

GILLETTE AVENUE IMPROVEMENTS



HDR Engineering was selected by the City of Gillette to complete design services for the Gillette Avenue Improvements project. HDR Engineering will complete all aspects of the design with subcontractor support of Strata for geotechnical services, and Fourfront Design, Inc. for landscape/streetscape design.

HDR's project approach has been carefully developed based on our directly relevant experience with multiple urban downtown street design projects and our inclusive understanding of City specific needs and goals for this project. The design for this contract was previously awarded for Phase 1-Preliminary Design with the following scope of services to follow in Phase 2-Final Design & Bidding, and an anticipated future Phase 3 for Construction Administration support. The following key items and task list covers Phase 2 to address the general considerations noted in the Request for Proposals and specific items in Phase 2 of the design.

TASK 100 – Project Management Tasks (Phases 1,2,&3)

101 Project Management: HDR project management activities include the tasks of setting up the contract documents, planning the project activities, communicating task responsibilities with the project team, and closely tracking project budgets and schedules.

102 Project Coordination: In order to meet the schedule and tasks detailed for the project, a team comprised of City of Gillette and HDR team personnel will be established. This team will maintain a line of communication through phone, email, mail, and meetings. HDR will work closely with the public, private utilities, state departments, and municipalities which will be a key element in a successful project. HDR will also maintain control of our subcontractors on the project to ensure that they stay on task and schedule so that City staff may maintain one singular point of contact.

103 Quality Control / Administration: HDR has established an effective QC program to ensure that all work meets the standard of HDR and our clients. The QA/QC representative for this project will be James Unruh. Mr. Unruh has been recognized as a Professional Associate within HDR and is known as a technical expert in all aspects of roadway design. He will be involved throughout the project and can be contacted at any point if the quality of services becomes a concern. His tasks involve a detailed internal review of the design and construction documents that is separate from the on-going checking and review process that occurs during the design of the project. The internal review shall include constructability review, a thorough check for errors and omissions, review of quantities, plan clarity, and project scope requirements. Additional discipline specific QC reviews will also be conducted by highly qualified HDR professionals outside of the project team for key items such as electrical, signals, etc.

In addition to the technical reviews of the project design, Management Reviews will also be conducted periodically that will monitor the project schedule and design budget to identify any issues early on so that they can be corrected before they jeopardize a successful completion of the project.

TASK 100 - Meetings

- Project Coordination Meetings

TASK 100 – Deliverables

- Monthly Project Status Reports

TASK 300 – Public Involvement Services (Phases 1, 2, & 3)

This task consists of a comprehensive public involvement plan that will encompass the full range of stakeholders throughout the length of the design process.

301 Public Meetings: HDR shall arrange and conduct one public meetings/open house in Phase 1 with an additional meeting anticipated for Phase 2. These meetings will be held at strategic times in the design process with the goal of both soliciting input and ideas from stakeholders as well as keeping them intimately informed of the project details and schedule. HDR will compile the public comments and concerns and provide written recommendations for City staff review regarding possible inclusion or exclusion of such requests.

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302 City Council Workshop: We will attend a project review meeting with City staff and present to City Council during a workshop session or council meeting. We also anticipate attending council meeting to provide project updates. Expected topics of discussion include project design components, traffic control phasing, and potential contract incentives.

303: Conduct Property Owner Meetings: The HDR team will conduct up to twelve (12) additional property owner meetings over a two day period regarding potential construction impacts, temporary easement needs, and specific project issues and components.

304 Quality Control / Administration: QC items for this task are anticipated to include review of public meeting presentation items from HDR public involvement specialist for edits and ideas.

TASK 300 - Meetings

- Public Meeting
- City Council Workshop
- Property Owner Meetings (2 Days)

TASK 300 - Deliverables

- Public Meeting figures, presentations
- Public Meeting Summary
- City Council Workshop Summary
- Property Owner Meeting Report

TASK 400 - Final Design Services (Phase 2)

This task consists of all services necessary to take the project from preliminary design through the Final Design Submittal stage, and includes the following itemized services.

401 – 427 Final Plan Production: The HDR team will address City comments from the 50% plan submittal and finalize Preliminary Design Report. Provide complete plans and specifications for a unit price construction contract utilizing the latest City of Gillette CAD standards.

428 Bid Booklet & Project Specifications: HDR will provide standard City of Gillette bidding documents with applicable special provisions, additional contract stipulations for phasing and scheduling, and special specification sections as necessary

429 Prepare an updated 90% “Engineer’s Estimate”: Estimate of probable construction cost for the project using standard city bid items and estimated unit prices shall be provided.

430 Prepare 90% Plan Submittal: Provide complete set of construction plans for a unit price contract utilizing the latest City of Gillette CAD standards.

431 Address City Review Comments: HDR shall address 90% submittal City review comments as necessary and complete final project documents. Resolution to comments shall either be incorporated with appropriate edits or a response will be prepared and discussed with the City project manager. The Final Design Services submittal will be made to the City when HDR believes the plans, specifications, contract documents, and opinion of probable construction costs are 100% complete.

432 Contractor Prequalification Services: HDR will assist City staff as necessary to develop and execute a contractor prequalification process including provide prequalification documents for Contractor solicitation, reviewing submittals and contributing to recommendations.

433 Material Procurement Services: HDR will provide standard City of Gillette bidding documents with applicable special provisions and special specification sections as necessary for a procurement bidding package and bidding services for the Reinforced Box Culvert on the project.

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434 Quality Control / Administration: QC items for this task will include a detailed review of the plan documents for adherence to CAD requirements along with plan note and quantity checks prior to submittals for City reviews.

435 Additional Phase 1 Services: These items and associated efforts are to account for additional project details that were encountered during Phase 1 including additional time needed to obtain Right of Way information, additional analysis and sections of the building Structural Report, and extended efforts to complete the drainage analysis and design.

Establishing the Right of Way for 1st Street and the boundaries of the parcels owned by the City of Gillette along the north side of 1st Street, required additional work from what was estimated at the beginning of the project. In addition to this additional Right of Way for 1st Street, Gillette Ave extended past the north side of 1st Street. The original townsite plat for Gillette did not dedicate any Right of Way in this area. Since the City was unable to locate any documents providing ownership, HDR staff performed the research necessary to locate these documents and establish the boundaries of 2 city parcels on the north side of 1st Street. Additional hours of survey crew time were also required to initially locate the storm manhole at the Northeast corner of 1st street and Gillette Ave. This manhole was buried under a layer of asphalt and could not be located or opened for invert measure downs during the original topographic survey.

In response to the City of Gillette July 19 Memorandum with comments and additional information requested in the Draft Structural Report, additional structural engineering efforts were expended and are estimated to take place in the Final Design Phase. These tasks include adding additional tables and ranking information in the report and developing backfill recommendations with the assistance of a geotechnical engineer. Additional structure measurements and monitoring are expected to take place in the Construction phase of the project.

Due to the combination of large drainage basins and flows converging within the project limits, limited information being available to begin the modeling, and extended efforts needed to locate and verify the existing storm sewer elements, additional efforts were expended by HDR to complete the preliminary drainage analysis and storm sewer design.

TASK 400 – Meetings

- 90% Plan Review Comment Meeting

TASK 400 – Deliverables

- 90% Bid Booklet & Specifications
- 90% Plan Submittal
- 90% Cost Estimate

TASK 500 - Landscape Architectural Final Design Services (Phase 2)

This task consists of all services necessary to take the project from preliminary design through the Final Design Submittal stage, and includes the following itemized services.

513 Geometric Bump-Out Design and Convertible Streets: Pedestrian nodes or “Bump Outs” will be refined from the review of City of Gillette and via collaboration with Design Team. Traffic Barriers will be selected and detailed in collaboration with Design Team and End User (i.e. Parks Department) who will utilize and upkeep them and well as evaluated for conflicts. Traffic will be modeled for use by design vehicles and adjustments made in final details.

514 Pedestrian Area Design and Details: Sidewalks, Plazas, and other non-Vehicular Areas will be refined and detailed in accordance with City of Gillette typical standards as well as the Preliminary Designs. ADA criteria will be utilized in all feasible locations and we will integrate street design, infrastructure, lighting, signage, and the existing built environment into Final Design Documents.

515 Landscape Design and Details: Areas planned for landscape enhancement will be prepared per Landscape Architectural Standards and aligned with street design nomenclature (Station and Offset, for example) as well as per City of Gillette Standards and Specifications as by Parks Department.

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516 Irrigation Design and Details: Areas planned for landscape enhancement will be supported by permanent irrigation systems prepared per Landscape Architectural Standards and aligned with City of Gillette Standards and Specifications as by Parks Department. We will incorporate requirements for winterization and connectivity as part of this effort.

517 Illustrations and Renderings of Final Plans: We will assist the Design Team in this phase by creating rendered illustrations, plans, and perspectives of final work for use in presentations, press releases, or for relevant meetings such as Open Houses, City Council, Parks Board, or other needed.

518 Representation: We will assist with representation specific to Landscape Architectural Tasks as needed at Progress Meetings, Parks Board meetings, Parks Department interface, Public Presentations, City Council Meetings, or other required milestones.

519 Contract Documents: We will assist with preparation of an updated 90% “Engineer’s Estimate” of probable construction cost for the project using bid items and estimated unit prices, a 90% Plan Submittal set of construction plans for a unit price contract utilizing the latest City of Gillette CAD standards, and Bid Booklet & Project Specifications per City of Gillette bidding documents with applicable special provisions, additional contract stipulations for phasing and scheduling, and special specification sections (Landscape for Example) as necessary.

520 Quality Control / Administration: QC items for this task will include a detailed review of the plan documents for adherence to CAD requirements along with plan note and quantity checks prior to final submittal for City Use.

521 Address City Review Comments: We shall address 90% submittal City review comments as necessary and complete final project documents. Resolution to comments shall either be incorporated with appropriate edits or a response will be prepared and discussed with the City project manager. The Final Design Services submittal will be made to the City when the consultant believes the plans, specifications, contract documents, and opinion of probable construction costs are 100% complete.

522 Prepare Final “Engineer’s Estimate”: Estimate of probable construction cost will be finalized to support Prime Consultant for the project using bid items and expected unit prices for the quantities estimated for landscape and pedestrian facilities.

Landscape Architectural Bidding Services

This task consists of all services necessary to support the Design Team and City Project Manager during bidding.

523 Bidding Assistance: We will support Design Team via public bidding process with plan distribution, Prebid Meeting, Responding to RFI and or preparation of Addenda, and Bid Review/ Recommendations.

TASK 500 – Meetings

- 90% Plan Review Comment Meeting

TASK 500 – Deliverables

- 90% Bid Booklet & Specifications
- 90% Plan Submittal
- 90% Cost Estimate

TASK 600 – Bidding Services (Phase 2)

This task consists of all services necessary for the administration and coordination with City Purchasing of the Bidding Services of the project, and is estimated to include the following itemized services.

601 Plan Distribution: Submit sufficient information to the City of Gillette project manager for the preparation of advertising, printing plans and specifications for distribution to bidders and plan houses, and notification of contractors.

602 Arrange and Conduct a Pre-Bid Meeting: Record attendance and minutes. Distribute copies to all attendees.

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- 603 Respond to Contractor RFI's:** Issue addenda to the bid documents as required.
- 604 Prepare a Bid Tabulation:** HDR shall attend the bid opening and evaluate the bids inconsistencies, miscalculations, unbalanced bids, and reasonableness of unit costs to provide a recommendation of award.
- 605 Quality Control and Administration:**

TASK 600 – Meetings

- Pre-Bid Meeting
- Bid Opening

TASK 600 – Deliverables

- Pre-Bid Meeting Minutes
- Bid Addenda (as needed)
- Bid Tabulation & Recommendation

TASK 700 – Construction Administration Services (Phase 3)

Phase 3 services for this project are expected to consist of all services necessary for the administration of the Basic Construction Services of the project construction stage, and for the inspection on Expanded Construction Services of the project construction stage. HDR's scope and associated man-hours is expected to be discussed and negotiated with City staff at the conclusion of Phase 2 final design and bidding.

PROJECT SCHEDULE

The proposed schedule for design services is based on the information provided in the Request for Proposals and discussed during Phase 1. This schedule is based on a target of a spring 2014 construction start for the project. HDR is prepared to meet the project deadlines as noted below and is always open to discussion on schedule adjustments to meet the City of Gillette's goals for the project. The schedule allows 2 week for City review of 90% submittals.

MILESTONE	DATE
PHASE 2 – FINAL DESIGN AND BIDDING	
Notice to Proceed with Final Design	September 4 th
Final Design	September – December
Public Open House #2	November
90% Plan Review	December 11 th
Final Plans & Specifications	January 16 th , 2014
Project Bid Opening Date	February 2014
PHASE 3 – CONSTRUCTION ADMINISTRATION	
Project Construction	Spring/Summer 2014

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 PHASE 2 FINAL DESIGN AND BIDDING SERVICES
 Project 13C001
 PROPOSAL MANHOUR ESTIMATE
 HDR Engineering, Inc.
 8/22/13

Description	Project Principal Dave Myers	QA/QC James Umh	Project Manager Jody Page	Roadway Engineer Mike Oakley	Roadway Engineer Todd Matson	Utility Engineer Heath Turbelle	Utility Engineer Justin Stora	Sr Structural Ron Marano	Structural Ryan Parrott	Traffic Engineer Jason Kromald	Lighting Engineer Shawn Howell	Land Surveyor Brad Danielson	Survey Tech Levi Williams	Two Man Survey	Cadd Drafting Rick Calvert	Cadd Drafting Julie Oakley	Public Involvement Heath Turbelle	Admin Becky Morrison	Admin Tanya Luthwick	TOTAL HOURS	TOTAL LABOR	
Position Description	Men	Prin	Eng V	Eng V	Eng IV	Eng II	Eng IV	Eng II	Eng V	Eng IV	Eng IV	Eng III	Surv Men	Surv Tech II	2 Man Surv	Cadd Man	Cadd Tech II	Eng III	Accountant	Admin		
2013 City of Gillette Hourly Billing Rate	\$205.00	\$180.00	\$180.00	\$150.00	\$145.00	\$105.00	\$145.00	\$105.00	\$180.00	\$145.00	\$145.00	\$125.00	\$125.00	\$97.00	\$155.00	\$125.00	\$97.00	\$125.00	\$97.00	\$65.00		
TASK 100 - PROJECT MANAGEMENT (Included in Phase 1 Contract)																						
TASK 300 - PUBLIC INVOLVEMENT (Included in Phase 1 Contract)																						
TASK 400 - FINAL DESIGN																						
401 Title Sheet				4				2	8		2	8									0	\$0
402 General Notes / Estimate of Quantities																	4				24	\$3,060
403 Typical Sections				1	2	4															11	\$1,210
404 Control Data Sheet																					6	\$662
405 Removals / Grading Plan				2	8	24								4							50	\$5,250
406 Plan and Profile Sheets				4	8	16											24				52	\$5,568
407 Grading / Earthwork Quantities				2	4	16															22	\$2,250
408 C&G Layout Sheets				2	8	30															54	\$5,854
409 Grading Details					2	4											12				12	\$1,232
410 Phasing Plan / Sequence of Operations				16	4	8											8				28	\$3,960
411 Traffic Control Sheets				4													16				20	\$2,020
412 Traffic Control Details																	6				6	\$622
413 Erosion Control Sheets				8	2	4											8				20	\$2,360
414 Erosion Control Details																					4	\$345
415 Surfacing / Pavement Sheets				4	4	8											12				28	\$3,104
416 Surfacing Details																					4	\$345
417 City Utility Sheets				12			44	60									42				178	\$20,314
418 Traffic Signal Sheets				1			4	16									8				28	\$2,856
419 Traffic Signal Details											16	48					24				89	\$10,369
420 Electrical / Lighting Sheets				4						8	16						4				28	\$3,039
421 Electrical / Lighting Details										4	80						32				120	\$14,004
422 Pavement Marking Sheets				2	4	8						16					4				20	\$2,240
423 Pavement Marking Details																					32	\$3,306
424 Permanent Signing Sheets				8	4	8											4				4	\$349
425 Permanent Signing Details																	8				28	\$3,396
426 Cross Sections				2	4	8											24				4	\$345
427 Pipe Sections				2	8	16											32				38	\$3,928
428 Bid Booklet / Project Specifications				8	2	4		4													14	\$2,150
429 50% Engineer's Estimate				2	2	4	2	4													14	\$1,740
430 30% Plan Submittal				22	8	16	8	16									22	44			130	\$15,800
431 Address City Review Comments				8	4	4	4	4									8	16			48	\$5,880
432 Contractor Prequalification Services		1	3	16	12	40															80	\$9,760
433 Material Procurement Services		1	3	10	12	36															80	\$9,760
434 QA/QC Admin		2	16																		18	\$2,270
435 Additional Phase 1 Services																					134	\$16,106
Task Series Hours	4	22	164	108	288	76	152	16	44	30	168	16	12	0	30	378	0	0	16	1482	\$173,580.00	
TASK 500 - LANDSCAPE ARCHITECTURAL DESIGN SERVICES (Additional to Phase 1 Contract)																						
501 Streetscape Planning / Design Coordination				8		4					8						12				32	\$3,744
502 QA/QC Admin																					4	\$380
Task Series Hours	0	0	8	0	4	0	0	0	0	0	8	0	0	0	0	0	12	0	4	0	36	\$4,120.00
TASK 600 - BIDDING ASSISTANCE																						
601 Assist City on Plan Distribution						2															14	\$1,670
602 Conduct Prebid Meeting				8	4	4															16	\$2,440
603 Respond to Contractor RFIs				8	4	4	2	4													22	\$2,000
604 Review Bids and Make Recommendation				2	2	2															6	\$600
605 QA/QC Admin		2	2																		8	\$1,116
Task Series Hours	2	0	20	10	4	10	4	0	0	0	0	0	0	0	0	0	0	0	4	12	66	\$8,516.00
TOTAL HOURS	6	22	182	118	292	86	156	16	44	30	176	16	12	0	30	390	0	0	20	1548	\$186,230.00	
Direct Labor	\$300	\$1,148	\$9,397	\$5,358	\$8,150	\$2,970	\$4,376	\$924	\$2,050	\$1,426	\$6,348	\$616	\$368	\$0	\$1,222	\$9,727	\$0	\$914	\$539		\$55,227.54	

DIRECT EXPENSES:	
Travel/Per Diem	\$ 3,620
Printing/Copying/etc	\$ 1,200
Telephone	\$ 200
Survey/GPS Equipment	\$ 200
Technology Charge	\$ 5,961
TOTAL DIRECT COSTS	\$ 11,081

ENGINEERING COSTS:	
Total Hours	1,864
Total Labor	\$ 186,230
Direct Costs	\$ 11,081
Subtotal HDR Estimated Costs	\$ 197,311
Gillette - Geotech Subcontractor	\$ 1,875
FourFront - Landscape Architect Subcontractor	\$ 44,660
Total Estimated Project Costs	\$ 243,846