CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 2

DATE: **August 26, 2020**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **2020 Sewer Line Replacement Project**
IFB-4821-20-DH

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. Does the prime contractor awarded the 2020 Sewer Project need to be prequalified as a prime contractor with CDOT? Or is it enough to be registered to work in CDOT right of way?

   A. *Since the Contractor will be working for the City of Grand Junction, the Contractor completing the work must be registered with CDOT to work within CDOT right-of-way. Prequalification as a CDOT prime contractor is not required.*

2. Q. IFB document states that the Owner is exempt of State and Federal taxes. Does the contractor need to include the City's and County's taxes in the bid since the work is within these limits?

   A. The Contractor completing this sewer Project will be exempt from City and County taxes. The Project Engineer and/or the City Buyer can provide a tax-exempt certificate if necessary.

3. Q. Can you provide the locations of the existing manholes both upstream and downstream for existing sewers which need bypass pumping?

   A. The City GIS Utility map provides the locations of upstream and downstream sewer manholes. The City GIS map is available at www.gjcity.org. It's the Contractor's responsibility to determine the best means and methods for bypassing the wastewater flows.

4. Q. Can you provide flows for the existing sewers?

A. *The City doesn't have flow records or has recently had flow measuring equipment installed in these sewer lines. Determination of sewer flows will ultimately be the Contractor's responsibility or their bypass pumping subcontractor for determining what the flows are and what size pumps will be needed. The City's Project Engineer did a best guess estimate on the flows in the sewer lines along 1st Street only. These flow estimates were taken at about 9:00 am on a weekday. The sewer flows in the existing 27-inch sewer pipe near the Pufferbelly Restaurant (Manhole station 0+75.57) were estimated at about 1 cfs (450 gpm). The sewer flows in the existing 24-inch sewer pipe near Two River's Convention Center (Manhole station 4+85.80) has the highest flows. The flow in the 24-inch pipe is estimated at about 3 cfs (1,350 gpm). The sewer flows in the existing 8-inch laterals coming from the east of 1st Street had minimal flows. The flows in these existing 8-inch pipes are probably around 0.25 cfs (115 gpm).*

5. Q. Bid items 2, 3, 4, 6, and 7 calls for the Backfill of trench with Class 3 imported backfill material. Bid item 10 is for 1,400 tons of imported trench backfill Class 3. Please confirm that bid items 2, 3, 4, 6, and 7 does not require to provide Class 3 backfill material as this material is covered on bid item 10.

   A. *The following Bid Items: 2, 3, 4, 6, and 7 include trench backfill with Class 3 Imported Trench Backfill Material. The Bidder's shall include the cost for backfilling with Class 3 Imported Trench Backfill Material in their Lineal Foot unit price for these sewer pipe pay items.*

   Bid Item 10 is for Imported Trench Backfill Material needed for backfill around the new sewer manholes in 1st Street, as well as, any Trench Backfill Material needed for backfill at the Shadow Lake sewer replacement.

6. Q. Please advise on where we should anticipate the use of Bid Item 22 for the Type B granular stabilization material. Contractors will need this info in order to calculate the haul routes accordingly.

   A. *The City does not have specific locations highlighted in the Construction Plans that will require Type B Granular Stabilization material. The use of Type B Granular Stabilization material is typically decided in the field once the Project Engineer and Contractor see how firm the native soil subgrade is. If the native soil subgrade is soft and there's concerns the Contractor may have a hard time maintaining pipe grade due to the soft subgrade soils, then the City will authorize and pay for the use of Type B Granular Stabilization material. Typically, the City will start with having the Contractor over-excavate and place about 18-inches of Type B material in the trench bottom to firm up the subgrade, so the Contractor has a better working platform for pipe installation.*

7. Q. Can a new line item be added for an alternate to bid item 5 (Pipe Bursting)? This line item would be for CIPP on the existing 10" line, which only appears to be taking in an 8" like coming from the east. This would allow a contractor to select either one of the methods, which would result on savings and a safer project.

   A. *No, at this point the City is going to stay with pipe-bursting this section of sewer pipe.*

8. Q. Drawing Sheet 7 has a verification and hook up note at Sta 16+88. With this being an unknown, can a bid item be added for this?

   A. If this sewer service is discovered to be active, the City will issue a Work Change Request for the Contractor to provide a price to hook up this sewer service. The City strongly believes the sewer service for this 104 White Ave. property connects into the existing sewer manhole in the alley at Station 17+43, however, verification is needed.

9. Q. Can the MH inverts be pre-cast or do they need to be cast in place after the MH is installed?

   A. The new manhole inverts need to be pre-cast inverts from the factory.

10. Q. Bid Item 25 for abandoning MH calls to fill it with flow-fill material. Is this flow-fill material the one covered on bid item 34? Same question for bid items at Lakeside sewer.

    A. Bid Item #25 has been changed to a different line item description. Please see updated Bid Schedule attached to this Addendum. To answer this question though, the wording of Bid Item #84 has been updated for the Lakeside sewer so it's more clear that the flow-fill material for abandoning the manhole is included in Pay Item #84..

    Bid Item #34, Structure Backfill (Flow-Fill), is typically used for special backfilling situations where flow-fill will work the best for backfilling the trench or around a structure.

11. Q. Can the MH base itself be cast in place?

    A. For this project, all manhole bases shall be pre-cast units.

12. Q. Does the proposed Castagra coating need to be installed on the flow line or just in the areas where the sewer flow is not present?

    A. The Manhole Protective Coating shall be applied to the manhole flow-line areas, benches and interior walls of the new 1st Street sewer manholes.

13. Q. On the Lakeside Sewer it states to protect retaining wall. Please let the contractor know how deep this wall is from existing ground and what type of footer does the wall have in order to plan accordingly for shoring requirements?

    A. This concrete retaining wall is on a spread footer foundation. The City has no construction plans for this retaining wall. The City did dig and expose the outside edge of the spread footer and took survey shots. The top of the spread footer is about 2-3 below the existing ground surface and the spread footer extends about 1-2 feet out from the vertical face of the retaining wall.

14. Q. Sheet 11 (Lakeside) on the drawings call for note 807 on the top view. However, it is not showing on the actual notes. Please provide the description of Note 807.

    A. Construction note #807 is for Protecting the existing sign. See updated Sheet 11 in the updated construction plans attached to this Addendum #2.

15. Q. Sheet 10 & 11 (Lakeside) shows Note 120 to repair sprinkler irrigation system. Please provide layout of what is out there or provide more info on what should be expected to be encountered?

    A. *These are private irrigation systems and the City has no as-built drawings and/or records that show the alignment of the irrigation pipes and sprinkler head locations. The City expects that the Contractor will encounter either PVC or HDPE sprinkler pipe at a depth of 8-inches to 24-inches. The size of the irrigation pipe is unknown and could vary in size from ¾" dia. pipe up to 2" dia. pipe. From the City's site survey, the existing sprinkler head locations are shown where the City Surveyor saw them or found them. The City doesn't guarantee that all sprinkler heads were located during the site survey. The City Inspector and Contractor will need to work together on locating all sprinkler heads and sprinkler pipes that get removed and/or damaged so they can be fixed and/or replaced with equal or better-quality products that are existing.*

16. Q. Sheet 11 (Lakeside) Note 217 calls for a 24" CMP Storm Drain. Is this to replace the existing pipe? This pipe goes from the Lake Lenore into the existing canal and it seems to be running at full capacity. Is there a time frame when this flow will be reduced or a way to reduce the flow into this pipe? Will bypass be needed?

    A. *The City anticipates that when irrigation water is turned off in the Grand Junction area the flow through this culvert will be dry. Irrigation water is typically turned off at the end of October. Since the Lakeside sewer replacement is to start after the completion of 1st Street and Shadow Lake sewer the City anticipates this culvert will be dry. If there is still a small amount of flow going through the culvert later in the year, the Contractor can potentially sandbag upstream of the culvert to stop flows from getting to the culvert.*

17. Q. Can 10" DR 18 pipe be used as an alternative to 10" SDR-26 for pipe bursting?

    A. *Certa-Flo PVC gravity sewer pipe isn't available in SDR-18. The City found a discrepancy between the construction plans and the bid schedule. Certa-Flo PVC SDR-21 ASTM D-2241 gravity sewer pipe shall be used for the pipe-bursting. The updated construction plans attached correct construction note #34 to show SDR-21 pipe.*

18. Q. Note 312 on the drawings call for 30 mil Minimum thickness on the MH coating. Bid item 21 calls for 40 mils thickness. Which one is correct?

    A. *The correct dry film thickness for the Manhole Protective Coating line item is 40 mils minimum. The updated construction plans attached correct construction note #312 to show 40 mils thickness.*

19. Q. Can we do milling/planning for line item #28 and item #86 for full depth asphalt removal? If milling is allowed, can we dump those millings from full depth asphalt removal at the City shops?

    A. *Yes, the Contractor could complete full-depth asphalt milling if they chose, and yes the City would allow the Contractor to dispose of the asphalt millings at the City's stockpile for asphalt millings. The City's asphalt millings stockpile is now located north of the City Cemetery in Orchard Mesa. The address for the cemetery is 2620 Legacy Way.*

20. Q. Sheet 10, at Sta: 2+42.86, the plan view calls for 323, 364 in the North East direction. However, we could not find an existing pipe flowing through the NE direction. Can you please clarify as to what is to be required at that location?

    A. *There is an existing 8-inch sewer pipe coming from the NE that will need to be extended to the new sewer manhole at Station 2+99.80. The City verified this pipe on 8/25/2020.*

21. Q. Just got this from the manufacturer in regards to the Certaflow pipe: Currently have no 20-ft sticks in stock. Will not run more until they receive enough PO's, so lead time is TBD. 10-ft sticks are currently in stock. Will you accept 10-ft sticks for this project? Bid schedule states 20-ft sticks.

    A. *The City will accept 10-ft long sticks of Certa-Flo SDR-21 PVC pipe if 20-ft sticks of pipe are not available when the time comes for ordering the pipe.*

22. Q. Page 4 – Connect to existing 27" VCP (x2), what kind of coupling is wanted since the MAX adapter coupling is not made in that size…regular Fernco, RC Fernco? Also, is there any way to verify the O.D. of existing VCP, to ensure proper size range of coupling is ordered?

    A. *Due to the outside diameter differences between vitrified clay pipe and PVC sewer pipe, the City recommends using regular Fernco rubber couplings. The Contractor will be required to pour a concrete collar around the Fernco coupling to provide pipe support prior to backfilling pipes. There's no way for the City to determine the exact O.D. of the existing 27" VCP sewer pipe. From the EBAA Iron Pipe O.D. Chart, which is available on the internet, the O.D. of 27" clay pipe can be either 31" or 32.13".*

23. Q. Page 5 – Connect to existing 24" CIPP (x2), what kind of coupling is wanted since the MAX adapter coupling is not made in that size…regular Fernco, RC? Also, is there any way to verify the O.D. of the existing CIPP to ensure proper size range of coupling is ordered?

    A. *Due to the outside diameter differences between vitrified clay pipe and PVC sewer pipe, the City recommends using regular Fernco rubber couplings. The Contractor will be required to pour a concrete collar around the Fernco coupling to provide pipe support prior to backfilling pipes. There's no way for the City to determine the exact O.D. of the existing 24" VCP sewer pipe that has an interior CIPP lining. From the EBAA Iron Pipe O.D. Chart, which is available on the internet, the O.D. of 24" clay pipe can be either 27.5" or 29.84".*

24. Q. On all of the other connections to existing pipes – are the Max adapters preferred or required?

    A. *Max adapter couplings or an approved equal coupling can be used for connections into existing sewer pipe.*

25. An updated Bid Schedule is attached to this Addendum #2. A couple concrete pay item units were changed to Square Yard units for consistency with other concrete line items. A pay item for abandoning the existing sewer pipes in 1st Street using Cellular Grout or an approved equal flowable grout has been added.

26. Addendum #2 includes updated construction plans. Updates include correcting typos in the construction notes and including Cellular Grout in 1st Street for abandoning pipes, and additional manhole removals on 1st Street instead of abandoning manholes.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

Bid Schedule: 2020 Sewer Line Replacement Project
Addendum #2

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
1	108.2	4" Sewer Pipe Service (SDR-35 PVC) (Includes cost of connection to the existing sewer service line) (Shadow Lake)	30.	Lin. Ft.	$ _____	$ _____
2	108.2	6" Gravity Sewer Pipe (SDR-35 PVC) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	117.	Lin. Ft.	$ _____	$ _____
3	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	400.	Lin. Ft.	$ _____	$ _____
4	108.2	10" Gravity Sewer Pipe (SDR-35 PVC) (1st Street Only) (Includes Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	910.	Lin. Ft.	$ _____	$ _____
5	108.2	10" Gravity Sewer Pipe (Certa-Flo Pipe) (Certa-Flo PVC Gravity Sewer Pipe) (SDR-21) (ASTM D-2241) (20-ft Joints) (Joint Type: Certa-Lok Restrained Joint Integral Bell) (Includes all necessary Pipe-Bursting Installation Equipment) (1st Street Pipe-Bursting)	245.	Lin. Ft.	$ _____	$ _____
6	108.2	24" Gravity Sewer Pipe (SDR-35 PVC) (ASTM F-679, PS 46) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	10.	Lin. Ft.	$ _____	$ _____
7	108.2	27" Gravity Sewer Pipe (SDR-35 PVC) (ASTM F-679, PS 46) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	12.	Lin. Ft.	$ _____	$ _____

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8	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (Shadow Lake) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Native Materials meeting 103.16 Earth Backfill Materials)	274.	Lin. Ft.	$ _____	$ _____
9	108.2	10" Gravity Sewer Pipe (SDR-35 PVC) (Shadow Lake) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Native Materials meeting 103.16 Earth Backfill Materials)	216.	Lin. Ft.	$ _____	$ _____
10	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed material unit weight = 133 lbs/ft^3)	1,400.	Ton	$ _____	$ _____
11	108.3	8" Cap (PVC) (Gasketed) (Includes 4-ft long 4"x4" wood post per City Std. Detail SS-06)	1.	Each	$ _____	$ _____
12	108.3	10" x 4" Sewer Service Tap (Full Body Wye w/ Street 45-deg.) (Includes full body wye, and all fittings required to align and connect into the existing sewer service pipe at the locations shown on the plans) (See City Std. Detail SS-06)	1.	Each	$ _____	$ _____
13	108.3	10" 45-degree Elbow (GxG) (1st Street Drop Manhole)	1.	Each	$ _____	$ _____
14	108.3	10" x 10" Wye Fitting (Full Body Wye) (GxGxG) (1st Street Drop Manhole)	1.	Each	$ _____	$ _____
15	108.5	Sanitary Sewer Basic Manhole (48" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	11.	Each	$ _____	$ _____
16	108.5	Sanitary Sewer Basic Manhole (60" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	1.	Each	$ _____	$ _____
17	108.5	Sanitary Sewer Basic Drop Manhole (60" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	1.	Each	$ _____	$ _____
18	108.5	Manhole Barrel Section (D>5') (48" I.D.)	48.	Vert. Ft.	$ _____	$ _____

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Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
19	108.5	Manhole Barrel Section (D>5') (60" I.D.)	21.	Vert. Ft.	$ _____	$ _____
20	108.5	Connect to Existing Manhole (6" pipe) (Manhole D2-261-259 in alley north of White Ave.)	1.	Each	$ _____	$ _____
21	108.5	Manhole Protective Coating (Castagra Ecodur 201 Coating or Approved Equal) (Coating only applies to 1st Street Sewer Manholes) (40 mils Thickness, min.)	107.	Vert. Ft.	$ _____	$ _____
22	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft^3)	350.	Ton	$ _____	$ _____
23	201	Clearing and Grubbing (Shadow Lake Sewer)	1.	Lump Sum	$ _____	$ _____
24	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	25.	Each	$ _____	$ _____
25	202	Abandon Existing Sewer Pipe (Use Cellular Grout or and approved equal flowable grout for abandoning the old sewer lines in 1st Street) (500 psi @ 28 Day Compressive Strength)	1,300.	Lin. Ft.	$ _____	$ _____
26	202	Abandon Existing Water Valve Box (Close valve, remove top half of existing valve box, fill cavity to finished subgrade with flow-fill material) (1st Street)	1.	Each	$ _____	$ _____
27	202	Removal of Existing Pipe (Size & type as shown on plans)	993.	Lin. Ft.	$ _____	$ _____
28	202	Removal of Asphalt Mat (Full Depth)	1,100.	Sq. Yd.	$ _____	$ _____
29	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	670.	Sq. Yd.	$ _____	$ _____
30	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, landscape borders, and concrete walls)	52.	Sq. Yd.	$ _____	$ _____
31	202	Removal of Sod	42.	Sq. Ft.	$ _____	$ _____

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Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
32	202	Removal of Manhole (Price to include plugging existing abandoned pipes and removal and disposal of concrete sections)	13.	Each	$ _____	$ _____
33	203	Disposal of Radioactive Material (Dispose at City Shops, 333 West Ave.) (If necessary) (Potenital for Mill Tailings in 1st Street)	500.	Cu. Yd.	$ _____	$ _____
34	206	Structure Backfill (Flow-Fill)	100.	Cu. Yd.	$ _____	$ _____
35	208	Storm Drain Inlet Protection (Silt-Sack Style or Approved Equal) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	6.	Each	$ _____	$ _____
36	208	Temporary Earth Berm (Shadow Lake Sewer)	443.	Lin. Ft.	$ _____	$ _____
37	208	Concrete Washout Facility	1.	Lump Sum	$ _____	$ _____
38	210	Reset Landscape Ground Cover (Match in Kind) (Contractor shall remove ground cover and underlying weed barrier as needed and stockpile materials. Contractor shall reset these materials and provide additional materials as needed)	32.	Sq. Ft.	$ _____	$ _____
39	210	Reset/Repair Sprinkler System (Complete in Place) (1st Street)	1.	Lump Sum	$ _____	$ _____
40	210	Reset Irrigation Pipe (Shadow Lake) (PVC Irrigation Pipe) (The City believes 4-inch dia. irrigation pipe was laid above or near the existing sewer line requiring relocation between stations 4+00 to 4+75) (Includes pipe, fittings, equipment, materials, and labor to relocate irrigation pipe)	1.	Lump Sum	$ _____	$ _____
41	212	Re-Sod Area as Shown (1st Street) (Includes 6" Thick Imported Topsoil placed prior to sod placement)	42.	Sq. Ft.	$ _____	$ _____
42	304	Aggregate Base Course (Class 6) (4" thick) (Shadow Lake Surface Treatment)	640.	Sq. Yd.	$ _____	$ _____
43	304	Aggregate Base Course (Class 6) (8" thick)	45.	Sq. Yd.	$ _____	$ _____
44	304	Aggregate Base Course (Class 6) (15" thick)	715.	Sq. Yd.	$ _____	$ _____

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Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
45	401	Cold Mix Asphalt (Temporary Patching) (3" Thick) (To be used on 1st Street as deemed necessary by Project Engineer)	250.	Sq. Yd.	$ _____	$ _____
46	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) **(T-Top)**	1,350.	Sq. Yd.	$ _____	$ _____
47	401	Hot Bituminous Pavement (Patching) (4 " Thick) (Grading SX, PG 64-22) (GYR.=75) (Two 2" Lifts)	1,100.	Sq. Yd.	$ _____	$ _____
48	407	Emulsified Asphalt (Tack Coat)	355.	Gallon	$ _____	$ _____
49	608	Concrete Drainage Pan (3' Wide) (Match in Kind)	13.	Sq. Yd.	$ _____	$ _____
50	608	Monolithic Vertical Curb, Gutter, and Sidewalk (7.5-ft wide)	8.	Sq. Yd.	$ _____	$ _____
51	608	Monolithic Vertical Curb, Gutter, and Sidewalk (8-ft wide)	9.	Sq. Yd.	$ _____	$ _____
52	608	Concrete Driveway Section and Gutter (8" Thick) (CDOT Class D, 4500 psi Mix at 28-days)	22.	Sq. Yd.	$ _____	$ _____
53	608	Cap Top Half of Sewer Pipe in Concrete per City Std. Detail GU-04 (20' long) (If necessary)	1.	Each	$ _____	$ _____
54	614	Concrete Barrier (Temporary) (Sewer Trench Protection along 1st Street) (Contractor shall provide and move barricades with the installation of the sewer line)	200.	Lin. Ft.	$ _____	$ _____
55	620	Portable Sanitary Facility	2.	Each	$ _____	$ _____
56	625	Construction Surveying (Includes As-Built Drawings) (1st Street & Shadow Lake Only)	1.	Lump Sum	$ _____	$ _____
57	626	Mobilization (1st Street & Shadow Lake Only)	1.	Lump Sum	$ _____	$ _____
58	627	Pavement Marking Paint (Water Based) (Single White Line) (Match Existing) (Pufferbelly Restaurant Parking Lot)	125.	Lin. Ft.	$ _____	$ _____

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Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
59	627	Pavement Marking Paint (Water Based) (Dashed White Line Marking) (1st Street) (Match Existing Dashed Lines)	1,260.	Lin. Ft.	$ _____	$ _____
60	627	Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line) (1st Street Intersections)	162.	Sq. Ft.	$ _____	$ _____
61	630	Traffic Control Plan	1.	Lump Sum	$ _____	$ _____
62	630	Traffic Control (Complete in Place)	1.	Lump Sum	$ _____	$ _____
63	630	Flagging	1,500.	Hour	$ _____	$ _____
64	Pump	Bypass Sewage Pumping (As deemed necessary by City or Contractor)	1.	Lump Sum	$ _____	$ _____
65	----	----		----		
66		**Lakeside Sewer Replacement Bid Items:** (Bid Items below pertain only to the Lakeside Sewer Replacement Only)				
67	108.2	4" Sewer Pipe Service (SDR-35 PVC) (Includes cost of connection to the existing sewer service line)	50.	Lin. Ft.	$ _____	$ _____
68	108.2	6" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe and/or manhole) (Use MaxAdaptor Coupling for pipe connection or approved equal)	12.	Lin. Ft.	$ _____	$ _____
69	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe and/or manhole) (Use MaxAdaptor Coupling for pipe connection or approved equal)	610.	Lin. Ft.	$ _____	$ _____
70	108.2	24" Storm Drain Pipe (CMP)	15.	Lin. Ft.	$ _____	$ _____
71	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed material unit weight = 133 lbs/ft^3)	300.	Ton	$ _____	$ _____
72	108.3	8" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	1.	Each	$ _____	$ _____

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73	108.3	8" x 6" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	1.	Each	$ _____	$ _____
74	108.3	6" 45-degree Elbow (GxG) (Lakeside Sewer Drop Manholes)	1.	Each	$ _____	$ _____
75	108.3	6" x 6" Wye Fitting (Full Body Wye) (GxGxG) (Lakeside Sewer Drop Manholes)	1.	Each	$ _____	$ _____
76	108.3	8" 45-degree Elbow (GxG) (Lakeside Sewer Drop Manholes)	2.	Each	$ _____	$ _____
77	108.3	8" x 8" Wye Fitting (Full Body Wye) (GxGxG) (Lakeside Sewer Drop Manholes)	2.	Each	$ _____	$ _____
78	108.3	Install 2-way Sewer Service Cleanout and Ring and Cover (Castings Inc. CO-8030-CI or Approved Equal) (Includes concrete collar in unpaved areas per City Std. Detail SS-07)	2.	Each	$ _____	$ _____
79	108.5	Sanitary Sewer Basic Manhole (48" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	3.	Each	$ _____	$ _____
80	108.5	Sanitary Sewer Basic Drop Manhole (48" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	2.	Each	$ _____	$ _____
81	108.5	Manhole Barrel Section (D>5') (48" I.D.)	9.	Vert. Ft.	$ _____	$ _____
82	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft^3)	150.	Ton	$ _____	$ _____
83	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	6.	Each	$ _____	$ _____
84	202	Abandon Manhole (Includes removal of cone section, ring & cover, and filling remaining barrel sections with flow-fill material)	1.	Each	$ _____	$ _____
85	202	Removal of Existing Pipe (Size & type as shown on plans)	144.	Lin. Ft.	$ _____	$ _____
86	202	Removal of Asphalt Mat (Full Depth)	45.	Sq. Yd.	$ _____	$ _____

Bid Schedule: 2020 Sewer Line Replacement Project
Addendum #2

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
87	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	20.	Sq. Yd.	$ _____	$ _____
88	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, landscape borders, and concrete walls)	117.	Sq. Yd.	$ _____	$ _____
89	202	Removal of Sod	630.	Sq. Ft.	$ _____	$ _____
90	202	Removal of Tree (Size as shown on Plans)	3.	Each	$ _____	$ _____
91	202	Removal of Shrub/Bush	5.	Each	$ _____	$ _____
92	202	Removal of Tree Stump	2.	Each	$ _____	$ _____
93	202	Removal of Manhole (Price to include plugging existing abandoned pipes and removal and disposal of concrete sections)	4.	Each	$ _____	$ _____
94	206	Structure Backfill (Flow-Fill)	15.	Cu. Yd.	$ _____	$ _____
95	208	Storm Drain Inlet Protection (Silt-Sack Style or Approved Equal) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	2.	Each	$ _____	$ _____
96	208	Concrete Washout Facility	1.	Lump Sum	$ _____	$ _____
97	210	Reset/Repair Sprinkler System (Complete in Place) (Lakeside Park Area)	1.	Lump Sum	$ _____	$ _____
98	210	Reset Sign	1.	Each	$ _____	$ _____
99	212	Re-Sod Area as Shown (Includes 6" Thick Imported Topsoil placed prior to sod placement)	630.	Sq. Ft.	$ _____	$ _____
100	304	Aggregate Base Course (Class 6) (4" thick) (Lakeside Surface Treatment)	200.	Sq. Yd.	$ _____	$ _____
101	304	Aggregate Base Course (Class 6) (8" thick) (Basketball Court)	93.	Sq. Yd.	$ _____	$ _____
102	304	Aggregate Base Course (Class 6) (15" thick) (Lakeside Court)	44.	Sq. Yd.	$ _____	$ _____
103	401	Cold Mix Asphalt (Temporary Patching) (3" Thick) (To be used on Lakeside Court)	44.	Sq. Yd.	$ _____	$ _____

Bid Schedule: 2020 Sewer Line Replacement Project
Addendum #2

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
104	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) **(T-Top)**	20.	Sq. Yd.	$ _____	$ _____
105	401	Hot Bituminous Pavement (Patching) (3" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 3" Lift)	44.	Sq. Yd.	$ _____	$ _____
106	407	Emulsified Asphalt (Tack Coat)	6.	Gallon	$ _____	$ _____
107	608	Concrete Pavement (Basketball Court) (6" Thick) (Class D, 4500 psi Mix at 28-days) (Includes #5 tie-bars at 12" O.C. spacing) (Joints shall be sealed with an approved joint sealant) (See City Std. Detail C-32 for concrete patch details)	93.	Sq. Yd.	$ _____	$ _____
108	608	Monolithic Vertical Curb, Gutter, and Sidewalk (6.5-ft wide)	24.	Sq. Yd.	$ _____	$ _____
109	620	Portable Sanitary Facility	1.	Each	$ _____	$ _____
110	625	Construction Surveying (Includes As-Built Drawings) (Lakeside Sewer Only)	1.	Lump Sum	$ _____	$ _____
111	626	Mobilization (Lakeside Sewer Only)	1.	Lump Sum	$ _____	$ _____
112	630	Traffic Control Plan (Lakeside Sewer Only)	1.	Lump Sum	$ _____	$ _____
113	630	Traffic Control (Complete in Place) (Lakeside Sewer Only)	1.	Lump Sum	$ _____	$ _____
114	Pump	Bypass Sewage Pumping (As deemed necessary by City or Contractor)	1.	Lump Sum	$ _____	$ _____
MCR		Minor Contract Revisions	- - -	- - -	- - -	$ 75,000.00

Bid Amount: **$** _____

Bid Amount:

_____ **dollars**

Contractor Name:
Contractor Address:
Contractor Phone #:

PROJECT NO. 902-F001639

CITY OF GRAND JUNCTION
2020 SEWER LINE REPLACEMENT PROJECT
AUGUST 2020

N

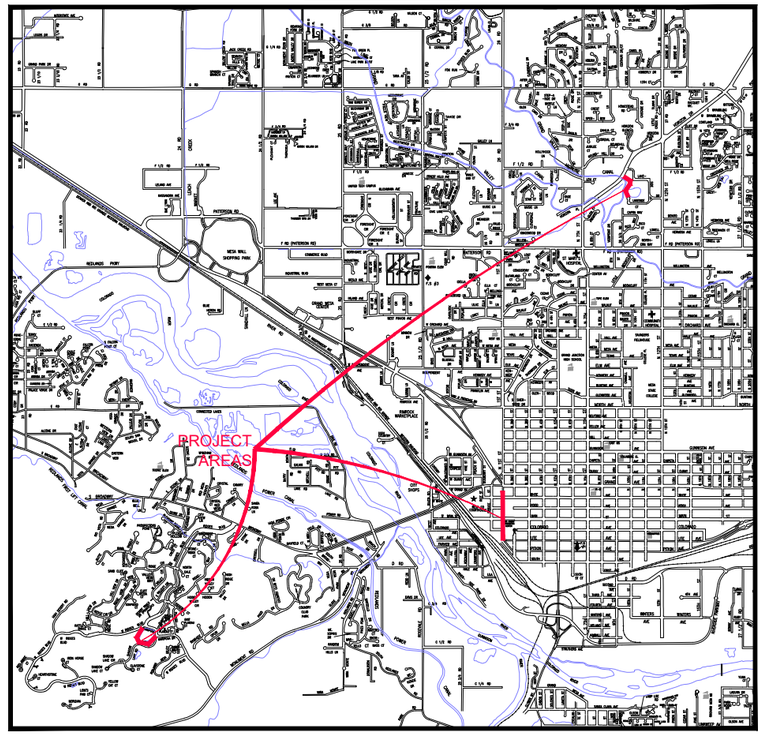
W E

S

0 250 500 1000

(IN FEET)
1 inch = 1000 feet

VICINITY MAP



UTILITIES AND AGENCIES

AGENCY	NAME	POSITION	ROLE	MAILING ADDRESS	STREET ADDRESS	CITY, STATE	VOICE-WK	FAX
CITY OF GRAND JUNCTION	LEE COOPER	PROJECT ENGINEER	SANITARY SEWER	333 WEST AVE BLDG C	333 WEST AVE BLDG C	GRAND JCT., CO 81501	(970) 256-4155	(970) 256-4022
SPECTRUM	JEFF VALDEZ	MANAGER	CABLE TV	2502 FORESIGHT CIRCLE	2502 FORESIGHT CIRCLE	GRAND JCT., CO 81504	(970) 245-8750	(970) 245-6803
CENTURYLINK	CHRIS JOHNSON	ENGINEER	TELEPHONE	2524 BLICHMANN AVE	2524 BLICHMANN AVE	GRAND JCT., CO 81504	(970) 244-4311	(970) 240-4349
UTE WATER	JUSTIN BATES	SUPERVISOR	WATER	PO BOX 460	2190 H ¼ RD	GRAND JCT., CO 81502	(970) 242-7491	(970) 242-9189
XCEL	STEVE PIBURN	UNIT MANAGER	ELECTRIC	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2664	(970) 244-2664
XCEL	SARAH BARRICAU	UNIT MANAGER	GAS	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2656	(970) 244-2656

NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

	DESCRIPTION	DATE
REVISION 1	XXX	201X
REVISION 2	ADDENDUM 2	8/26/2020
REVISION 3	XXX	201X
REVISION 4	XXX	201X

CITY OF Grand Junction COLORADO

Public Works
Engineering Division

811 Know what's **below.** **Call** before you dig.

DRAWING STATUS:
- ○ PROGRESS
- ● FINAL CONSTRUCTION DRAWINGS
- ○ ASBUILT

DESIGNED BY:
LEE COOPER, PROJECT ENGINEER 2020

REVIEWED BY:
LEE COOPER, PROJECT ENGINEER 2020

AUTHORIZED FOR CONSTRUCTION
RANDI KIM, CITY UTILITIES DIRECTOR 2020

ACCEPTED AS CONSTRUCTED
LEE COOPER, PROJECT ENGINEER 2020

CITY OF GRAND JUNCTION 2020 SEWER LINE REPLACEMENT PROJECT AUGUST 2020

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PROJECT NO. 902-F001639

ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASP	ALUMINIZED STEEL PIPE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BF	BUTTERFLY VALVE
BOW	BACK OF WALK
BCR	BEGIN CURB RETURN
BOT	BOTTOM
BSWMP	BETTER STORM WATER MANAGEMENT PRACTICES
CH	CHORD
CAP	CORRUGATED ALUMINUM PIPE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CI	CAST IRON
C,G,& SW	CURB, GUTTER & SIDEWALK
℄	CENTER LINE
CL	CLEAR
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMB	COMBINATION (AS IN STORM SEWER AND SANITARY SEWER)
CONC	CONCRETE
CSM	CITY SURVEY MONUMENT
CSP	CORRUGATED STEEL PIPE
CU	COPPER
DI	DUCTILE IRON
DWY	DRIVEWAY
E	ELECTRIC
ECR	END CURB RETURN
EG	EDGE OF GUTTER
EL	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
FB	FULL BODY
FC	FACE OF CURB
FG	FINISHED GRADE
FL	FLOW LINE
FL	FLANGE
FM	FORCE MAIN
FO	FIBER OPTICS
FS	FAR SIDE
FTG	FOOTING
G	GAS
GB	GRADE BREAK
GM	GAS METER
GV	GATE VALVE
HBP	HOT BITUMINOUS PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
IRR	IRRIGATION
L	LENGTH OF ARC
LC	LONG CHORD
LF	LINEAR FEET
LL	LONG ARC
LS	SHORT ARC
LT	LEFT
MB	MAILBOX
MCSM	MESA COUNTY SURVEY MONUMENT
MH	MANHOLE
MJ	MECHANICAL JOINT
MW	MILL WRAP
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOP	NO ONE PERSON
NRCP	NON-REINFORMATIONRCED CONCRETE PIPE
NS	NEAR SIDE
NTS	NOT TO SCALE
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PIP	PLASTIC IRRIGATION PIPE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PR	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORMATIONRCED CONCRETE PIPE
REQ'D	REQUIRED
RG	RESTRAINED GLANDS
RL	LONG RADIUS
ROW	RIGHT OF WAY
RP	RADIUS POINT
RR	RAIL ROAD
RS	SHORT RADIUS
RT	RIGHT
S	SLOPE
SAN	SANITARY
SC	SHORT CHORD
SCD	STANDARD CONTRACT DOCUMENTS
SCH	SCHEDULE
SF	SILT FENCE
SL	SECTION LINE
SSRB	STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
SSUU	STANDARD SPECIFICATIONS FOR CONSTRUCTION OF UNDERGROUND UTILITIES
STA	STATION
STL	STEEL
STM	STORM
T	TELEPHONE
TAN	LENGTH OF TANGENT
TC	TOP OF CURB
TH	TEST HOLE
TV	TELEVISION
(TYP)	TYPICAL
UU	UNDERGROUND UTILITIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVATURE
VPRC	VERTICAL POINT OF REVERSE CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WATER
△	DELTA ANGLE

LEGEND

BSWMP DRAINAGE BASIN BOUNDARY

BSWMP ANCHORED STRAW BALES — ASB ASB ASB ASB ASB ASB ASB

BSWMP SILT FENCE — SF SF SF SF SF SF SF

BUILDING

CONCRETE CURB AND GUTTER — 2' CURB AND GUTTER

7' C, G, & SW

CONCRETE CURB,GUTTER, & SIDEWALK

CONCRETE DITCH — CONCRETE

CONCRETE SIDEWALK — 4' SW

CULVERT — 18" RCP

EARTH DITCH — EARTH EARTH EARTH

EDGE OF GRAVEL

EDGE OF PAVEMENT

FENCE (BARBED WIRE)

FENCE (CHAIN LINK)

FENCE (IRON)

FENCE (PLASTIC)

FENCE (TEMPORARY CONSTRUCTION)

FENCE (WOOD)

FENCE (WOVEN WIRE)

GUARD RAIL — 9' 9'

HATCHING: INDICATES ASPHALT REMOVAL

HATCHING: INDICATES CONCRETE REMOVAL

HATCHING: INDICATES STAGING AREA — ~STAGING AREA~

LINE (CENTER OF IMPROVEMENTS) — CENTERLINE

LINE (CITY LIMITS) — CITY LIMITS

LINE (CONTROL) — CONTROL LINE

LINE (EASEMENT)

LINE (MONUMENT/SECTION) — MONUMENT/SECTION LINE

LINE (PROPERTY)

LINE (RIGHT OF WAY)

MATCH LINE — MATCH LINE SEE SHEET NO ?

PIPE (IRRIGATION) — 4" IRR

PIPE (SIPHON) — 4" SIPHON

PROPOSED CONCRETE CURB AND GUTTER

PROPOSED CONCRETE CURB,GUTTER,& SIDEWALK

PROPOSED CONCRETE SIDEWALK

PROPOSED "WET" UTILITIES (CONSTRUCTION NOTE WILL INDICATE TYPE, SIZE, AND MATERIAL OF NEW MAIN) — 8" PVC SANITARY SEWER

ALL PROPOSED FEATURES NOT SHOWN IN LEGEND WILL BE SHOWN THE SAME AS THEIR EXISTING COUNTERPART, BUT INDICATED BY BOLDER LINETYPE

RAIL ROAD

RETAINING WALL — 1' RETAINING WALL

STRIPING (CONTINUOUS WHITE) — WHITE

STRIPING (DASHED WHITE) — WHITE

STRIPING (CONTINUOUS YELLOW) — YELLOW

STRIPING (DASHED YELLOW) — YELLOW

TOP OF SLOPE — 4580

CONTOUR LINES (SHOWN BETWEEN TOP & TOE)

TOE OF SLOPE — 4570

TRAFFIC DETECTOR LOOP

UTILITY LINE (ABANDON) (THIS CASE A WATER LINE) — (ABANDON) 6" W

UTILITY LINE (CABLE TV) — TV TV

UTILITY LINE (ELECTRIC) — E E

UTILITY LINE (FIBER OPTIC) — FO QWEST FO

UTILITY LINE (GAS) — G 1 1/4" MW G

UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER) — HVOHP

UTILITY LINE (OVERHEAD POWER) — OHP

UTILITY LINE (OVERHEAD TELEPHONE) — OHT

UTILITY LINE (SANITARY SEWER) — 8" SAN

UTILITY LINE (SANITARY SEWER FORCE MAIN) — 6" FM

UTILITY LINE (SANITARY SEWER SERVICE) — SS SS

UTILITY LINE (STORM SEWER) — 8" STM

UTILITY LINE (STORM SEWER, PERFORATED) — 6" PERF

UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION) — 18" COMB

UTILITY LINE (TELEPHONE) — T T

UTILITY LINE (WATER) — W 6" W

SYMBOLS

BENCH MARK — A

CATCH BASIN

CLEAN OUT — SSCO

CURB STOP

FIRE HYDRANT

GUY WIRE ANCHOR

HEADGATE

IRRIGATION PUMP — P

MAILBOX

MANHOLE (ELECTRIC) — E

MANHOLE (GAS) — G

MANHOLE (SANITARY/STORM)

MANHOLE (TELEPHONE) — T

MANHOLE (TV) — TV

MANHOLE (WATER) — W

METER (GAS) — GM

METER (WATER)

PEDESTAL (TELEPHONE)

PEDESTAL (TV) — TV

PROPERTY PIN

PULL BOX

REDUCER FITTING

SIGN OR POST (SIGN TYPE NOTED) — STOP

SPRINKLER HEAD

STREET LIGHT

SURVEY MONUMENT (CITY) — CSM

SURVEY MONUMENT (TYPE NOTED) — MCSM

TEST HOLE — TH #1

TRAFFIC PAINT MARKING

TRAFFIC SIGNAL POLE AND MAST ARM

UTILITY POLE

VALVE (GAS) — GV

VALVE (IRRIGATION) — IRR

VALVE (WATER)

VEGETATION (HEDGE OR BUSH)

VEGETATION (TREE STUMP)

VEGETATION (TREE) (CALIPER SIZE NOTED) — 8"

WATER HYDRANT

WEIR

YARD LIGHT

BAR SCALE:

0 5 10 20

(IN FEET)
1 inch = 20 feet

NORTH ARROW:

N W E S

DESCRIPTION	DATE
REVISION △	
REVISION △ ADDENDUM 2	8/26/2020
REVISION △	
REVISION △	

DRAWN BY JCS DATE 4-02
DESIGNED BY ____ DATE ____
CHECKED BY ____ DATE ____
APPROVED BY ____ DATE ____

SCALES: PLAN & PROFILE

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

CITY OF GRAND JUNCTION
STANDARD ABBREVIATIONS, LEGEND, AND SYMBOLS

2

N:\Landproj\2020 SEWER LINE REPLACEMENT\60CAD\00DESIGN\Shadow_Lake_sewer_12-19-19.dwg, 8/26/2020 12:34:52 PM, AutoCAD PDF (General Documentation).pc3

Bid Schedule: 2020 Sewer Line Replacement Project

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
1	108.2	4" Sewer Pipe Service (SDR-35 PVC) (Includes cost of connection to the existing sewer service line) (Shadow Lake)	30.	Lin. Ft.	$	$
2	108.2	6" Gravity Sewer Pipe (SDR-35 PVC) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	117.	Lin. Ft.	$	$
3	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	400.	Lin. Ft.	$	$
4	108.2	10" Gravity Sewer Pipe (SDR-35 PVC) (1st Street Only) (Includes Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	910.	Lin. Ft.	$	$
5	108.2	10" Gravity Sewer Pipe (Certa-Flo Pipe) (Certa-Flo PVC Gravity Sewer Pipe) (SDR-21) (ASTM D-2241) (20-ft Joints) (Joint Type: Certa-Lok Restrained Joint Integral Bell) (Includes all necessary Pipe-Bursting Installation Equipment) (1st Street Pipe-Bursting)	245.	Lin. Ft.	$	$
6	108.2	24" Gravity Sewer Pipe (SDR-35 PVC) (ASTM F-679, PS 46) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	10.	Lin. Ft.	$	$
7	108.2	27" Gravity Sewer Pipe (SDR-35 PVC) (ASTM F-679, PS 46) (1st Street) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Class 3 Imported Trench Backfill Material)	12.	Lin. Ft.	$	$
8	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (Shadow Lake) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Native Materials meeting 103.16 Earth Backfill Materials)	274.	Lin. Ft.	$	$
9	108.2	10" Gravity Sewer Pipe (SDR-35 PVC) (Shadow Lake) (Includes cost of connection to the existing sewer pipe and Type A Bedding and Haunching Material and Backfill of Trench with Native Materials meeting 103.16 Earth Backfill Materials)	216.	Lin. Ft.	$	$
10	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed material unit weight = 133 lbs/ft^3)	1,400.	Ton	$	$
11	108.3	8" Cap (PVC) (Gasketed) (Includes 4-ft long 4"x4" wood post per City Std. Detail SS-06)	1.	Each	$	$
12	108.3	10" x 4" Sewer Service Tap (Full Body Wye w/ Street 45-deg.) (Includes full body wye, and all fittings required to align and connect into the existing sewer service pipe at the locations shown on the plans) (See City Std. Detail SS-06)	1.	Each	$	$
13	108.3	10" 45-degree Elbow (GxG) (1st Street Drop Manhole)	1.	Each	$	$
14	108.3	10" x 10" Wye Fitting (Full Body Wye) (GxGxG) (1st Street Drop Manhole)	1.	Each	$	$
15	108.5	Sanitary Sewer Basic Manhole (48" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	11.	Each	$	$
16	108.5	Sanitary Sewer Basic Manhole (60" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	1.	Each	$	$
17	108.5	Sanitary Sewer Basic Drop Manhole (60" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	1.	Each	$	$
18	108.5	Manhole Barrel Section (D=5') (48" I.D.)	48.	Vert. Ft.	$	$
19	108.5	Manhole Barrel Section (D=5') (60" I.D.)	21.	Vert. Ft.	$	$
20	108.5	Connect to Existing Manhole (6" pipe) (Manhole D2-261-269 in alley north of White Ave.)	1.	Each	$	$

Bid Schedule: 2020 Sewer Line Replacement Project

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
21	108.5	Manhole Protective Coating (Castagra Ecodur 201 Coating or Approved Equal) (Coating only applies to 1st Street Sewer Manholes)	107.	Vert. Ft.	$	$
22	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft^3)	350.	Ton	$	$
23	201	Clearing and Grubbing (Shadow Lake Sewer)	1.	Lump Sum	$	$
24	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	25.	Each	$	$
25	202	Abandon Manhole (Remove cone section, ring & cover, and fill remaining barrel sections with flow-fill material)	3.	Each	$	$
26	202	Abandon Existing Water Valve Box (Close valve, remove top half of existing valve box, fill cavity to finished subgrade with flow-fill material) (1st Street)	1.	Each	$	$
27	202	Removal of Existing Pipe (Size & type as shown on plans)	993.	Lin. Ft.	$	$
28	202	Removal of Asphalt Mat (Full Depth)	1,100.	Sq. Yd.	$	$
29	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	670.	Sq. Yd.	$	$
30	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, landscape borders, and concrete walls)	53.	Sq. Yd.	$	$
31	202	Removal of Sod	42.	Sq. Ft.	$	$
32	202	Removal of Manhole (Price to include plugging existing abandoned pipes and removal and disposal of concrete sections)	10.	Each	$	$
33	203	Disposal of Radioactive Material (Dispose at City Shops, 333 West Ave.) (If necessary) (Potential for Mill Tailings in 1st Street)	500.	Cu. Yd.	$	$
34	206	Structure Backfill (Flow-Fill)	100.	Cu. Yd.	$	$
35	208	Storm Drain Inlet Protection (Silt-Sack Style or Approved Equal) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	6.	Each	$	$
36	208	Temporary Earth Berm (Shadow Lake Sewer)	443.	Lin. Ft.	$	$
37	208	Concrete Washout Facility	1.	Lump Sum	$	$
38	210	Reset Landscape Ground Cover (Match in Kind) (Contractor shall remove ground cover and underlying weed barrier as needed and stockpile materials. Contractor shall reset these materials and provide additional materials as needed)	32.	Sq. Ft.	$	$
39	210	Reset/Repair Sprinkler System (Complete in Place) (1st Street)	1.	Lump Sum	$	$
40	210	Reset Irrigation Pipe (Shadow Lake) (PVC Irrigation Pipe) (The City believes 4-inch dia. irrigation pipe was laid above or near the existing sewer line requiring relocation between stations 4+00 to 4+75) (Includes pipe, fittings, equipment, materials, and labor to relocate irrigation pipe)	1.	Lump Sum	$	$
41	212	Re-Sod Area as Shown (1st Street) (Includes 6" Thick Imported Topsoil placed prior to sod placement)	42.	Sq. Ft.	$	$
42	304	Aggregate Base Course (Class 6) (4" thick) (Shadow Lake Surface Treatment)	640.	Sq. Yd.	$	$
43	304	Aggregate Base Course (Class 6) (8" thick)	46.	Sq. Yd.	$	$
44	304	Aggregate Base Course (Class 6) (15" thick)	715.	Sq. Yd.	$	$
45	401	Cold Mix Asphalt (Temporary Patching) (3" Thick) (To be used on 1st Street as deemed necessary by Project Engineer)	250.	Sq. Yd.	$	$
46	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) **(T-Top)**	1,350.	Sq. Yd.	$	$
47	401	Hot Bituminous Pavement (Patching) (4 " Thick) (Grading SX, PG 64-22) (GYR.=75) (Two 2" Lifts)	1,100.	Sq. Yd.	$	$

Bid Schedule: 2020 Sewer Line Replacement Project

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
48	407	Emulsified Asphalt (Tack Coat)	355.	Gallon	$	$
49	608	Concrete Drainage Pan (3' Wide) (Match in Kind)	120.	Sq. Ft.	$	$
50	608	Monolithic Vertical Curb, Gutter, and Sidewalk (7.5-ft wide)	8.	Sq. Yd.	$	$
51	608	Monolithic Vertical Curb, Gutter, and Sidewalk (8-ft wide)	9.	Sq. Yd.	$	$
52	608	Concrete Driveway Section and Gutter (8" Thick) (CDOT Class D, 4500 psi Mix at 28-days)	22.	Sq. Yd.	$	$
53	608	Cap Top Half of Sewer Pipe in Concrete per City Std. Detail GU-04 (20' long) (If necessary)	1.	Each	$	$
54	614	Concrete Barrier (Temporary) (Sewer Trench Protection along 1st Street) (Contractor shall provide and move barricades with the installation of the sewer line)	200.	Lin. Ft.	$	$
55	620	Portable Sanitary Facility	2.	Each	$	$
56	625	Construction Surveying (Includes As-Built Drawings) (1st Street & Shadow Lake Only)	1.	Lump Sum	$	$
57	626	Mobilization (1st Street & Shadow Lake Only)	1.	Lump Sum	$	$
58	627	Pavement Marking Paint (Water Based) (Single White Line) (Match Existing) (Pufferbelly Restaurant Parking Lot)	125.	Lin. Ft.	$	$
59	627	Pavement Marking Paint (Water Based) (Dashed White Line Marking) (1st Street) (Match Existing Dashed Lines)	1,260.	Lin. Ft.	$	$
60	627	Preformed Thermoplastic Pavement Marking (Walk-Stop Line) (1st Street Intersections)	162.	Sq. Ft.	$	$
61	630	Traffic Control Plan	1.	Lump Sum	$	$
62	630	Traffic Control (Complete in Place)	1.	Lump Sum	$	$
63	630	Flagging	1,500.	Hour	$	$
64	Pump	Bypass Sewage Pumping (As deemed necessary by City or Contractor)	1.	Lump Sum	$	$
66		**Lakeside Sewer Replacement Bid Items:** (Bid items below pertain only to the Lakeside Sewer Replacement Only)				
67	108.2	4" Sewer Pipe Service (SDR-35 PVC) (Includes cost of connection to the existing sewer service line)	50.	Lin. Ft.	$	$
68	108.2	6" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe and/or manhole) (Use MaxAdaptor Coupling for pipe connection or approved equal)	12.	Lin. Ft.	$	$
69	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe and/or manhole) (Use MaxAdaptor Coupling for pipe connection or approved equal)	610.	Lin. Ft.	$	$
70	108.2	24" Storm Drain Pipe (CMP)	15.	Lin. Ft.	$	$
71	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed material unit weight = 133 lbs/ft^3)	300.	Ton	$	$
72	108.3	8" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	1.	Each	$	$
73	108.3	8" x 6" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	1.	Each	$	$
74	108.3	6" 45-degree Elbow (GxG) (Lakeside Sewer Drop Manholes)	1.	Each	$	$
75	108.3	6" x 6" Wye Fitting (Full Body Wye) (GxGxG) (Lakeside Sewer Drop Manholes)	1.	Each	$	$
76	108.3	8" 45-degree Elbow (GxG) (Lakeside Sewer Drop Manholes)	2.	Each	$	$
77	108.3	8" x 8" Wye Fitting (Full Body Wye) (GxGxG) (Lakeside Sewer Drop Manholes)	2.	Each	$	$

Bid Schedule: 2020 Sewer Line Replacement Project

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
73	108.3	8" x 6" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	1.	Each	$	$
74	108.3	6" 45-degree Elbow (GxG) (Lakeside Sewer Drop Manholes)	1.	Each	$	$
75	108.3	6" x 6" Wye Fitting (Full Body Wye) (GxGxG) (Lakeside Sewer Drop Manholes)	1.	Each	$	$
76	108.3	8" 45-degree Elbow (GxG) (Lakeside Sewer Drop Manholes)	2.	Each	$	$
77	108.3	8" x 8" Wye Fitting (Full Body Wye) (GxGxG) (Lakeside Sewer Drop Manholes)	2.	Each	$	$
78	108.3	Install 2-way Sewer Service Cleanout and Ring and Cover (Castings Inc. CO-8039-CI or Approved Equal) (Includes concrete collar in unpaved areas per City Std. Detail SS-07)	2.	Each	$	$
79	108.5	Sanitary Sewer Basic Manhole (48" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	3.	Each	$	$
80	108.5	Sanitary Sewer Basic Drop Manhole (48" I.D.) (Includes connection of adjacent sewer line, forming inverts and adjusting to final grade. (See City Std. Detail SS-02)	2.	Each	$	$
81	108.5	Manhole Barrel Section (D=5') (48" I.D.)	9.	Vert. Ft.	$	$
82	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft^3)	150.	Ton	$	$
83	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	6.	Each	$	$
84	202	Abandon Manhole (Remove cone section, ring & cover, and fill remaining barrel sections with flow-fill material)	1.	Each	$	$
85	202	Removal of Existing Pipe (Size & type as shown on plans)	144.	Lin. Ft.	$	$
86	202	Removal of Asphalt Mat (Full Depth)	45.	Sq. Yd.	$	$
87	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	20.	Sq. Yd.	$	$
88	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, landscape borders, and concrete walls)	1,060.	Sq. Ft.	$	$
89	202	Removal of Sod	630.	Sq. Ft.	$	$
90	202	Removal of Tree (Size as shown on Plans)	3.	Each	$	$
91	202	Removal of Shrub/Bush	5.	Each	$	$
92	202	Removal of Tree Stump	2.	Each	$	$
93	202	Removal of Manhole (Price to include plugging existing abandoned pipes and removal and disposal of concrete sections)	4.	Each	$	$
94	206	Structure Backfill (Flow-Fill)	15.	Cu. Yd.	$	$
95	208	Storm Drain Inlet Protection (Silt-Sack Style or Approved Equal) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	2.	Each	$	$
96	208	Concrete Washout Facility	1.	Lump Sum	$	$
97	210	Reset/Repair Sprinkler System (Complete in Place) (Lakeside Park Area)	1.	Lump Sum	$	$
98	210	Reset Sign	1.	Each	$	$
99	212	Re-Sod Area as Shown (Includes 6" Thick Imported Topsoil placed prior to sod placement)	630.	Sq. Ft.	$	$
100	304	Aggregate Base Course (Class 6) (4" thick) (Lakeside Surface Treatment)	200.	Sq. Yd.	$	$

Bid Schedule: 2020 Sewer Line Replacement Project

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
101	304	Aggregate Base Course (Class 6) (8" thick) (Basketball Court)	93.	Sq. Yd.	$	$
102	304	Aggregate Base Course (Class 6) (15" thick) (Lakeside Court)	44.	Sq. Yd.	$	$
103	401	Cold Mix Asphalt (Temporary Patching) (3" Thick) (To be used on Lakeside Court)	44.	Sq. Yd.	$	$
104	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) **(T-Top)**	20.	Sq. Yd.	$	$
105	401	Hot Bituminous Pavement (Patching) (3" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 3" Lift)	44.	Sq. Yd.	$	$
106	407	Emulsified Asphalt (Tack Coat)		Gallon		
107	608	Concrete Pavement (Basketball Court) (6" Thick) (Class D, 4500 psi Mix at 28-days) (Includes #5 tie-bars at 12" O.C. spacing) (Joints shall be sealed with an approved joint sealant) (See City Std. Detail C-32 for concrete patch details)	93.	Sq. Yd.	$	$
108	608	Monolithic Vertical Curb, Gutter, and Sidewalk (6.5-ft wide)	24.	Sq. Yd.	$	$
109	620	Portable Sanitary Facility	1.	Each	$	$
110	625	Construction Surveying (Includes As-Built Drawings) (Lakeside Sewer Only)	1.	Lump Sum	$	$
111	626	Mobilization (Lakeside Sewer Only)	1.	Lump Sum	$	$
112	630	Traffic Control Plan (Lakeside Sewer Only)	1.	Lump Sum	$	$
113	630	Traffic Control (Complete in Place) (Lakeside Sewer Only)	1.	Lump Sum	$	$
114	Pump	Bypass Sewage Pumping (As deemed necessary by City or Contractor)	1.	Lump Sum	$	$
MCR		Minor Contract Revisions	---	---	---	$ 75,000.00
					Bid Amount:	$

DESCRIPTION	DATE
REVISION △	–
REVISION △ ADDENDUM 2	– 8/26/2020
REVISION △	–
REVISION △	–

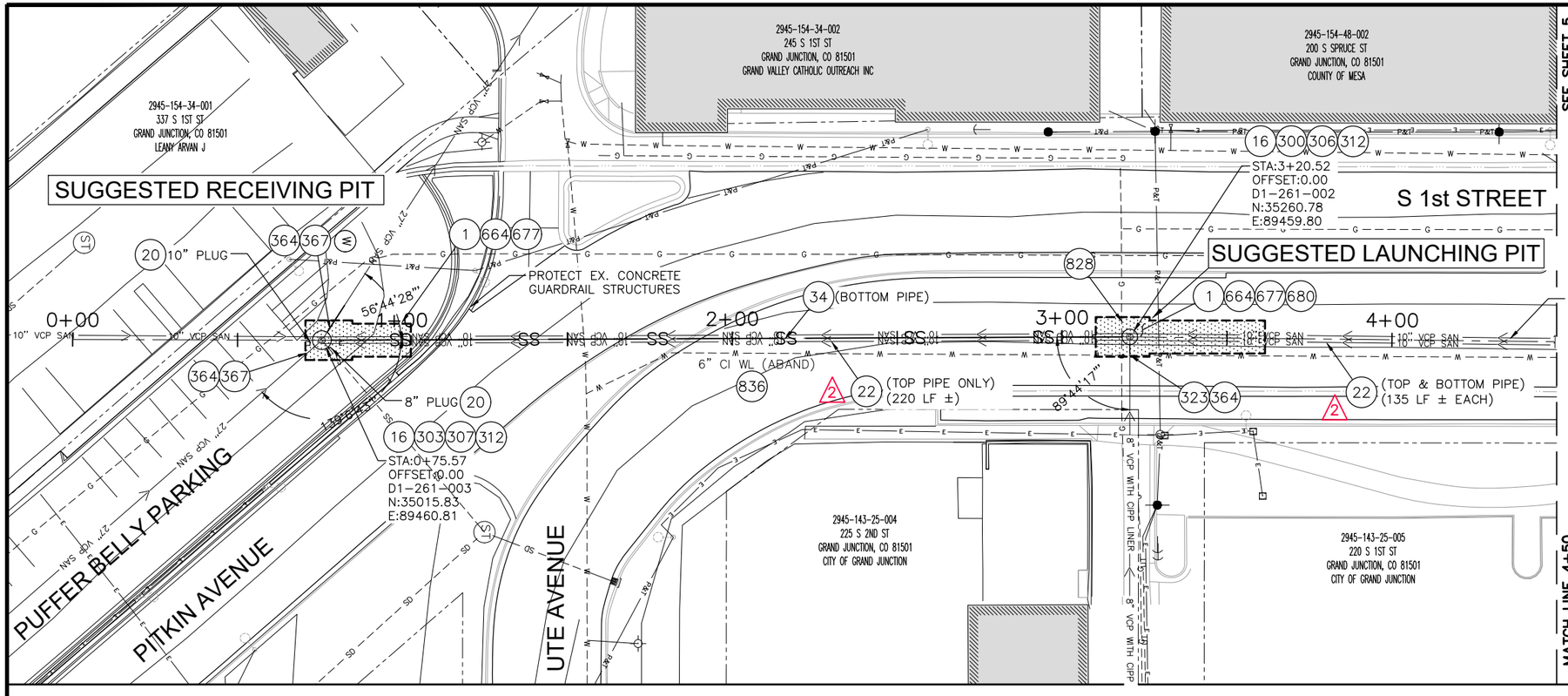
DRAWN BY XXX DATE 201X
DESIGNED BY XXX DATE 201X
CHECKED BY XXX DATE 201X
APPROVED BY XXX DATE 201X

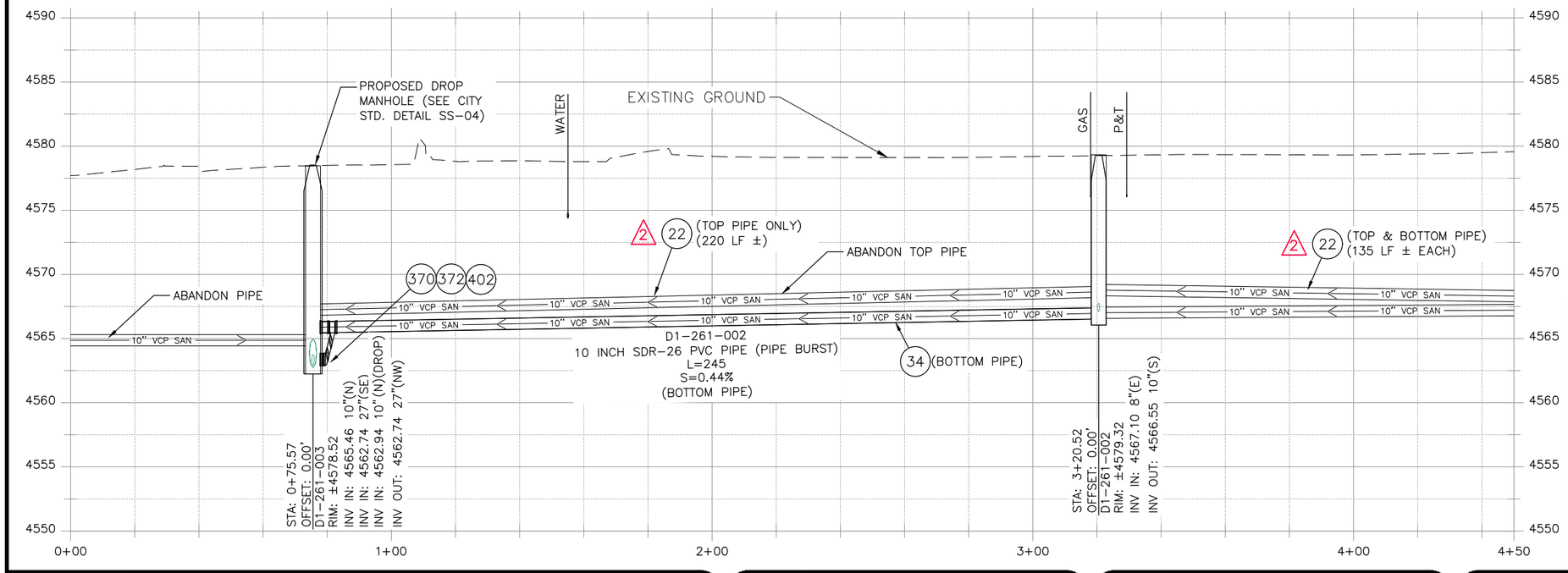
SCALES: PLAN & PROFILE

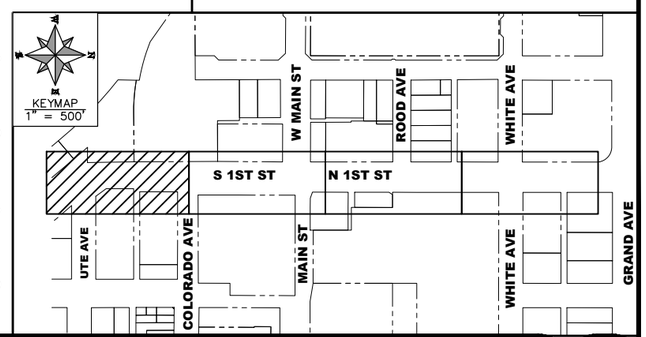
CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
SUMMARY OF APPROXIMATE QUANTITIES







PROJECT NUMBER 902-F001639

CONSTRUCTION NOTES

1. 202 – REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
16. 202 – REMOVAL OF MANHOLE
20. 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
22. 202 – ABANDON PIPE. ABANDON EXISTING SEWER PIPES USING CELLULAR GROUT OR AN APPROVED EQUAL FLOWABLE GROUT TO COMPLETELY FILL THE ANNULAR SPACE OF THE ABANDON PIPE SO NO VOIDS ARE LEFT UNDER 1ST STREET. MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE 500 PSI.
34. SP – PIPE BURST EXISTING SANITARY SEWER PER PROJECT SPECIFICATIONS (10" SDR 21 CERTA-FLO GREENLINE PVC PIPE WITH CERTA-LOK ASSEMBLY OR ENGINEER APPROVED EQUAL)(20' JOINTS). FIELD VERIFY SIZE/MATERIAL PRIOR TO PIPE BURSTING. DURING NEW PIPE INSTALLATION, IT WILL BE NECESSARY TO BYPASS PUMP SEWAGE AROUND WORK TO DOWNSTREAM MANHOLE. MAINTAIN ACCESS TO ALL BUSINESSES DURING INSTALLATION.
300. 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
303. 102.11/108.5 – SANITARY SEWER BASIC DROP MANHOLE (60" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-04).
306. 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).
307. 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (60" I.D.)
312. 102.11/108.5 – MANHOLE INTERIOR CORROSION PROTECTION (CASTAGRA ECODUR 201 PROTECTIVE COATING OR APPROVED EQUAL) (PROTECTIVE COATING SHALL BE APPLIED TO PREPARED MANHOLE INVERT, BENCH, BARRELS, AND CONE SECTIONS. MANHOLE INVERTS AND BENCHES SHALL BE COATED PRIOR TO WASTEWATER INTRODUCTION) (40 MIL MINIMUM THICKNESS) (APPLIES ONLY TO 1ST STREET SEWER MANHOLES)
323. 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
363. BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)
364. CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
365. 102.9/108.2 – 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
367. 102.9/108.2 – 27" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
370. 102.9/108.3 – 10" 45° ELBOW (GxG)
372. 102.9/108.3 – 10" x 10" WYE FITTING (FULL BODY WYE) (GxGxG)
402. 206 – STRUCTURE BACKFILL (FLOW-FILL) (REQUIRED AROUND DROP MANHOLE PIPE PER CITY STD. DETAIL SS-04)
664. 304 – AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
677. 401.08 – HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
680. 401.08 – HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR = 75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
828. PROTECT GAS LINE
836. LOCATION SHOWN FOR ABANDONED WATERLINE IS APPROXIMATE AND BASED ON AS-BUILT DATA. CONTRACTOR RESPONSIBLE FOR REMOVAL OF PIPE WHERE NECESSARY.

NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.

DESCRIPTION	DATE
REVISION 1	
REVISION 2 ADDENDUM 2	8/26/2020
REVISION 3	
REVISION 4	

DRAWN BY MF DATE 07/2019
DESIGNED BY ES DATE 07/2019
CHECKED BY ES DATE 07/2019
APPROVED BY BG DATE 07/2019

SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 20
0 10 20 40
VERTICAL: 1" = 5'
0 2.5 5 10

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
1st STREET SEWER PLAN & PROFILE
STA. 0+00 TO 4+50

4

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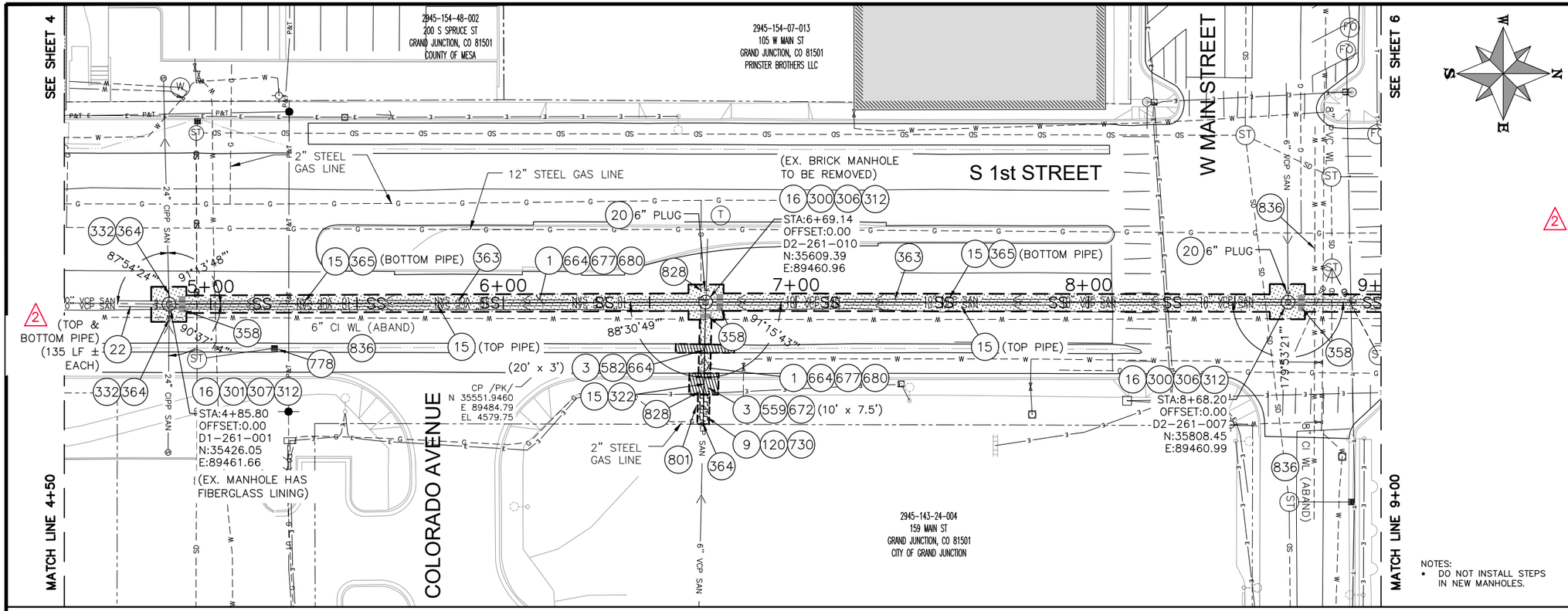
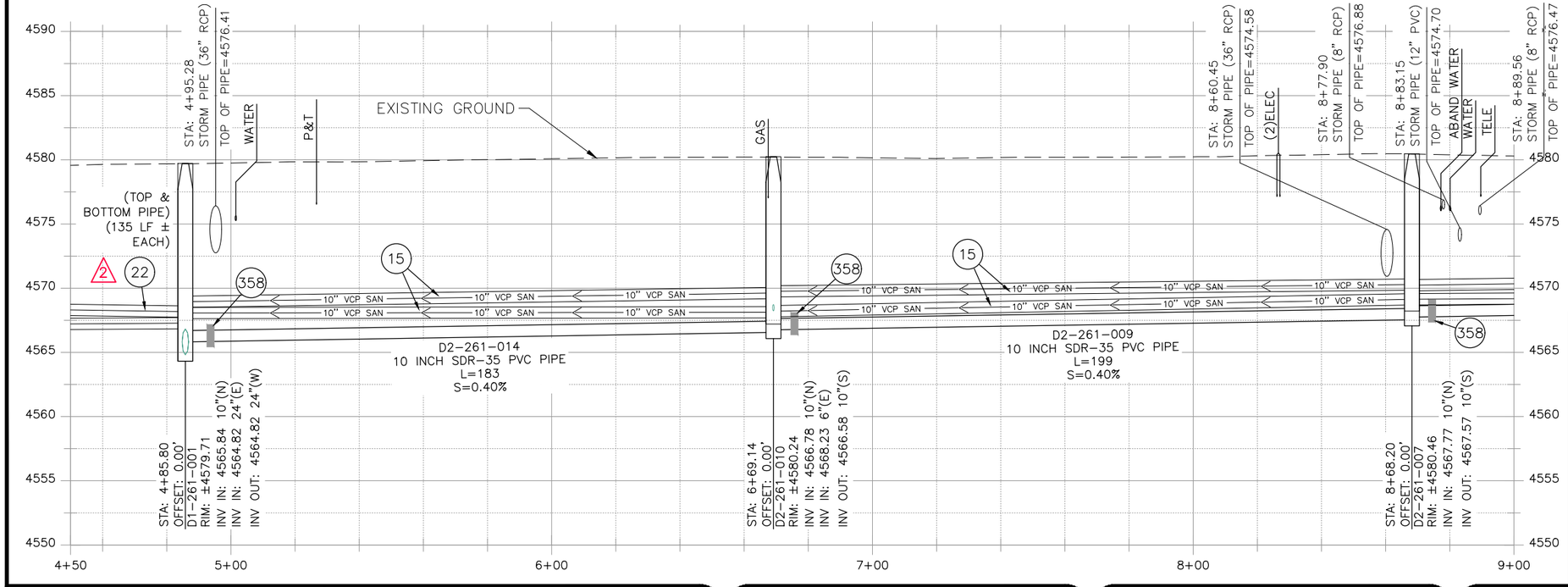
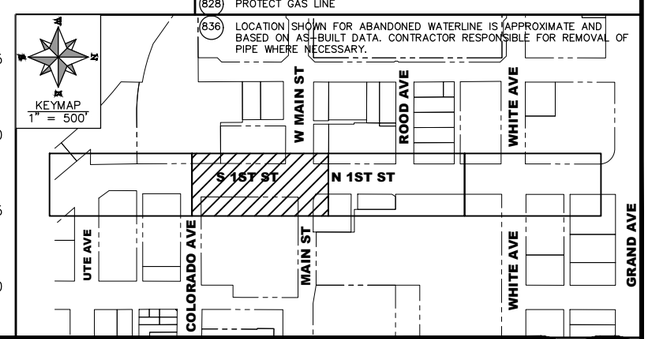




PROJECT NUMBER 902–F001639

CONSTRUCTION NOTES

1. 202 – REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
3. 202 – REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V–PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
9. 202 – REMOVAL OF SOD.
15. 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
16. 202 – REMOVAL OF MANHOLE.
20. 202 – ABANDON PIPE. ABANDON PIPE BY PLUGGING REMAINING ENDS WITH CONCRETE.
22. 202 – ABANDON PIPE. ABANDON EXISTING SEWER PIPES USING CELLULAR GROUT OR AN APPROVED EQUAL FLOWABLE GROUT TO COMPLETELY FILL THE ANNULAR SPACE OF THE ABANDON PIPE SO NO VOIDS ARE LEFT UNDER 1ST STREET. MINIMUM 28–DAY COMPRESSIVE STRENGTH SHALL BE 500 PSI.
120. 210 – RESET/REPAIR SPRINKLER IRRIGATION SYSTEM. (IF NECESSARY)
300. 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS–02).
301. 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (60" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS–02).
306. 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).
307. 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (60" I.D.).
312. 102.11/108.5 – MANHOLE INTERIOR CORROSION PROTECTION (CASTAGRA ECODUR 201 PROTECTIVE COATING OR APPROVED EQUAL) (PROTECTIVE COATING SHALL BE APPLIED TO PREPARED MANHOLE INVERT, BENCH, BARRELS, AND CONE SECTIONS. MANHOLE INVERTS AND BENCHES SHALL BE COATED PRIOR TO WASTEWATER INTRODUCTION) (40 MIL MINIMUM THICKNESS) (APPLIES ONLY TO 1ST STREET SEWER MANHOLES)
322. 102.9/108.2 – 6" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
332. 102.9/108.2 – 24" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
358. 103 – CLAY CUT–OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
363. BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)
364. CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
365. 102.9/108.2 – 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
559. 608.06 – MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (7.5' WIDE)
582. 608.06 – CONCRETE DRAINAGE PAN (3' WIDE) (8" THICK MIN.)
664. 304 – AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
672. 304 – AGGREGATE BASE COURSE (CLASS 6) (8" THICK)
677. 401.08 – HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64–22) (TWO 2" LIFTS)
680. 401.08 – HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64–22, GYR = 75) (ONE 2" LIFT TOP MAT) (T–TOP PATCH) (SEE CITY STD. DETAIL GU–03)
730. 212 – RESOD AREA AS SHOWN (INCLUDES 6" OF TOPSOIL PLACEMENT PRIOR TO SOD PLACEMENT)
778. 208 – STORM DRAIN INLET PROTECTION (SILT–SACK STYLE OR APPROVED EQUAL) (NO GRAVEL/ROCK BAG FILTERS ARE ALLOWED)
801. PROTECT TREE
828. PROTECT GAS LINE
836. LOCATION SHOWN FOR ABANDONED WATERLINE IS APPROXIMATE AND BASED ON AS–BUILT DATA. CONTRACTOR RESPONSIBLE FOR REMOVAL OF PIPE WHERE NECESSARY.



DESCRIPTION	DATE
REVISION 1	–
REVISION 2 ADDENDUM 2	8/26/2020
REVISION 3	–
REVISION 4	–

DRAWN BY MF DATE 08/2019
DESIGNED BY ES DATE 08/2019
CHECKED BY ES DATE 08/2019
APPROVED BY BG DATE 08/2019

SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 20'
0 10 20 40
VERTICAL: 1" = 5'
0 2.5 5 10

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
1st STREET SEWER PLAN & PROFILE
STA. 4+50 TO 9+00

5

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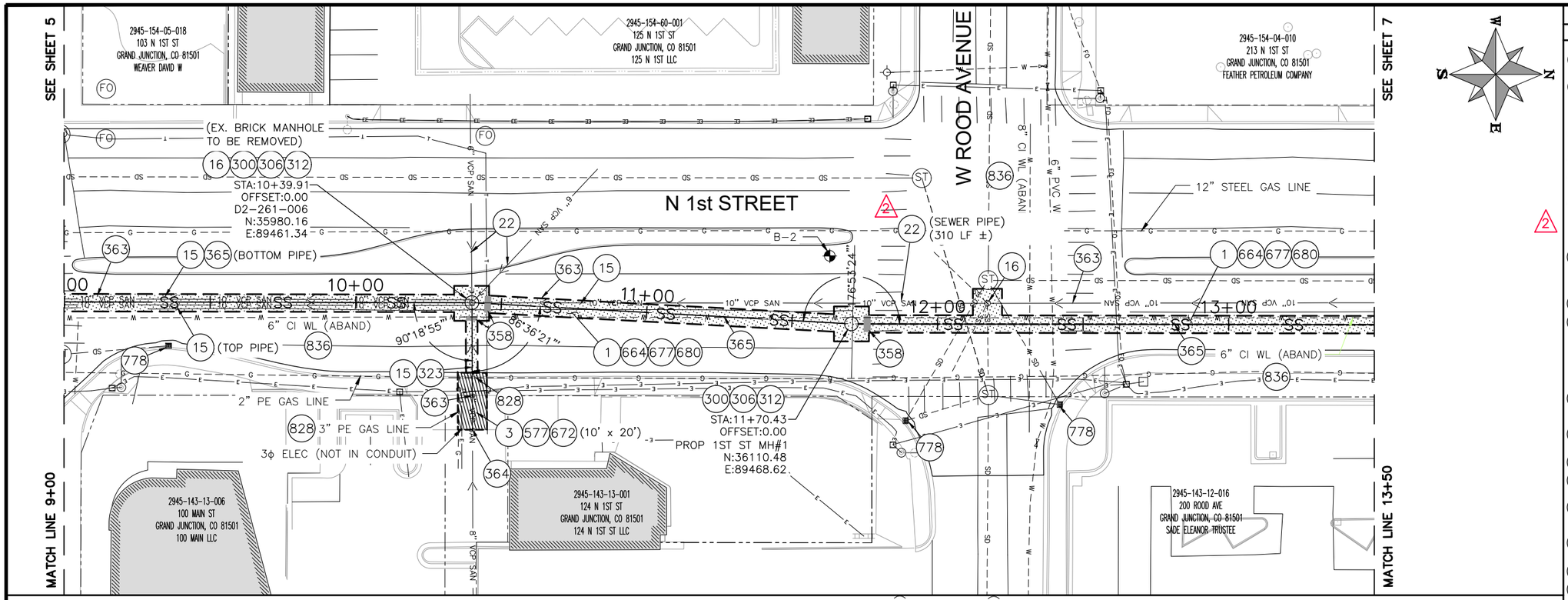
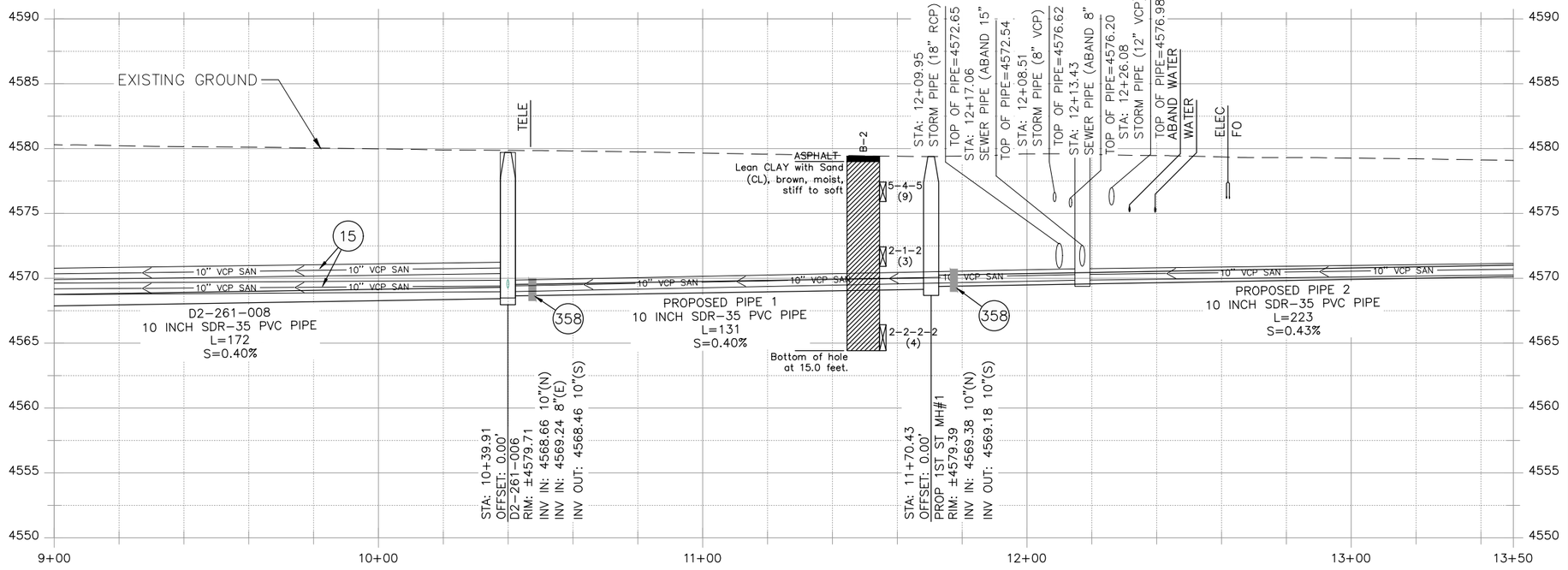
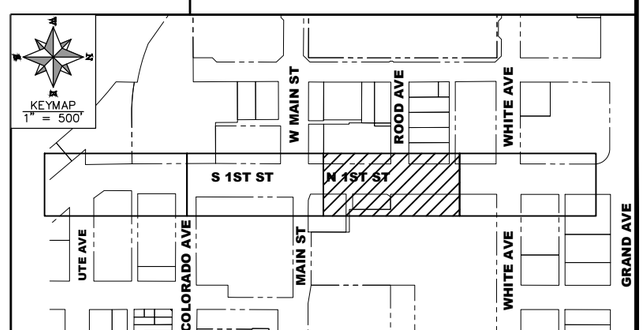






PROJECT NUMBER 902-F001639

CONSTRUCTION NOTES

(1) 202 – REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)

(3) 202 – REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.

(15) 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)

(16) 202 – REMOVAL OF MANHOLE

(20) 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.

(22) 202 – ABANDON PIPE. ABANDON EXISTING SEWER PIPES USING CELLULAR GROUT OR AN APPROVED EQUAL FLOWABLE GROUT TO COMPLETELY FILL THE ANNULAR SPACE OF THE ABANDON PIPE SO NO VOIDS ARE LEFT UNDER 1ST STREET. MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE 500 PSI.

(300) 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).

(306) 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).

(312) 102.11/108.5 – MANHOLE INTERIOR CORROSION PROTECTION (CASTAGRA ECODUR 201 PROTECTIVE COATING OR APPROVED EQUAL) (PROTECTIVE COATING SHALL BE APPLIED TO PREPARED MANHOLE INVERT, BENCH, BARRELS, AND CONE SECTIONS. MANHOLE INVERTS AND BENCHES SHALL BE COATED PRIOR TO WASTEWATER INTRODUCTION) (40 MIL MINIMUM THICKNESS) (APPLIES ONLY TO 1ST STREET SEWER MANHOLES)

(323) 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.

(358) 103 – CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)

(363) BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)

(364) CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.

(365) 102.9/108.2 – 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.

(577) 608.06 – CONCRETE DRIVEWAY SECTION AND GUTTER (8" THICK) (COMMERCIAL)

(664) 304 – AGGREGATE BASE COURSE (CLASS 6) (15" THICK)

(672) 304 – AGGREGATE BASE COURSE (CLASS 6) (8" THICK)

(677) 401.08 – HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)

(680) 401.08 – HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR = 75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

(778) 208 – STORM DRAIN INLET PROTECTION (SILT-SACK STYLE OR APPROVED EQUAL) (NO GRAVEL/ROCK BAG FILTERS ARE ALLOWED)

(828) PROTECT GAS LINE

(836) LOCATION SHOWN FOR ABANDONED WATERLINE IS APPROXIMATE AND BASED ON AS-BUILT DATA. CONTRACTOR RESPONSIBLE FOR REMOVAL OF PIPE WHERE NECESSARY.

NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.

DESCRIPTION	DATE
REVISION 1	
REVISION 2 ADDENDUM 2	8/26/2020
REVISION 3	
REVISION 4	

DRAWN BY MF DATE 07/2019
DESIGNED BY ES DATE 07/2019
CHECKED BY ES DATE 07/2019
APPROVED BY BG DATE 07/2019

SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
1st STREET SEWER PLAN & PROFILE
STA. 9+00 TO 13+50

6

N:\Landproj\2020 SEWER LINE REPLACEMENT\60CAD\00DESIGN\15-18_1st Street.dwg, 8/26/2020 12:38:39 PM, _AutoCAD PDF (General Documentation).pc3

SEE SHEET 6

MATCH LINE 13+50

N 1st STREET

W WHITE AVENUE

CP /PK/
N 36332.7250
E 89381.61
EL 4578.56

2945-154-04-013
233 N 1ST ST
GRAND JUNCTION, CO 81501
LUKAS FAMILY LIMITED PARTNERSHIP

2945-154-52-001
333 N 1ST ST
GRAND JUNCTION, CO 81501
GAY JOHNSONS INC

3ϕ POWER IN 4" PE
(TO BE INSTALLED)

2" STEEL GAS LINE

12" STEEL GAS LINE

STA:13+93.52
OFFSET:0.00
PROP 1ST ST MH#2
N:36333.57
E:89468.95

22 (SEWER PIPE)

22 (SEWER PIPE)
(340 LF ±)

6" PVC WL

6" CI WL (ABAND)

2" STEEL GAS LINE (ABAND)

20 10" PLUG

20 6" PLUG

STA:17+43.90
OFFSET:0.00
PROP 1ST ST MH#4
N:36683.95
E:89469.09

6" CI WL (ABAND)

807 (CDOT SIGN)

3 560 672 (10' x 8')

3 582 664 (20' x 3')

1 664 677 680

2" PE GAS LINE

3ϕ ELEC (NOT IN CONDUIT)

2945-143-12-016
200 ROOD AVE
GRAND JUNCTION, CO 81501
SADE ELEANOR TRUSTEE

2" STEEL GAS LINE (ABAND)

AT STATION 16+88 THE CONTRACTOR SHALL VERIFY IF EXISTING SEWER SERVICE PIPE FROM THE DOWNTOWN SUITES BUILDING IS ACTIVE BY USING DYE. IF ACTIVE, THE CONTRACTOR SHALL HOOK UP THE SEWER SERVICE PIPE TO THE NEW 8" SEWER MAINLINE. FROM CCTV FOOTAGE IT APPEARS THE SERVICE IS NOT ACTIVE.

53LF 6" @ 1.0%

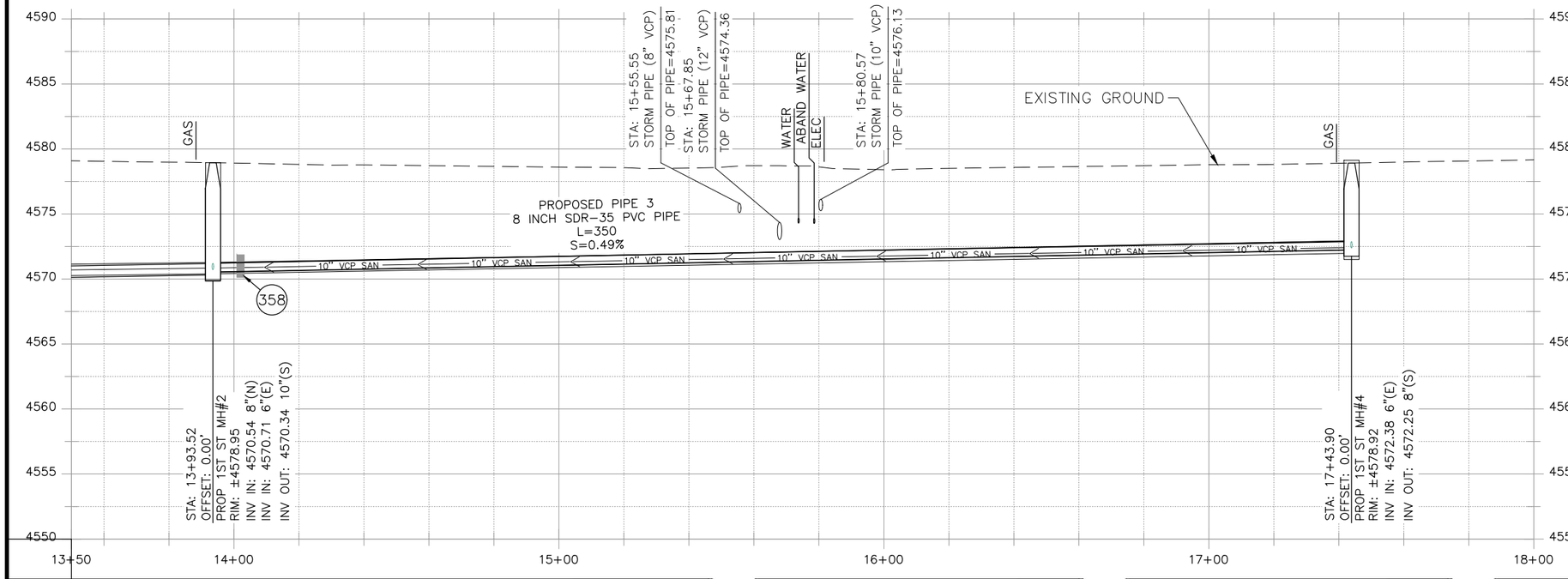
2945-143-01-007
104 WHITE AVE
GRAND JUNCTION, CO 81501
104 WHITE LLC

2945-143-01-015
105 GRAND AVE
GRAND JUNCTION, CO 81501
LOCO INC

STA:17+43.57
OFFSET:56.75 R
D2-261-259
N:36683.59
E:89525.84
INV IN: 4573.01 6"(S) (EXISTING)
INV IN: 4572.96 6"(E) (EXISTING)
INV OUT: 4572.96 6"(W) (PROPOSED)

89°30'12"

89°42'36"

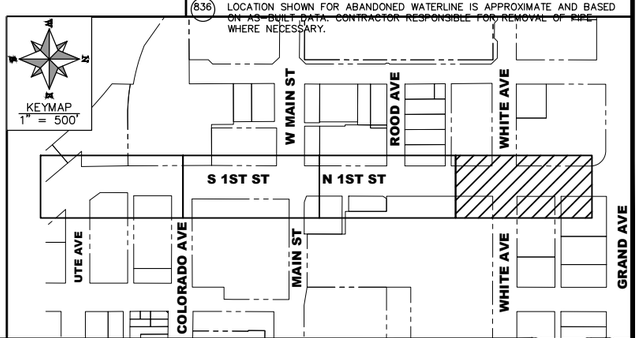


PROJECT NUMBER 902-F001639

CONSTRUCTION NOTES

1. 202 – REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
3. 202 – REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
10. 202 – RESET LANDSCAPE GROUND COVER (MATCH IN KIND) (CONTRACTOR SHALL REMOVE GROUND COVER AND ANY UNDERLYING WEED BARRIER AS NEEDED AND STOCKPILE MATERIALS. CONTRACTOR SHALL RESET THESE MATERIALS AND PROVIDE ADDITIONAL MATERIALS AS NEEDED)
15. 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
16. 202 – REMOVAL OF MANHOLE
20. 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
22. 202 – ABANDON PIPE. ABANDON EXISTING SEWER PIPES USING CELLULAR GROUT OR AN APPROVED EQUAL FLOWABLE GROUT TO COMPLETELY FILL THE ANNULAR SPACE OF THE ABANDON PIPE SO NO VOIDS ARE LEFT UNDER 1ST STREET. MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE 500 PSI.
25. 202 – ABANDON EXISTING WATER VALVE BOX (CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW-FILL MATERIAL
120. 210 – RESET/REPAIR SPRINKLER IRRIGATION SYSTEM. (IF NECESSARY)
300. 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
306. 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).
310. 102.11/108.5 – CONNECT TO EXISTING MANHOLE (6" PIPE). (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-08).
312. 102.11/108.5 – MANHOLE INTERIOR CORROSION PROTECTION (CASTAGRA ECODUR 201 PROTECTIVE COATING OR APPROVED EQUAL) (PROTECTIVE COATING SHALL BE APPLIED TO PREPARED MANHOLE INVERT, BENCH, BARRELS, AND CONE SECTIONS. MANHOLE INVERTS AND BENCHES SHALL BE COATED PRIOR TO WASTEWATER INTRODUCTION) (40 MIL MINIMUM THICKNESS) (APPLIES ONLY TO 1ST STREET SEWER MANHOLES)
322. 102.9/108.2 – 6" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
323. 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
358. 103 – CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
363. BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)
364. CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
365. 102.9/108.2 – 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH CLASS 3 IMPORTED TRENCH BACKFILL MATERIAL.
560. 608.06 – MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (8' WIDE)
582. 608.06 – CONCRETE DRAINAGE PAN (3' WIDE) (8" THICK MIN.)
664. 304 – AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
672. 304 – AGGREGATE BASE COURSE (CLASS 6) (8" THICK)
677. 401.08 – HOT BITUMINOUS PAVEMENT (4" THICK) (GRADING SX, BINDER GRADE PG 64-22) (TWO 2" LIFTS)
680. 401.08 – HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR = 75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
778. 208 – STORM DRAIN INLET PROTECTION (SILT-SACK STYLE OR APPROVED EQUAL) (NO GRAVEL/ROCK BAG FILTERS ARE ALLOWED)
801. PROTECT TREE
807. PROTECT SIGN (LARGE CDOT TRAFFIC SIGN)
828. PROTECT GAS LINE
836. LOCATION SHOWN FOR ABANDONED WATERLINE IS APPROXIMATE AND BASED ON AS-BUILT DATA. CONTRACTOR RESPONSIBLE FOR REMOVAL OF PIPE, WHERE NECESSARY.

NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.



DESCRIPTION	DATE
REVISION 1	
REVISION 2 ADDENDUM 2	8/26/2020
REVISION 3	
REVISION 4	

DRAWN BY MF DATE 07/2019
DESIGNED BY ES DATE 07/2019
CHECKED BY ES DATE 07/2019
APPROVED BY BG DATE 07/2019

SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 20'
0 10 20 40
VERTICAL: 1" = 5'
0 2.5 5 10

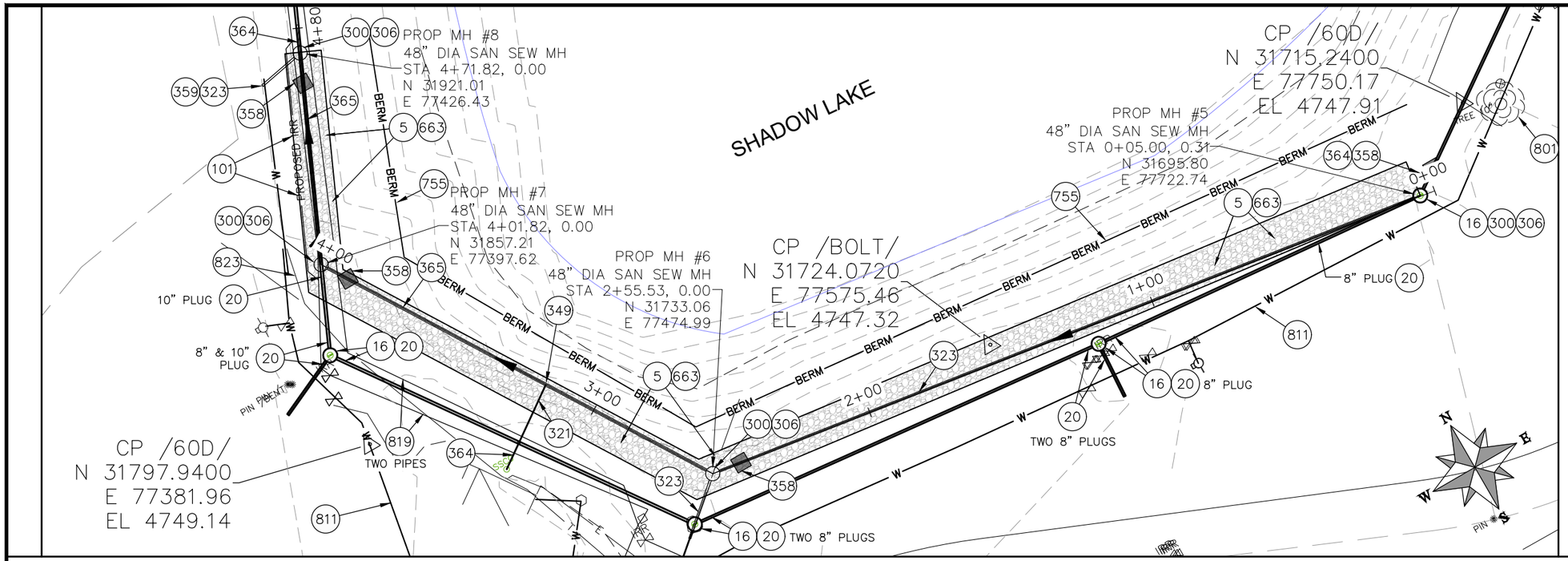
CITY OF Grand Junction COLORADO

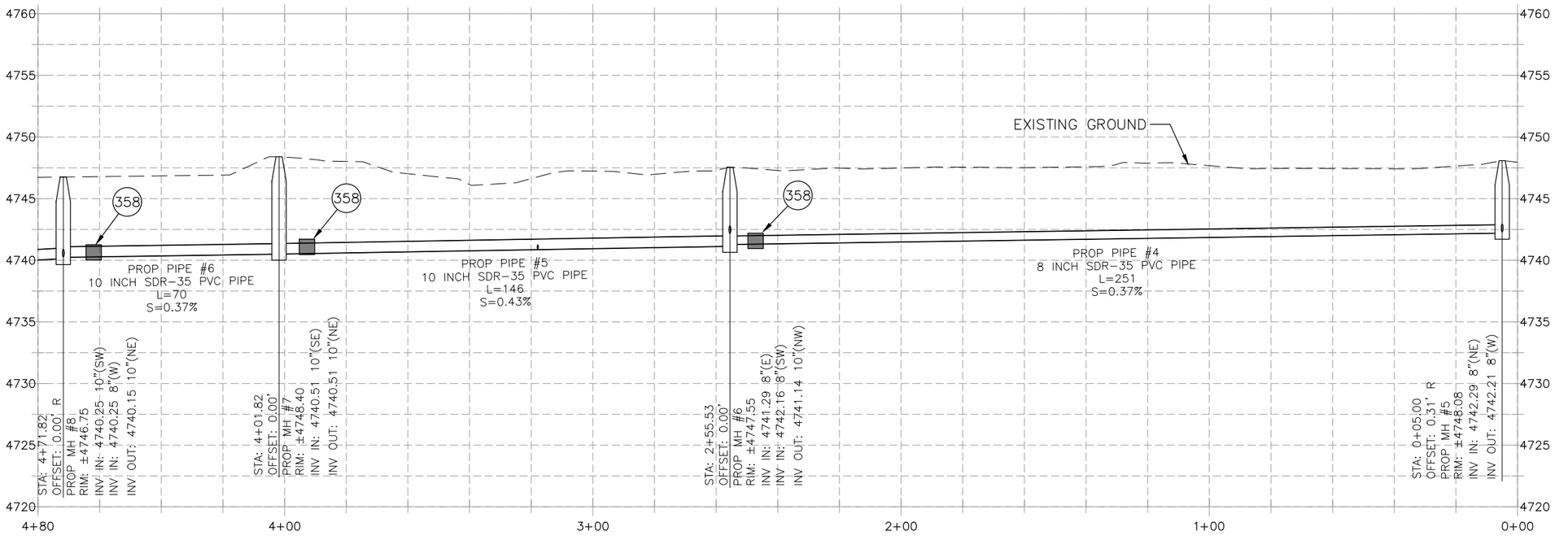
PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
1st STREET SEWER PLAN & PROFILE
STA. 13+50 TO STA 17+44

7

N:\Landproj\2020 SEWER LINE REPLACEMENT\60CAD\00DESIGN\15-18_1st Street.dwg, 8/26/2020 12:40:14 PM, _AutoCAD PDF (General Documentation).pc3





PROJECT NO. 902-F001639

CONSTRUCTION NOTES

(5) 201 – CLEARING AND GRUBBING (INCLUDES TREE REMOVAL, BUSH REMOVAL, AND STRIPPING OF GRASSES)

(15) 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)

(16) 202 – REMOVAL OF MANHOLE

(20) 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.

(101) 210 – RESET IRRIGATION PIPE (SHADOW LAKE) (PVC IRRIGATION PIPE) (THE CITY BELIEVES THE EXISTING IRRIGATION PIPE IS 4-INCH DIA. PLASTIC PIPE. THIS PIPE BELIEVE TO HAVE BEEN LAID ABOVE OR NEAR THE EXISTING SEWER LINE REQUIRING RELOCATION BETWEEN STATIONS 4+00 TO 4+75) (INCLUDES PIPE, FITTINGS, EQUIPMENT, MATERIALS, AND LABOR TO RELOCATE THE IRRIGATION PIPE FOR NEW SEWER PIPE INSTALLATION)

(300) 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).

(306) 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).

(321) 102.9/108.2 – 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(323) 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(349) 102.9/108.3 – 10" x 4" SEWER SERVICE TAP (FULL-BODY WYE) (SEE CITY STD. DETAIL SS-06)

(358) 103 – CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)

(359) 102.9/108.3 – 8" CAP (PVC) (GASKETED) (INCLUDES 4-FT LONG 4x4 WOOD POST PER CITY STD. DETAIL SS-06)

(363) BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)

(364) CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE USING A MAX-ADAPTOR COUPLING OR ENGINEER APPROVED EQUAL.

(365) 102.9/108.2 – 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(663) 304 – AGGREGATE BASE COURSE (CLASS 6) (4" THICK) (12' WIDE) (PATH)

(755) 208 – TEMPORARY COMPACTED EARTH BERM

(801) PROTECT TREE

(811) PROTECT WATERLINE AND WATER VALVE

(819) PROTECT EX. IRRIGATION PIPE

(823) PROTECT TELEPHONE LINE

(828) PROTECT ELECTRIC LINE

NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.

DESCRIPTION	DATE
REVISION 1	
REVISION 2 ADDENDUM 2	8/26/2020
REVISION 3	
REVISION 4	

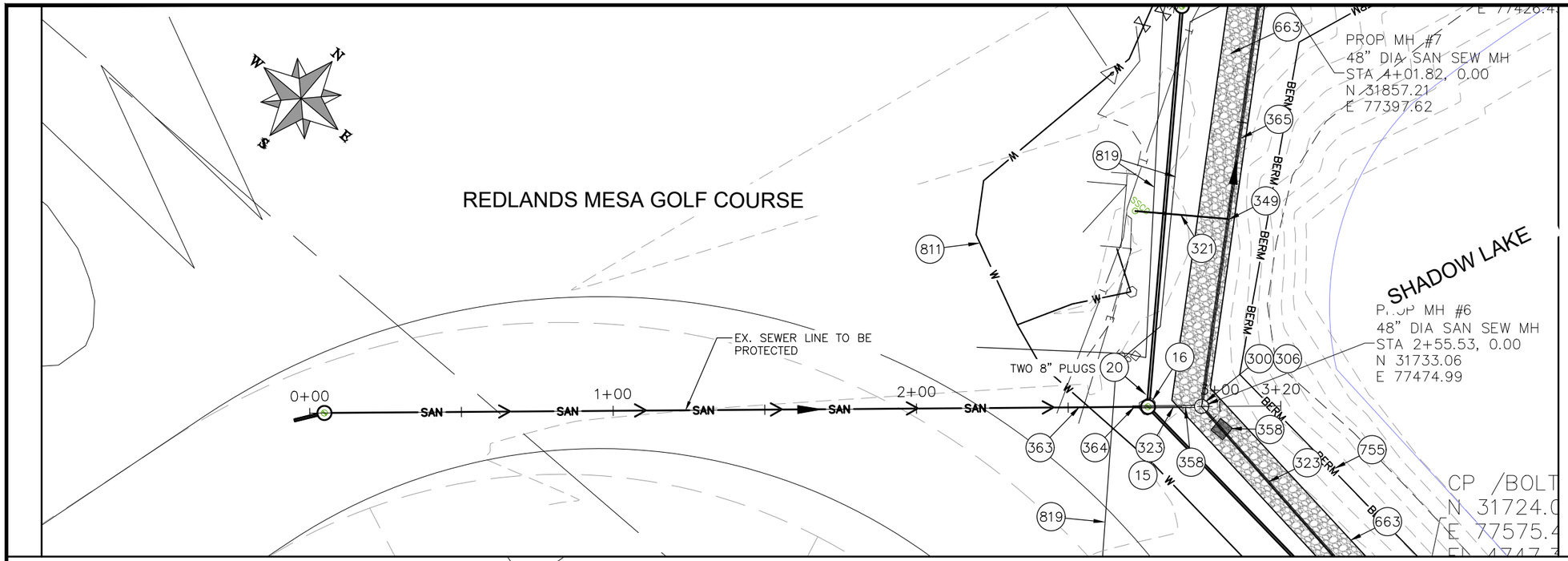
DRAWN BY KSO DATE NOV, 2019
DESIGNED BY KSO DATE NOV, 2019
CHECKED BY ALC DATE NOV, 2019
APPROVED BY ____ DATE ____

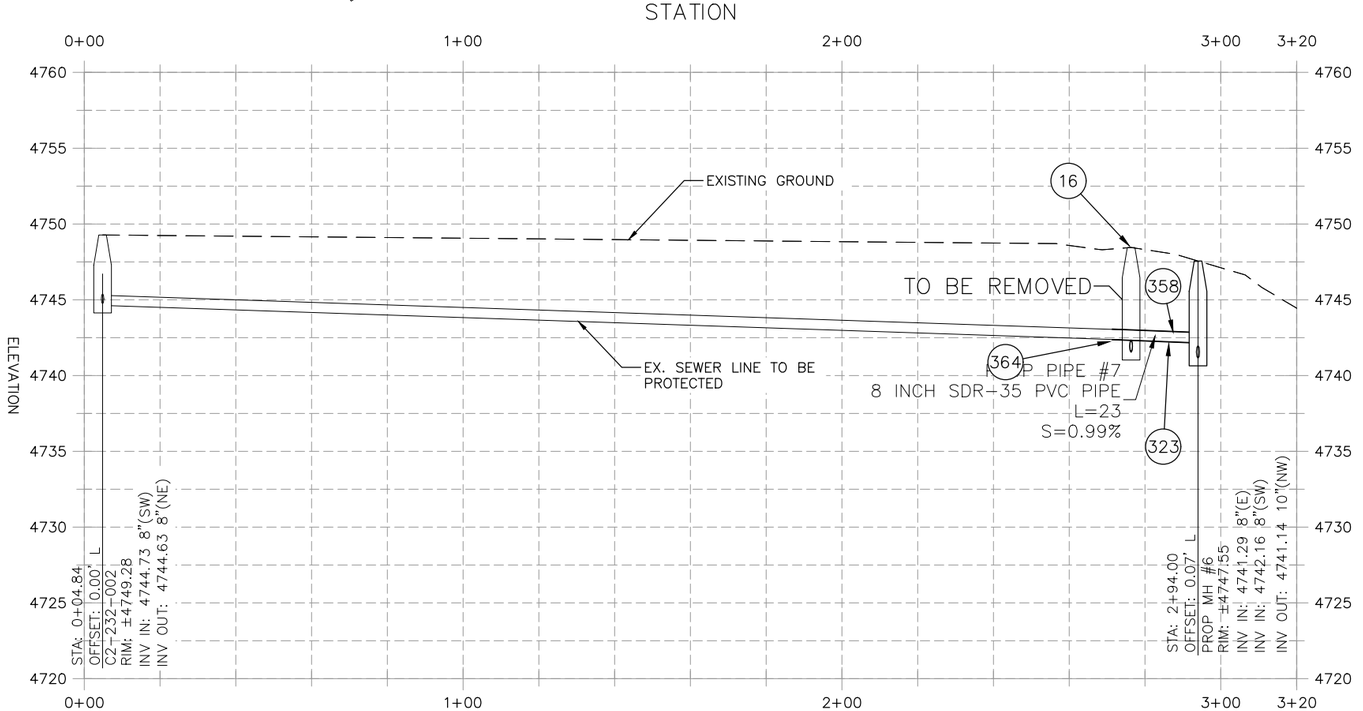
SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 10'

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
SHADOW LAKE SEWER PLAN & PROFILE
STA 0+00 TO 4+80





PROJECT NO. 902-F001639

CONSTRUCTION NOTES

(5) 201 – CLEARING AND GRUBBING (INCLUDES TREE REMOVAL, BUSH REMOVAL, AND STRIPPING OF GRASSES)

(15) 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)

(16) 202 – REMOVAL OF MANHOLE

(20) 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.

(300) 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).

(306) 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).

(321) 102.9/108.2 – 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(323) 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(349) 102.9/108.3 – 10" x 4" SEWER SERVICE TAP (FULL-BODY WYE) (SEE CITY STD. DETAIL SS-06)

(358) 103 – CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)

(363) BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)

(364) CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE USING A MAX-ADAPTOR COUPLING OR ENGINEER APPROVED EQUAL.

(365) 102.9/108.2 – 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(663) 304 – AGGREGATE BASE COURSE (CLASS 6) (4" THICK) (12' WIDE) (PATH)

(755) 208 – TEMPORARY COMPACTED EARTH BERM

(811) PROTECT WATERLINE AND WATER VALVE

(819) PROTECT EX. IRRIGATION PIPE

(823) PROTECT TELEPHONE LINE

(828) PROTECT ELECTRIC LINE

NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.

DESCRIPTION	DATE
REVISION △	
REVISION 2 △ ADDENDUM 2	8/26/2020
REVISION △	
REVISION △	

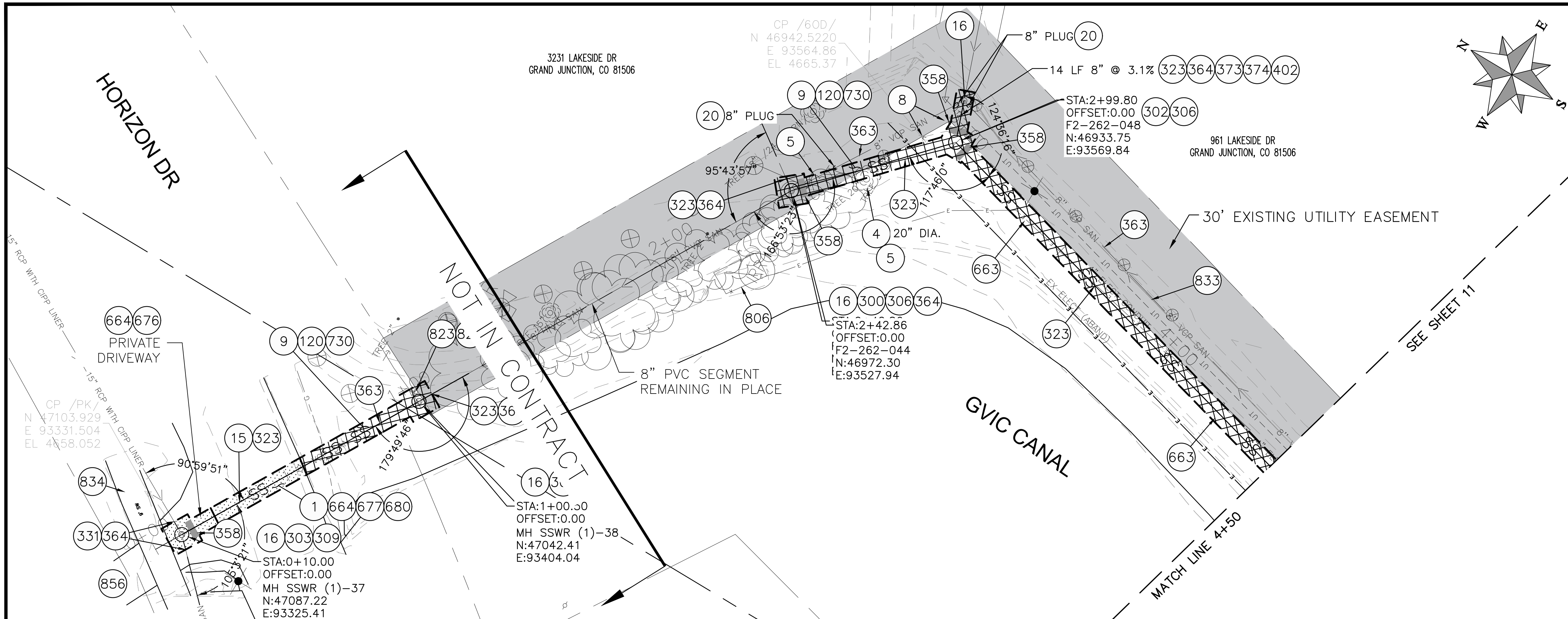
DRAWN BY KSO DATE DEC, 2019
DESIGNED BY KSO DATE DEC, 2019
CHECKED BY ALC DATE DEC, 2019
APPROVED BY _____ DATE _____

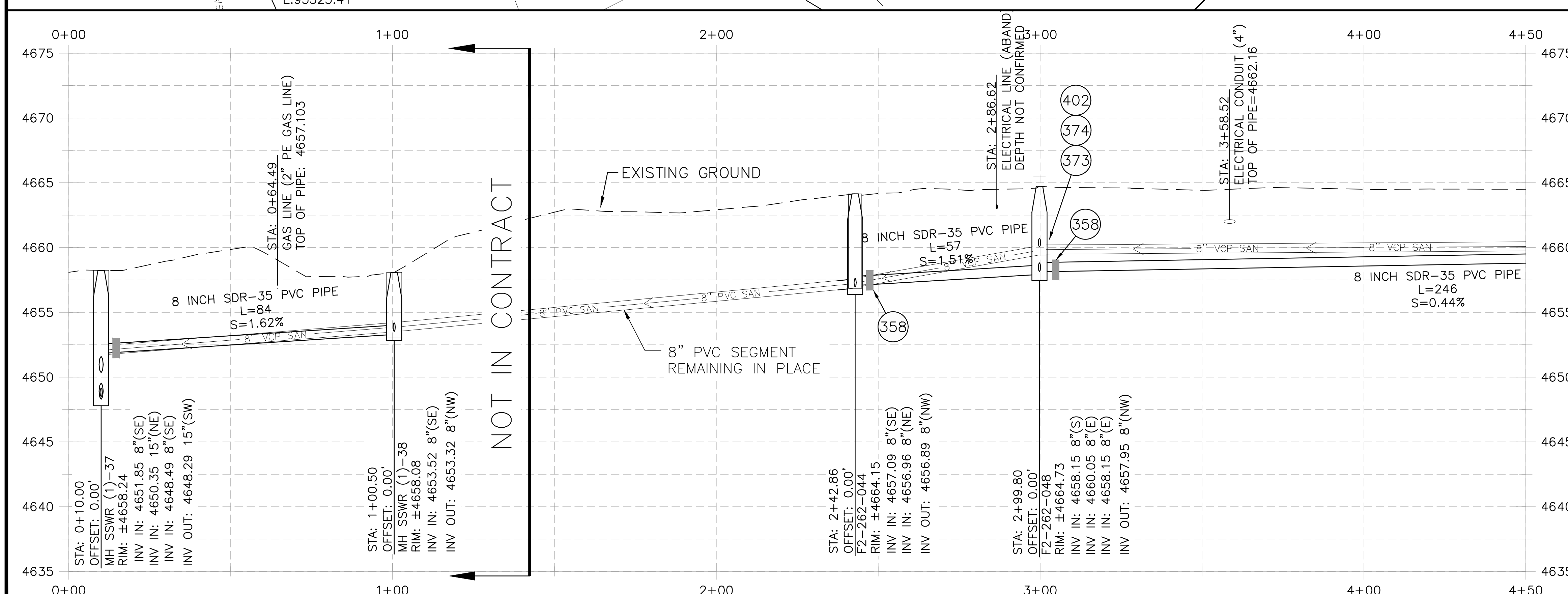
SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 40'
0 10 20 40
VERTICAL: 1" = 10'
0 2.5 5 10

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
SHADOW LAKE SEWER PLAN & PROFILE
STA 0+00 TO 3+20



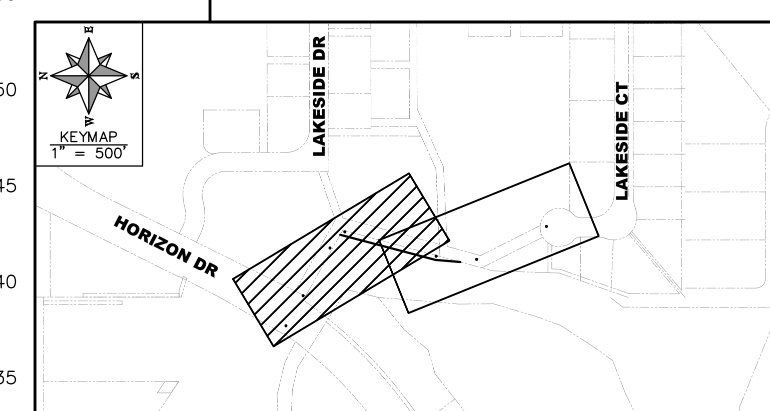


PROJECT NUMBER 902-F001639

CONSTRUCTION NOTES

(4) 202 – REMOVAL OF TREE (SIZE AS SHOWN ON PLAN)
(5) 202 – REMOVAL OF BUSH/SHRUB
(8) 202 – REMOVAL OF TREE STUMP
(9) 202 – REMOVAL OF SOD
(10) 202 – REMOVAL OF LANDSCAPE GROUND COVER AND ANY UNDERLYING BARRIER.
(15) 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
(16) 202 – REMOVAL OF MANHOLE
(20) 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
(120) 210 – RESET/REPAIR SPRINKLER IRRIGATION SYSTEM (IF NECESSARY)
(300) 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
(302) 102.11/108.5 – SANITARY SEWER BASIC DROP MANHOLE (48" I.D.) INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY STD. DETAIL SS-04)
(306) 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).
(323) 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
(358) 103 – CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
(363) BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)
(364) CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
(373) 102.9/108.3 – 8" 45° ELBOW (GxG)
(374) 102.9/108.3 – 8" x 8" WYE FITTING (FULL BODY WYE) (GxGxG)
(402) 206 – STRUCTURE BACKFILL (FLOW-FILL) (REQUIRED AROUND DROP MANHOLE PIPE PER CITY STD. DETAIL SS-04)
(663) 304 – AGGREGATE BASE COURSE (CLASS 6) (4" THICK)
(730) 212 – RESOD AREA AS SHOWN (INCLUDES 6" OF TOPSOIL PLACEMENT PRIOR TO SOD PLACEMENT)
(738) 610 – GROUND COVER MATERIAL (MATCH EXISTING)
(801) PROTECT TREE (LIMITED PRUNING AS NECESSARY)
(806) PROTECT FENCE
(824) PROTECT UTILITY PEDESTAL
(833) PROTECT CONCRETE RETAINING WALL
(836) LOCATION SHOWN FOR ABANDONED WATERLINE IS APPROXIMATE AND BASED ON AS-BUILT DATA. CONTRACTOR RESPONSIBLE FOR REMOVAL OF PIPE WHERE NECESSARY.

NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.



	DESCRIPTION	DATE
REVISION △		–
REVISION △2	ADDENDUM 2	– 8/26/2020
REVISION △		–
REVISION △		–

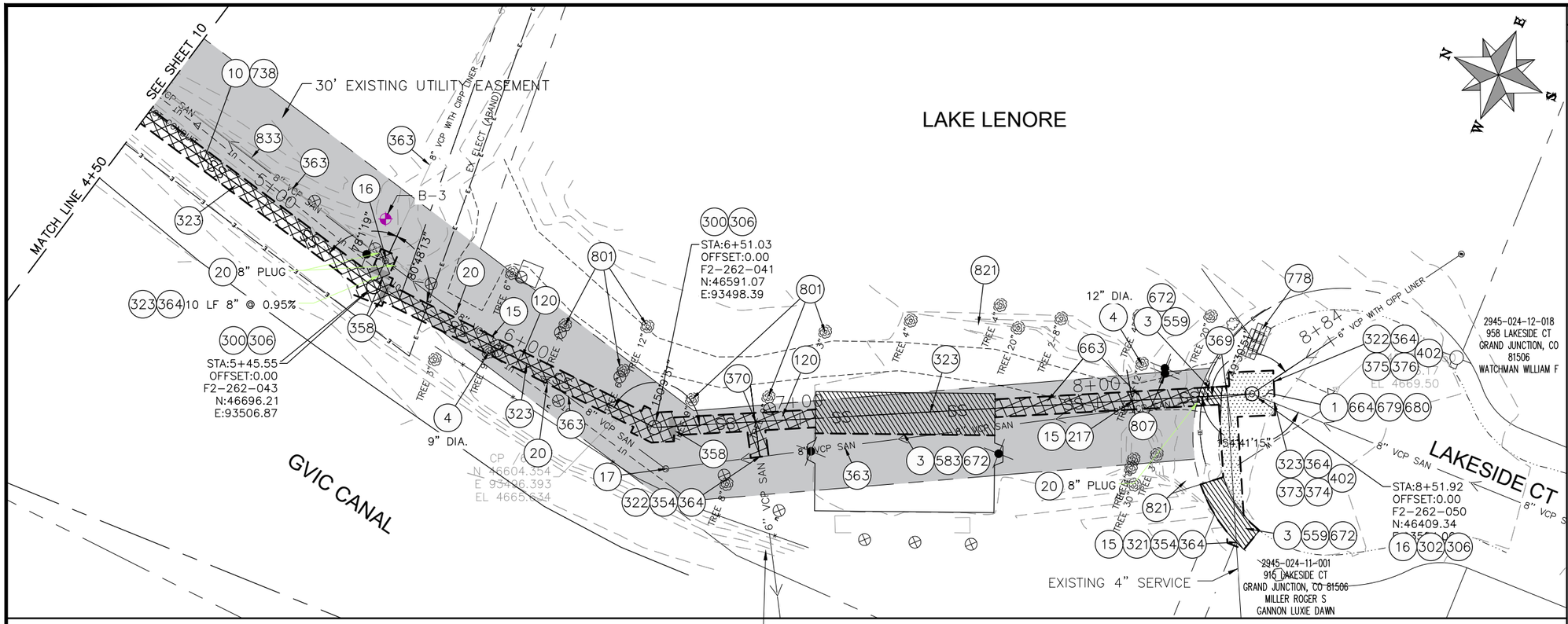
PROJECT NO. ----
DRAWN BY HMC DATE 2020
DESIGNED BY ALC DATE 2020
CHECKED BY ALC DATE 2020
APPROVED BY ALC DATE 2020

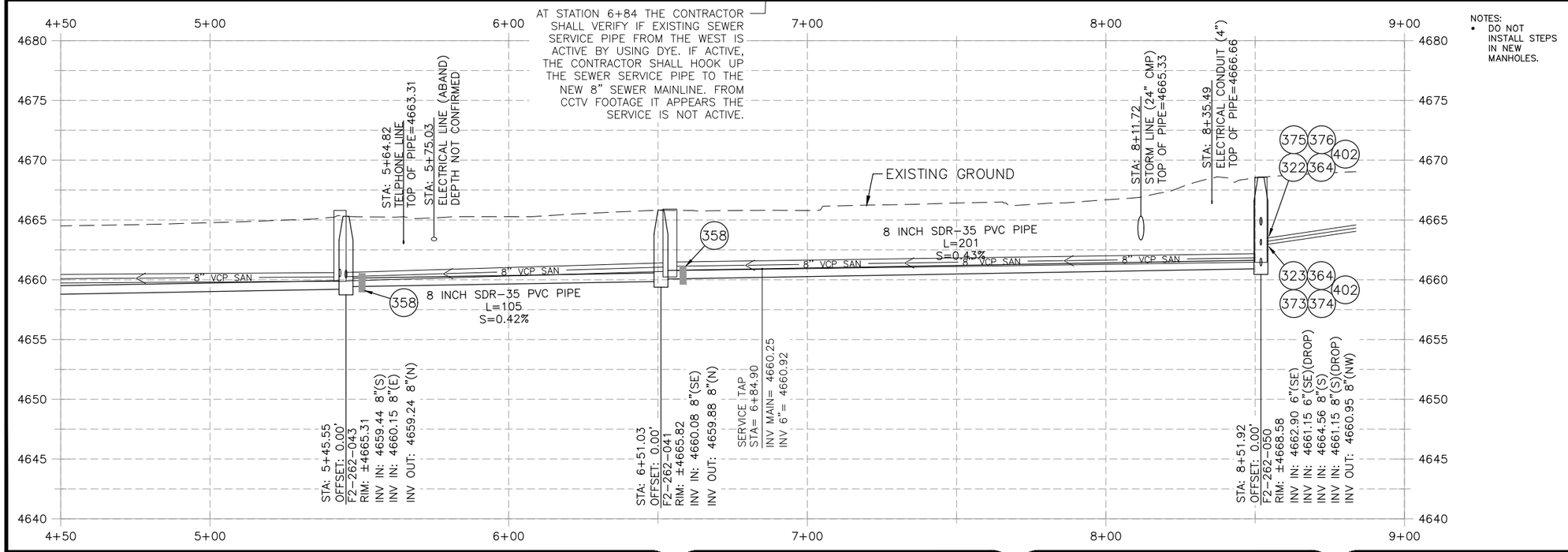
SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 40' (0 10 20 40)
VERTICAL: 1" = 10' (0 2.5 5 10)

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
LAKESIDE SEWER PLAN & PROFILE
STA 2+42 TO STA 4+50





NOTES:
- DO NOT INSTALL STEPS IN NEW MANHOLES.

PROJECT NUMBER 902-F001639

CONSTRUCTION NOTES

(1) 202 – REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)

(3) 202 – REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.

(4) 202 – REMOVAL OF TREE (SIZE AS SHOWN ON PLAN)

(10) 202 – REMOVAL OF LANDSCAPE GROUND COVER AND ANY UNDERLYING BARRIER.

(15) 202 – REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)

(16) 202 – REMOVAL OF MANHOLE

(17) 202 – ABANDON MANHOLE (REMOVE CONE SECTION, RING, AND COVER, PLUG EXISTING SEWER PIPES AND FILL REMAINING BARREL SECTIONS WITH FLOW-FILL MATERIAL)

(20) 202 – ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.

(103) 210 – RESET SIGN

(120) 210 – RESET/REPAIR SPRINKLER IRRIGATION SYSTEM (IF NECESSARY)

(217) 102.10/108.2 – 24" STORM DRAIN PIPE (CMP). INCLUDES BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL. PIPE IS NOT TO BE BEDDED IN TYPE A BEDDING MATERIAL.

(300) 102.11/108.5 – SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).

(302) 102.11/108.5 – SANITARY SEWER BASIC DROP MANHOLE (48" I.D.) INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY STD. DETAIL SS-04)

(306) 102.11/108.5 – MANHOLE BARREL SECTION (D>5') (48" I.D.).

(321) 102.9/108.2 – 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(322) 102.9/108.2 – 6" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(323) 102.9/108.2 – 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.

(354) 104.20 – INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS. SEE CITY STD. DETAIL SS-07)

(358) 103 – CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)

(363) BYPASS PUMPING (AS DEEMED NECESSARY BY THE CITY OR CONTRACTOR)

(364) CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.

(369) 102.9/108.3 – 8" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE CITY STD. DETAIL SS-06)

(370) 102.9/108.3 – 8" x 6" SEWER SERVICE TAP. FULL BODY WYE (SEE CITY STD. DETAIL SS-06)

(373) 102.9/108.3 – 8" 45° ELBOW (GxG)

(374) 102.9/108.3 – 8" x 8" WYE FITTING (FULL BODY WYE) (GxGxG)

(375) 102.9/108.3 – 6" 45° ELBOW (GxG)

(376) 102.9/108.3 – 6" x 6" WYE FITTING (FULL BODY WYE) (GxGxG)

(402) 206 – STRUCTURE BACKFILL (FLOW-FILL) (REQUIRED AROUND DROP MANHOLE PIPE PER CITY STD. DETAIL SS-04)

(559) 608.06 – MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (6.5-FT WIDE) (MATCH EXISTING)

(583) 608.06 – CONCRETE PAVEMENT (BASKETBALL COURT) (6" THICK)

(663) 304 – AGGREGATE BASE COURSE (CLASS 6) (4" THICK)

(664) 304 – AGGREGATE BASE COURSE (CLASS 6) (15" THICK)

(672) 304 – AGGREGATE BASE COURSE (CLASS 6) (8" THICK)

(679) 401.08 – HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22) (ONE 3" LIFT)

(680) 401.08 – HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR = 75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

(738) 610 – GROUND COVER MATERIAL (MATCH EXISTING)

(778) 208 – STORM DRAIN INLET PROTECTION (SILT-SACK STYLE OR APPROVED EQUAL) (NO GRAVEL/ROCK BAG FILTERS ARE ALLOWED)

(801) PROTECT TREE. LIMITED PRUNING AS NECESSARY

(807) PROTECT SIGN

(821) PROTECT BENCH

(833) PROTECT CONCRETE RETAINING WALL

DESCRIPTION	DATE
REVISION 1	
REVISION 2 ADDENDUM 2	8/26/2020
REVISION 3	
REVISION 4	

PROJECT NO. ----

DRAWN BY	HMC	DATE	2020
DESIGNED BY	ALC	DATE	2020
CHECKED BY	ALC	DATE	2020
APPROVED BY	ALC	DATE	2020

SCALES: PLAN & PROFILE
HORIZONTAL: 1" = 40'
0 10 20 40
VERTICAL: 1" = 10'
0 2.5 5 10

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION

2020 SEWER LINE REPLACEMENTS
LAKESIDE SEWER PLAN & PROFILE
STA 4+50 TO STA 8+52