City wants to approach this issue needs to be made as soon as possible.

Early completion incentive pay

Incentive pay is a method of encouraging a contractor to complete certain work tasks or the entire project earlier than normal. Incentive pay is used by the contractor to pay for overtime work either through longer working days or working weekends or a combination of both or using his/her best and most experienced crews.

Incentive pay for this project could involve a number of different work tasks to include:

1. Incentive pay for the early completion of work on Valley Avenue East assuming that a total road closure is desired by the City or even with no road closure.
2. Incentive pay for the early completion of work on the 70th Avenue East/Valley Avenue East intersection or portions of the intersection.
3. Incentive pay for the early completion of work on a storm drainage trunk system that will be installed in 70th Avenue East.
4. Incentive pay for the early completion of work on a deep sanitary sewer system that will be installed in 70th Avenue East.
5. Incentive pay for the early completion of the entire project.

There are a number of other work tasks that could be subject to incentive pay but these are the major ones in our opinion.

Storm drainage work on 70th Avenue East—Normal working hours or mandatory night work.

The installation of a large storm drainage truck system on the east side of 70th Avenue East from north of Valley Avenue East to 20th Street East will be done as part of this project. The installation of this system will require that 70th Avenue East be subject to one-way traffic for approximately 15 days if the work is done during daylight hours. An additional 5 working days may be needed to do all of the work at night. Does the City want to require the contractor to do this work at night or allow it to be done during normal working hours? This same situation is applicable to a deep gravity sanitary sewer system that will be installed in 70th Avenue East.

Sanitary sewer work on 70th Avenue East—Possible complete road closure, one-way traffic and/or night work

As part of the right-of-way negotiation process the City agree to provide sanitary sewer service to the Im parcel. This will be a relatively deep gravity sanitary sewer stub that connects into the existing system in 70th Avenue East. The sewer line will be approximately 12 feet west of the road's easterly pavement edge and is 420 feet in length. Work on this line will take approximately four working days unless work table or debris is encountered during the construction process.

City noise control ordinance—Revise or revoke for this project

The City's noise ordinance prohibits work before 7:00 AM or after 10:00 PM. This reduces the hours the contractor can work particularly during the summer when days are long and the contractor may want to work a double shift or at least start before 7:00 AM.



Additional electrical capacity for lighting

Provisions for additional electrical capacity for holiday lights were not included in the project's original design scope. Upgrades in the form of extra electrical capacity, conduit and wiring would be needed to accommodate holiday lights for the full length of Valley Avenue East. The plans currently show approximately 250 landscape trees being installed for this project. Does the City's want the capability to decorate all of these trees? Or does the City just want to decorate the luminaire poles with holiday lights?



DAVID EVANS
AND ASSOCIATES INC.

MEMORANDUM

DATE: February 17, 2009
TO: Mr. Russ Blount, P.E.
Public Works Director
3725 Pacific Highway East
Fife, WA 98424
FROM: Randy Anderson
SUBJECT: **Deferred Work Possibilities**
PROJECT: 70th Avenue East /Valley Avenue East Corridor Study
PROJECT NO: FIFE0000-0062
COPIES: File

Russ---This memorandum is a follow up to our plan review meeting on 2/5/09. You requested that DEA review the project to determine what work might be deferred to a later date to reduce initial project costs. The following are work tasks that might be deferred and could be done in the future at only a reasonable cost increase to the City.

Any deferred work item will cost more because of additional construction administration costs, contractor re-mobilization costs, agency re-bidding costs and additional contractor administrative costs such as bonding and insurance costs. With current economic conditions inflation is not an issue at this time but could be if the work is deferred for a substantial period of time. Another consideration is the impact to the traveling public as they will likely be impacted by construction activity a second time when the deferred work is done.

The following work tasks could be deferred with minimal impact to the project:

- Installation of the complete illumination system. Conduit and junction boxes could be installed as part of the current work but the installation of the luminaires and wiring work on Valley Avenue East could be deferred. This would represent a cost reduction of approximately \$180,000.
- Installation of the street trees. This would represent a cost reduction of approximately \$66,500.
- Installation of holiday lighting electrical work. This is additional work that was not included in the original project cost and is a complete add on. This would represent a cost reduction of approximately \$145,000.
- Installation of water stub lines under Valley Avenue East. Deletion of this work is not recommended by DEA but could be done if cost reduction becomes critical for the City. This would represent a cost reduction of approximately \$53,000.

There are other work tasks or bid items that could be deferred but would have a significant impact to the project. A cost reduction has not been determined at this time as these items need more input from the City.

Fife, WA 98424
February 17, 2009
Page 2

- Eliminating the utility undergrounding work and staying with overhead utilities.
- Forgoing the installation of the final lift of HMA for a majority of the project.
- Eliminating some of the intersection work that is being done to accommodate future WSDOT SR 167 traffic projections.

If you have any questions or comments regarding these work tasks or bid items that could be deferred please let me know.



DAVID EVANS
AND ASSOCIATES INC.

MEMORANDUM

DATE: February 17, 2009
TO: Mr. Russ Blount, P.E.
Public Works Director
3725 Pacific Highway East
Fife, WA 98424
FROM: Randy Anderson
SUBJECT: Project Cost Information
PROJECT: 70th Avenue East /Valley Avenue East Corridor Study
PROJECT NO: FIFE0000-0062
COPIES: File

Russ---This memorandum is an update from our 2/9/2009 previously submitted to you. That memorandum was in response to our plan review meeting on 2/5/09 and your e-mail that same day. You requested information regarding the 90% design level cost estimate compared to the 60% design level cost estimate. The 60% cost estimate was approximately \$18.6M and the 90% cost estimate was approximately \$20.9M. These costs include construction administration costs, right-of-way acquisition costs and utility relocation and undergrounding costs.

We believe our design level cost estimates have been conservative. From a bidding perspective it is better to proceed with a high bid rather than a low bid. We have based our unit costs on past work or the use of WSDOT's on line unit bid price information. With the prevailing economic conditions it is reasonable to believe that bids for this project will be extremely competitive.

The majority of the cost increase was in Group 1 bid items. Group 1 work consists of all work except LID work, non-LID water and sewer work and utility undergrounding work. However other groups had cost increases as well.

Group 2A is a new group to provide sanitary sewers for the Im parcel and the Han parcel. As a result of right-of-way negotiations the City agree to construct a gravity sanitary sewer connection in 70th Avenue East for Han. Han was originally in the LID service area but will now connect to the existing system in 70th Avenue East. Im was also be connected to the 70th Avenue East sanitary sewer system as part of right-of-way negotiations. The Group 2A cost is estimated to be \$85,000.

Other right-of-way negotiation costs have been added to the project including two new water and sanitary sewer connections for the Turnipseed parcel and fence relocation work for the Crittendon parcel. These costs are estimated to be \$10,000.

Group 2, LID sanitary sewer work, has increased by approximately \$592,000. Costs differences for this group include:

- The design of the system was incomplete at the 60% stage and additional work items were added to the cost estimate. Infrastructure such as the pigging station, odor control facility and other items were included in 90% cost estimate.
- The City requested that CSBC be used for trench backfill. This increased costs by approximately \$12,000.
- Dewatering for the sanitary sewer force main system was added but may not be used. The level of the groundwater table at the time of construction will dictate whether that item will be used or not. This added a cost of \$50,000 to the group.
- The unit bid cost for the item Structure Excavation Class B Including Haul has been reduced to \$25/CY to lower the 90% cost estimate by approximately \$189,000.
- The bid item Shoring or Extra Excavation Class B was added and increased the cost by \$110,000. Depending on how the contractor approaches the force main installation work portions of this bid item may not be used. A closure or non-closure of Valley Avenue East could influence the need for this bid item.

The scope of work for Group 3, Water Lines, increased and cost differences include:

- Water stub lines were added to cross under Valley Avenue East. This will allow development to occur in the future without requiring that trenches be constructed on Valley Avenue East but is additional work and cost at this time. Approximately 6 stubs were added at an estimated cost of \$30,000.
- Dewatering for Water Mains was added as a bid item and may or may not be needed dependent on the time of the year that the work is done. If the water table elevation is down and groundwater is not encountered this bid item will not be needed.

The need for various size and types of retaining walls for this project was refined during the design process. Cost differences and increases include the following:

- The single most expensive cost difference is the addition of soldier pile retaining walls. These walls are needed at most of the locations where utility vaults are being installed along 70th Avenue East. Most of these areas are adjacent to existing storm drainage ponds and bioswales so it was not practical to acquire more property for slope easements and negating the need for retaining walls. Originally gravity block retaining walls were proposed at these locations. However due to the thickness of these blocks, the size of the vaults and the area needed for conduit sweeps into and out of the vaults it was determined that gravity block walls could not be used at these locations. Also the utilities were adamant that their structures themselves could not act as a retaining wall. This added approximately \$487,000 to the cost of the project.
- Dewatering for Walls was also added and again will only be used if required and will be dependent on ground water elevations at the time of construction.
- Gravity block retaining walls will be constructed at all PTOI locations on the north side of Valley Avenue East. The unit bid price cost for this work was increased after it became apparent that construction easements or slope easements could not be obtained for these properties. The walls are tight to the right-

of-way line and will be difficult to build when no contact or infringement on these parcels will be allowed. This increase amounted to approximately \$70,000.

- Refinement of the wall designs by the geotechnical engineer during the design process included additional foundation stabilization work to meet earthquake loading requirements and increased costs by approximately \$180,000.

Other Group 1 costs increases include the following:

- The cost for the removal of the existing cement concrete panels in Valley Avenue East increased by approximately \$250,000 when it was determined that they contained substantial amount of steel rebar in them. This was not originally anticipated due to the age of the concrete panels.
- The cost of HMA was increased by approximately \$700,000 from the 60% cost estimate. The volume of HMA increased by approximately 5,700 tons after the roadway sections were finalized to reflect future anticipated vehicle and truck volumes and existing valley soil conditions. A conservative unit bid price of \$90/ton has been used for this item. The cost of petroleum products has gone both down and up throughout the history of this project and that price may be high but is an unknown at this time.
- CSBC has been added for all trench backfill material for water systems and storm drainage systems at the request of the City. This is a cost increase of approximately \$100,000.
- A new bid item "Hazardous Material Handling and Disposal" was added at a cost of \$100,000. This bid item was added in case contaminated soils are encountered and need to be removed and disposed of in compliance with existing environmental regulations.
- A new bid item "PTOI Property Restoration" has been added at a cost of \$35,000. This bid item may not be needed but will be used if additional restoration work is needed on PTOI parcels.
- Mobilization costs have increased as they are a direct percentage of the overall project costs.
- Traffic control costs were increased by approximately \$500,000 pending a decision on whether Valley Avenue East will be closed to traffic or remain open during construction. The 90% estimate is conservative and assumes that Valley Avenue East is constructed under traffic conditions.

DEA has discussed the road closure issue internally and with outside contractors familiar with this type of work. Cost savings for work on Valley Avenue East range from 20% to 30% if the construction work can be done under road closed conditions.

This project has yet to be reviewed by WSDOT. They could add Training and will set a percentage for minority participation. Training will be a lump sum cost that will need to be added to the project. Costs for minority participation should be covered in the unit bid prices for the project.