

JUNE LAKE PUBLIC UTILITY DISTRICT

June Lake, California

CONTRACT DOCUMENTS
CONSTRUCTION SPECIFICATIONS

Sewer Repair

Project Number 60640428

October 2020

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Project Number 60640428



Daniel Cronquist, PE
Project Engineer

October 2020

JUNE LAKE PUBLIC UTILITY DISTRICT
SEWER REPAIR PROJECT

CONTRACT DOCUMENTS

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SECTION 001000 NOTICE INVITING SEALED PROPOSALS (BIDS)

FOR THE CONSTRUCTION OF: SEWER SYSTEM REHABILITATION

FOR THE: JUNE LAKE PUBLIC UTILITY DISTRICT

NOTICE IS HEREBY GIVEN that the Board of Directors of said DISTRICT invites and will receive sealed proposals (bids) up to the hour of 10:00 AM on December 1, 2020, for the furnishing to said DISTRICT of all transportation, labor, materials, tools, equipment, services, permits, utilities, and other items necessary to construct said work. At said time, said proposals will be publicly opened and read aloud at the office of the DISTRICT,

June Lake Public Utility District
2380 State Route 158
June Lake, CA. 93529
(760) 648-7778

Bids shall conform to and be responsive to the Contract Documents for the work. Copies of the Contract Documents are on file and may be examined in the office of the DISTRICT. Copies may be obtained at the office of the DISTRICT by depositing \$30.00 per set, which deposit will be non-refundable.

Description of Work: This project consists of point repairs of the sanitary sewer collection system at approximately 95 locations. Pipe deficiencies to be corrected include joint offsets, root intrusion, infiltration, blockages, and cracks. CCTV inspection reports and/or videos are provided to show the extent of each point repair.

Each bid shall be submitted on a form furnished as part of the Contract Documents and must be accompanied by cash, a cashier's check, a certified check, or a Bidder's bond executed by an admitted surety insurer, or substitute pursuant to Section 995.710 of the Code of Civil Procedure, in an amount not less than 10% of the amount of the bid, made payable to the order of or for the benefit of the DISTRICT. The security of unsuccessful Bidders will be returned by the DISTRICT no later than sixty (60) days following the date of award. Each bid shall be sealed and delivered to the DISTRICT at the location designated in this notice for the opening of proposals at or before the time in this notice provided. The check shall be given as guarantee that the Bidder will enter into a contract with the DISTRICT and furnish the required payment and performance bonds, and certificates of insurance and endorsements if awarded the work, and will be declared forfeited if the Bidder refuses to timely enter into said contract or furnish the required bonds or certificates of insurance and endorsements if the Bidder's bid is accepted.

Effective March 1, 2015, pursuant to Labor Code Sections 1725.5 and 1771.1, the Contractor and all subcontractors must be registered with the Department of Industrial Relations. Contractor shall maintain registration for the duration of the contract and require the same of any subcontractors. This contract may also be subject to compliance monitoring and enforcement by

the Department of Industrial Relations. It shall be the Contractor's sole responsibility to comply with all applicable registration and labor compliance requirements.

The Board of Directors has obtained from the Director of the California Department of Industrial Relations a determination of the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in which said work is to be performed for each craft, classification, or type of worker needed. Not less than the determined rates shall be paid to all workers employed in the performance of the contract. Such rates of wages are on file with the Department of Industrial Relations and in the office of the DISTRICT and are available to any interested party upon request.

Pursuant to Public Contract Code Section 22300, equivalent securities may be substituted for monies withheld to ensure performance of the contract. The DISTRICT reserves the right to solely determine the adequacy of the securities being proposed by the CONTRACTOR and the value of those securities. The DISTRICT shall also be entitled to charge an administrative fee, as determined by DISTRICT in its sole discretion, for substituting equivalent securities for retention amounts. The DISTRICT'S decisions with respect to the administration of the provisions of Section 22300 shall be final and shall include, but not be limited to, determinations of what securities are equivalent, the value of the securities, the negotiability of the securities, the costs of administration and the determination of whether or not the administration should be accomplished by an independent agency or by the DISTRICT. The DISTRICT shall be entitled, at any time, to request the deposit of additional securities of a value designated by DISTRICT, in DISTRICT sole discretion, to satisfy this requirement. If the DISTRICT does not receive satisfactory securities within twelve (12) consecutive days of the date of the written request, DISTRICT shall be entitled to withhold amounts due CONTRACTOR until securities of satisfactory value to DISTRICT have been received.

The CONTRACTOR's license classification(s) required for this project are as follows:

Class "A"

These classifications are provided for information purposes only. The Engineer does not warrant that all classifications required for the project are listed.

It is the DISTRICT intent that "plans," as used in Public Contract Code Section 3300, is defined as the construction contract documents, which include both the drawings and the specifications.

The Board of Directors of the DISTRICT reserves the right to select the schedule(s) under which the bids are to be compared and contract(s) awarded, to reject any and all bids, and to waive any and all irregularities in any bid.

The Bidder is required to sign the attached Noncollusion Affidavit and submit it with his bid.

BY THE ORDER OF THE BOARD OF DIRECTORS OF THE JUNE LAKE PUBLIC UTILITY DISTRICT

Dated: October 14, 2020

SECTION 005200 AGREEMENT

THIS AGREEMENT, made and entered into by and between the
JUNE LAKE PUBLIC UTILITY DISTRICT

hereinafter referred to as "OWNER" and

_____;

a corporation under the laws of the state of _____;

a partnership composed of _____;

_____;

a joint venture composed of _____;

_____;

an individual doing business as _____;

hereinafter referred to as "CONTRACTOR."

OWNER and CONTRACTOR agree as follows:

- (1) SCOPE OF WORK: CONTRACTOR will furnish all materials and will perform all of the work for the construction of

SEWER SYSTEM REHABILITATION

in accordance with the plans and specifications and other contract documents therefor.

- (2) TIME FOR COMPLETION: The work shall be completed within the times set forth in Section 007300. Time is of the essence, and forfeiture due to delay will be assessed as provided for in the General Provisions.
- (3) CONTRACT SUM: OWNER will pay CONTRACTOR in accordance with the prices shown in the Bid Form.
- (4) PAYMENTS: Monthly progress payments and the final payment will be made in accordance with the General Provisions as modified by the Special Provisions. The filing of the notice of completion by OWNER shall be preceded by acceptance of the work made only by an action of the Governing Body of OWNER in session.
- (5) COMPLIANCE WITH PUBLIC CONTRACTS LAW: OWNER is a public agency in the State of California and is subject to the provisions of law relating to public contracts. It is

agreed that all provisions of law applicable to public contracts are a part of this contract to the same extent as though set forth herein and will be complied with by CONTRACTOR.

- (6) CONTRACTOR'S REPRESENTATIONS: In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:
- (a) CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents;
 - (b) CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
 - (c) CONTRACTOR is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work;
 - (d) CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except underground facilities) which have been identified in the Supplementary Conditions as provided in the General Provisions;
 - (e) CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereof;
 - (f) CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract times, and in accordance with the other terms and conditions of the Contract Documents;
 - (g) CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents;
 - (h) CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data within the Contract Documents;
 - (i) CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract

Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR; and

- (j) The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- (7) ACCOUNTING RECORDS: CONTRACTOR shall check all materials, equipment, and labor entering into the Work and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement, and the accounting methods shall be satisfactory to OWNER. OWNER shall be afforded access to all Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the cost of the Work and CONTRACTOR'S fee. CONTRACTOR shall preserve all such documents for a period of three years after the final payment by OWNER.
- (8) CONTRACT DOCUMENTS: The complete contract includes all the Contract Documents set forth herein, to wit: Notice Inviting Sealed Proposals (Bids), Bid Form, Agreement, Bid Bond, Performance Bond, Payment Bond, CONTRACTOR'S Certificate Regarding Workers' Compensation, Certificate of Insurance (Workers' Compensation and Employers' Liability), Insurance Endorsement (Workers' Compensation and Employers' Liability), Certificate of Insurance (Liability), Insurance Endorsement (Liability), General Provisions, Special Provisions, Standard Specifications, Drawings, Plans, and also addenda thereto and supplemental agreements.
- (9) SUCCESSOR AND ASSIGNS: OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- (10) PROMPT PAYMENT: As required by California law, the provisions of California Public Contract Code Section 20104.50, regarding prompt payment to contractors, are hereby incorporated in their entirety.

This Agreement is executed by the OWNER pursuant to an action of its Governing Body in session on _____, 20__, authorizing the same, and CONTRACTOR has caused this Agreement to be duly executed. The effective date will be the last date of execution by the parties.

Dated: _____, 20__

By _____
(Authorized Representative of OWNER)

Title: _____

Dated: _____, 20__ _____
(CONTRACTOR)

By _____
(Authorized Representative of CONTRACTOR)

(Seal if Corporation) Title _____

(Attach Acknowledgment for Authorized Representative of CONTRACTOR)

APPROVED:

(Attorney for OWNER)

CERTIFICATE OF CONTRACTOR

I, _____, certify that I am a/the _____ [designate sole proprietor, partner in partnership, or specify corporate office, e.g., secretary] in the entity named as CONTRACTOR in the foregoing contract.

I hereby expressly certify that the name of the entity to which I am associated is _____; that this entity is in good standing and has complied with all applicable laws and regulations, and that I have been expressly authorized by the proper parties in this entity to execute this contract on behalf of the above-named entity.

ATTEST: _____

Name _____
(Please Type)

Title _____

On _____ before me, _____,
(Insert name and title of officer)
personally appeared _____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public (Notary Seal)

END OF SECTION

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SECTION 006110 BID BOND

We, _____

as Principal, and _____
as Surety, jointly and severally, bind ourselves, our heirs, representatives, successors and assigns,
as set forth herein, to the

JUNE LAKE PUBLIC UTILITY DISTRICT

(herein called OWNER) for payment of the penal sum of _____

_____ Dollars (\$ _____), lawful money of the
United States. Principal has submitted the accompanying bid for the construction of

SEWER SYSTEM REHABILITATION

If the Principal is awarded the contract and enters into a written contract, in the form prescribed by the OWNER, at the price designated by his bid, and files two bonds with the OWNER, or substitute security in lieu thereof, one to guarantee payment for labor and materials and the other to guarantee faithful performance, in the time and manner specified by the OWNER, and carries all insurance in type and amount which conforms to the Contract Documents and furnishes required certificates and endorsements thereof, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Forfeiture of this bond, or any deposit made in lieu thereof, shall not preclude the OWNER from seeking all other remedies provided by law to cover losses sustained as a result of the Principal's failure to do any of the foregoing.

Principal and Surety agree that if the OWNER is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay OWNER's reasonable attorney's fees incurred with or without suit.

Executed on _____, 20____

PRINCIPAL

(Seal if Corporation)

By _____

Title _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's agent for service of process in California, if different from above)

_____ (telephone number of Surety's agent in California)

(Attach Acknowledgment)

SURETY

By _____

(Attorney-in-Fact)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

END OF SECTION

SECTION 006111 PERFORMANCE BOND

We, _____

as Principal, and _____
as Surety, jointly and severally, bind ourselves, our heirs, representatives, successors and assigns,
as set forth herein, to the

JUNE LAKE PUBLIC UTILITY DISTRICT

(herein called OWNER) for payment of the penal sum of _____

_____ Dollars (\$ _____), lawful money of the
United States. OWNER has awarded Principal a contract for the construction of

SEWER SYSTEM REHABILITATION

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Principal shall in all things abide by and well and truly keep and perform the covenants, and agreements in the said contract, and any alteration thereof made as therein provided, on his part to be kept and performed at the time and in the manner therein specified, and shall faithfully fulfill the one-year guarantee of all materials and workmanship, and shall indemnify and save harmless the OWNER, the ENGINEER, the OWNER'S REPRESENTATIVE, and their consultants, and each of their directors, officers, employees and agents, as therein stipulated, this obligation shall become null and void, otherwise, it shall be and remain in full force and effect.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the plans and specifications shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that if the OWNER is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay OWNER's reasonable attorney's fees incurred, with or without suit, in addition to the above sum.

Executed in four original counterparts on _____, 20____

PRINCIPAL

(Seal if Corporation) By _____

Title _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's agent for service of process in California, if different from above)

(telephone number of Surety's agent in California)

(Attach Acknowledgment)

_____ SURETY

By _____

APPROVED: (Attorney-in-Fact)

_____ (Attorney for OWNER)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

END OF SECTION

SECTION 006112 PAYMENT BOND

We, _____

as Principal, and _____
as Surety, jointly and severally, bind ourselves, our heirs, representatives, successors and assigns,
as set forth herein, to the

JUNE LAKE PUBLIC UTILITY DISTRICT

(herein called OWNER) for payment of the penal sum of _____

_____ Dollars (\$ _____),
lawful money of the United States. OWNER has awarded Principal a contract for the construction
of

SEWER SYSTEM REHABILITATION

If Principal or any of his subcontractors fails to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract or during the one-year guarantee period, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, then Surety will pay the same in an amount not exceeding the sum specified above, and also will pay, in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the drawings and specifications shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that should OWNER become a party to any action on this bond that, each will also pay OWNER's reasonable attorney's fees incurred therein in addition to the sum above set forth.

Executed in four original
counterparts on _____, 20____

PRINCIPAL

(Seal if Corporation)

By _____

Title _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's agent for service of process in California, if different from above)

_____ (telephone number of Surety's agent in California)

(Attach Acknowledgment)

_____ SURETY

By _____
(Attorney-in-Fact)

APPROVED:

(Attorney for OWNER)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

END OF SECTION

SECTION 006220 CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

Description of Contract: JUNE LAKE PUBLIC UTILITY DISTRICT SEWER SYSTEM REHABILITATION

Labor Code Section 3700 provides (in part):

“Every employer except the State shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.”

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers’ compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Dated: _____, 20__

(CONTRACTOR)

By _____

(Official Title)

(SEAL)

(Labor Code Section 1861 provides that the above certificate must be signed and filed by the CONTRACTOR with the OWNER prior to performing any work under this contract.)

END OF SECTION

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SECTION 006221 WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY
 CERTIFICATE OF INSURANCE

Description of Contract: JUNE LAKE PUBLIC UTILITY DISTRICT
 SEWER SYSTEM REHABILITATION

Type of Insurance: Workers' Compensation and Employers' Liability
 Insurance

THIS IS TO CERTIFY that the following policy has been issued by the below-stated company in conformance with the requirements of Article 3-4 of the General Provisions and is in force at this time, and is in a form approved by the Insurance Commissioner.

The Company will give at least ten (10) days' written notice to the OWNER prior to cancellation of said policy for nonpayment of premium and thirty (30) days' written notice to the OWNER prior to cancellation of said policy for any other reason.

<u>POLICY NUMBER</u>	<u>EXPIRATION DATE</u>	<u>LIMITS OF LIABILITY</u>
		Workers' Compensation: Statutory Limits Under the Laws of the State of California
		Employers' Liability:
		\$_____ Each Accident
		\$_____ Disease - Policy Limit
		\$_____ Disease - Each Employee

Named Insured (CONTRACTOR)	Insurance Company
Street Number	Street Number
City and State	City and State
	By _____ (Company Representative)

(SEE NOTICE ON PAGE 2)

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

City and State

Telephone Number

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the policy listed herein.

This is to certify that the policy has been issued to the named insured for the policy period indicated, notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions, and conditions of such policy.

NOTICE:

Substitution of this form with an ACORD form is acceptable.

END OF SECTION

SECTION 006222 WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY
INSURANCE ENDORSEMENT

Description of Contract: JUNE LAKE PUBLIC UTILITY DISTRICT
SEWER SYTEM REHABILITATION

Type of Insurance: Workers' Compensation and Employers' Liability
Insurance

This endorsement forms a part of Policy No. _____.

ENDORSEMENT

It is agreed that with respect to such insurance as is afforded by the policy, the Company waives any right of subrogation it may acquire against the OWNER, the ENGINEER, the OWNER'S REPRESENTATIVE, and their consultants, and each of their directors, officers, and employees by reason of any payment made on account of injury, including death resulting therefrom, sustained by any employee of the insured, arising out of the performance of the above-referenced contract.

The additional premium for this endorsement shall be _____%* of the California Workers' Compensation premium otherwise due on such remuneration.

This endorsement does not increase the Company's total limits of liability.

_____ Named Insured (CONTRACTOR)	_____ Insurance Company
_____ Street Number	_____ Street Number
_____ City and State	_____ City and State
	By _____ (Company Representative)

*CONTRACTOR's insurance company to fill in this percentage.

NOTICE:

No substitution or revision to the above endorsement form will be accepted. If the insurance called for is provided by more than one policy, a separate endorsement in the exact above form shall be provided for each policy.

END OF SECTION

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SECTION 006223 LIABILITY INSURANCE CERTIFICATE OF INSURANCE

Description of Contract: JUNE LAKE PUBLIC UTILITY DISTRICT
SEWER SYSTEM REHABILITATION

Type of Insurance: Liability Insurance

THIS IS TO CERTIFY that the following policies have been issued by the below-stated company in conformance with the requirements of Article 3-4 of the General Provisions and are in force at this time:

Type of Insurance	Policy Number	Effective Date	Expiration Date	Limits	
General Liability				General Aggregate	\$
				Products—Comp/Ops Agg.	\$
				Personal & Adv. Injury	\$
				Each Occurrence	\$
				Fire Damage (Any one fire)	\$
				Med. Expense (Any one person)	\$
Automobile Liability				Combined Single Limit	\$
				Bodily Injury (Per person)	\$
				Bodily Injury (Per Accident)	\$
				Property Damage	\$
Excess Liability				Each Occurrence	\$
				Aggregate	\$

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the policies listed herein.

This is to certify that the policy has been issued to the named insured for the policy period indicated, notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions, and conditions of such policies.

The Company will give at least ten (10) days' written notice to the OWNER prior to cancellation of said policy for nonpayment of premium and thirty (30) days' written notice to the OWNER prior to cancellation of said policy for any other reason.

_____ Named Insured (CONTRACTOR)	_____ Insurance Company
_____ Street Number	_____ Street Number
_____ City and State	_____ City and State
	By _____ (Company Representative)

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

City and State

Telephone Number

NOTICE:

Substitution of this form ACORD form is acceptable.

Insurers must be authorized to do business and have an agent for service of process in California and have at least a B+ VIII rating in accordance with the most current Best's Rating Guide.

END OF SECTION

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SECTION 006224 LIABILITY INSURANCE ENDORSEMENT

Description of Contract: JUNE LAKE PUBLIC UTILITY DISTRICT
SEWER SYSTEM REHABILITATION

Type of Insurance: Liability Insurance

This endorsement forms a part of Policy No. _____.

ENDORSEMENT

The OWNER, the ENGINEER, the OWNER'S REPRESENTATIVE, and their consultants, and each of their directors, officers, and employees are included as additional insureds under said policy but only while acting in their capacity as such and only as respects operations of the named insured. This insurance shall not apply to an additional insured to the degree that the loss or damage is ultimately determined to be the result of the additional insured's negligence (including any connected with the preparation or approval of maps, drawings, opinions, reports, surveys, designs, or specifications). The insurance afforded to these additional insureds is primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of this insurance shall not be reduced or prorated by the existence of such other insurance.

This endorsement does not increase the Company's total limits of liability.

Named Insured (CONTRACTOR)	Insurance Company
Street Number	Street Number
City and State	City and State
	By _____ (Company Representative)

NOTICE:

Substitution of this form with an ACORD form is acceptable.

END OF SECTION

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ARTICLE 1 DEFINITIONS, TERMS, AND ABBREVIATIONS

1-1 DEFINITIONS

Whenever the following terms occur in the Contract Documents, the meaning shall be interpreted as follows:

ACCEPTANCE, FINAL ACCEPTANCE. The formal action by the Owner accepting the work as being complete.

ACCEPTED BID. The bid (proposal) accepted by the Owner.

ADDENDA. Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bidding requirements and the Contract Documents.

AGREEMENT. The written instrument which is evidence of the agreement between Owner and Contractor covering the work.

BIDDER. Any individual, partnership, corporation, joint venture, or other combination thereof submitting a proposal for the work contemplated, acting directly or through an authorized representative.

CONTRACT. The entire and integrated written agreement executed between the Owner and the Contractor concerning the work. The Contract supersedes prior negotiations, representations or agreements, whether written or oral.

CONTRACTOR. The individual, partnership, corporation, joint venture, or other combination thereof who has entered into the Contract with the Owner for the performance of the work. The term "Contractor" means the Contractor or its authorized representative.

CONTRACT DOCUMENTS. The Contract Documents set forth in the Agreement; also any and all supplemental agreements amending or extending the work contemplated. Supplemental agreements are written agreements covering alterations, amendments, or extensions to the Contract and include Contract change orders.

DAYS. Unless otherwise specified, days shall mean calendar days.

ENGINEER. AECOM and its subsidiaries. The term "Engineer" means the Engineer or its authorized representative.

OWNER. The public entity identified as such in the Agreement. The term "Owner" means the Owner or its authorized representative.

OWNER'S REPRESENTATIVE. The person or firm authorized in writing by the Owner to represent it during the performance of the work by the Contractor. The Owner's Representative means the Owner's Representative or its assistants.

PLANS, DRAWINGS. The plans (drawings), or reproductions thereof, which show the location, character, dimensions, and scope of the work to be done.

SPECIAL PROVISIONS. Additions, deletions, and changes to the General Provisions and Standard Specifications.

SPECIFICATIONS. The written provisions and requirements contained in the General Provisions and Standard Specifications as supplemented by the Special Provisions.

STANDARD SPECIFICATIONS. The Contract Documents identified or referenced as such.

SUBCONTRACTOR. An individual, partnership, corporation, joint venture, or other combination thereof who has a contract with the Contractor to perform any of the work at the site. Subcontractor also means an individual, partnership, corporation, joint venture, or other combination thereof who has a contract with another subcontractor to perform any of the work at the site.

STANDARD DRAWINGS, STANDARD PLANS. That portion of the plans identified or referenced as such.

UTILITY. Public or private fixed works for the transportation of fluids, gases, power, signals, or communications.

WORK. Any and all obligations, duties, and responsibilities necessary to complete the construction assigned to, or undertaken by, the Contractor pursuant to the Contract Documents including all labor necessary to produce such construction and all materials, equipment, and supplies incorporated or to be incorporated in the construction. Also, the completed construction or parts thereof required to be provided under the Contract Documents.

1-2 TERMS

Wherever the terms "required," "permitted," "ordered," "designated," "directed," "prescribed," or terms of like import are used, it shall be understood that the requirements, permission, order, designation, prescription, or direction of the Owner's Representative is intended. Similarly, the terms "acceptable," "satisfactory," "or equal," or terms of like import shall mean acceptable to or satisfactory to the Owner's Representative, unless otherwise expressly stated. The word "provide" shall be understood to mean furnish and install. Whenever the context so requires, the singular shall include the plural, and the masculine and neuter genders shall each include the other.

1-3 ABBREVIATIONS

Wherever the following abbreviations are used, they shall have the meanings indicated:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AISC	American Institute of Steel Construction
AISI	American Iron & Steel Institute
ANSI	American National Standards Institute (formerly USASI, USAS, ASA)
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASA	American Standards Association (Now ANSI)
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
IEEE	Institute of Electrical and Electronics Engineers
NBFU	National Board of Fire Underwriters
NEMA	National Electrical Manufacturers Association
PCA	Portland Cement Association

State Specifications	California Standard Specifications, State of California, Department of Transportation, Division of Highways
SSPC	Steel Structures Painting Council
UBC	Uniform Building Code, Pacific Coast Building Officials Conference of the International Conference of Building Officials
U/L or UL	Underwriters' Laboratories, Inc.
USASI or USAS	United States of American Standards Institute (Now ANSI)
USGS	United States Geological Survey

ARTICLE 2 PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 CONTRACT DOCUMENTS

The Contract Documents are set forth in the agreement form and the definition of "Contract Documents" in the article on DEFINITIONS, TERMS, AND ABBREVIATIONS.

2-2 LICENSE

No bid will be accepted from a Bidder who is not licensed to conduct business in the state of California and licensed to perform the class of work defined by the Contract Documents.

2-3 PROPOSALS

Bids shall be made upon the bid form furnished by the Owner and a part of the Contract Documents. All bids shall be properly executed and with all items filled in; the signatures of all persons signing shall be in longhand. Erasures, interlineations, or other corrections shall be authenticated by affixing in the margin immediately opposite the correction the initials of a person signing the bid. If the unit price and the total amount named by a Bidder for any item are not in agreement, the unit price alone shall be considered as representing the Bidder's intention, and the totals shall be corrected to conform thereto.

Bids shall not contain any recapitulation of the work to be done. Alternative proposals will not be considered, except as called for. No oral, telegraphic, or telephonic proposals or modifications will be considered.

Bids shall be accompanied by a "Proposal Guarantee" in the form of a cashier's or a certified check, or bidder's bond or substitute security, in an amount not less than 10 percent of the amount of bid, made payable to or for the benefit of the Owner. Said check or bond or substitute shall be given as a guarantee that the Bidder will enter into a Contract and furnish the required bonds or substitutes and insurance certificates and endorsements if awarded the Contract, and in case of refusal or failure to enter into said Contract and furnish the required bonds or substitutes and insurance certificates and endorsements within 15 calendar days after notice of award by the Owner in writing, the check and the money represented by said check shall be forfeited to the Owner, or in the event that a bond or other security is deposited, said security shall be forfeited. Forfeiture does not preclude the Owner from seeking all other remedies provided by law to recover losses sustained as a result of the Contractor's failure to enter into the Contract or to furnish the required bonds or substitutes, or insurance certificates and endorsements, including without limitation, attorneys' fees and other costs reasonably incurred by the Owner, with or without legal proceedings.

Bids shall be sealed in an envelope marked and addressed as set forth in the Special Provisions. Bids shall be delivered to the addressee at the location designated in the Notice Inviting Sealed Proposals on or before the day and hour set for the opening of bids in the Notice Inviting Sealed Proposals, and shall bear the name of the Bidder. A bid will not be accepted after the date and time designated in the Notice Inviting Sealed Proposals. It is the sole responsibility of the Bidder to see that its bid is delivered and received in proper time. Any bid received after said designated date and time shall be returned to the Bidder unopened.

2-4 WITHDRAWAL OF BID

A Bidder may withdraw its bid by a signed written request any time prior to the date and time for receiving bids designated in the Notice Inviting Sealed Proposals.

The withdrawal of a bid does not prejudice the right of a Bidder to file a new bid so long as the new bid is delivered as set forth in the article on PROPOSALS prior to the closing time specified for all bids.

2-5 BIDDERS INTERESTED IN MORE THAN ONE BID

No person, partnership, or corporation shall be allowed to make or file, or be interested in more than one bid for the work, unless alternative bids are called for. A person, partnership, or corporation submitting a subproposal to a

Bidder, or who has quoted prices on material to a Bidder, is not thereby disqualified from submitting a subproposal or quoting prices to other Bidders.

2-6 INTERPRETATION OF PLANS AND OTHER CONTRACT DOCUMENTS

If any person or entity contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any part of the plans, specifications, or other contract documents, or finds discrepancies in, or omissions from the plans and specifications or other contract documents, it may submit to the Engineer a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. An interpretation or correction of the Contract Documents will be made only by Addendum duly issued by the Engineer. A copy of such Addendum will be mailed or delivered to each person or entity that has received a set of such documents. The Owner and the Engineer will not be responsible for any other explanation or interpretation of the documents.

2-7 ADDENDA

Addenda issued before the time in which to submit bids expires shall be included in the bid and shall be made a part of the Contract.

2-8 EXISTING CONDITIONS AND EXAMINATION OF CONTRACT DOCUMENTS

The Bidder represents that it has carefully examined the Contract Documents and the site where the work is to be performed and that it has familiarized itself with all local conditions and federal, state and local laws, ordinances, rules, and regulations that may affect in any manner the performance of the work. The Bidder further represents that it has studied all surveys and investigation reports about subsurface and latent physical conditions pertaining to the jobsite, that it has performed such additional surveys and investigations as it deems necessary to complete the work at its bid price, and that it has correlated the results of all such data with the requirements of the Contract Documents. The submittal of a bid shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality, quantities, and scope of the work.

The plans and specifications for the work show subsurface conditions or otherwise hidden conditions as they are supposed or believed by the Engineer to exist; but it is not intended or to be inferred that the conditions as shown thereon constitute a representation that such conditions are actually existent. Except as otherwise specifically provided in the Contract Documents, the Owner, the Engineer, and their consultants shall not be liable for any loss sustained by the Contractor as a result of any variance of such conditions as shown on the plans and the actual conditions revealed during the progress of the work or otherwise.

Where the Owner or the Engineer or their consultants have made investigations of subsurface conditions in areas where the work is to be performed, such investigations were made only for the purpose of study and design. The conditions indicated by such investigations apply only at the specific location of each boring or excavation at the time the borings or excavations were made. Where such investigations have been made, Bidders or Contractors may inspect the records as to such investigations subject to and upon the conditions hereinafter set forth. The inspection of the records shall be made at the office of the Engineer.

The records of such investigations are not a part of the Contract and are shown solely for the convenience of the Bidder or Contractor. It is expressly understood and agreed that the Owner, the Engineer, and their consultants assume no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations; the records thereof; or of the interpretations set forth therein or made by the Owner's consultants, the Engineer or its consultants in the use thereof by the Engineer, and there is no warranty or guarantee, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions, densities, or other characteristics different from, those indicated may not be encountered.

When a log of test borings showing a record of the data obtained by the investigation of subsurface conditions by the Owner, the Engineer, or their consultants is included with the plans or other documents, it is expressly understood and agreed that said log of test borings does not constitute a part of the Contract, represents only the opinion of the Owner or the Engineer or their consultants as to the character of the materials encountered by them in the test borings, is included in the plans or other documents only for the convenience of Bidders, and its use is subject to all of the conditions and limitations set forth in this article.

The availability or use of information described in this article is not to be construed in any way as a waiver of the provisions of the first paragraph in this article and a Bidder or Contractor is cautioned to make such independent investigations and examination as it deems necessary to satisfy itself as to conditions to be encountered in the performance of the work.

No information derived from such inspection of records of investigations or compilation thereof made by the Owner, the Engineer, or their consultants will in any way relieve the Bidder or Contractor from any risk or from properly fulfilling the terms of the Contract nor entitle the Contractor to any additional compensation.

ARTICLE 3 AWARD AND EXECUTION OF CONTRACT

3-1 AWARD OF CONTRACT OR REJECTION OF BIDS

The award of the Contract, if it be awarded, will be to the lowest responsible responsive Bidder complying with the instructions contained in the Contract Documents. The Owner, however, reserves the right to select the schedules under which the bids are to be compared, to reject any and all bids, and to waive any irregularity in bids received. If, in the judgment of the Owner, a bid is unbalanced or if the Bidder is not responsible, it shall be considered sufficient grounds for rejection of the entire bid.

The Owner shall have the period of time set forth in the Special Provisions after the opening of bids within which to accept or reject the bids. No Bidder may withdraw its bid during said period. The Owner will return the proposal guarantees, except any guarantees which have been forfeited, and except bidders' bonds, to the respective Bidders whose proposals they accompanied within ten days after the execution of the Contract by the successful Bidder or rejection of all bids or upon receipt of a written request therefor received after said period of time set forth in the Special Provisions.

Before award of the Contract, any Bidder shall furnish upon request a recent statement of its financial condition and previous construction experience or such other evidence of its qualifications as may be requested by the Owner. If a Bidder fails to furnish in a timely manner the information requested, it shall be considered sufficient grounds for rejection of such Bidder's entire bid.

3-2 EXECUTION OF CONTRACT

The form of agreement, bonds, and other documents which the successful Bidder, as Contractor, will be required to execute are included as a part of the Contract Documents.

The Contract shall be signed by the successful Bidder and returned to the Owner, together with the bonds and certificates of insurance and endorsements, within 15 calendar days or such additional time as may be allowed by the Owner from the date of the mailing of notice from the Owner to the Bidder or from the date of personal delivery of notice from the Owner to the Bidder that the agreement is ready for signature. The agreement, bonds, certificates of insurance and endorsements, and other documents to be executed by the Contractor shall be executed in original-quadruplicate, one each of which shall be filed with the Owner and one each with the Attorney for the Owner and the Engineer for the Owner.

3-3 BONDS

The successful Bidder, simultaneously with the execution of the Agreement, shall furnish a payment bond and a performance bond each in an amount equal to 100 percent of the Contract amount, or equivalent cash or security in lieu of bonds pursuant to Section 995.710 of the Code of Civil Procedure. Bonds shall be furnished by surety companies satisfactory to the Owner on the forms furnished as part of the Contract Documents. Surety companies, to be acceptable to the Owner, must be authorized to do business and have an agent for service of process in California.

3-4 INSURANCE REQUIREMENTS

The successful Bidder will be required to furnish the Owner proof of full compliance with all insurance requirements as specified in the article on CONTRACTOR'S INSURANCE. The forms of certificate of insurance and endorsement which the successful Bidder, as Contractor, will be required to furnish are included as a part of the Contract Documents.

3-5 FAILURE TO EXECUTE CONTRACT

Failure by a Bidder to whom the Contract is awarded to execute the Contract or to furnish the required bonds or insurance certificates and endorsements shall be just cause for the annulment of the award and the forfeiture of the proposal guarantee.

A Bidder who is awarded the Contract and fails to execute the Contract or furnish the required bonds or insurance certificates and endorsements shall be liable to the Owner for all damages resulting therefrom including reasonable attorneys' fees. The proposal guarantee forfeited shall not be a limitation thereon.

ARTICLE 4 SCOPE OF WORK

4-1 WORK TO BE DONE

The work to be done consists of furnishing all transportation, labor, materials, tools, equipment, services, permits, utilities and all other items which are necessary or appurtenant to construct and complete the entire project and construct the project designated in the Contract Documents, and to leave the grounds in a neat and presentable condition. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

4-2 CHANGES IN THE WORK

The Owner may require changes in, additions to, or deductions from the work, including complete termination thereof. Adjustment, if any, in the amounts to be paid to the Contractor by reason of any such change, addition, or deduction shall be determined as set forth in Article 9 of the General Provisions.

The Owner's Representative may order minor changes in the work not involving an increase or decrease in the Contract amount, not involving a change in the time for completion, and not inconsistent with the purposes for which the work is being constructed. If the Contractor believes that any order for minor changes in the work involves changes in the Contract amount or time for completion, it shall not proceed with the minor changes so ordered and shall within seven days of the receipt of such order notify the Owner's Representative in writing of its estimate of the changes in the Contract amount and time for completion it believes to be appropriate.

No payment for changes in the work will be made, and no changes in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by the Owner in advance of the Contractor's proceeding with the changed work.

4-3 OBSTRUCTIONS

The Contractor shall remove and dispose of all structures, debris, or other obstructions of any character necessary to accommodate the work. Where such obstructions consist of improvements not required by law to be removed by the owner thereof, all such improvements shall be removed, maintained, and permanently replaced by the Contractor at its expense except as otherwise specifically provided in the Contract Documents.

4-4 UTILITIES

The Engineer has endeavored to determine the existence of utilities at the site of the work from the records provided by the owners of known utilities in the vicinity of the work. The positions of these utilities as derived from such records are shown on the plans. The service connections to these utilities may not be shown on the plans.

The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of existing service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the work. If the Contractor discovers utility facilities not identified in the plans or specifications or in a position different from that shown in the plans and specifications, it shall immediately notify in writing the Owner's Representative and the owner of the utility facility.

As provided in Section 4216 of the California Government Code, at least two working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number as set forth in paragraph 4216.2.

Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
2. The cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for: (a) reviewing and checking all such information and data; (b) locating all underground facilities shown or indicated in the Contract Documents; (c) coordination of the work with the owners of such underground facilities, including Owner, during construction, and (d) the safety and protection of all such underground facilities and repairing any damage thereto resulting from the work.

If an underground facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any work in connection therewith (except in an emergency) as required by Contractor, in its obligation to prevent threatened damages, injury or loss in emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, identify the owner of such underground facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the underground facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the underground facility. During such time, Contractor shall be responsible for the safety and protection of such underground facility.

If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract times, or both, to the extent that they are attributable to the existence or location of any underground facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated.

The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the work and for the purpose of maintaining and making repairs to their property.

4-5 PLANS AND SPECIFICATIONS FURNISHED BY THE OWNER

The Owner will furnish to the Contractor free of charge all copies of plans and specifications reasonably necessary for the execution of the work. The Contractor shall keep one set of plans and specifications in good order available to the Owner's Representative at the site of the work.

4-6 FINAL CLEANUP

Upon completion and before making application for acceptance of the work, the Contractor shall clean all rights-of-way, streets, borrow pits, and all other grounds occupied by it in connection with the work of all rubbish, excess materials, temporary structures, and equipment, and all parts of the work and grounds occupied by it shall be left in a neat and presentable condition.

ARTICLE 5 QUALITY OF THE WORK

5-1 AUTHORITY OF THE OWNER'S REPRESENTATIVE

The Owner's Representative shall decide any and all questions which may arise as to the interpretation of the plans and specifications and shall have authority to disapprove or reject materials and equipment furnished and work performed which, in the Owner's Representative's opinion, is not in accordance with the Contract Documents.

5-2 SUPPLEMENTAL DRAWINGS

The plans may be supplemented by such drawings as are necessary to better define the work. All such drawings delivered to the Contractor by the Owner's Representative shall be deemed written instructions to the Contractor. If the Contractor believes that any supplemental drawings call for changes in the work for which the Contract amount or time for completion should be changed, it shall not proceed with the changes in the work so called for and shall within seven days of the receipt of the supplemental drawings notify the Owner's Representative in writing of its estimate of the changes in the Contract amount and time for completion it believes to be appropriate.

No payment for changes in the work will be made and no change in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by the Owner in advance of the Contractor's proceeding with the changed work.

5-3 CONFORMITY WITH CONTRACT DOCUMENTS AND ALLOWABLE DEVIATIONS

The work shall conform to the lines, grades, dimensions, tolerances, and material and equipment requirements shown on the plans or set forth in the specifications. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Owner's Representative shall be the sole judge as to whether the work or materials deviate from the plans and specifications, and its decision as to any allowable deviations therefrom shall be final.

If specific lines, grades, and dimensions are not shown on plans, those furnished by the Owner's Representative shall govern.

5-4 MANUFACTURER'S INSTRUCTIONS

All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier, or distributor, except as otherwise specifically provided in the Contract Documents.

5-5 COORDINATION OF PLANS AND SPECIFICATIONS

The specifications, plans, and other contract documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for the complete work. In the event of an apparent difference between plans and specifications, reference shall be made to the Owner's Representative whose decision thereon shall be final.

Special Provisions shall govern over General Provisions and Standard Specifications.

5-6 INTERPRETATION OF PLANS AND SPECIFICATIONS

Figured dimensions on drawings shall govern, but work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Large-scale details shall take precedence over smaller scale drawings as to shape and details of construction. Specifications shall govern as to materials and workmanship. Drawings and specifications are intended to be fully complementary and to agree. The specification calling for the higher quality material or workmanship shall prevail. Materials or work described in words which so applied have a well-known technical or trade meaning shall be deemed to refer to such recognized

standards. Before undertaking each part of the work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Owner's Representatives any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Owner's Representative before proceeding with any work affected thereby. The Owner's Representative's decision thereon shall be final.

5-7 ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR

It is the duty of the Contractor to promptly notify the Owner's Representative in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified method and fails to promptly notify the Owner's Representative in writing of this belief, the Contractor waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against Owner, or in any subsequent arbitration or settlement conference between the Owner and the Contractor. The Owner's Representative, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after it comes to the belief that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at its own risk and it shall bear all cost arising therefrom.

If the Contractor, either before commencing work or in the course of the work, finds any discrepancy between the specifications and the plans or between either of them and the physical conditions at the site of the work or finds any error or omission in any of the plans or in any survey, it shall promptly notify the Owner's Representative of such discrepancy, error, or omission. If the Contractor observes that any plans or specifications are at variance with any applicable law, ordinance, regulation, order, or decree, it shall promptly notify the Owner's Representative in writing of such conflict. The Owner's Representative, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after its discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, or conflict will be at its own risk and it shall bear all cost arising therefrom.

5-8 SUPERVISION AND SUPERINTENDENCE

The Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction but the Contractor shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence, or procedure of construction that is indicated in and required by the construction documents.

The Contractor shall be responsible to see that the completed work complies with the Contract Documents.

The Contractor shall designate and keep on the work at all times during its progress a competent superintendent who shall not be replaced without written notice to the Owner's Representative. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor. During periods when the work is suspended, the Contractor shall make appropriate arrangements for any emergency work which may be required.

Whenever the superintendent is not present on any particular part of the work where the Owner's Representative may desire to inform the Contractor relative to interpretation of the plans and specifications or to disapproval or rejection of materials or work performed, the Owner's Representative may so inform the foreman or other worker in charge of the particular part of the work in reference to which the information is given. Information so given shall be as binding as if given to the superintendent.

5-9 SHOP DRAWINGS

Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are prepared by the Contractor or any subcontractor, manufacturer, supplier, or distributor and which illustrate some portion of the work.

The Contractor shall review, mark with its approval, and submit for review by the Owner's Representative Shop Drawings as called for in the Special Provisions and Standard Specifications or requested by the Owner's Representative. Drawings shall be submitted in sextuplet to the Owner's Representative and be accompanied by a letter of transmittal listing the drawings submitted. Drawings shall show the name of the project, the name of the Contractor, and, if any, the names of suppliers, manufacturers, and subcontractors. If the Shop Drawings incorporate any documents prepared by the Engineer, such Shop Drawings shall not reproduce the registration stamp or company logo of the Engineer. Shop Drawings shall be submitted with promptness and in orderly sequence so as to cause no delay in prosecution of the work.

Shop Drawings shall be complete in all respects. If the Shop Drawings show any deviations from the requirements of the plans and specifications because of standard shop practices or other reasons, the deviations and the reasons therefor shall be set forth in the letter of transmittal.

By submitting Shop Drawings, the Contractor represents that material, equipment, and other work shown thereon conforms to the plans and specifications, except for any deviations set forth in the letter of transmittal.

Within 30 calendar days after receipt of said drawings, the Owner's Representative will return two of the copies of the drawings to the Contractor with any comments noted thereon. If so noted by the Owner's Representative, the Contractor shall correct the drawings and resubmit them in the same manner as specified for the original submittal. The Contractor in the letter of transmittal accompanying resubmitted Shop Drawings shall direct specific attention to revisions other than the corrections requested by the Owner's Representative on previous submittals.

The review by the Owner's Representative is only for general conformance with the design concept of the project and general compliance with the plans and specifications and shall not be construed as relieving the Contractor of the full responsibility for: providing materials, equipment, and work required by the Contract; the proper fitting and construction of the work; the accuracy and completeness of the Shop Drawings; selecting fabrication processes and techniques of construction; and performing the work in a safe manner.

No portion of the work requiring a Shop Drawing submittal shall be commenced until the submittal has been reviewed by the Owner's Representative and returned to the Contractor with a notation indicating that resubmittal is not required.

If the Contractor believes that any Shop Drawing or communication relative thereto calls for changes in the work for which the contract amount or time for completion should be changed, it shall not proceed with the changes in the work so called for and shall promptly notify the Owner's Representative in writing of its estimate of the changes in the Contract amount and time for completion it believes to be appropriate. No payment for changes in the work will be made and no change in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by the Owner in advance of the Contractor's proceeding with the changed work.

5-10 QUALITY AND SAFETY OF MATERIALS AND EQUIPMENT

All equipment, materials, and supplies to be incorporated in the work shall be new, unless otherwise specified. All equipment, materials, and supplies shall be produced in a good and workmanlike manner. When the quality of a material, process, or article is not specifically set forth in the plans and specifications, the best available quality of the material, process, or article shall be provided.

Whenever any material, process, or article is indicated or specified by grade, patent or proprietary name, or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of the

materials, process, or articles desired and shall be deemed to be followed by the words "or (approved) equal," and the Contractor may offer any material, process, or article which shall be substantially equal or better in every respect to that so indicated or specified; provided, however, that if the material, process, or article offered by the Contractor is not, in the opinion of the Owner's Representative, equal or better in every respect to that specified, then the Contractor must furnish the material, process, or article specified or one that in the opinion of the Owner's Representative is the substantial equal or better in every respect. In the event that the Contractor furnishes material, process, or article more expensive than specified, the difference in cost of such material, process, or article so furnished shall be borne by the Contractor.

In accordance with Section 3400 of the Public Contract Code, the Contractor shall submit data substantiating requests for substitution of "equal" items within 35 days after award of the Contract. This 35-day period of time is included in the number of days allowed for the completion of the work.

All materials, equipment, and supplies provided shall, without additional charge to Owner, fully conform with all applicable state and federal safety laws, rules, regulations, and orders, and it shall be Contractor's responsibility to provide only such materials, equipment, and supplies notwithstanding any omission in the Contract Documents therefor or that a particular material, equipment, or supply was specified.

5-11 STANDARDS, CODES, SAMPLES, AND TESTS

Whenever reference is made to a standard, code, specification, or test and the designation representing the date of adoption or latest revision thereof is omitted, it shall mean the latest revision of such standard, code, specification, or test in effect on the day the Notice Inviting Sealed Proposals (Bids) is dated.

Tests shall be made in accordance with commonly recognized procedures of technical organizations and such special procedures as may be prescribed elsewhere in the plans and specifications. The Contractor shall furnish without charge such samples for testing as may be required by the Owner's Representative.

5-12 OBSERVATION OF WORK BY OWNER'S REPRESENTATIVE

The Owner's Representative shall at all times have access to the work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials and equipment used and employed in the work.

Whenever the Contractor varies the normal period during which work or any portion of it is carried on each day, it shall give timely notice to the Owner's Representative so that the Owner's Representative may, if the Owner's Representative wishes, be present to observe the work in progress. If the Contractor fails to give such timely notice, any work done in the absence of the Owner's Representative will be subject to rejection.

The Contractor shall give timely notice to the Owner's Representative in advance of backfilling or otherwise covering any part of the work so that the Owner's Representative may, if it wishes, observe such part of the work before it is concealed.

The observation, if any, by the Owner's Representative of the work shall not relieve the Contractor of any of its obligations to fulfill the Contract as prescribed. Defective work shall be made good, and materials and equipment furnished and work performed which is not in accordance with the Contract Documents may be rejected notwithstanding the fact that such materials, equipment, and work have been previously observed by the Owner's Representative or that payment therefor has been included in an estimate for payment.

5-13 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

Any work which does not conform to the requirements of the Contract Documents shall be remedied or removed and replaced by the Contractor, together with any other work which may be displaced in so doing, and no compensation will be allowed the Contractor for such removal, replacement, or remedial work. All nonconforming materials shall be immediately removed from the site.

Any work done beyond the lines and grades shown on the plans or established by the Owner's Representative or any changes in, additions to, or deductions from the work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed, or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply promptly with any order of the Owner's Representative made under the provisions of this article, the Owner's Representative shall have authority to cause nonconforming materials, rejected work, or unauthorized work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

5-14 ONE-YEAR GUARANTEE

Besides guarantees required elsewhere, the Contractor shall and hereby does guarantee the work for a period of one year after the date of acceptance of the work by the Owner, except for any portion of the work that is utilized or placed into service by the Owner in accordance with the provisions of Article 6-6. The guarantee period for portions of the work so utilized or placed into service shall be one year commencing on the date of the written notification to the Contractor described in Article 6-6. The Contractor shall repair or remove and replace any and all work, together with any other work which may be displaced in so doing, that is found to be defective in workmanship and/or materials within said one-year periods, without expense whatsoever to the Owner, ordinary wear and tear and unusual abuse or neglect excepted. In the event of failure to comply with the above-mentioned conditions within one week after being notified in writing, the Owner is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor, who hereby agrees to pay the cost and charges therefor immediately on demand. Such action by the Owner will not relieve the Contractor of the guarantees required by this article or elsewhere in the Contract Documents.

The performance bond and the payment bond shall continue in full force and effect for the guarantee period.

If, in the opinion of the Owner, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the Owner or to prevent interruption of operation of the Owner, the Owner will attempt to give the notice required by this article. If the Contractor cannot be contacted or does not comply with the Owner's request for correction within a reasonable time as determined by the Owner, the Owner may, notwithstanding the provisions of this article, proceed to make such correction or provide such attention; and the costs of such correction or attention shall be charged against the Contractor. Such action by the Owner will not relieve the Contractor of the guarantees required by this article or elsewhere in the Contract Documents.

This article does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer or supplier gives a guarantee for a longer period. The Contractor agrees to act as a co-guarantor with such manufacturer or supplier and shall furnish the Owner all appropriate guarantee or warranty certificates upon completion of the project. No guarantee period, whether provided for in this article or elsewhere, shall in any way limit the liability of Contractor or its sureties or insurers under the indemnity or insurance provisions of these General Provisions.

ARTICLE 6 PROSECUTION AND PROGRESS

6-1 SUBCONTRACTING

If the Contractor shall subcontract any part of this Contract, the Contractor shall be as fully responsible to the Owner for the acts and omissions of its subcontractor and of the persons either directly or indirectly employed by its subcontractor as it is for the acts and omissions of persons directly employed by the Contractor. Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the Owner. The Contractor shall cause every subcontractor to be bound by the terms of the Contract Documents.

The divisions and sections of the specifications and the identifications of any drawings shall not control the Contractor in dividing the work among subcontractors.

6-2 ASSIGNMENT

The performance of the Contract may not be assigned, except upon the written consent of the Owner. Consent will not be given to any proposed assignment which would relieve the original Contractor or its surety of their responsibilities under the Contract, nor will the Owner consent to any assignment of a part of the work under the Contract.

Upon obtaining a prior written consent of the Owner, the Contractor may assign moneys due or to become due it under the Contract, to the extent permitted by law, but any assignment of moneys shall be subject to all proper setoffs in favor of the Owner and to all deductions provided for in the Contract, and particularly all money withheld, whether assigned or not, shall be subject to being used by the Owner for the completion of the work in the event that the Contractor should be in default therein.

No assignment of this Contract will be approved unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for performance of the work called for under the Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials and that the Owner may withhold funds due until all work required by the Contract Documents is completed to the Owner's satisfaction.

6-3 CONTRACTOR'S CONSTRUCTION SCHEDULE AND COST BREAKDOWN

Within ten days after execution of the Contract, the Contractor shall deliver to the Owner's Representative a construction progress schedule and cost breakdown in bar chart form showing the proposed dates of commencement and completion and cost of each of the various parts of the work and the anticipated amount of each monthly payment that will become due the Contractor in accordance therewith.

6-4 TIME FOR COMPLETION AND FORFEITURE DUE TO DELAY

The Contractor shall complete all or any designated portion of the work called for under the Contract within the time set forth in the Special Provisions. Time is of the essence in this Contract.

Failure of the Contractor to perform any covenant or condition contained in the Contract Documents within the time period specified shall constitute a material breach of this Contract entitling the Owner to terminate the Contract unless the Contractor applies for, and receives, an extension of time in accordance with the procedures set forth in this article and Article 6-5 on EXTENSION OF TIME.

Failure of the Owner to insist upon the performance of any covenant or condition within the time period specified in the Contract Documents shall not constitute a waiver of the Contractor's duty to complete performance within the designated periods unless the waiver is in writing.

The Owner's agreement to waive a specific time provision or to extend the time for performance shall not constitute a waiver of any other time provisions contained in the Contract Documents. Failure of the Contractor to complete

performance promptly within the additional time authorized in the waiver or extension of time agreement shall constitute a material breach of this Contract entitling the Owner to terminate.

In accordance with Government Code 53069.85, Contractor agrees to forfeit and pay Owner the amount per day set forth in the Special Provisions for each and every day of delay which shall be deducted from any payments due or to become due the Contractor.

The Contractor shall not be deemed in breach of this Contract and no forfeiture due to delay shall be made because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, provided the Contractor requests an extension of time in accordance with the procedures set forth in this article and Article 6-5 on EXTENSION OF TIME. Unforeseeable causes of delay beyond the control of Contractor shall include acts of God, acts of a public enemy, acts of the government, acts of the Owner, or acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and weather, or delays of subcontractors due to such causes, or delays caused by failure of the Owner or the owner of a utility to provide for removal or relocation of existing utility facilities. Delays caused by actions or neglect of Contractor or its agents, servants, employees, officers, subcontractors, directors, or of any party contracting to perform part or all of the work or to supply any equipment or materials shall not be excusable delays. Excusable delays (those beyond Contractor's control) shall not entitle the Contractor to any additional compensation except as noted below. The sole remedy of the Contractor shall be to seek an extension of time.

The Contractor will be compensated for damages incurred due to delays for which the Owner is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor. Such actual costs will be determined by the Owner's Representative. The Owner will not be liable for, and in making this determination the Owner's Representative will exclude, all damages which the Owner's Representative determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

6-5 EXTENSION OF TIME

The time specified for completion of all of the work or any part of the work may be extended only by a written change order executed by the Owner or other written form executed by the Owner.

Requests for an extension of time must be delivered to the Owner's Representative within ten consecutive calendar days following the date of the occurrence which caused the delay. The request must be submitted in writing and must state the cause of the delay, the date of the occurrence causing the delay, and the amount of additional time requested. Requests for extensions of time shall be supported by all evidence reasonably available or known to the Contractor which would support the extension of time requested. Requests for extensions of time failing to include the information specified in this article and requests for extensions of time which are not received within the time specified above shall result in the forfeiture of the Contractor's right to receive any extension of time requested.

If the Contractor is requesting an extension of time because of weather, it shall supply daily written reports to the Owner's Representative describing such weather and the work which could not be performed that day because of such weather or conditions resulting therefrom and which it otherwise would have performed.

The Owner's acceptance of the daily reports shall not be deemed an admission of the Contractor's right to receive an extension of time or a waiver of the Owner's right to strictly enforce the time provisions contained in the Contract Documents.

When the Contractor has submitted a request for an extension of time in accordance with the procedures of this article and Article 6-4 on TIME FOR COMPLETION AND FORFEITURE DUE TO DELAY, the Owner will ascertain the facts and extent of the delay and extend the time for completing the work if, in its judgment, the findings of fact justify such an extension, and its findings of facts thereon shall be final and conclusive. An extension of time may be granted by the Owner after the expiration of the time originally fixed in the Contract or as

previously extended, and the extension so granted shall be deemed to commence and be effective from the date of such expiration.

Any extension of time shall not release the sureties upon any bond required under the Contract.

6-6 USE OF COMPLETED PORTIONS

When the work or any portion of it is sufficiently complete to be utilized or placed into service, the Owner shall have the right upon written notification to the Contractor to utilize such portions of the work and to place the operable portions into service and to operate same.

Upon said notice and commencement of utilization or operation by the Owner, the Contractor shall be relieved of the duty of maintaining the portions so utilized or placed into operation; provided, however, that nothing in this article shall be construed as relieving the Contractor of the full responsibility for completing the work in its entirety, for making good defective work and materials, for protecting the work from damage, and for being responsible for damage and for the work as set forth in the General Provisions and other contract documents nor shall such action by the Owner be deemed completion and acceptance, and such action shall not relieve the Contractor, its sureties, or insurers of the provisions of Articles 5-14, 7-12, and 8.

ARTICLE 7 LEGAL RELATIONS AND RESPONSIBILITIES

7-1 OBSERVING LAWS AND ORDINANCES

The Contractor shall keep itself fully informed of all laws, ordinances, and regulations which in any manner affect those engaged or employed in the work or the materials used in the work or which in any way affect the conduct of the work and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency is discovered in the plans, specifications, or Contract for the work in relation to any such law, ordinance, regulation, order, or decree, the Contractor shall forthwith report the same to the Owner's Representative in writing and cease operations on that part of the work until the Owner's Representative has given the Contractor appropriate instructions as provided for in Article 5-7 on ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR.

The Contractor shall at all times observe and comply with and shall cause all its agents, employees, subcontractors, and suppliers to observe and comply with all laws, ordinances, regulations, orders, and decrees, and shall, to the fullest extent allowed by law, hold harmless, indemnify, and defend the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents from and against all claims, damages, losses, expenses, and other costs, including costs of defense and attorneys' fees, arising out of or resulting from the violation of any such law, ordinance, regulation, order, or decree by the Contractor, its employees, agents, subcontractors, or suppliers.

7-2 PERMITS AND LICENSES

The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

7-3 INVENTIONS, PATENTS, AND COPYRIGHTS

The Contractor shall pay all royalties and assume all costs arising from the use of any invention, design, process, materials, equipment, product, or device which is the subject of patent rights or copyrights.

The Contractor shall, to the fullest extent allowed by law, hold harmless, indemnify, and defend the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents from and against all claims, damages, losses, expenses, and other costs, including costs of defense and attorneys' fees, arising out of any infringement of patent rights or copyrights incident to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, materials, equipment, product or device, and shall defend all such claims in connection with any alleged infringement of such rights.

7-4 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall so conduct its operations as to offer the least possible obstruction and inconvenience to the public, and it shall have under construction no greater length or amount of work than it can prosecute properly with due regard to the rights and safety of the public.

Convenient access to driveways, houses, and buildings along the line of work shall be maintained and temporary crossings shall be provided and maintained in good condition. Not more than one crossing or intersecting street or road shall be closed at any one time.

The Contractor shall provide and maintain such fences, barriers, directional signs, lights, and flagmen as are necessary to give adequate warning to the public at all times of any dangerous conditions to be encountered as a result of the construction work and to give directions to the public.

7-5 RESPONSIBILITY FOR LOSS, DAMAGE, OR INJURIES

The Contractor shall be responsible for all claims, demands, or liability from any cause arising out of or resulting from or in connection with the performance of the work, excepting only those as may be caused solely and exclusively by the negligence of the Owner, the Engineer, the Owner's Representative, or their consultants, or their directors, officers, employees, and agents. Such responsibility shall extend to claims, demands, or liability for loss, damage, or injuries occurring after completion of the work as well as during the progress of the work.

In the event any hazardous materials, including but not limited to asbestos, are utilized in construction or hazardous materials are otherwise encountered during construction, the Contractor shall take all appropriate precautions to protect persons and property and shall comply with all applicable regulations for the installation and handling of such hazardous materials. The Contractor is solely responsible for protection of persons and property that could be affected by construction and the Contractor's handling of such materials.

7-6 CONTRACTOR'S RESPONSIBILITY FOR THE WORK

Until the final acceptance of the work by Owner, the Contractor shall have the responsible charge and care of the work and of the materials to be used therein (including materials for which it has received partial payment or materials which have been furnished by the Owner) and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work.

The Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the work or the materials occasioned by any cause before its completion and final acceptance and shall bear the expense thereof. Where necessary to protect the work or materials from damage, the Contractor shall at its expense provide suitable drainage and erect such temporary structures as are necessary to protect the work or materials from damage. The suspension of the work or the granting of an extension of time from any cause whatever shall not relieve the Contractor of its responsibility for the work and materials as herein specified.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, shall act at its discretion to prevent such threatened loss or injury.

Notwithstanding the foregoing provisions of this article, the Contractor shall not be responsible for the cost of repairing or restoring damage to the work, which damage is determined to have been proximately caused by an Act of God, in excess of 5 percent of the contracted amount, provided that the work damaged is built in accordance with accepted and applicable building standards and the plans and specifications. For the purposes of this paragraph, "Acts of God" shall include only the following occurrences or conditions and effect: earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves.

7-7 PRESERVATION OF PROPERTY

The Contractor shall exercise due care to avoid injury to existing improvements or facilities, utility facilities, adjacent property, and trees and shrubbery that are not to be removed.

All trees, shrubbery, and landscaping that are not to be removed, and pole lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and waterlines, all highway or street facilities, and any other improvements or facilities within or adjacent to the work shall be protected from injury or damage, and the Contractor shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operation, they shall be replaced or restored at the Contractor's expense to a condition as good as when the Contractor entered upon the work or as good as required by the plans and specifications if any such objects are a part of the work being performed.

The fact that any such pipe or other underground facility is not shown on the plans shall not relieve the Contractor of its responsibility under this article.

In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site of the work which are in any way affected by the excavations or other operations connected with the performance of the work. Whenever any notice is required to be given by the Owner or the Contractor to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by the Contractor.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, shall act at its discretion to prevent such threatened loss or injury.

7-8 REGIONAL NOTIFICATION CENTER CONTACT

Contractor, except in an emergency, shall contact the appropriate regional notification center at least two working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the Owner, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and the Owner has been given the identification number by the Contractor.

Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, damage to a subsurface installation requiring immediate repair, or sabotage (Government Code Section 4216).

Subsurface installation means any underground pipeline, conduit, duct, wire, or other structure, except nonpressurized sewer lines, nonpressurized storm drains, or other nonpressurized drain lines (Government Code Section 4216).

7-9 EXCAVATION

7-9.1 EXCAVATION PLANS FOR WORKER PROTECTION REQUIRED BY LABOR CODE SECTION 6705

If the total amount of the Contract is in excess of \$25,000, the Contractor shall submit to the Owner for acceptance, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches 5 feet or more in depth. The plan shall be prepared by a registered civil or structural engineer. As a part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CAL/OSHA Construction Safety Orders, or that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping, or other provisions of the Safety Orders.

The Owner or the Engineer or their consultants may have made investigations of subsurface conditions in areas where the work is to be performed. If so, these investigations are identified in the Special Provisions and the records of such investigations are available for inspection at the office of the Engineer. The detailed plan showing the design of shoring, etc., which the Contractor is required to submit to the Owner for acceptance in advance of excavation will not be accepted by the Owner if the plan is based on subsurface conditions which are more favorable than those revealed by the investigations made by the Owner or the Engineer or their consultants; nor will the plan be accepted if it is based on soils-related design criteria which is less restrictive than the criteria set forth in the report on the aforesaid investigations of subsurface conditions.

The detailed plan showing the design of shoring, etc., shall include surcharge loads for nearby embankments and structures, for spoil banks, and for construction equipment and other construction loadings. The plan shall indicate for all trench conditions the minimum horizontal distances from the side of the trench at its top to the near side of the surcharge loads.

Nothing contained in this article shall be construed as relieving the Contractor of the full responsibility for providing shoring, bracing, sloping, or other provisions which are adequate for worker protection.

7-9.2 EXCAVATIONS BELOW 4 FEET

If any work required by this Contract includes digging trenches or other excavations that extend deeper than 4 feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the Owner in writing of any:

1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law;
2. Subsurface or latent physical conditions at the site differing from those indicated;
3. Unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

Nothing in this section is intended to relieve the Contractor of its responsibility to carefully examine the Contract Documents and the site where the work is to be performed in accordance with Article 2-8 of the General Provisions; to familiarize itself with all local conditions and federal, state, and local laws, ordinances, rules, and regulations that may affect the performance of any work; to study all surveys and investigation reports about subsurface and latent physical conditions pertaining to the jobsite; to perform such additional surveys and investigations as the Contractor deems necessary to complete the work at its bid price; and to correlate the results of all such data with the requirements of the Contract Documents.

If the Owner determines that hazardous waste exists and that conditions exist which Contractor could not discover through the investigations required by the preceding paragraph, the Owner shall notify the Contractor and the Contractor may request a change order in accordance with the Contract Documents. Nothing in this section shall relieve the Contractor of the obligation to pay all fees and costs associated with removal and cleanup of any hazardous waste used at, or brought to, the jobsite by the Contractor. Nor shall this section relieve the Contractor of responsibility for site conditions discoverable by any investigation required by the preceding paragraph.

In the event that a dispute arises between the Owner and the Contractor involving hazardous waste and whether site conditions differ materially from those the Contractor could or should have discovered by the investigations required by this Contract, the Contractor shall not be excused from the scheduled completion date provided in the Contract Documents and shall proceed with all work in the manner and in the time required by the Contract Documents.

7-10 SAFETY

Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damages, injury, or loss to: (1) all persons on the Site or who may be affected by the work; (2) all the work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and (3) other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction. Contractor shall comply with all applicable laws and regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground facilities and other utility owners when prosecution of the work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

The right of the Engineer or the Owner's Representative to conduct construction review or observation of the Contractor's performance will not include review or observation of the adequacy of the Contractor's safety measures in, on, or near the construction site.

Contractor's duties and responsibilities for safety and for protection of the work shall continue until such time as all the work is completed and final payment in accordance with Article 9-3 has been paid.

7-11 PERSONAL LIABILITY

No director, officer, employee, or agent of the Owner, the Engineer, the Owner's Representative, or their consultants shall be personally responsible for any liability arising under or by virtue of the Contract.

7-12 INDEMNITY

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, agents, and employees from and against all claims, damages, losses, expenses, and other costs, including costs of defense and attorneys' fees, arising out of or resulting from or in connection with the performance of the work, both on and off the jobsite, provided that any of the foregoing (1) is attributable to personal injury, bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and (2) is caused in whole or in part by any act or omission of the Contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable, regardless of whether or not caused in part by any act or omission (active, passive, or comparative negligence included) excepting only the indemnitee's sole negligence or willful misconduct.

In any and all claims against the indemnified parties by any employee of the Contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under the first and fourth paragraphs in this article on INDEMNITY shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable, by or for the Contractor, or any subcontractor, or any supplier, or other persons under workers' compensation acts, disability benefit acts, or other employee acts.

The obligations of the Contractor under the first and fourth paragraphs in this article on INDEMNITY shall not extend to the liability of the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents, arising out of or resulting from or in connection with the preparation or approval of maps, drawings, opinions, reports, surveys, designs or specifications, providing that the foregoing was the sole and exclusive cause of the loss, damage, or injury.

The Contractor shall also indemnify and hold harmless the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents, to the fullest extent allowed by law from and against all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the work and all of the Contractor's obligations under the Contract. Such costs, expenses, and damages shall include all cost, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

7-13 HOURS OF LABOR

The Contractor shall forfeit as a penalty to the Owner \$25 for each worker employed in the execution of the Contract by the Contractor or any subcontractor under it for each calendar day during which such worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code and, in particular, Section 1810 to Section 1815 thereof, inclusive, except that work performed by employees of Contractors in excess of 8 hours per day and 40 hours during any one week shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay as provided in said Section 1815.

7-14 PREVAILING WAGE

The Contractor shall comply with Labor Code Section 1775. In accordance with said Section 1775, the Contractor shall forfeit as a penalty to the Owner up to \$50 for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the Contract by the Contractor or by any subcontractor under it in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. The amount of the forfeiture will be determined by the Labor Commissioner based on the considerations specified in Labor Code Section 1775. In addition to said penalty and pursuant to said Section 1775, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor. Pursuant to Labor Code Section 1775, to the extent there is insufficient money due a Contractor to cover all penalties forfeited and amounts due, the Division of Labor Standards Enforcement shall be notified of the violation and the Division of Labor Standards Enforcement may maintain an action in any court of competent jurisdiction to recover the penalties and amounts due pursuant to Labor Code Section 1775.

Section 1776 of the Labor Code requires each contractor and its subcontractors to keep accurate payroll records and make such available for inspection by persons and entities identified in that section, in the manner stated therein. Section 1776(g), places the responsibility for compliance with Section 1776 on the prime contractor.

Whenever any contractor or subcontractor performing a public works project is found by the Labor Commission to be in willful violation of Labor Code provisions, as set forth in Labor Code Section 1777.1, except Section 1777.5, the contractor or subcontractor or any firm, corporation, partnership, or association in which the contractor or subcontractor has a substantial interest shall be ineligible to bid on or to receive any public works contract for a period up to three years for each second and subsequent violation occurring within three years of a separate and previous willful violation of this chapter. These periods of debarment shall run from the date the determination of the violation is made by the Labor Commissioner.

A willful violation occurs when the contractor or subcontractor knew or reasonably should have known of its obligations under the public works law and deliberately fails or refuses to comply with its provisions.

7-15 APPRENTICES

Attention is directed to the provisions in Sections 1777.5, 1777.6 and 1777.7 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under it.

The Contractor and any subcontractor under it shall comply with the requirements of Sections 1777.5 and 1777.6 of the Labor Code in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

Willful violations of Section 1777.5 may result in the Contractor, and the business entity under which the Contractor is doing business, being denied the right to bid on, or to receive, any public works contract for a period of up to one year for the first violation and for a period of up to three years for the second and subsequent violations commencing from the date the determination of noncompliance by the Chief of the Division of Apprenticeship Standards. In addition, if the Contractor violates Section 1777.5, it may be required to forfeit as a civil penalty an amount not exceeding the sum of one hundred (\$100.00) for each calendar day of noncompliance which shall be withheld from progress payments by Owner upon notice from the Department of Industrial Relations. (Labor Code Section 1777.7.)

7-16 WARRANTY OF TITLE

No materials, supplies, or equipment for the work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials, supplies, and equipment installed and incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by it, to the Owner free from any claims, liens, encumbrances, or charges and further agrees that neither it nor any person, firm, or corporation furnishing any material or labor for any work covered by the Contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. Nothing contained in this article, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any right under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this article shall be inserted in all subcontracts and material contracts, and notices of its provision shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

7-17 PROPERTY RIGHTS IN MATERIALS

Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil, or after payment has been made for materials delivered to the site of the work, or stored subject to or under the control of the Owner. All such materials shall become the property of the Owner upon being so attached or affixed or upon payment for materials delivered to the site of the work or stored subject to or under the control of the Owner.

Soil, stone, gravel, and other materials found at the site of the work and which conform to the plans and specifications for incorporation into the work may be used in the work. No other use shall be made of such materials except as may be otherwise described in the plans and specifications.

7-18 MUTUAL RESPONSIBILITY OF CONTRACTORS

Nothing in the Contract shall be interpreted as granting to the Contractor exclusive occupancy of the site of the project. The Contractor must ascertain to its own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by the Owner in the construction of the project, to the end that the Contractor will perform this Contract in the light of such other contracts, if any.

The Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the project. If the performance of any contract for the project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Owner's Representative shall decide which contractor shall cease work temporarily and which contractor shall continue or whether the work under the contracts can be coordinated so that the contractors may proceed simultaneously. On all questions concerning conflicting interest of contractors performing related work, the decision of the Owner's Representative shall be binding upon all contractors concerned and the Owner, the Engineer, the Owner's Representative, and their consultants shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project or caused by a decision or omission of the Owner's Representative respecting the order of precedence in the performance of the contracts.

If through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Owner, the Engineer, the Owner's Representative, or their consultants or any of their directors, officers, employees, or agents on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor who shall hold harmless, indemnify, and defend the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents against any such

claim, including all attorneys' fees and any other costs incurred by the indemnified parties relative to any such claim, to the fullest extent allowed by law.

7-19 TERMINATION FOR BREACH

If the Contractor refuses or fails to prosecute the work or any separable part thereof with such diligence as will ensure its completion within the time specified herein, or any extension thereof, or fails to complete such work within such time, or if the Contractor should be adjudged a bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it files a petition to take advantage of any debtor's act, or if it or any of its subcontractors should violate any of the provisions of the contract, or if it should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the work in the time specified, or if it should fail to make prompt payment to subcontractors or for material or labor, or if it should persistently disregard laws, ordinances, or instructions given by the Owner or Owner's Representative, the Owner may, without prejudice to any other right or remedy, serve written notice upon the Contractor and its surety of its intention to terminate the contract, said notice to contain the reasons for such intention to terminate the contract, and unless within ten days after the service of such notice such violations shall cease and satisfactory arrangements for the corrections thereof be made, the contract shall upon the expiration of said ten days cease and terminate. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished.

In the event of any such termination, the Owner shall immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the Contract; provided, however, that if the surety within 15 days after the serving upon it of a notice of termination does not give the Owner written notice of its intention to take over and perform the Contract or does not commence performance thereof within 30 days from the date of serving said notice, the Owner may take over the work and prosecute the same to completion, by Contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and its surety shall be liable to the Owner for any excess cost or other damage occasioned the Owner thereby, and in such event the Owner may, without liability for so doing, take possession of and utilize in completing the work such materials, appliances, plants, and other property belonging to the Contractor that may be on the site of the work and be necessary therefor. For any portion of such work that the Owner elects to complete by furnishing its own employees, materials, tools, and equipment, the Owner shall be compensated for such in accordance with the schedule of compensation for force account work in Article 9-1 on PAYMENT FOR CHANGES IN THE WORK.

If the unpaid balance of the Contract price exceeds the direct and indirect costs of completing the work, including, but not limited to, all costs to Owner arising from professional services and attorneys' fees and all costs generated to insure or bond the work of substituted contractors or subcontractors utilized to complete the work, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner promptly upon demand; on failure of Contractor to pay, the Surety shall pay on demand by Owner. Any portion of such difference not paid by Contractor or surety within 30 days following the mailing of a demand for such costs by Owner shall earn interest at the rate of 10 percent per annum or the maximum rate authorized by California law, whichever is lower.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the Owner.

7-20 TERMINATION FOR GRIEVANCE

Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. Completed and acceptable work executed in accordance with the Contract Documents prior to the effective date of the termination, including fair and reasonable sums for overhead and profit on such work;

2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted work, plus fair and reasonable sums for overhead and profit on such expenses; and
3. Reasonable expenses directly attributable to termination.

Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

7-21 NOTICE AND SERVICE THEREOF

Any notice required or given under the Contract shall be in writing, be dated, and signed by the party giving such notice or its duly authorized representative, and be served as follows:

If to the Owner, by personal delivery or by deposit in the United States mail or by fax with confirming receipt.

If to the Contractor, by personal delivery to the Contractor or to its authorized representative at the site of the project or by deposit in the United States mail or by fax with confirming receipt.

If to the surety or any other person, by personal delivery to said surety or other person or by deposit in the United States mail or by fax with confirming receipt.

All mailed notices shall be in sealed envelopes, shall be sent by certified mail with postage prepaid, and shall be addressed to the addresses in the Contract Documents or such substitute addresses which a party designates in writing and serves as set forth herein.

7-22 PROVISION INTEGRITY

If any provision of this Contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way. In the event that this Agreement is for any reason terminated, then its indemnity, liability, and waiver provisions shall remain in full force and effect. In the event that any such provisions shall be prohibited by law, then the subject provision shall not be void, but rather shall be interpreted as applying only to the fullest extent allowable by law.

7-23 ATTORNEYS' FEES

Should either party to the Contract bring an arbitration or mediation proceeding or other action to enforce any provision of the Contract, including an action pursuant to Public Contract Code Section 20104.4, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs in connection therewith. The term "prevail" as used in this section shall include any action at law, in equity, or pursuant to arbitration in which either party has been successful.

7-24 LANDS AND RIGHTS-OF-WAY

The lands and rights-of-way for the facility to be constructed will be provided by the Owner. The Contractor shall make its own arrangements and pay all expenses for additional area required by it outside the limits of the Owner's lands and rights-of-way.

Work in public right-of-way shall be done in accordance with the requirements of the permit issued by the public agency in whose right-of-way the work is located in addition to conforming to the plans and specifications. If a permit is not required, the work shall conform to the standards of the public agency involved in addition to conforming to the plans and specifications.

7-25 WAIVER OF RIGHTS

Except as otherwise specifically provided in the Contract Documents, no action or failure to act by the Owner, Engineer, Owner's Representative, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder.

7-26 TAXES

The Contractor shall pay all sales, consumer, use, and other taxes.

NOTICE OF TAXABLE POSSESSORY INTEREST - The terms of this document may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to this document, the private party may be subjected to the payment of personal property taxes levied on such interest.

7-27 ASSIGNMENT OF ANTI-TRUST ACTIONS

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

In submitting a bid to a public purchasing body, the Bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the Bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the Bidder.

7-28 PAYROLL RECORDS

It shall be the responsibility of the Contractor to maintain an accurate payroll record showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each employee in accordance with Labor Code Section 1776, and to ensure that each subcontractor also complies with all provisions of Labor Code Section 1776 and this Contract provision.

All payroll records shall be certified as accurate by the applicable contractor or subcontractor or its agent having authority over such matters.

The Contractor shall ensure that all payroll records are available for inspection at the Contractor's principal office during normal business hours and shall notify the Owner, in writing, of the place where all payroll records are located from time to time.

The Contractor shall furnish a copy of all payroll records, upon request, to employees or their authorized agents, to the Owner, to the Division of Labor Standards Enforcement, and to the Division of Apprenticeship Standards of the Department of Industrial Relations. The Contractor shall also furnish a copy of payroll records to the general public upon request provided the public request is made through the Owner, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement of the Department of Industrial Relations. Members of the general public shall not be given access to payroll records at the Contractor's principal office.

Records made available to the general public in accordance with the prior paragraph shall be marked or obliterated in such a manner that the name and address of the Contractor and/or subcontractor and the name, address, and telephone number of all employees does not appear on the modified record.

The Contractor shall file a certified copy of any requested payroll records with the entity that requested such records within ten days of the date a written request for payroll records has been received.

Failure of the Contractor to comply with any provision of this article or Labor Code Section 1776 within ten days of the date a written request for compliance is received shall result in a forfeiture of \$25 per calendar day or portion thereof, for each worker, until strict compliance is obtained. Upon notification by the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations, the Owner shall withhold penalties under this article or Labor Code Section 1776 from the Contractor's payments then due.

7-29 RESOLUTION OF CLAIMS

All public works claims between the Contractor and Owner relating to this Contract where the total claims of both parties are equal to or less than \$375,000 shall be resolved in accordance with Public Contract Code Sections 20104 et seq., which are incorporated herein by reference. Where the total claim of the Contractor and Owner exceeds a total of \$375,000, this section shall not apply.

7-30 CONTROLLING LAW

This Contract is to be governed by the laws of the state of California.

7-31 HEADINGS

Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Provisions.

ARTICLE 8 CONTRACTOR'S INSURANCE

8-1 GENERAL

The Contractor shall not commence or continue to perform any work unless it, at its own expense, has in full force and effect all required insurance. The Contractor shall not permit any subcontractor to perform work on this project unless all of the required insurance has also been complied with by such subcontractor.

The types of insurance the Contractor shall obtain and maintain are workers' Compensation and Employers' Liability Insurance, General and Automobile Liability Insurance, Builders' Risk "All Risk" or Installation Floater Insurance, and, if so determined by the Owner at the time of award of the Contract, Earthquake and Flood Insurance, all as set forth herein.

Workers' Compensation and Employers' Liability Insurance and Liability Insurance shall be maintained in effect for the full guarantee period.

Insurers must be authorized to do business and have an agent for service of process in California and must have at least an "B VIII" rating in accordance with the most current Best's Rating Guide.

As evidence of specified insurance coverage, the Contractor shall provide certificates of insurance and endorsements on the forms provided as a part of the Contract Documents. No alteration or substitution of said forms will be allowed.

8-2 WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE

Upon execution of the Agreement, the Contractor shall provide a certificate(s) of insurance certifying that it has obtained full Workers' Compensation Insurance coverage for no less than the statutory limits and Employers' Liability Insurance coverage in limits not less than the amounts set forth in the Special Provisions, for all persons whom it employs or may employ in carrying out the work under the Contract. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as part of the Contract Documents. This insurance shall be in strict accordance with the requirements of the most current and applicable state Workers' Compensation Insurance laws.

8-3 GENERAL AND AUTOMOBILE LIABILITY INSURANCE

Upon execution of the Agreement, the Contractor shall provide a certificate(s) of insurance showing that it has Liability Insurance coverage in limits not less than the amounts set forth in the Special Provisions. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as a part of the Contract Documents.

Included in such insurance shall be a "Cross Liability" or "Severability of Interest" clause.

The Liability Insurance coverage shall include each of the following types of insurance or coverage for exposures, as applicable:

A. General Liability

- (1) Commercial Form.
- (2) Premises-Operations.
- (3) Explosion and Collapse Hazard.
- (4) Underground Hazard.
- (5) Products/Completed Operations.
- (6) Blanket Contractual Insurance.
- (7) Broad Form Property Damage.
- (8) Independent Contractors.

(9) Personal Injury and Advertising Injury.

B. Automobile Liability

- (1) Business Auto Form Including Loading and Unloading.
- (2) Owned.
- (3) Hired.
- (4) Non-Owned.

Included with the Certificate(s) of Insurance shall be endorsements which name as additional insureds the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, and employees and state that the insurance afforded to these additional insureds shall be primary insurance and if the additional insureds have other insurance which might be applicable to any loss, the amount of the insurance provided under this article on GENERAL AND AUTOMOBILE LIABILITY INSURANCE shall not be reduced or prorated by the existence of such other insurance.

8-4 BUILDERS' RISK "ALL RISK" AND
INSTALLATION FLOATER INSURANCE

Upon execution of the Agreement, the Contractor shall provide a certificate(s) of insurance showing that it has obtained for the period of the Contract Builders' Risk "All Risk" completed value insurance coverage (including flood but excluding earthquake and tidal wave) upon the entire project which is the subject of the Contract and including completed work and work in progress and an Installation Floater to cover machinery and equipment of all kinds during transit, installation, and testing at the Owner's premises. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as a part of the Contract Documents. Such insurance shall include as additional insureds: the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, and employees, as their interest may appear.

8-5 EARTHQUAKE AND FLOOD INSURANCE

The Owner may or may not require insurance to indemnify the Owner for any damage to the work caused by earthquake or flood. Such determination will be made prior to award of the Contract.

If the Owner determines to require such insurance, the bids will be compared and the Contract awarded based on a total amount of bid which includes bid items for such insurance. If the Owner determines not to require such insurance, the bids will be compared and the Contract awarded based on a total amount of bid which is adjusted to exclude the bid items for such insurance.

If the Owner determines to require the insurance, the Contractor shall provide upon execution of the Agreement a certificate(s) of insurance showing that it has obtained for the period of the Contract completed value insurance coverage to indemnify the Owner for any damage to the work caused by earthquake or flood. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as a part of the Contract Documents. Such insurance shall include as additional insureds: the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, and employees, as their interest may appear.

8-6 CONTRACTOR'S POLLUTION LIABILITY INSURANCE

Upon execution of the Agreement, the Contractor shall provide a certificate(s) of insurance showing that it has Pollution Liability Insurance coverage in limits not less than the amounts set forth in the Special Provisions. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as a part of the Contract Documents.

8-7 CONTRACTOR'S LIABILITY NOT LIMITED BY INSURANCE

Nothing contained in these insurance requirements is to be construed as limiting the liability of the Contractor or the Contractor's insurers.

ARTICLE 9 ESTIMATES AND PAYMENTS

9-1 PAYMENT FOR CHANGES IN THE WORK

Changes in, additions to, or deductions from the work, including increases or decreases in the quantity of any item or portion of the work, shall be set forth in a written change order executed by the Owner and by the Contractor which shall specify:

The changes, additions, and deductions to be made.

The increase or decrease in compensation due the Contractor, if any.

Adjustment in the time of completion, if any.

Adjustment in the compensation due the Contractor shall be determined by one or more of the following methods in the order of precedence listed below:

Unit prices contained in the Contract.

Mutually agreeable lump-sum or unit prices. If requested by the Owner's Representative, the Contractor shall furnish an itemized breakdown of the quantities and prices used in computing proposed lump-sum and unit prices.

Force account whereby the Contractor is compensated for furnishing labor, materials, tools, and equipment as follows:

Cost of labor plus 15 percent for workers directly engaged in the performance of the work. Cost of labor shall include actual wages paid including employer payments to or on behalf of the workers for health and welfare, pension, vacation, and similar purposes plus payments imposed on payroll amounts by state and federal laws plus subsistence and travel allowance payments to workers.

Cost of material plus 15 percent. Cost of material shall include sales tax, freight, and delivery charges. The Owner reserves the right to furnish such materials as it deems advisable and the Contractor shall not be paid the 15 percent markup on such materials.

For tools and equipment actually engaged in the performance of the work, rental rates plus 15 percent. The rental rates shall be those prevailing in the area where the work is performed. No rental charge shall be made for the use of tools or equipment having a replacement value of \$500 or less.

Subcontractor invoices to the Contractor plus 5 percent. Subcontractor invoices shall be based on the above-described cost of labor plus 15 percent, cost of material plus 15 percent, and tool and equipment rental rates plus 15 percent.

No payment shall be made for any item not set forth above, including without limitation, Contractor's overhead, general administrative expense, supervision, or damages claimed for delay in prosecuting the remainder of the work.

For force account work, the Contractor shall submit to the Owner's Representative for its verification daily work sheets showing an itemized breakdown of labor, materials, tools, and equipment used in performing the work. No payment will be made for work not verified by the Owner's Representative.

9-2 PROGRESS PAYMENTS

The Owner shall, on or before the tenth day of each calendar month after actual construction work is started, cause an estimate in writing to be made by the Owner's Representative of the value of the work completed by the Contractor and of materials delivered on the ground at the site of the work or stored subject to or under the control of the Owner to the first of the month in which the estimate is made. In estimating such value, the Owner's Representative may take into consideration, along with other facts and conditions deemed by it to be proper, the ratio of the difficulty or cost of the work done to the probable difficulty or cost of the work remaining to be done. The Owner shall retain 5 percent of such estimated value as part security for the fulfillment of the Contract by the Contractor, unless the Contractor has substituted equivalent securities as defined by Article 9-5 of these General Provisions, and shall by the end of each month in which the estimate is made pay to the Contractor the balance of such estimated value after deducting therefrom all previous payments and all sums to be kept or retained under the terms of the Contract.

9-3 FINAL ESTIMATE AND PAYMENT

When the work has been substantially completed, the Owner's Representative will make a final estimate of the total amount of work done thereunder and the amount to be paid therefor under the terms of the Contract. If the Owner finds the work has been substantially completed according to the Contract, it shall accept the work, shall file a notice of completion, and shall pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be retained under the provisions of the Contract. All prior progress estimates and payments shall be subject to correction in the final estimate and payment. The final payment shall not be due and payable until the expiration of 40 days from the date of filing a notice of completion of the work by the Owner.

It is mutually agreed between the parties to the Contract that no certificate given or payment made under the Contract shall be conclusive evidence of performance of the Contract and no payment shall be construed to be an acceptance of any defective work or improper materials.

9-4 OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF

In addition to the amount which the Owner may retain under the above article on PROGRESS PAYMENTS, the Owner may withhold a sufficient amount or amounts from any payment otherwise due to the Contractor as in Owner's judgment may be necessary to cover:

Payments which may be past due and payable for properly filed claims against the Contractor or any subcontractors for labor or materials furnished in or about the performance of the work under this Contract.

Estimated or actual costs for correcting defective work not remedied.

Amounts claimed by the Owner as forfeiture due to delay or other offsets.

The Owner may apply such withheld amount or amounts to the payment of such claims in its discretion. In so doing, the Owner shall be deemed the agent of the Contractor and any payments so made by the Owner shall be considered as a payment made under the Contract by the Owner to the Contractor, and the Owner shall not be liable to the Contractor for such payment made in good faith. Such payments may be made without prior judicial determination of the claim or claims. The Owner will render to the Contractor a proper account of such funds disbursed in behalf of the Contractor.

9-5 WITHHELD CONTRACT FUNDS

Pursuant to Public Contract Code Section 22300, equivalent securities may be substituted for monies withheld to ensure performance of the Contract, except contracts for which there will be financing provided by the Farmers Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 U.S.C. Sec. 1921 et seq.), or where federal regulations and/or policies do not allow such substitution. The Owner reserves the right to solely determine the adequacy of the securities being proposed by the

Contractor and the value of those securities. The Owner shall also be entitled to charge an administrative fee, as determined by Owner in its sole discretion, for substituting equivalent securities for retention amounts. The Owner's decisions with respect to the administration of the provisions of Section 22300 shall be final and shall include, but not be limited to, determinations of what securities are equivalent, the value of the securities, the negotiability of the securities, the costs of administration and the determination of whether or not the administration should be accomplished by an independent agency or by the Owner. The Owner shall be entitled, at any time, to request the deposit of additional securities of a value designated by Owner, in Owner's sole discretion, to satisfy this requirement. If the Owner does not receive satisfactory securities within twelve (12) consecutive days of the date of the written request, Owner shall be entitled to withhold amounts due Contractor until securities of satisfactory value to Owner have been received.

9-6 REQUIRED RELEASES

The Contractor shall not be entitled to any payment specified in its Contract which is undisputed until such time as the Contractor has executed a release, in the following form, releasing the Owner from all claims relating to the work for which the Contractor is being paid. The release form contains space for the Contractor to claim any disputed amount and to designate the retention amount for each period associated with the release. Contractor hereby expressly agrees that failure on its part to designate any disputed amount or to designate the correct retention amount for each release period on the release form shall constitute an express waiver of the right of the Contractor to claim any disputed amount or any retention amount at any later date. The Owner shall have no obligation to pay the Contractor for any work done until the release form attached to these Contract Documents has been executed by the Contractor and submitted to the Owner.

CONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT
(Civil Code, § 8132)

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information:

Name of Claimant: _____

Name of Customer: _____

Project Description: _____

Owner: _____

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and services provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: _____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:
Date(s) of waiver and release: _____
Amount(s) of unpaid progress payment(s): _____
- (4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

JUNE LAKE PUBLIC UTILITY DISTRICT
SEWER REPAIR PROJECT

SPECIAL PROVISIONS AND
SUPPLEMENTAL GENERAL PROVISIONS

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015100	CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS
015526	TRAFFIC REGULATION
017410	CLEANING DURING CONSTRUCTION AND FINAL CLEANING

SECTION 007300 SUPPLEMENT TO GENERAL PROVISIONS

1.01 DEFINITIONS

Whenever the following terms occur in the contract documents, their meaning is as follows:

OWNER JUNE LAKE PUBLIC UTILITY DISTRICT
2380 State Route 158
June Lake, CA 93529

GOVERNING BODY Owner's Board of Directors

ENGINEER AECOM and its Subsidiaries
5001 East Commercenter, Suite 100
Bakersfield, CA. 93309
(661) 283-2323

SECTIONS 007300 to 019999 Supplemental General Provisions

SECTIONS 020000 to 489999 Technical Specifications

1.02 TERMS

Command-type sentences used in the contract documents refer to and are directed to the Contractor.

1.03 AUTHORITY FOR THE WORK

The drawings, specifications, and other contract documents for the Work were approved and adopted by the Governing Body of the Owner on Board of Directors.

1.04 MARKING AND ADDRESSING BID ENVELOPE

Seal the bid in an envelope addressed to the Owner and marked:

BID FOR
CONSTRUCTION OF
SEWER SYSTEM REHABILITATION

1.05 INVESTIGATIONS AND REPORTS

The following reports, which have been prepared for the Owner, are available for review at the office of the Engineer and attached to the appendix to the technical specifications:

Closed Circuit Television Inspection Reports and Videos

1.06 AWARD OF CONTRACT OR REJECTION OF BIDS

Within a period of 60 calendar days after the opening of bids, the Owner will accept or reject the bids.

1.07 TIME FOR COMPLETION AND FORFEITURE DUE TO DELAY

- A. Work will be substantially completed within 334 CONSECUTIVE CALENDAR DAYS, from and after the date of the Notice to Proceed.
- B. As allowed by Government Code 53069.85, forfeiture for each day completion is delayed beyond the time allowed will be at the rate of \$500 per day.

1.08 AMOUNT OF LIABILITY INSURANCE

General Liability:	Bodily Injury and Property Damage coverage shall be for not less than	
	\$1,000,000	General Aggregate.
	\$1,000,000	Products/Completed Operations Aggregate.
	\$1,000,000	Personal and Advertising Injury.
	\$1,000,000	Each Occurrence.
	OR	
	Bodily Injury and Property Damage coverage shall be in a Combined Single Limit of not less than	
	\$2,000,000	Each Occurrence and Aggregate.
Automobile Liability:	Bodily Injury coverage shall be for not less than	
	\$1,000,000	Each Person.
	\$1,000,000	Each Accident.
	\$1,000,000	Property Damage coverage shall be for not less than

	OR	
	\$2,000,000	Bodily Injury and Property Damage coverage shall be in a Combined Single Limit of not less than
Employers' Liability:	Bodily Injury coverage shall be for not less than	
	\$1,000,000	Each Accident.
	\$1,000,000	Each Disease-Policy Limit.
	\$1,000,000	Each Disease-Each Employee.

1.09 ACCESS TO CONFINED SPACES IN EXISTING STRUCTURES

- A. The following existing structures on the project are defined as "confined spaces" or "permit-required confined spaces" per OSHA:

Name of Structure	Type of Space
Manhole	Confined Space

- B. The Contractor shall coordinate entry operations with the Owner and Owner's Representative when the Owner's personnel and/or the Owner's Representative's personnel and the Contractor's personnel will be working in or near permit-required confined spaces.
- C. The Contractor shall provide personnel and equipment, including standby personnel, observers, and authorized competent person to stand by while entrants are inside the space, temporary ventilation equipment, or self-contained breathing apparatus, to assist the personnel of the Owner's Representative in obtaining access to permit-required confined spaces.

END OF SECTION

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SECTION 011100 COORDINATION OF WORK, PERMITS, AND REGULATIONS

1.01 DESCRIPTION

This section generally describes the project and includes work schedule, Contractor's use of permits, and regulations.

1.02 GENERAL NATURE OF WORK

The work involves the rehabilitation of the District's 8 – 12-inch sewer pipelines in 95 different locations. Rehabilitation methods include clearing blockages, replacing pipe segments, and cured-in-place pipe for point repair.

1.03 LOCATION OF PROJECT SITE

The project site is located in the vicinity of June Lake, CA.

1.04 PERMITS

- A. The following permits for the permanent work have been obtained by the Owner:
 - 1. Encroachment permit for state highway crossing at California Highway 158.
- B. Obtain and pay the fees for the following permits:

Name or Type of Permit	Name, Address, Telephone Number of Permitting Agency
CAL/OSHA Form 750 Scaffolding and Trenching Single Project Permit	Modesto District Office 4206 Technology Drive, Ste. 3 Modesto, CA 95356 (209) 545-7310
California Department of Transportation Encroachment Permit Rider	500 S. Main Street Bishop, CA 93514
Mono County Encroachment Permit	74 North School Street Bridgeport, CA 93517

- C. The permits contain requirements that affect the cost of project work and some permanent permits require supplementary work permits and fees to execute construction. Comply with the permit requirements and obtain and pay the fees involved with the supplementary work permits.

END OF SECTION

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SECTION 012000 MEASUREMENT AND PAYMENT

1.01 WORK LISTED IN THE SCHEDULE OF WORK ITEMS

- A. Work under this contract will be paid on a unit price or lump-sum basis as outlined on the Bid Form for the quantity of work installed.
- B. The unit prices and lump-sum prices include full compensation for furnishing the labor, materials, tools, and equipment and doing all the work involved to complete the work included in the contract documents.
- C. The application for payment will be for a specific item based on the percentage completed or quantity installed. The percentage complete will be based on the value of the partially completed work relative to the value of the item when entirely completed and ready for service.

1.02 WORK NOT LISTED IN THE SCHEDULE OF WORK ITEMS

- A. The General Provisions and items in the Special Provisions, general requirements, and specifications which are not listed in the schedule of work items of the Bid Form are, in general, applicable to more than one listed work item, and no separate work item is provided therefor. Include the cost of work not listed but necessary to complete the project designated in the contract documents in the various listed work items of the Bid Form.
- B. The bids for the work are intended to establish a total cost for the work in its entirety. Should the Contractor feel that the cost for the work has not been established by specific items in the Bid Form, include the cost for that work in some related bid item so that the Proposal for the project reflects the total cost for completing the work in its entirety.

END OF SECTION

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SECTION 013300 SUBMITTALS

1.01 SHOP DRAWINGS

- A. Submit shop drawings in accordance with the General Provisions.
- B. The use of contract drawing reproductions for shop drawings is subject to rejection.
- C. Submit a PDF copy of shop drawings. The Owner's Representative will a PDF copy. Clearly indicate specification section and drawing number to which each shop drawing is referenced.
- D. If the Contractor submits shop drawings of equipment by manufacturers other than those listed in the specifications, provide the following information with the submittal:
 - 1. The name and address of at least three companies or agencies that are currently using the equipment.
 - 2. The name and telephone number of at least one person at each of the above companies or agencies whom the Owner's Representative may contact.
 - 3. A description of the equipment that was installed at the above locations. The description shall be in sufficient detail to allow the Owner's Representative to compare it with the equipment that is proposed to be installed in this project.
- E. For materials originating outside of the United States for which tests are required, provide recertification and retesting by an independent domestic testing laboratory.

1.02 SUBMITTAL REGISTER

Designate in a submittal register/schedule, coordinated with the construction schedule, the date for submission and the date the reviewed shop drawings, product data, and samples will be needed. The submittal register shall be on 8-1/2-inch by 11-inch or 11-inch by 17-inch sheets in a format acceptable to the Owner's Representative. The submittal register shall include the submittal description, specification section, date to be submitted, date reviewed, and date acceptable submittal is required.

1.03 SUBMITTAL REQUIREMENTS

- A. Make submittals promptly in accordance with the submittal register and, in such sequence, as to cause no delay in the work. Schedule submission a minimum of 30 calendar days before reviewed submittals will be needed.
- B. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The project title and number.

3. Contract identification.
4. The names of:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.
5. Identification of the product, with the specification section number.
6. Field dimensions, clearly identified as such.
7. Relationship to adjacent or critical features of the work or materials.
8. Identification of deviations from contract documents.
9. Identification of revisions on resubmittals.
10. Contractor's stamp, initialed or signed, shall certify Contractor's review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal that the product meets the requirements of the work and of the contract documents.

1.04 SUBMITTAL FORMAT

- A. Each submittal shall have a transmittal form. A sample transmittal form is included at the end of this section. Every page in a submittal shall be numbered in sequence. Each copy of a submittal shall be collated and stapled or bound, as appropriate. Copies not collated will be rejected.
- B. Where product data from a manufacturer is submitted, clearly mark which model is proposed, with all pertinent data, capacities, dimensions, clearances, diagrams, controls, connections, anchorage, and supports. Present a sufficient level of detail for assessment of compliance with the contract documents.
- C. Each submittal shall be assigned a unique number. Submittals shall be numbered sequentially. The submittal numbers shall be clearly noted on the transmittal. Original submittals shall be assigned a numeric submittal number. Resubmittals shall bear an alphanumeric system which consists of the specification section number assigned to the original submittal for that item followed by a letter of the alphabet to represent that it is a subsequent submittal of the original. For example, if Submittal 25 requires a resubmittal, the first resubmittal will bear the designation "25-A" and the second resubmittal will bear the designation "25-B" and so on.
- D. Disorganized submittals that do not meet the requirements above will be returned without review.

1.05 RESUBMITTALS

Resubmittal of submittals will be reviewed and returned in the same review period as for the original submittal. It is considered reasonable that the Contractor shall make a complete and acceptable submittal by the second submission of a submittal item. The Owner's Representative reserves the right to withhold monies due to the Contractor to cover additional costs of any review beyond the second submittal.

1.06 CONTRACTOR'S JOBSITE DRAWINGS

Provide and maintain on the jobsite one complete set of prints of all drawings which form a part of the contract. Immediately after each portion of the work is installed, indicate all deviations from the original design shown in the drawings either by additional sketches or ink thereon. Upon completion of the job, deliver this record set to the Owner's Representative.

SHOP DRAWING SUBMITTAL NO. _____

AECOM

ATTN: _____

ATTN: _____

PROJECT

AECOM PROJECT NO.

OWNER PROJECT NO.

CONTRACTOR PROJECT NO.

ITEM NO.	COPIES	DESCRIPTION	PREVIOUS SUBMITTAL NO.	SPEC. SECTION NO.	PLAN SHEET NO.

SUBMITTED BY: _____

CONTRACTOR

DATE

SUBMITTAL RETURN (TO BE COMPLETED BY ENGINEER)

ITEM NO.	COPIES	RESUBMIT		COMMENTS
		YES	NO	

COPY:

RETURNED BY: _____

ENGINEER

DATE

END OF SECTION

SECTION 015100 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.01 CONSTRUCTION WATER

- A. Related Work Specified Elsewhere:
 - 1. Earthwork: 312300.
 - 2. Trenching, Backfilling, and Compacting: 312316.
- B. The Contractor may obtain water from June Lake Public Utility District at fire hydrants. Apply to the District for use of a hydrant meter. All water obtained from the District must be metered.
- C. Include the cost of construction water in the appropriate bid item to which it is appurtenant. The cost shall include full compensation for furnishing all labor, materials, tools, and equipment and doing all the work necessary to develop a sufficient water supply and furnishing the necessary equipment for applying the water as described in these specifications.

1.02 ELECTRICAL POWER--CONSTRUCTION PHASE

Provide for the purchase of power or provide portable power for the construction of the project where existing outlets are not available. Provide for the extension of utility lines to the point of usage. The cost of power shall be included in the appropriate bid items to which it is appurtenant and shall include full compensation for furnishing all labor, materials, tools, and equipment required to obtain and distribute power for construction purposes.

1.03 DUST CONTROL

Perform dust control operations to prevent construction operations from producing dust in amounts harmful to persons or causing a nuisance to persons living nearby or occupying buildings in the vicinity of the work. Use water or dust preventative to control dust.

1.04 FIRE DANGER

Minimize fire danger in the vicinity of and adjacent to the construction site. Provide labor and equipment to protect the surrounding private property from fire damage resulting from construction operations.

1.05 TRAFFIC REGULATION

- A. See Specification Section 015526.

1.06 ACCESS ROADS AND PARKING AREAS

- A. Keep the work site accessible at all times so that the public vehicles have access to the road.
- B. The Contractor and his employees will be permitted to park their vehicles in the Owner's parking lot. Provide facilities offsite or on public streets on which parking is permitted by local and state codes and ordinances.

END OF SECTION

SECTION 015526 TRAFFIC REGULATION

1.01 DESCRIPTION

This section describes procedures for traffic regulation during construction in public streets and highways.

1.02 STANDARD SPECIFICATIONS

Wherever reference is made to the State Specifications and Plans, such reference shall mean the State of California, Business, Transportation, and Housing Agency, Department of Transportation Standard Specifications and Standard Plans, latest edition.

1.03 SUBMITTALS

The Contractor shall develop his traffic control plan or submit, not less than 14 working days prior to start of construction operations, an alternate plan, prepared, signed, and sealed by a California licensed civil or traffic engineer to Mono County and California Department of Transportation (Caltrans) as required by the relevant encroachment permits. Preparation of any additional traffic control plans or detail that may be required by Mono County or Caltrans during the course of the work shall be the Contractor's responsibility. No work shall begin involving or requiring alternate traffic control until a traffic control plan is approved by the jurisdictional agency.

1.04 GENERAL

- A. Provide safe and continuous passage for pedestrian and vehicular traffic at all times.
- B. Control traffic at those locations indicated and in conformance with the approved traffic control plans and specifications.
- C. Furnish, construct, maintain, and remove detours, road closures, traffic signal equipment, lights, signs, barricades, fences, K-rail, flares, solar-powered flashing arrow signs, miscellaneous traffic devices, flagmen, drainage facilities, paving, and such other items and services as are necessary to adequately safeguard the public from hazard and inconvenience. All such work shall comply with the ordinances, directives, and regulations of authorities with jurisdiction over the public roads in which the construction takes place and over which detoured traffic is routed by the Contractor. After devices have been installed, maintain and keep them in good repair and working order until no longer required. Replace such devices that are lost or damaged, to such an extent as to require replacement, regardless of the cause of such loss or damage.
- D. Prior to the start of construction operations, notify the sheriff and fire department in whose jurisdiction the project lies, giving the expected starting date, completion date, and the names and telephone numbers of two responsible persons who may be contacted at any hour in the event of a condition requiring immediate emergency service to remove, install, relocate, and maintain warning devices. In the event these persons do not

promptly respond, or the authority deems it necessary to call out other forces to accomplish emergency service, the Contractor will be held responsible for the cost of such emergency service.

- E. Notify each postal address at least two working days prior to restricting parking along the project route via first class United States mail of the nature and duration of the parking restriction.

1.05 TRAFFIC CONTROL DEVICES AND SIGNS

- A. Traffic control devices and temporary striping shall conform to the California Manual of Uniform Traffic Control Devices (California MUTCD). Construction signs shall conform to the latest edition of the FHA publication "Standard Highway Signs" and the State of California Sign Specification Sheets.
- B. The placement of construction signing, striping, barricades, and other traffic control devices used for handling traffic and public convenience shall conform to the California MUTCD and as required by Caltrans and Mono County.
- C. Signs shall be illuminated when they are used during hours of darkness. Cones and portable delineators used for night lane closures shall have reflective sleeves. Equip barricades used in the diversion of traffic with flashers if in place during hours of darkness.
- D. During the duration of a detour, cover existing signs not in accordance with the traffic control plan. Relocate existing signs that are in force to provide visibility from all relocated traffic lanes.

1.06 VEHICULAR TRAFFIC CONTROL

- A. Accomplish construction in phases by detouring traffic from its normal patterns along the route in approximately 1/2-mile intervals between major cross streets to form the construction zone. Restore traffic to normal patterns in each phase before proceeding to the next phase.
- B. Complete backfill, compaction, testing, and the first lift of permanent paving to a point not to exceed 1,000 feet behind the working heading. Shoring members, beams, or other obstructions shall not be permitted within a 2-foot clearance between the edge of excavation and the edge of any traffic lane. At construction areas where an open trench exists and/or where traffic detour will be in existence during night hours, replace delineators with barricades or K-rail.
- C. Accomplish construction in phases by detouring traffic from its normal patterns. Restore traffic to normal patterns in each phase before proceeding to the next phase.
- D. Transition traffic lane transitions from permanent lanes to construction zone patterns in accordance with the requirements for the normal posted speed limit and as shown in the drawings.

- E. Unless otherwise shown in the drawings or allowed by the June Lake Public Utility District within whose jurisdiction the work is being performed, limit construction activities to 7 a.m. to 5 p.m. Monday through Friday. Return roadways and sidewalks to unrestricted vehicle and pedestrian usage when construction is not underway.
- F. During the peak traffic volume hours of the day, from 6:00 a.m. to 8:30 a.m. and 3:30 p.m. to 7:00 p.m. on weekdays only, limit construction activities within the construction zone to those which will not impact the free movement of vehicular traffic in its detoured pattern. Construction equipment or trucks shall not use or travel adjacent to traffic lanes during these time periods. Truck operations in and out of construction and staging areas shall be controlled by flagmen at all times.

1.07 PEDESTRIAN TRAFFIC CONTROL

- A. Maintain and delineate a minimum of one 4-foot-wide pedestrian walkway along each public street at all times during construction. Maintain existing pedestrian accesses at intersections at all times. When existing crosswalks are blocked by construction activity, install signs directing pedestrian traffic to the nearest alternative crosswalk.
- B. Erect a fence or provide other means of securement to preclude unauthorized entry to any excavation during all nonworking hours on a 24-hour basis including weekends and holidays. Said fence shall be a minimum of 7 feet high around the entire excavation, consisting of a minimum 9-gauge chain-link type fence fabric and shall be sturdy enough to prohibit toppling by children or adults. There shall be no openings under the wire large enough for any child to crawl through. Lock any gates if no adult is in attendance. Place warning signs spaced on 50-foot centers on the outside of the fence with the statement "DEEP HOLE DANGER."
- C. Special Considerations at Schools: The pipeline route passes by schools for children of elementary and high school ages. When construction is within 500 feet of any school crossing, place a guard at each school crossing during normal school hours whose prime responsibility is to provide safe guidance for children and adults past the construction area.

1.08 ACCESS TO ADJACENT PROPERTIES

- A. Maintain reasonable access from public streets to adjacent properties at all times during construction. Prior to restricting normal access from public streets to adjacent properties, notify each property owner or responsible person, informing him of the nature of the access restriction, the approximate duration of the restriction, and the best alternate access route for that particular property.
- B. Special Considerations at Fire Stations: Do not hinder unobstructed ingress and egress at any time to fire stations.
- C. To minimize access restriction to these driveways, either backfill, compact, and provide temporary pavement or provide steel plates sufficient to support vehicular traffic across

the trench in front of these driveways except when actual construction is being performed in the driveway area.

1.09 PERMANENT TRAFFIC CONTROL DEVICES

- A. Existing permanent traffic control signs, barricades, and devices shall remain in effective operation unless a substitute operation is arranged for and approved as a portion of vehicular traffic control above. Traffic signal modification and restoration work shall be in accordance with Section 86 of the State Specifications.
- B. Maintain daily liaison with the Owner's Representative in regards to traffic diversion at signalized intersections.
- C. Contact the Owner's Representative hours prior to work affecting traffic signal phasing or vehicular detection loops.
- D. Provide a certified signal contractor to be responsible for all traffic modifications required to implement the traffic control plans and as directed by June Lake Public Utility District including installing new traffic signal heads, realigning signal heads, temporary poles and wiring, all other hardware modifications and controller modifications.
- E. Completely restore traffic signals affected by the construction to its original operation immediately upon completion of the work requiring the signal modification.
- F. Traffic Control Detection Loops: Completely replace traffic control detection loops which are cut, removed, or otherwise disturbed for construction of the pipeline to the original position or as directed by the Owner's Representative immediately after the specific stage affecting loops is completed. Check new loops for continuity from the traffic signal cabinet to assure splicing and signal operation is correct.
- G. Replace traffic signal conduits damaged to the nearest pull box, including new wire, back to the terminal, and/or back to the signal controller to the satisfaction of the owning agency before proceeding to the next construction stage. Splicing is not permitted. Report all such damage immediately to the Owner's Representative.
- H. Restriping of Streets: Permanent restriping shall be in accordance with the requirements of the agencies having jurisdiction. Place and remove temporary striping required for traffic control during construction by sandblasting. Temporary striping includes any striping required on any pavement replaced prior to the final surface course. Replace any damaged or obliterated raised pavement markers in accordance with the standards of the agency having jurisdiction.

END OF SECTION

SECTION 017410 CLEANING DURING CONSTRUCTION AND FINAL CLEANING

1.01 GENERAL

- A. This section includes cleaning during construction and final cleaning on completion of the work.
- B. At all times maintain areas covered by the contract and adjacent properties and public access roads free from accumulations of waste, debris, and rubbish caused by construction operations.
- C. Conduct cleaning and disposal operations to comply with local ordinances and antipollution laws. Do not burn or bury rubbish or waste materials on project site. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains. Do not dispose of wastes into streams or waterways.
- D. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

1.02 CLEANING DURING CONSTRUCTION

- A. During execution of work, clean site, adjacent properties, and public access roads and dispose of waste materials, debris, and rubbish to assure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
- C. Provide containers for collection and disposal of waste materials, debris, and rubbish.
- D. Cover or wet excavated material leaving and arriving at the site to prevent blowing dust. Clean the public access roads to the site of any material falling from the haul trucks.

1.03 FINAL CLEANING

- A. At the completion of work and immediately prior to final inspection, clean the entire project site as follows.
- B. Clean, sweep, wash, and polish all work and equipment including finishes.
- C. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from sight-exposed interior and exterior finished surfaces; polish surfaces.
- D. Repair, patch, and touch up marred surfaces to match adjacent surfaces.
- E. Broom clean paved surfaces; rake clean landscaped areas.
- F. Remove from the site temporary structures and materials, equipment, and appurtenances not required as a part of, or appurtenant to, the completed work.

END OF SECTION

JUNE LAKE PUBLIC UTILITY DISTRICT
SEWER REPAIR PROJECT

TECHNICAL SPECIFICATIONS

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SECTION 020120 PROTECTING EXISTING UNDERGROUND UTILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials and procedures for protecting existing underground utilities.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Trenching, Backfilling, and Compacting: 312316.

PART 2 - MATERIALS

2.01 REPLACEMENT IN KIND

Except as indicated below or as specifically authorized by the Owner's Representative, reconstruct utilities with new material of the same size, type, and quality as that removed.

PART 3 - EXECUTION

3.01 GENERAL

- A. Replace in kind street improvements, such as curbs and gutters, barricades, traffic islands, signalization, fences, signs, etc., that are cut, removed, damaged, or otherwise disturbed by the construction.
- B. Where utilities are parallel to or cross the construction but do not conflict with the permanent work to be constructed, follow the procedures given below. Notify the utility owner 48 hours in advance of the crossing construction and coordinate the construction schedule with the utility owner's requirements. For utility crossings not shown in the drawings, refer to the General Provisions and the instructions of the Owner's Representative for guidance.
- C. Determine the true location and depth of utilities and service connections which may be affected by or affect the work. Determine the type, material, and condition of these utilities. In order to provide sufficient lead-time to resolve unforeseen conflicts, order materials and take appropriate measures to ensure that there is no delay in work.
- D. Expose utilities in advance of the pipeline point repair.

3.02 PROCEDURES

- A. **Protect in Place:** Protect utilities in place, unless abandoned, and maintain the utility in service, unless otherwise specified in the drawings or in the specifications.
- B. **Cut and Plug Ends:** Cut abandoned utility lines and plug the ends. Plug storm drains and sewers with an 8-inch wall of brick and mortar. Cap waterlines with a cast-iron cap or install a 3-foot-long concrete plug. Dispose of the cut pipe as unsuitable material.
- C. **Remove and Reconstruct:** Where so indicated in the drawings or as required by the Owner's Representative, remove the utility and, after passage, reconstruct it with new materials. Provide temporary service for the disconnected utility.

3.03 COMPACTION

- A. **Utilities Protected in Place:** Backfill and compact under and around the utility so that no voids are left.
- B. **Utilities Reconstructed:** Prior to replacement of the utility, backfill the trench and compact to an elevation 1 foot above the top of the ends of the utility. Excavate a cross trench of the proper width for the utility and lay, backfill, and compact.
- C. **Alternative Construction--Sand-Cement Slurry:** Sand-cement slurry consisting of one sack (94 pounds) of portland cement per cubic yard of sand and sufficient moisture for workability may be substituted for other backfill materials to aid in reducing compaction difficulties. Submit specific methods and procedures for the review of the Owner's Representative prior to construction.

END OF SECTION

SECTION 099754 POLYETHYLENE SHEET ENCASUREMENT (AWWA C105)

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials and installation of a polyethylene sheet encasement for buried pipe and fittings.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Trenching, Backfilling, and Compacting: 312316.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with General Provision Conditions and Section 013300.
- B. Submit manufacturer's catalog literature and product data sheets describing the physical, chemical, and electrical properties of the encasement material.

PART 2 - MATERIALS

2.01 POLYETHYLENE WRAP

- A. The encasement shall consist of low-density polyethylene wrap of at least 8-mil thickness conforming to AWWA C105. Color: Black.
- B. Polyethylene encasement for ductile-iron pipe shall be supplied as a flat tube meeting the dimensions of Table 1 in AWWA C105 and shall be supplied by the ductile-iron pipe manufacturer.

2.02 PLASTIC ADHESIVE TAPE

- A. Tape shall consist of polyolefin backing and adhesive which bonds to common pipeline coatings including polyethylene.
- B. Minimum Width: 2 inches.
- C. Products: Canusa Wrapid Tape; Tapecoat 35; Polyken 934; AA Thread Seal Tape, Inc.; or equal.

PART 3 - EXECUTION

3.01 APPLYING SHEET COATING TO BURIED PIPING AND FITTINGS

- A. Apply wrapping per AWWA C105 as modified herein.
- B. Apply a single wrapping.
- C. Install the polyethylene to completely encase the pipe and fittings to provide a watertight corrosion barrier. Continuously secure overlaps and ends of sheet and tube with polyethylene tape. Make circumferential seams with two complete wraps, with no exposed edges. Tape longitudinal seams and longitudinal overlaps, extending tape beyond and beneath circumferential seams.
- D. Wrap bell-spigot interfaces, restrained joint components, and other irregular surfaces with wax tape or moldable sealant prior to placing polyethylene encasement.
- E. Minimize voids beneath polyethylene. Place circumferential or spiral wraps of polyethylene tape at 2-foot intervals along the barrel of the pipe to minimize the space between the pipe and the polyethylene.
- F. Overlap adjoining polyethylene tube coatings a minimum of 1 foot and wrap prior to placing concrete anchors, collars, supports, or thrust blocks. Hand wrap the polyethylene sheet, apply two complete wraps with no exposed edges to provide a watertight corrosion barrier, and secure in place with 2-inch-wide plastic adhesive tape.

3.02 APPLYING SHEET COATING TO BURIED FLEXIBLE PIPE COUPLINGS

- A. Wrap irregular surfaces with wax tape or moldable sealant. Press tightly into place leaving no voids underneath and a smooth surface under coating for polyethylene sheet.
- B. Apply two layers or wraps around the coupling. Overlap the adjoining pipe or fitting a minimum of 1 foot and secure in place with tape. Provide sufficient slack in polyethylene to allow backfill to be placed around fitting without tearing polyethylene. Apply tape around the entire circumference of the overlapped section on the adjoining pipe or fitting in two complete wraps, with no exposed edges, to provide a watertight corrosion barrier.

3.03 REPAIR OF POLYETHYLENE MATERIAL

Repair polyethylene material that is damaged during installation. Use polyethylene sheet, place over damaged or torn area, and secure in place with 2-inch-wide plastic adhesive tape.

3.04 APPLYING SHEET COATING TO EXISTING BURIED PIPING

When connecting polyethylene-encased pipe or fittings to existing pipe, expose existing pipe, thoroughly clean the surface, and securely tape the end of the polyethylene to the

existing as specified above. When the existing pipe is polyethylene encased, wrap new polyethylene encasement over the existing, with overlap of at least 2 feet. Tape securely as specified above.

3.05 BACKFILL FOR POLYETHYLENE-WRAPPED PIPE, VALVES, AND FITTINGS

Place sand backfill within 1 foot of the pipe, valves, and fittings wrapped with polyethylene encasement per Section 312316.

END OF SECTION

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SECTION 282316 SANITARY SEWER SYSTEM TELEVISION INSPECTION

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes television inspection digital audio-visual recording and reports associated with inspection of sanitary sewers.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. PVC Gravity Sewer Pipe: 333112.

1.03 DEFINITIONS

- A. Television Inspection: Operation necessary to complete a true-color audio-visual inspection for verification of existing internal sewer line conditions. Furnish labor, materials, equipment, tools, and other incidental services for CCTV inspection.
- B. MPEG: MPEG, which stands for Moving Pictures Expert Group, is the nickname given to a family of international standards fused for coding audio-visual information in a digital compressed format. For the purposes of this specification, digital audio-visual coding has a resolution of 352 pixels (x) by 240 pixels (y) and an interlaced frame rate of 30 frames per second. MPEG coding shall be named using the .mpg as the file extension.

1.04 MEASUREMENT AND PAYMENT

- A. Television inspection shall be measured by the linear foot of sewer line from center of the upstream manhole to center of the downstream manhole. Payment will be full compensation for furnishing labor, tools, and equipment necessary to perform the work. Payment shall be made for television inspection when a sanitary sewer is scheduled for television inspection, regardless of whether additional work is added. Payment for television inspection shall be made under: main line television inspection, pipe diameter (size), per linear foot.

PART 2 - MATERIALS

2.01 GENERAL

Furnish the television inspection studio, television camera, audio-visual digital encoding equipment/software, and other necessary equipment, materials, electricity, labor, technicians, as may be needed to perform the television inspection.

2.02 TELEVISION INSPECTION EQUIPMENT

- A. The television inspection equipment shall be capable of inspecting a minimum of 1,500 feet of sewer line, when entry into the sewer can be accessed from the upstream and downstream manholes. When entry is at one end only, the inspection equipment shall be capable of inspecting 750 feet by a self-propelled unit. The inspection equipment shall be capable of clearly televising the interior of a 6-inch-diameter sewer and larger sizes.
- B. Transport the television equipment in a stable condition through the sewer line to be inspected. Throughout the inspection, position the camera equipment with the camera directed along the longitudinal axis of the sewer. When the television equipment is towed by winch and bond through the sewer line, the winches shall be stable with either locking or ratcheting drums. Winches shall be inherently stable under loaded conditions. The bonds shall be steel or of an equally nonelastic material to ensure the smooth and steady progress of the camera extension or traction through the sewer conduit. Prevent damage to the sewer conduit during the television inspection. In the case where the Contractor, for any reason, causes damage such as would be caused by incorrect deployment of bonds or retrieval of lodged equipment, the cost of repair or remedy shall be borne by the Contractor.

2.03 TELEVISION CAMERA

- A. Use a television camera specifically designed and constructed for sewer pipeline inspection. The camera shall be waterproof and shall be operative in any conditions that may be encountered in the inspection environment. Provide a color pan and tilt camera to facilitate the inspection of service laterals and sewer line and manhole defects. The television camera shall be capable of 360-degree rotational scan indicating salient defects. The tilt arc shall not be less than 225 degrees unless otherwise approved by the Owner's Representative. The adjustment of focus and iris shall provide a minimum focal range of 3 inches in front of the camera's lens.
- B. The distance along the sewer in focus from the initial point of observation shall be a minimum of twice the vertical height of the sewer.
- C. The illumination shall be such as to allow an even distribution of the light shadowing.
- D. The view seen by the television camera shall be transmitted to a monitor of not less than 11 inches in size. The television camera shall be capable of receiving and transmitting a picture having not less than a resolution 352(x) by 240(y). The travel speed of the television inspection camera (through the sewer) shall be uniform and shall not exceed 6 inches per second under normal conditions.
- E. Test the television inspection equipment to verify the picture quality. Use the Macroni Regulation Chart No.1 or the equipment manufacturer's recommendation to clearly differentiate between the following colors: white, yellow, cyan, green, magenta, red, blue, and black.

- F. The television inspection equipment shall be of such quality as to enable the following to be achieved:
1. Color: With the monitor adjusted for correct saturation, the six colors plus black and white shall be clearly resolved with the primary and complementary colors in order of decreasing luminance.
 2. Linearity: The background grid shall show squares of equal size, without convergence/divergence over the whole of picture. The center circle shall appear round and have the correct height/width relationship ($\pm 5\%$).
 3. Resolution: The live picture must be displayed on a digital or analog monitor capable of providing a clear, stable image free of electrical interference with minimum horizontal resolution not less than 352(x) by 240(y) lines.
 4. Color Consistency: To ensure that the camera shall provide similar results when used with its own illumination source, the lighting shall be fixed in intensity prior to commencing the survey. In order to ensure color consistency, no variation illumination shall take place during the inspection.
 5. The Owner's Representative may periodically check both the live and video picture color consistency against the color bar. Any differences will necessitate resurvey of the new length or lengths affected, at the Contractor's expense.
 6. The CCTV monitor display shall incorporate an automatically updated record in feet and tenths of a foot of the distance along the line from the cable calibration point to the center point of the camera or center point of the transducer, whichever unit is being used. The relative positions of the two center points should also be noted. Use a metering device that enables the cable length to be accurately measured; this shall be accurate $\pm 1\%$ or 6 inches whichever is greater. Demonstrate that the tolerance is being achieved by tape measurement between manholes on the surface. This taped measurement must be included on each television log both written and digital.
 7. If the Contractor fails to meet the required standard of accuracy, the Owner's Representative will instruct the Contractor to provide a new device to measure the footage. The Owner's Representative may, at his discretion, instruct the Contractor in writing, to resurvey those lengths of sewer first inspected with the original measuring device using the new measuring device.
 8. Audio-visual recordings and collected data made during the television inspection shall become the property of the Owner. Submit to the Owner immediately upon completion of the television inspection.

2.04 TELEVISION STUDIO

The television studio shall be large enough to accommodate four people for the purpose of viewing the television monitor while the inspection is in progress. The television

studio shall be insulated against noise and extremes in temperature and shall be provided with means of controlling external and internal sources of light in a manner capable of ensuring that the monitor screen display is in accordance with the requirements of this specification. The Owner's Representative shall have access to view the television screen at all times. Locate the central control panel and television camera control in the mobile television studio. Mount the television studio on a mobile vehicle (truck or trailer), which allows safe and orderly movement of the inspection equipment throughout the jobsite.

PART 3 - EXECUTION

3.01 TELEVISION INSPECTION

- A. Inspect sewer pipelines with pan and tilt conventional television imagery so as to record relevant features and defects of the pipeline under inspection. Inspection of pipelines shall be carried out in a format reviewed by the Owner's Representative. Perform cleaning in accordance with the requirements of the contract documents. A skilled technician or supervisor who shall be located at the control panel in the mobile television studio shall control the operation of the television equipment.
- B. If television inspection of an entire section cannot be successfully performed from one manhole, perform a reverse setup to obtain a complete television inspection. No additional payment will be made for a reverse setup.
- C. Provide a complete television inspection of both the upstream and downstream manholes beginning at the top of each manhole and panning down to inspect the entire manhole.
- D. Whenever prevailing conditions allow, position the camera head to reduce the risk of picture distortion. In circular sewers, position the camera lens centrally (i.e., in prime position) within the sewer. In noncircular sewers, picture orientation shall be taken at mid-height, unless otherwise agreed, and centered horizontally. Direct the camera lens along the longitudinal axis of the sewer when in prime position. A positioning tolerance of $\pm 10\%$ of the vertical sewer dimension shall be allowed when the camera is in prime position.
- E. Perform television inspections during low flow conditions. The Owner's Representative will reject any television inspection that, because of high flow conditions or for any other reason, does not produce an effective survey of the sewer pipe. If the water level is greater than 25% of the pipe diameter, conventional television inspection shall not be attempted without prior approval from the Owner's Representative. In addition, if it is determined that effective conventional television inspection cannot be performed, notify the Owner's Representative in writing.
- F. Do not pull a cleaning device in front of the television inspection camera during the taping of the sewer line.

3.02 DIGITAL AUDIO/VISUAL RECORDING

- A. Take continuous digital video recordings of the inspection view as it appears on the television monitor. It is intended that a digital video recording will be made of the complete television inspection of the sewer lines constructed as part of this project. The recording shall also be used as a permanent record of defects. The recording shall be MPEG file format. The digital video encoding shall include both sound and video information that can be reproduced with a video image equal or very close to the quality of the original picture on the television monitor. The replay of the recorded video information, when reviewed by Windows Media Player™, shall be free of electrical interference and shall produce a clear, stable image. The audio portion of the composite digital coding shall be sufficiently free of electrical interference background noise to produce an oral report that is clear and completely and easily discernible.
- B. The audio portion of the inspection report shall include the location or identification of the section, the manhole-to-manhole direction of travel, and the distance traveled on the specific run encountered. The inspection camera equipment shall be on the specific run encountered. Continuously connect the inspection camera equipment to the television inspection or monitoring equipment. The recording and monitoring equipment shall have the built-in capability to allow the Owner's Representative to instantly review both the audio and video quality of the recordings during the television survey. Playback speed shall be continuously adjustable from one-third normal speed for slow-motion viewing to normal playback speed.
- C. Create separate MPEG files for each sewer line segment. In case of a reverse setup, store such inspection in a separate MPEG file. MPEG files shall be written to CD-ROM or DVD-ROM media for delivery to the Owner's Representative. Multiple MPEGs may exist on each CD-ROM or DVD-ROM. Each CD-ROM or DVD-ROM shall be labeled, at a minimum, with the following information: Owner, Engineering Firm, Project Name, Date of creation, ID number, Sewer Line Sections, and TVI Contractor's firm name.
- D. Name the MPEG files according to the following file specification: [Start Manhole Number]_[End Manhole Number]_[Month]_[Day]_[Year].mpg
- E. The Owner's Representative reserves the right to refuse an MPEG on the basis of poor image quality, excessive bit rates, inconsistent frame rates, or any other characteristics that may affect usability by the Owner's Representative.

3.03 TELEVISION INSPECTION REPORTS

- A. Prepare a television inspection report covering the television inspection work and the information acquired. Prior to beginning work, submit a sample hardcopy television inspection report to the Owner's Representative for review.
- B. Report sewer defects in accordance with the National Association of Sewer Service Companies (NASSCO) program known as Pipeline Assessment and Certification Program (PACP). The Owner's Representative reserves the right to refuse any inspection report that does not comply with the PACP program.

- C. Prior to beginning work, submit to the Owner's Representative certification in NASSCO's PACP. Do not commence work until such certification is provided.

3.04 QUALITY CONTROL

- A. Operate a quality control system that will effectively gauge the accuracy of inspection reports produced by the operator.
- B. The Owner's Representative shall be entitled to audit the control system and be present when assessments of the sewer integrity are being determined. When requested by the Owner's Representative in writing, forward to the Owner's Representative sufficient details and information for such audit assessment. Should any report fail to achieve a margin that the Owner's Representative deems satisfactory, the Contractor, without any additional compensation, shall recode and resubmit any data or reports that the Owner's Representative deems necessary.

END OF SECTION

SECTION 312316 TRENCHING, BACKFILLING, AND COMPACTING

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials, testing, and installation for pipeline trench excavation, backfilling, and compacting.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Protecting Existing Underground Utilities: 020120.
- B. Earthwork: 312300.
- C. Asphalt Concrete Paving (California): 321216.

1.03 SUBMITTALS

- A. Submit method(s) of compaction including removal sequence of shoring where used.
- B. Submit compaction testing results to Mono County and the California Department of Transportation in accordance with encroachment permit requirements. Provide the District a copy of these results.

1.04 TESTING FOR COMPACTION

- A. The Contractor will retain a geotechnical engineering firm to conduct compaction tests in accordance with the requirements of Mono County and the California Department of Transportation.
- B. Compaction shall be deemed to comply with the specifications when no test falls below the specified relative compaction. The Contractor shall pay the costs for any retesting or additional testing of work not conforming to the specifications.

1.05 PAVEMENT ZONE

The pavement zone includes the asphalt concrete and aggregate base pavement section placed over the trench backfill.

1.06 STREET ZONE

The street zone is the top 30 inches of the trench immediately below the pavement zone in paved areas. Where the depth of cover over the pipe does not permit the full specified thickness of the street zone, construct a thinner street zone, extending from the top of the pipe zone to the bottom of the pavement zone.

1.07 TRENCH ZONE

The trench zone includes the portion of the trench from the top of the pipe zone to the bottom of the street zone in paved areas or to the existing surface in unpaved areas. If the resulting trench zone is less than 24 inches thick, the street zone shall extend to the top of the pipe zone and there shall be no separate trench zone.

1.08 PIPE ZONE

The pipe zone shall include the full width of trench from the bottom of the pipe or conduit to a horizontal level above the top of the pipe, as specified below. Where multiple pipes or conduits are placed in the same trench, the pipe zone shall extend from the bottom of the lowest pipe to a horizontal level above the top of the highest or topmost pipe. Thickness of pipe zone above the highest top of pipe shall be as follows unless otherwise shown in the drawings or otherwise described in the specifications for the particular type of pipe installed.

Pipe Diameter	Thickness of Pipe Zone Above Top of Pipe
6 inches and larger	12 inches

1.09 PIPE BASE OR BEDDING

The pipe base or bedding shall be defined as a layer of material immediately below the bottom of the pipe or conduit and extending over the full trench width in which the pipe is bedded. Thickness of pipe base shall be as follows unless otherwise shown in the drawings or otherwise described in the specifications for the particular type of pipe installed.

Pipe Diameter	Thickness of Pipe Base
4 inches through 16 inches	8 inches

1.10 MEASUREMENT AND PAYMENT

- A. Payment for the work in this section, other than foundation stabilization, shall be included as part of the lump-sum bid amount stated in the Proposal.
- B. Payment for foundation stabilization shall be made in accordance with Article 1.11 below.

1.11 MEASUREMENT AND PAYMENT FOR ADDITIONAL ROCK REFILL FOR PIPE TRENCH FOUNDATION STABILIZATION

- A. These items have been included in the schedule of prices for work that might possibly be required to complete the project but the extent of which cannot be reasonably anticipated at this time and shall be the basis of payment for additional bedding material if

authorized by the Owner in writing. The unit price shall be for any quantity installed, complete in place, including all earthwork, disposal of all excess or waste material, and placing of the refill material. The Owner's Representative shall be the sole judge as to the necessity, the amount, and the depth of additional refill material that may be required in any given situation. Rock refill not ordered by the Owner's Representative that may be used by the Contractor for his convenience will not be measured for payment but shall be at the Contractor's sole expense.

- B. The quantity of rock refill shall be measured by the trench width as shown in the drawings or the outside diameter of the pipe plus 18 inches if not shown in the drawings multiplied by the depth of refill beneath the pipe barrel, multiplied by the length of the area to receive rock refill. Any additional rock refill required by the Contractor for his convenience shall not be measured for payment but shall be at the Contractor's expense.

PART 2 - MATERIALS

2.01 GRANULAR MATERIAL FOR BACKFILL--STREET AND TRENCH ZONES

Granular material or granular soil for backfill used above the pipe zone shall be lean bank-run or pit-run gravel, or native soil. The maximum particle size shall be 2 inches. A maximum of 10% shall pass a No. 200 sieve.

2.02 NATIVE EARTH BACKFILL--STREET AND TRENCH ZONES

- A. Native earth backfill used above the pipe zone shall be excavated fine-grained materials free from roots, debris, rocks larger than 3 inches, asbestos, organic matter, clods, clay balls, broken pavement, and other deleterious materials. Less than 50% shall pass a No. 200 sieve. At least 40% shall pass a No. 4 sieve. The coarser materials shall be well distributed throughout the finer material.
- B. Backfill materials that are obtained from trench excavated materials to the extent such material is available shall be either screened directly into the trench or screened during the trenching operation. If screened during trenching, the material shall be maintained free of unscreened material during the handling and backfilling process. Hand selecting of rocks from earth as it is placed into the trench will not be permitted in lieu of the specified screening. Backfill shall be moisture conditioned to within approximately 2% of the optimum moisture content prior to being placed in trench.

2.03 IMPORTED SAND--PIPE ZONE AND PIPE BASE

- A. Imported sand used in the pipe zone or for the pipe base shall have the following gradation:

Sieve Size	Percent Passing By Weight
3/8 inch	100
No. 4	75 to 100
No. 30	12 to 50
No. 100	5 to 20
No. 200	0 to 10

- B. Imported sand shall have a minimum sand equivalent of 30 per ASTM D2419. Imported sand shall have a saturated resistivity greater than 1,000 ohm-cm per ASTM G187, a neutral pH, and chlorides less than 100 ppm.

2.04 GRAVEL AND CRUSHED ROCK--PIPE ZONE AND PIPE BASE

- A. Gravel or crushed rock material shall conform to the Standard Specifications for Public Works Construction, Section 200-1.2. and shall meet the following gradation:

Sieve Sizes	Designated Gravel Size			
	1-1/2-Inch	1-Inch	3/4-Inch	3/8-Inch
	Percent Passing	Percent Passing	Percent Passing	Percent Passing
2 inches	100	-	-	-
1 1/2 inches	90 to 100	100	-	-
1 inch	20 to 55	90 to 100	100	-
3/4 inch	0 to 15	30 to 60	90 to 100	-
1/2 inch	-	0 to 20	30 to 60	100
3/8 inch	0 to 5	-	0 to 20	90 to 100
No. 4	-	0 to 5	0 to 5	30 to 60
No. 8	-	-	-	0 to 10

- B. Use 3/4-inch size unless indicated otherwise in the drawings.

2.05 SAND-CEMENT SLURRY BACKFILL--PIPE ZONE

Sand-cement slurry backfill shall consist of two sacks (188 pounds) of Type I or II portland cement added per cubic yard of imported sand and sufficient water for workability.

2.06 CONTROLLED LOW-STRENGTH MATERIAL (CLSM) FOR BACKFILL--PIPE BASE, PIPE ZONE, AND TRENCH ZONE

- A. CLSM shall consist of a mixture of portland cement, aggregate, fly ash, water, and admixtures conforming to the following:

1. Portland Cement: ASTM C150, Type V, maximum of 94 pounds per cubic yard.
2. Aggregate: Concrete sand, selected material from the excavation, imported material, or a combination thereof. Aggregate size shall meet the following gradation:

Sieve Size	Percentage Passing
1 1/2 inches	100
1 inch	80 to 100
3/4 inch	60 to 100
3/8 inch	50 to 100
No. 4	40 to 80
No. 100	10 to 40

3. The soluble sulfate content shall not exceed 0.3% by dry weight.
 4. Water: Potable quality.
 5. Water-Cement Ratio: 3.5:1 maximum.
 6. Fly Ash: Class C per ASTM C618, maximum of 300 pounds per cubic yard.
 7. The minus No. 200 sieve fraction shall be nonplastic.
- B. Proportion the CLSM to be a flowable, nonsegregating, self-consolidating nonshrink slurry. The water content shall not exceed that required to provide a mix that will flow, can be pumped, and will maintain the soil in suspension without segregation of the aggregate while being placed. Proportion the aggregate, cement, and water either by weight or by volume. Use as little cement for each cubic yard of material produced as necessary to make the CLSM flowable. Flowability shall be a minimum of 8 inches per ASTM D6103.
- C. Soil for the soil-cement bedding may consist of local soil or it may be imported. Soil for the CLSM shall comply with the following requirements:
1. Soil producing a color darker than the standard color in the colorimetric test for organic impurities will be rejected until further tests are performed to determine the nature of the material and its effect on the time of set and strength of the cement.
 2. Select or process the soil so that the gradation of the soil is such that all particles will remain in suspension and no segregation will occur when the CLSM is placed. The amount of soil passing the No. 200 screen shall not exceed 15% by weight, and the amount of soil passing the No. 100 screen shall not exceed 50% by weight. The maximum particle size in the soil shall not exceed one-eighth of the open

distance between the pipe and the trench wall or 1 1/2 inches, whichever is less. The soil shall be nonplastic or of low plasticity.

3. The maximum size of any clay balls in the soil shall be 1/2 inch. The maximum percentage of clay balls, by wet weight, should not exceed 10%.
- D. The unconfined compressive strength at seven days shall be minimum of 50 and a maximum of 300 psi per ASTM D4832.
- E. The temperature of the CLSM discharged into the trench shall be below 90°F.

PART 3 - EXECUTION

3.01 SLOPING, SHEETING, SHORING, AND BRACING OF TRENCHES

Trenches shall have sloping, sheeting, shoring, and bracing conforming with 29CFR1926, Subpart P--Excavations, CAL/OSHA requirements, and the General Provisions Conditions.

3.02 TRENCH EXCAVATION

- A. Excavate the trench to the lines and grades shown in the drawings with allowance for pipe thickness, sheeting and shoring if used, and for pipe base or special bedding. If the trench is excavated below the required grade, refill any part of the trench excavated below the grade at no additional cost to the Owner with granular material. Place the refilling material over the full width of trench in compacted layers not exceeding 6 inches deep to the established grade with allowance for the pipe base or special bedding.
- B. Trench widths in the pipe zone shall be as shown in the drawings. If no details are shown, maximum width shall be 48 inches greater than the pipe outside diameter. Comply with 29CFR Part 1926 Subpart P--Excavations. Trench width at the top of the trench will not be limited except where width of excavation would undercut adjacent structures and footings. In such case, width of trench shall be such that there is at least 2 feet between the top edge of the trench and the structure or footing.
- C. Construct trenches in rock by removing rock to a minimum of 6 inches below bottom of pipe and backfilling with granular material.

3.03 TRENCH EXCAVATION IN BACKFILL AND EMBANKMENT AREAS

- A. Construct and compact the embankment to an elevation of 1-foot minimum over the top of the largest pipe or conduit to be installed.
- B. Excavate trench in the compacted backfill or embankment.

3.04 LOCATION OF EXCAVATED MATERIAL

- A. During trench excavation, place the excavated material only within the working area. Do not obstruct any roadways or streets. Do not place trench spoil over pipe, buried utilities, manholes, or vaults. Conform to federal, state, and local codes governing the safe loading of trenches with excavated material.
- B. Locate trench spoil piles at least 15 feet from the tops of the slopes of trenches. Do not operate cranes and other equipment on the same side of the trench as the spoil piles.

3.05 DEWATERING

Provide and maintain means and devices to remove and dispose of water entering the trench excavation during the time the trench is being prepared for the pipe laying, during the laying of the pipe, and until the backfill at the pipe zone has been completed. These provisions shall apply during both working and nonworking hours, including lunchtime, evenings, weekends, and holidays. Dispose of the water in a manner to prevent damage to adjacent property and in accordance with regulatory agency requirements. Do not drain trench water through the pipeline under construction. Do not allow groundwater to rise around the pipe.

3.06 FOUNDATION STABILIZATION NOTE THAT PARAGRAPH BELOW REQUIRES THE OWNER TO MAKE DECISIONS AND ISSUE INSTRUCTIONS TO THE CONTRACTOR REGARDING TRENCH OVEREXCAVATION AND REFILLING.

After the required excavation has been completed, the Owner will inspect the exposed subgrade to determine the need for any additional excavation. It is the intent that additional excavation be conducted in all areas within the influence of the pipeline where unacceptable materials exist at the exposed subgrade. Overexcavation shall include the removal of all such unacceptable material that exist directly beneath the pipeline to a width 24 inches greater than the pipe outside diameter and to the depth required.

3.07 INSTALLING BURIED PIPING

- A. Grade the bottom of the trench to the line and grade to which the pipe is to be laid, with allowance for pipe thickness. Remove hard spots that would prevent a uniform thickness of bedding. Place the specified thickness of pipe base material over the full width of trench. Grade the top of the pipe base ahead of the pipe laying to provide firm, continuous, uniform support along the full length of pipe, and compact to the relative compaction specified herein. Before laying each section of the pipe, check the grade and correct any irregularities.
- B. Excavate bell holes at each joint to permit proper assembly and inspection of the entire joint. Fill the area excavated for the joints with the bedding material specified or indicated in the drawings for use in the pipe zone. If no bedding material is specified or indicated, use imported sand.

- C. Inspect each pipe and fitting before lowering the buried pipe or fitting into the trench. Inspect the interior and exterior protective coatings. Patch damaged areas in the field with material recommended by the protective coating manufacturer. Clean ends of pipe thoroughly. Remove foreign matter and dirt from inside of pipe and keep clean during and after installation.
- D. Handle pipe in such a manner as to avoid damage to the pipe. Do not drop or dump pipe into trenches under any circumstances.
- E. When installing pipe, do not deviate more than 1 inch from line or 1/4 inch from grade. Measure elevation at the pipe invert.
- F. After pipe has been bedded, place pipe zone material simultaneously on both sides of the pipe, in maximum 6-inch lifts, keeping the level of backfill the same on each side. If no pipe zone material is specified or indicated, use imported sand. Carefully place the material around the pipe so that the pipe barrel is completely supported and no voids or uncompacted areas are left beneath the pipe. Use particular care in placing material on the underside of the pipe to prevent lateral movement during subsequent backfilling.
- G. Compact each lift to the relative compaction specified herein.
- H. Push the backfill material carefully onto the backfill previously placed in the pipe zone. If no backfill material is otherwise specified or indicated, use granular material for backfill. Do not permit free-fall of the material until at least 2 feet of cover is provided over the top of the pipe. Do not drop sharp, heavy pieces of material directly onto the pipe or the tamped material around the pipe. Do not operate heavy equipment or a sheepsfoot wheel mounted on a backhoe over the pipe until at least 3 feet or one-half of the internal diameter, whichever is greater, of backfill has been placed and compacted over the pipe.
- I. When the pipe laying is not in progress, including the noon hours, close the open ends of pipe. Do not allow trench water, animals, or foreign material to enter the pipe.
- J. Keep the trench dry until the pipe laying and jointing are completed.

3.08 BACKFILL COMPACTION

- A. Unless otherwise shown in the drawings or otherwise described in the specifications for the particular type of pipe installed, relative compaction in pipe trenches shall be as follows:
 - 1. Pipe Zone: 90% relative compaction.
 - 2. Backfill in Trench Zone Not Beneath Paving: 90% relative compaction. Compact backfill within embankment above the pipe zone to the same relative compaction as the adjacent embankment as specified in Section 312300.
 - 3. Backfill in Trench Zone to Street Zone in Paved Areas: 90% relative compaction.

4. Backfill in Street Zone in Paved Areas: 95% relative compaction.
 5. Rock Refill for Foundation Stabilization: 80% relative density.
 6. Refill for Over excavation: 80% relative density.
- B. Compact trench backfill to the specified relative compaction. Compact by using mechanical compaction or hand tamping. Do not use high-impact hammer-type equipment except where the pipe manufacturer warrants in writing that such use will not damage the pipe.
 - C. Compact material placed within 12 inches of the outer surface of the pipe by hand tamping only.
 - D. Do not use any axle-driven or tractor-drawn compaction equipment within 5 feet of building walls, foundations, and other structures.

3.09 MATERIAL REPLACEMENT

Remove and replace any trenching and backfilling material that does not meet the specifications, at the Contractor's expense.

END OF SECTION

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SECTION 321216 ASPHALT CONCRETE PAVING (CALIFORNIA)

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials, testing, and installation of asphalt concrete pavement, aggregate base course, herbicide, prime coat, tack coat, seal coat, striping paint, and pavement markers.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Earthwork: 312300.

1.03 SUBMITTALS

- A. Submit copy of a report from a testing laboratory verifying that aggregate material conforms to the specified gradations or characteristics.
- B. Submit manufacturer's certificate of compliance or product literature for the following materials:
 - 1. Aggregate: Gradation.
 - 2. Asphalt for Binder: Type and grade.
 - 3. Prime Coat: Type and grade of asphalt.
 - 4. Tack Coat: Type and grade of asphalt.
 - 5. Seal Coat: Type and grade of asphalt.
 - 6. Mixes: Conforms to job-mix formula.
 - 7. Paint for traffic and parking lot striping.
 - 8. Pavement markers.

1.04 TESTING FOR COMPACTION

- A. The Contractor shall retain a geotechnical engineering firm to provide testing as required by Mono County and the California Department of Transportation.

1.05 STANDARD SPECIFICATIONS

Wherever reference is made to the Caltrans Standard Specifications such reference shall mean the State of California, Business, Transportation, and Housing Agency, Department of Transportation Standard Specifications, 2018.

1.06 MEASUREMENT AND PAYMENT

- A. Include allowances for pavement removal in the lump sum or unit prices bid for the work. No extra compensation will be made should the existing pavement sections vary from the conditions as listed or described.
- B. Measurement and payment provisions and sharing of costs provisions described in Caltrans Standard Specifications are not applicable to this project. Payment for all work described herein and for all work included by reference to the Caltrans Standard Specifications shall be considered as being included in the bid amounts stated in the project Bid Proposal and no additional payment will be made therefor.

PART 2 - MATERIALS

2.01 ASPHALT CONCRETE PAVING

Asphalt concrete paving shall conform to Type A or B in Section 39 of the Caltrans Standard Specifications, having 1/2-inch-maximum medium grading asphalt per Section 92 in the Caltrans Standard Specifications.

2.02 AGGREGATE BASE COURSE

Aggregate base shall be Class 2 aggregate base, 3/4-inch-maximum size per Section 26 of the Caltrans Standard Specifications. Aggregate shall contain less than .25% asbestos by weight or volume.

2.03 PRIME COAT

All areas to be paved shall receive prime coat. Prime coat shall be per Section 39-4.02 in the Caltrans Standard Specifications.

2.04 TACK COAT

Tack coat shall conform with Section 94, Grade SS1h in the Caltrans Standard Specifications.

2.05 ASPHALT

Asphalt shall be Performance Grade PG 64-28 per Section 92 in the Caltrans Standard Specifications.

2.06 AGGREGATE FOR ASPHALT CONCRETE

Aggregate shall be Type A or B per Section 39-2.02 in the Caltrans Standard Specifications. Aggregate shall contain less than .25% asbestos by weight or volume.

2.07 SEAL COAT

Seal coat shall be Type II slurry seal per Section 37 of the Caltrans Standard Specifications.

2.08 PAINT FOR TRAFFIC AND PARKING LOT STRIPING AND MARKING

Replace striping in kind.

PART 3 - EXECUTION

3.01 PAVEMENT REMOVAL

- A. Initially cut asphalt concrete pavement with pneumatic pavement cutter or other equipment at the limits of the excavation and remove the pavement. After backfilling the excavation, saw cut asphalt concrete pavement to a minimum depth of 2 inches at a point not less than 9 inches outside the limits of the excavation or the previous pavement cut, whichever is greater, and remove the additional pavement.
- B. Saw cut concrete pavement, including cross gutters, curbs and gutters, sidewalks, and driveways, to a minimum depth of 1 1/2 inches at a point 1 foot beyond the edge of the excavation and remove the pavement. The concrete pavement may initially be cut at the limits of the excavation by other methods prior to removal and the saw cut made after backfilling the excavation. If the saw cut falls within 3 feet of a concrete joint or pavement edge, remove the concrete to the joint or edge.
- C. Make arrangements for and dispose of the removed pavement.
- D. Final pavement saw cuts shall be straight along both sides of trenches, parallel to the pipeline alignment, and provide clean, solid, vertical faces free from loose material. Saw cut and remove damaged or disturbed adjoining pavement. Saw cuts shall be parallel to the pipeline alignment or the roadway centerline or perpendicular to same.

3.02 PAVEMENT REPLACEMENT

- A. Backfill, compaction, and the permanent paving, except for the final asphalt surface course, shall be complete at all times to a point not to exceed 1,300 feet behind any working heading. The final asphalt surface course shall match the existing thickness. Do not place final surface course until at least three months after traffic has been returned to that portion of the street. Place temporary striping after the base course of A.C. pavement has been completed in the same configuration as the existing permanent

striping so that traffic can be returned to normal patterns. This striping shall be considered temporary and is the Contractor's responsibility to place and maintain.

3.03 INSTALLATION

Producing, hauling, placing, compacting, and finishing of asphalt concrete shall conform to Section 39 of the Caltrans Standard Specifications. Apply seal coat to all paving except open asphalt concrete.

3.04 CONNECTIONS WITH EXISTING PAVEMENT

Where new paving joins existing paving, chip the existing surfaces 12 inches back from the joint line so that there will be sufficient depth to provide a minimum of 1 inch of asphalt concrete. Dispose of waste material offsite. Tack chipped areas prior to placing the asphalt concrete. Meet lines shall be straight and the edges vertical. Paint the edges of meet line cuts with liquid asphalt or emulsified asphalt prior to placing asphalt concrete. After placing the asphalt concrete, seal the meet line by painting with a liquid asphalt or emulsified asphalt and then immediately cover with clean, dry sand.

3.05 PREPARATION OF SUBGRADE

- A. Excavate and shape subgrade to line, grade, and cross section shown in the drawings. The subgrade shall be considered to extend over the full width of the base course.
- B. Scarify and cultivate the top 6-12 inches of subgrade when the subgrade consists of dry soils which are impervious to the penetration of water, soils which contain excessive amounts of moisture which may result in unstable foundations, soils which are nonuniform in character which may result in nonuniform relative compactions and subsequent differential settlements of finished surfaces, or when pavement is to be placed directly on the roadbed material.
- C. After rough grading has been completed, when scarifying and cultivating are required, loosen the roadbed to a depth of at least 6-12 inches. Work the loosened material to a finely divided condition and remove rocks larger than 3 inches in diameter. Bring the moisture content to optimum by the addition of water, by the addition and blending of dry material, or by the drying of existing material. Compact the material to the specified relative compaction.
- D. Uniform pervious soils that allow the immediate penetration of water or uniform impervious soils which will allow the penetration of water to a depth of at least 6 inches after the addition of a suitable wetting agent will not require scarifying and cultivating. When scarifying and cultivating are not required, bring the moisture content of the top 6 inches of the subgrade material to optimum by the addition of water at the surface, and compact the material to the specified relative compaction.
- E. Remove soft material disclosed by the subgrade preparation, replace with structural backfill material per Section 312300, and recompact.

- F. Compact the top 6-12 inches of subgrade to 95% relative compaction.
- G. The finished subgrade shall be within a tolerance of ± 0.08 of a foot of the grade and cross-section shown and shall be smooth and free from irregularities and at the specified relative compaction.

3.06 PLACING AGGREGATE BASE COURSE

Place aggregate base course to a minimum thickness of 8 inches, unless shown otherwise in the drawings. Compact to 95% relative compaction. Install in accordance with Section 26 of the Caltrans Standard Specifications.

3.07 COMPACTION OF AGGREGATE BASE AND LEVELING COURSES

Compaction and rolling shall begin at the outer edges of the surfacing and continue toward the center. Apply water uniformly throughout the material to provide moisture for obtaining the specified compaction. Compact each layer to the specified relative compaction before placing the next layer.

3.08 PLACING PRIME COAT

Apply prime coat to the surface of the leveling course of aggregate base at the rate of 0.25 gallon per square yard per Section 39-4.02 in the Caltrans Standard Specifications

3.09 PLACING TACK COAT

Apply tack coat on surfaces to receive finish pavement per Section 39-4.02 in the Caltrans Standard Specifications. Apply tack coat to metal or concrete surfaces that will be in contact with the asphalt concrete paving.

3.10 PLACING ASPHALT PAVING

Place asphalt paving to a minimum thickness of 4 inches unless otherwise shown in the drawings. Install in accordance with Section 39-6 in the Caltrans Standard Specifications.

3.11 COMPACTION OF ASPHALT CONCRETE PAVING

Compact until roller marks are eliminated and a density of 92% minimum to 98% maximum has been attained per ASTM D2041.

3.12 APPLYING SEAL COAT

Apply fog-type seal coat at the rate of 0.05 to 0.10 gallon per square yard SS1 asphaltic emulsion per Section 94 of the Caltrans Standard Specifications.

3.13 SURFACE TOLERANCE

- A. Finished grade shall not deviate more than 0.02 foot in elevation from the grade indicated in the drawings. Slopes shall not vary more than 1/4 inch in 10 feet from the slopes shown in the drawings.
- B. After paving has been installed and compacted, spray water over the entire paved area. Correct any areas where water collects and does not drain away.

3.14 APPLYING PAINT FOR TRAFFIC AND PARKING LOT STRIPING AND MARKING

Apply in accordance with Section 84 of the Caltrans Standard Specifications.

3.15 INSTALLING PAVEMENT MARKERS

- A. After the application of pavement striping and markings, install markers on existing surfaces that were damaged by the construction. Install in accordance with Section 85 of the Caltrans Standard Specifications.
- B. Use markers that are reflective and match the color or combination of colors of existing markers within the area of work. Install markers along the alignment and match spacing of the existing.

3.16 INSTALLING FIRE HYDRANT MARKERS

Install a blue reflective marker opposite each fire hydrant. Place the marker on the pavement and locate 6 inches off the centerline of the traffic striping or reflective pavement markers towards the hydrant. Install markers in where existing fire hydrants have been relocated or removed from service, dislodge the existing blue marker from the pavement and dispose.

END OF SECTION

SECTION 333112 PVC GRAVITY SEWER PIPE

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials, installation, and testing of PVC gravity sewer pipe conforming to ASTM D3034

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Trenching, Backfilling, and Compacting: 312316.
- B. Sanitary Sewer System Television Inspection: 282316.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Provisions Conditions and Section 013300.
- B. Submit reports on testing per ASTM D3034 (pipes 3 inches through 15 inches).

1.04 MEASUREMENT AND PAYMENT

- A. The unit price or lump sum paid for PVC pipe includes full compensation for furnishing the labor, materials, tools, and equipment and doing all work involved to complete the pipeline except:
 - 1. Stabilization of yielding foundation.
 - 2. Concrete construction of special encasement not included in the classes of bedding and manhole bases.

PART 2 - MATERIALS

2.01 PVC MATERIAL

Additives and fillers, including stabilizers, antioxidants, lubricants, colorants, etc., shall not exceed 10 parts by weight per 100 of PVC resin in the compound.

2.02 PIPE

- A. Pipe 4 through 15 inches shall conform to ASTM D3034, SDR 35.

2.03 JOINTS

Provide elastomeric gasket joints of the push-on type, conforming to ASTM D3212.

2.04 GASKETS

Gaskets for push-on joints shall conform to ASTM F477.

2.05 FITTINGS

- A. Fittings for pipe 4 through 15 inches shall conform to ASTM D3034, SDR 35.

2.06 MANDREL FOR FIELD TESTING OF PIPE DEFLECTION

The mandrel shall:

- A. Be a rigid, nonadjustable, odd-numbering-leg (nine legs minimum) mandrel having an effective length not less than its nominal diameter.
B. Have a minimum diameter at any point along the full length as follows:

Table with 3 columns: Pipe Material, Nominal Size (inches), Minimum Mandrel Diameter (inches). Rows include PVC-ASTM D3034 (SDR 35) with nominal sizes 6, 8, 10, 12, and 15 inches.

- C. Be fabricated of steel; be fitted with pulling rings at each end; be stamped or engraved on some segment other than a runner indicating the pipe material specification, nominal size, and mandrel outside diameter (e.g., PVC, D 3034-8"-7.524"); and be furnished in a carrying case labeled with the same data as stamped or engraved on the mandrel.
D. All costs incurred by the Contractor attributable to mandrel and deflection testing, including any delays, shall be borne by the Contractor at no cost to the Owner.

PART 3 - EXECUTION

3.01 LABORATORY TESTING

- A. Conduct tests required in ASTM D3034 or D3212, and F477.
B. The acceptable rates of failure for quality control tests shall be as follows:
1. Outer Diameter: 0%.

2. Minimum Wall Thickness: 0%.
3. Other Dimensions: 0%.
4. Flattening: 0%.
5. Impact: Six of six samples must pass; if one fails, test six more; all six must pass.

3.02 INSTALLING PVC SEWER PIPE

- A. Install in accordance with Section 312316, ASTM D2321, and as described below.
- B. Pipe shall not deviate more than 1 inch from line or 1/4 inch from grade. Measure for grade at the pipe invert.
- C. Minimum bedding thickness shall be as specified in Section 312316.
- D. Lay pipe without break, upgrade from structure to structure, with the socket ends of the pipe upgrade.
- E. Do not use the pipe as a drain for removing water that has infiltrated into the trench.
- F. After joint assembly, bring the bedding material up to pipe spring line. Bedding material shall be imported sand per Section 312316. Place the bedding material on each side of the pipe. Tamp the bedding material into final position at pipe spring line and continue to the top of the pipe. Relative compaction shall be in conformance with Section 312316.
- G. Then place bedding material to 1 foot above the top of the pipe and compact to the same relative compaction as in the pipe zone per Section 312316. The remainder of the trench backfill shall be native material, installed per Section 312316.
- H. Do not use hydro-hammers to compact bedding or backfill.

3.03 INSTALLING LATERALS

- A. Each wye branch fitting shall have its barrel diameter equal to the diameter of the sanitary sewer main and the spur (or branch) diameter as indicated in the drawings. Do not place wye branches within 5 feet of any structure.
- B. Install wye fittings so that the outlet branch is inclined upward at an angle of 45 degrees. Plug wye branch fittings that are to be left unconnected with a stopper or plug. Join laterals to wye branch fittings at the sanitary sewer main by eighth bends. Eighth bends and quarter bends are a part of lateral sewer line.
- C. End of the lateral shall be at least 3 feet below the existing or proposed grade of the ground at existing structure to be served or as called for in the drawings.
- D. Where possible, laterals shall run perpendicular to the sewer main at a minimum grade of 1%. Bed laterals the same as the sewer main into which they connect.

- E. Plug laterals with stopper in the socket of the last joint. Seal stopper in place so that it will withstand the internal pressure during the test for leakage and so that it may be removed without damage to the socket.
- F. Mark the location of each lateral by chiseling a letter "S" 1 1/2 inches high on the top of the curb. If the terminal point of the lateral is more than 8 feet beyond the curb line or curb improvements do not exist, provide and install a 4-inch by 4-inch by 3-foot 0-inch stake extending 2 inches above the ground and placed at the end of the connection.

3.04 INSTALLING PIPE AT MANHOLES AND STRUCTURES

- A. Place a 2-foot PVC length of pipe of the same inside diameter as the adjoining pipe at the inlet and outlet to each manhole or structure. Use one of the following methods:
 1. Directly cast a manhole coupling into the manhole base. Provide rubber-ring gasket in the coupling.
 2. Stretch a rubber-ring gasket around the pipe to serve as a water stop when cast into the structure wall.
- B. Do not cast pipe bells into manholes or structures. Cut off the bell so that no recess or offset appears on the exposed face from the inside wall of the pipe to the outside wall of the pipe. The pipe shall have a plain end, flush with the inside wall of the manhole or structure, or as shown in the drawings.

3.05 TESTING FOR DEFECTS OF INSTALLED PIPE

Following placement and compaction of backfill and prior to placing permanent pavement, ball and mandrel the pipe to measure for obstructions (excessive deflections, joint offsets, and lateral pipe intrusions).

3.06 FIELD TESTING FOR PIPE DEFLECTION

- A. Test installed pipe to ensure that vertical deflections for plastic pipe do not exceed the maximum allowable deflection. Maximum allowable deflections shall be governed by the mandrel requirements stated herein and shall nominally be:

Nominal Pipe Size	Percentage
Up to and including 12 inches	5.0
Over 12 to and including 27 inches	4.0

- B. The maximum average inside diameter shall be equal to the average outside diameter per applicable ASTM standard minus two minimum wall thicknesses per applicable ASTM standards. Manufacturing and other tolerances shall not be considered for determining maximum allowable deflections.

- C. Perform deflection tests not sooner than 30 days after completion of placement and compaction of backfill. Clean and inspect the pipe for offsets and obstructions prior to testing.
- D. Pull a mandrel through the pipe by hand to verify that maximum allowable deflections have not been exceeded. Prior to use, the mandrel shall be certified by an independent testing laboratory. Use of an uncertified mandrel or a mandrel altered or modified after certification will invalidate test. If the mandrel fails to pass, the pipe will be deemed to be overdeflected.
- E. Uncover any overdeflected pipe and, if not damaged, reinstall. Remove damaged pipe from the site. Any pipe subjected to any method or process other than removal, which attempts, even successfully, to reduce or cure any overdeflection, shall be uncovered, removed from the site, and replaced with new pipe.

3.07 LEAKAGE AND INFILTRATION TEST

Leakage and infiltration testing should be per the June Lake Public Utility District Standards.

3.08 TESTING FOR ALIGNMENT AND GRADE

After the pipe has been installed, tested for leakage, backfilled to existing grade, and manholes raised to grade and resurfaced, "ball" the pipe from manhole to manhole with a sewer scrubbing ball. After balling the pipe, perform the following:

- A. "Mirror" straight sewers and inlet/outlet ends of curvilinear sewers. Perform balling and mirroring in the presence of the Owner to test for alignment, grade, damaged or defective pipe in place, or any other type of faulty installation. Should balling and mirroring indicate any faulty installation of the pipe, repairs or replacements shall be made at the Contractor's expense.
- B. Perform television inspection per Section 282316. If deficiencies are observed, make a digital video recording and note defects requiring correction. Upon completing the corrective work, notify the Owner.

END OF SECTION

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Appendix Index

Exhibit A –

June Lake Public Utility District Map

Pipe Inspection Report – Day 1 2019.10.15

Pipe Inspection Report – Day 2 2019.10.16

Pipe Inspection Report – Day 3 2019.10.17

Exhibit B –

Pipe Inspection Report – Day 1 2019.11.12

Pipe Inspection Report – Day 2 2019.11.13

Pipe Inspection Report – Day 3 2019.11.14

Pipe Inspection Report – Day 4 2019.11.15

Exhibit C –

Map

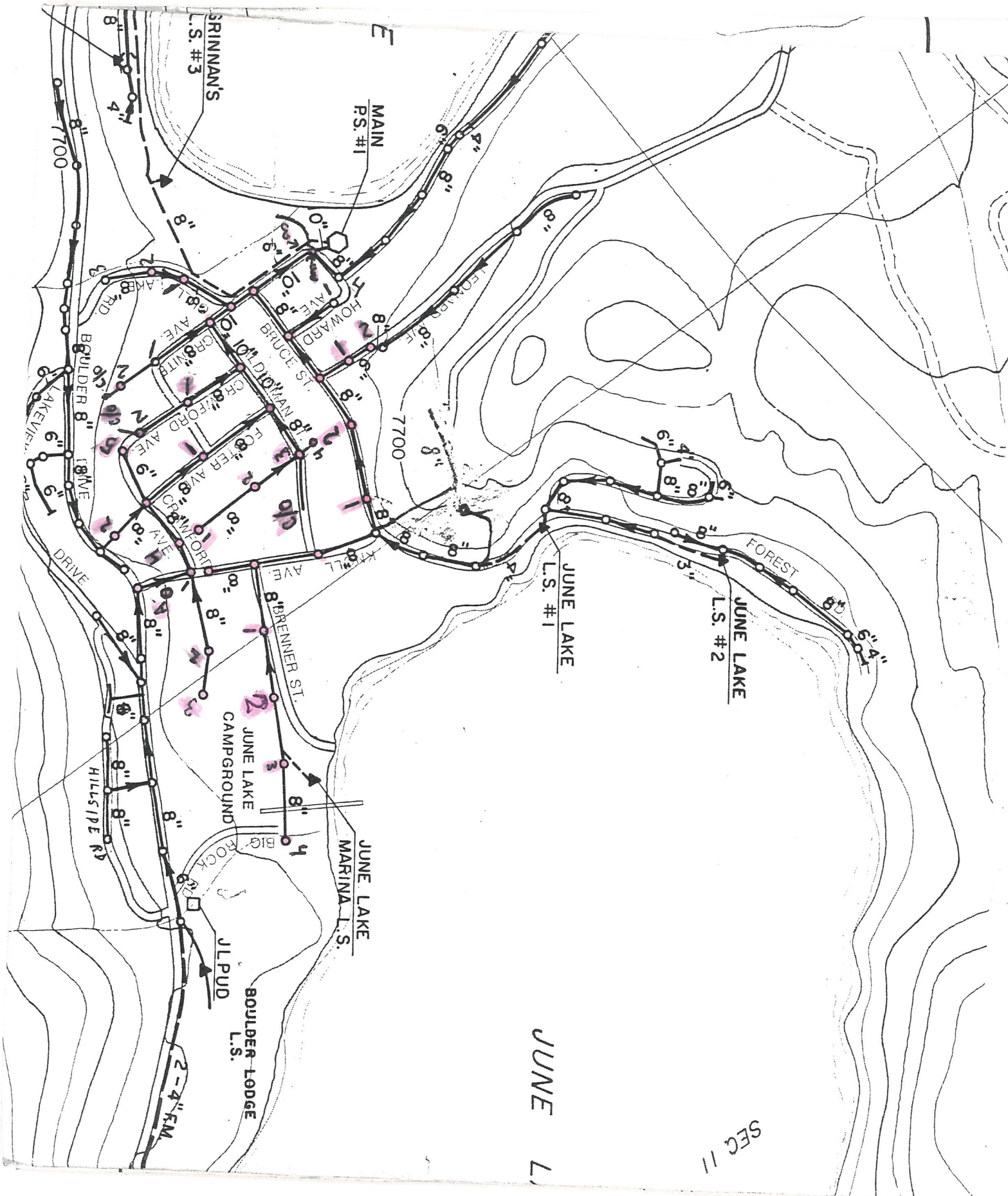
Pipe Inspection Report – Day 1 2020.06.02

Pipe Inspection Report – Day 2 2020.06.03

Pipe Inspection Report – Day 3 2020.06.04

Pipe Inspection Report – Day 4 2020.06.05

Exhibit A – June Lake Public Utility District Map



JUNE L

SEC 11

Exhibit A – Day 1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

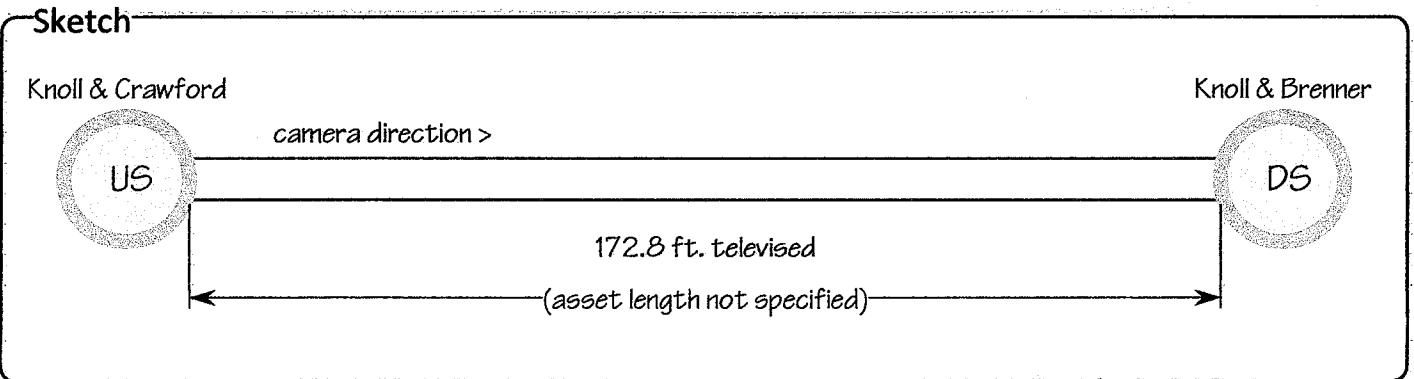
Camera Direction:

Purpose:

Pre-Cleaning:

Weather:

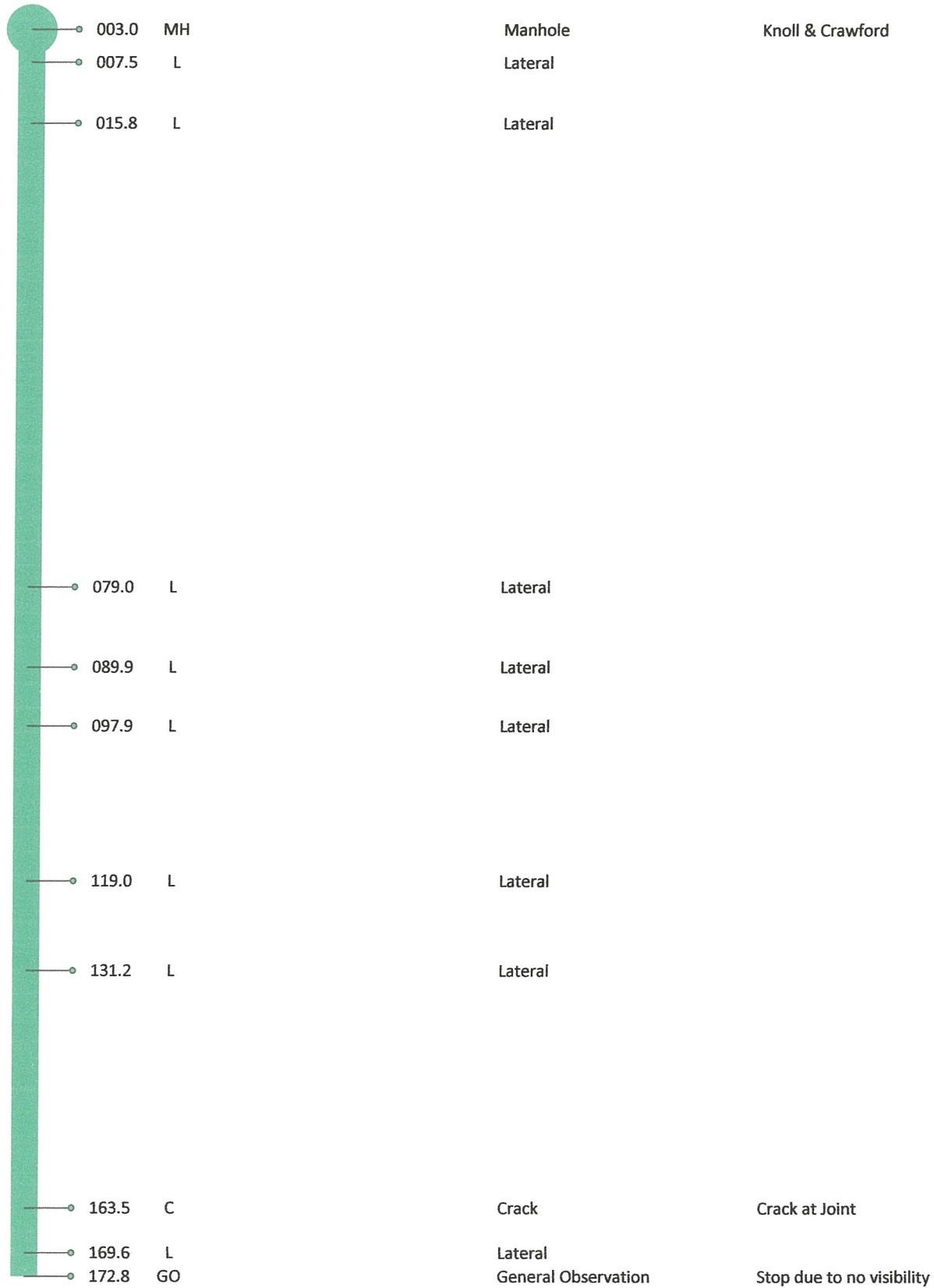
Location Details:



Schematic Top View

Knoll & Crawford

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Knoll & Brenner

Asset Information

Upstream MH: Brenner 1

USMH Depth:

Downstream MH: Brenner 2

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Brenner St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 15-Oct-2019 9:45 AM

Surveyed By: Tyrone Jones

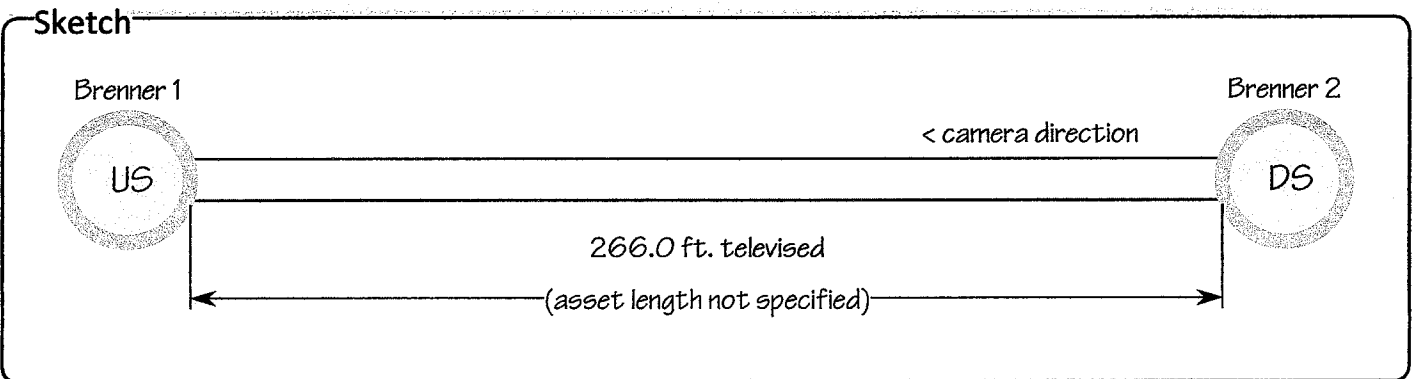
Camera Direction: Upstream

Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:



Schematic Top View

Brenner 1

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^266.0	MH				Manhole	Brenner 2
--------	----	--	--	--	---------	-----------

^240.1	L				Lateral	
--------	---	--	--	--	---------	--

^223.0	L				Lateral	
--------	---	--	--	--	---------	--

^117.6	L				Lateral	
--------	---	--	--	--	---------	--

^044.9	L				Lateral	
--------	---	--	--	--	---------	--

^021.5	L				Lateral	
--------	---	--	--	--	---------	--

^003.0	MH				Manhole	Brenner 1
--------	----	--	--	--	---------	-----------

Brenner 2

flow >

Asset Information

Upstream MH: Knoll & Brenner

USMH Depth:

Downstream MH: Brenner 1

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Brenner St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 15-Oct-2019 8:54 AM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

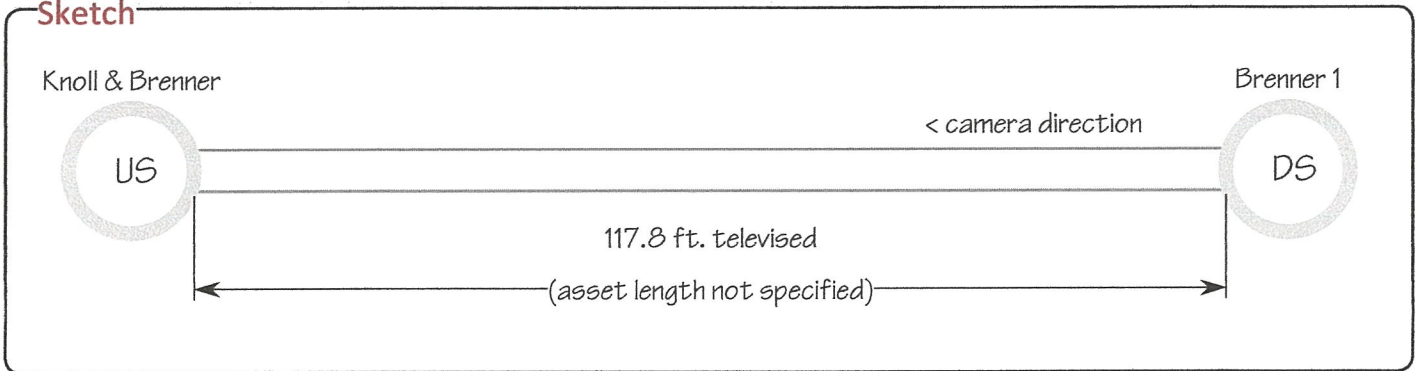
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

Sketch



Schematic Top View

Knoll & Brenner

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

117.8	GO				General Observation	Lack of Visibility
-------	----	--	--	--	---------------------	--------------------

106.4	GO				General Observation	Joint Offset
-------	----	--	--	--	---------------------	--------------

091.0	L				Lateral	
-------	---	--	--	--	---------	--

flow >

003.0	MH				Manhole	Knoll & Brenner
-------	----	--	--	--	---------	-----------------

Brenner 1

Asset Information

Upstream MH: Knoll & Brenner

USMH Depth:

Downstream MH: Knoll & Alderman

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Knoll Ave.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 15-Oct-2019 10:14 AM

Surveyed By: Tyrone Jones

Camera Direction: Downstream

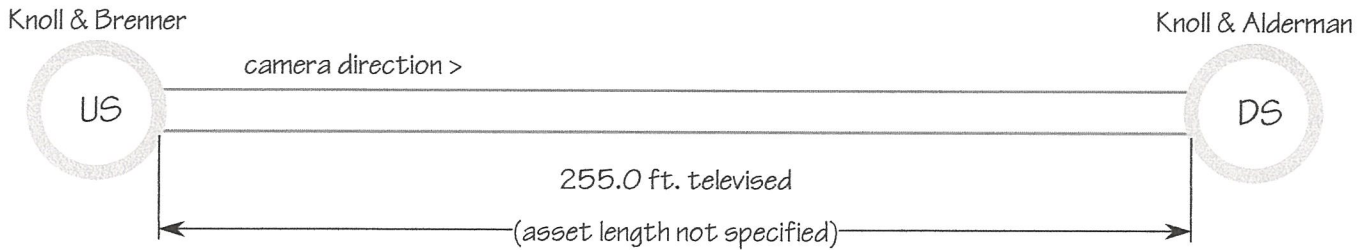
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

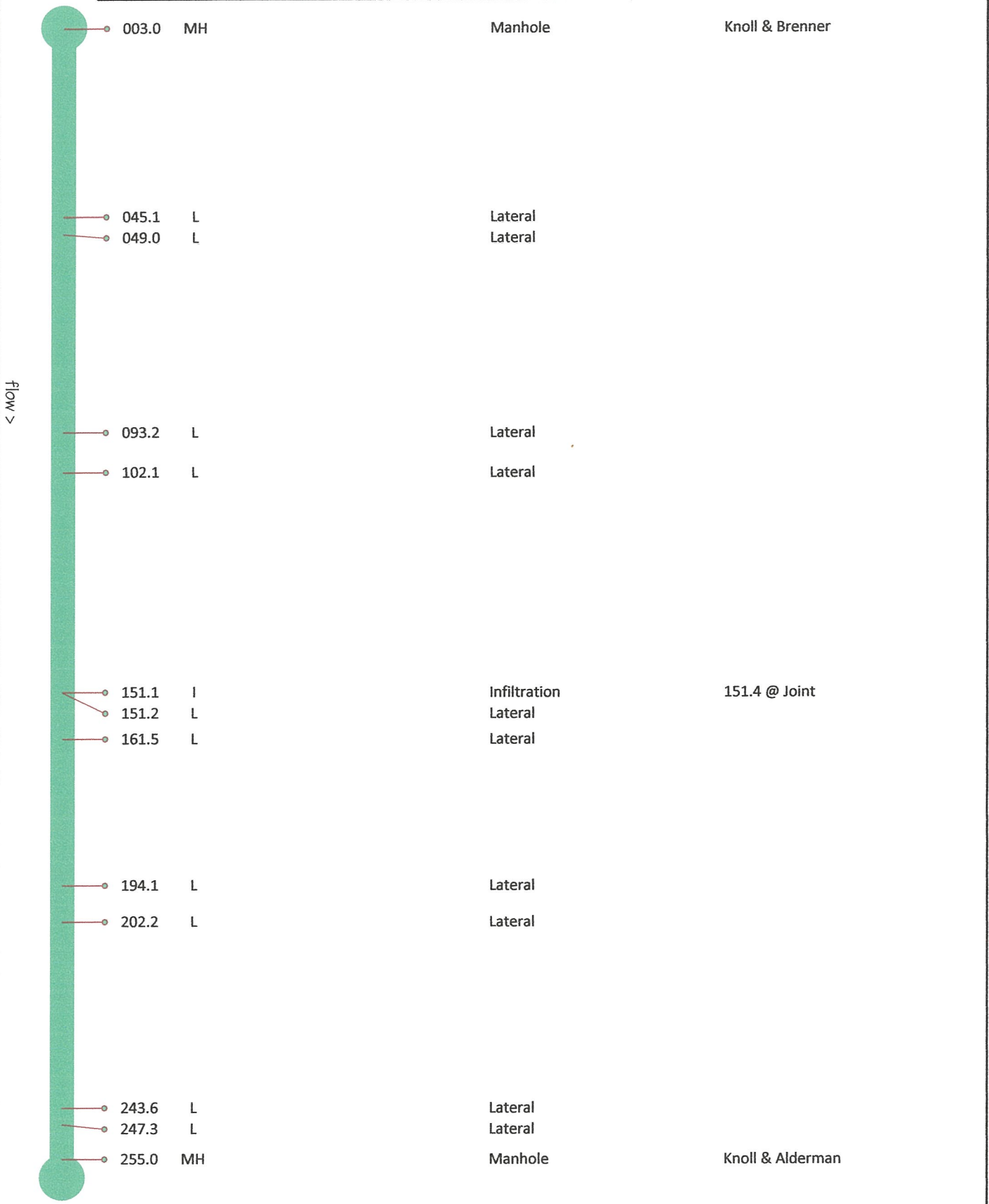
Sketch



Schematic Top View

Knoll & Brenner

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Knoll & Alderman

Asset Information

Upstream MH: Brenner 3
 USMH Depth:
Downstream MH: Brenner 2
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Brenner St.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

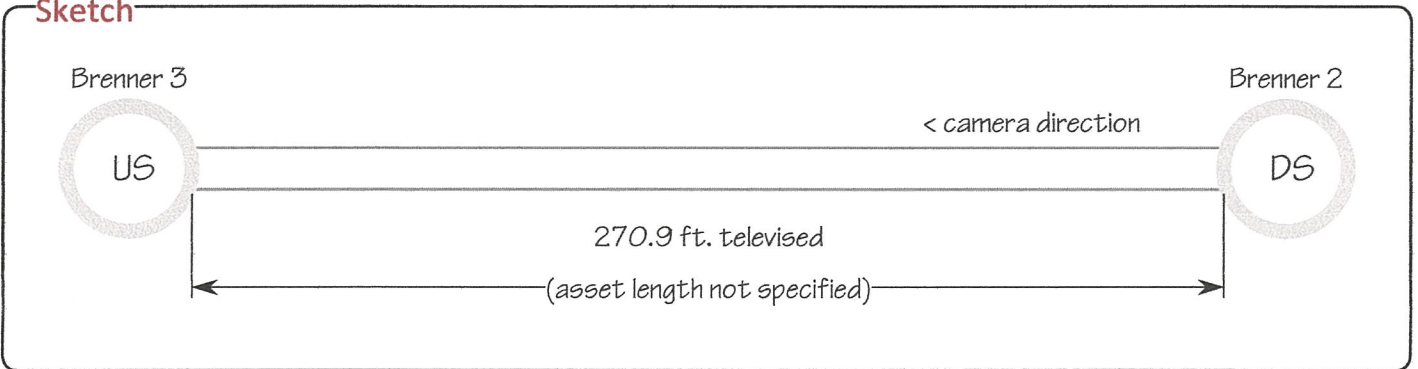
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 15-Oct-2019 11:22 AM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Brenner 3

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^270.9	MH				Manhole	Brenner 3
--------	----	--	--	--	---------	-----------

^253.1	L				Lateral	
--------	---	--	--	--	---------	--

^192.1	L				Lateral	
--------	---	--	--	--	---------	--

^099.9	L				Lateral	
--------	---	--	--	--	---------	--

^006.3	L				Lateral	
--------	---	--	--	--	---------	--

^003.0	MH				Manhole	Brenner 2
--------	----	--	--	--	---------	-----------

Brenner 2

flow >

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

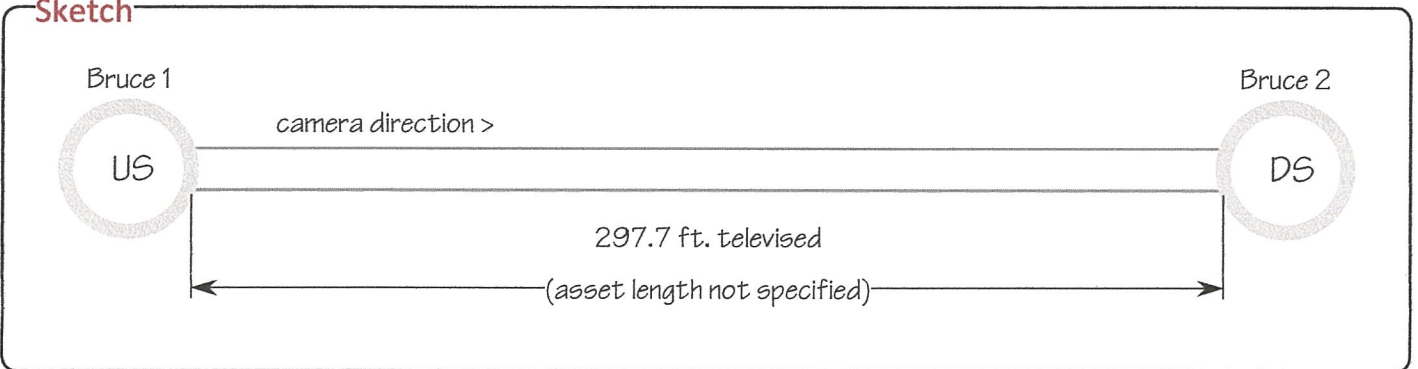
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

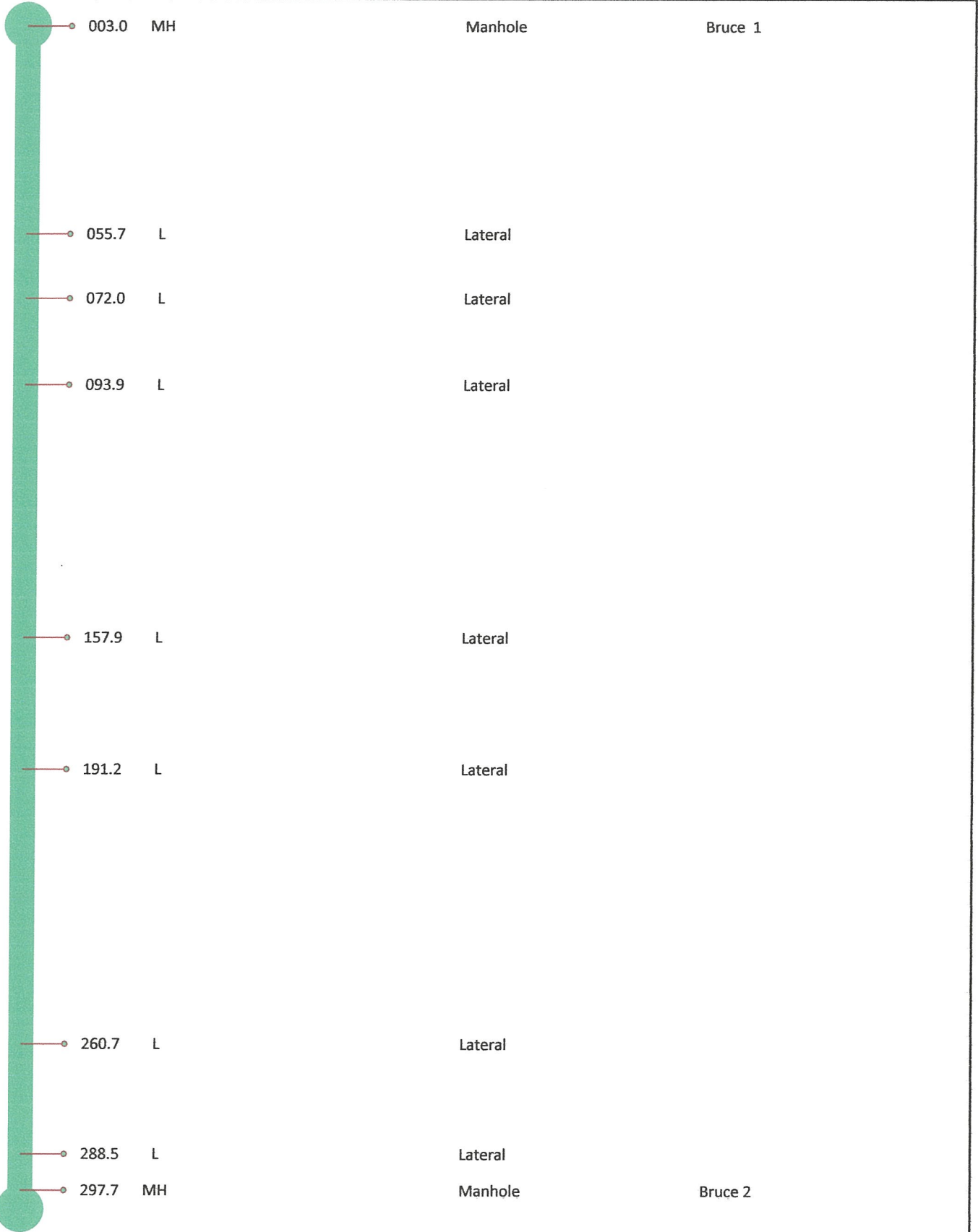
Sketch



Schematic Top View

Bruce 1

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Bruce 2

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

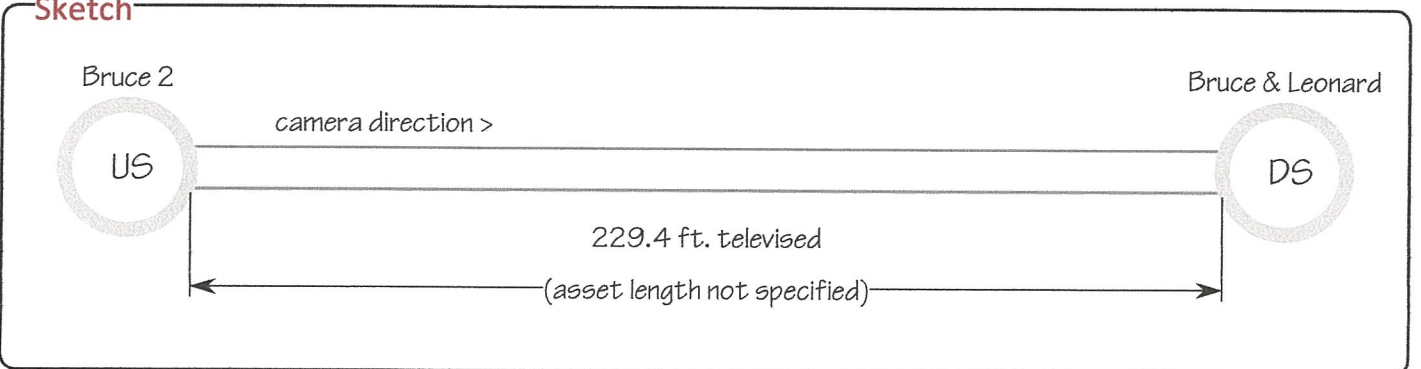
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

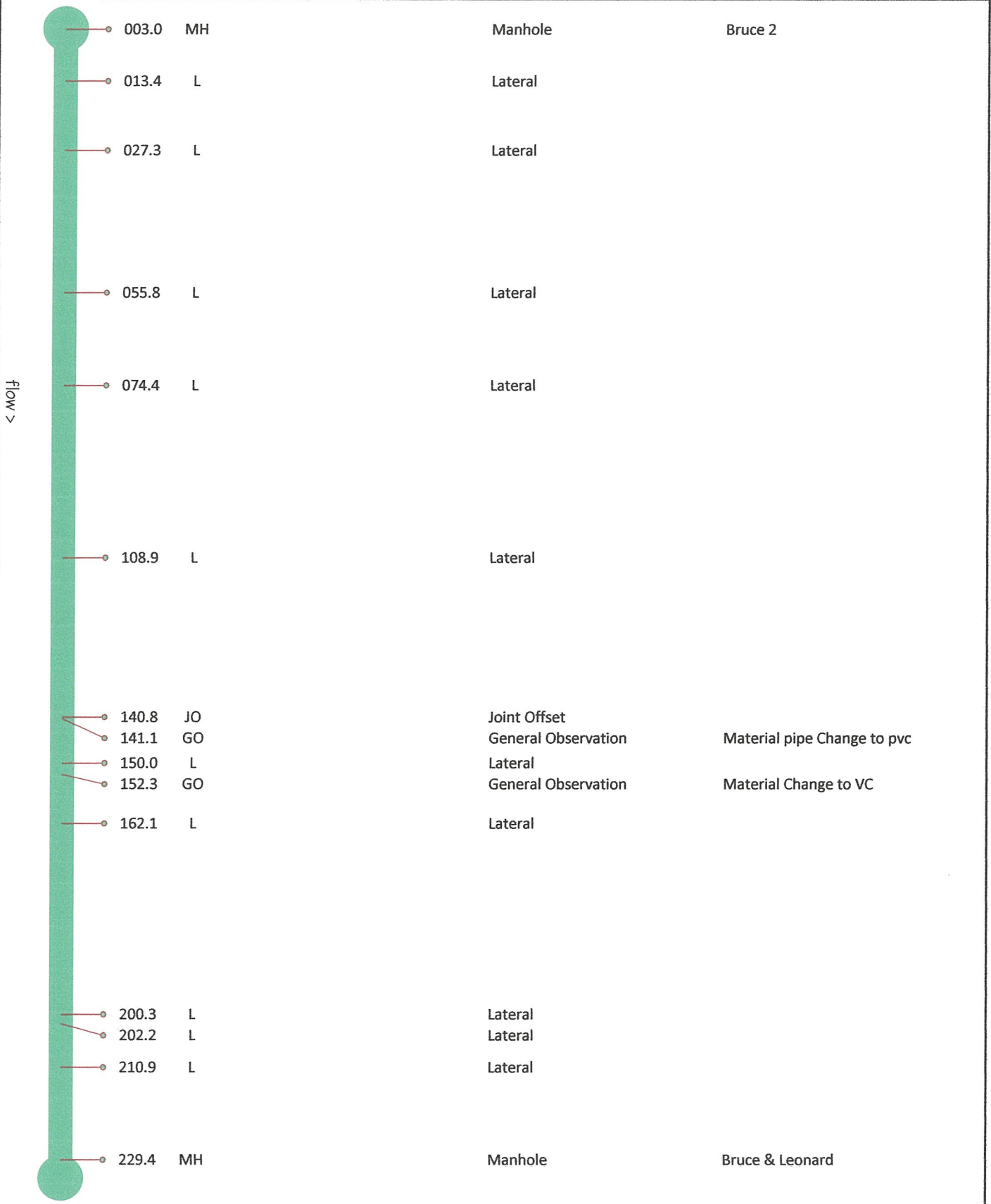
Sketch



Schematic Top View

Bruce 2

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Bruce & Leonard

Asset Information

Upstream MH: Bruce & Leonard

USMH Depth:

Downstream MH: Bruce & Howard

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Bruce St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 15-Oct-2019 1:56 PM

Surveyed By: Tyrone Jones

Camera Direction: Downstream

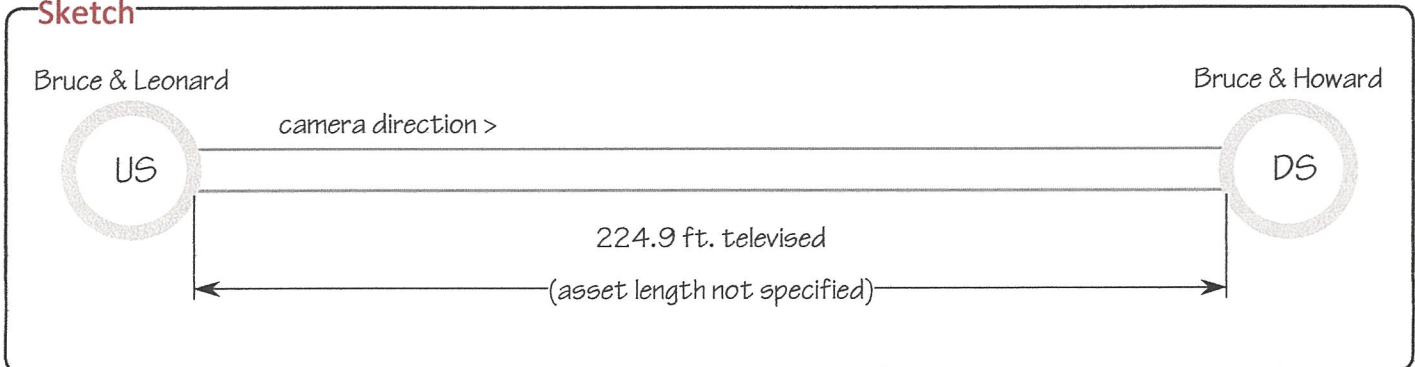
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

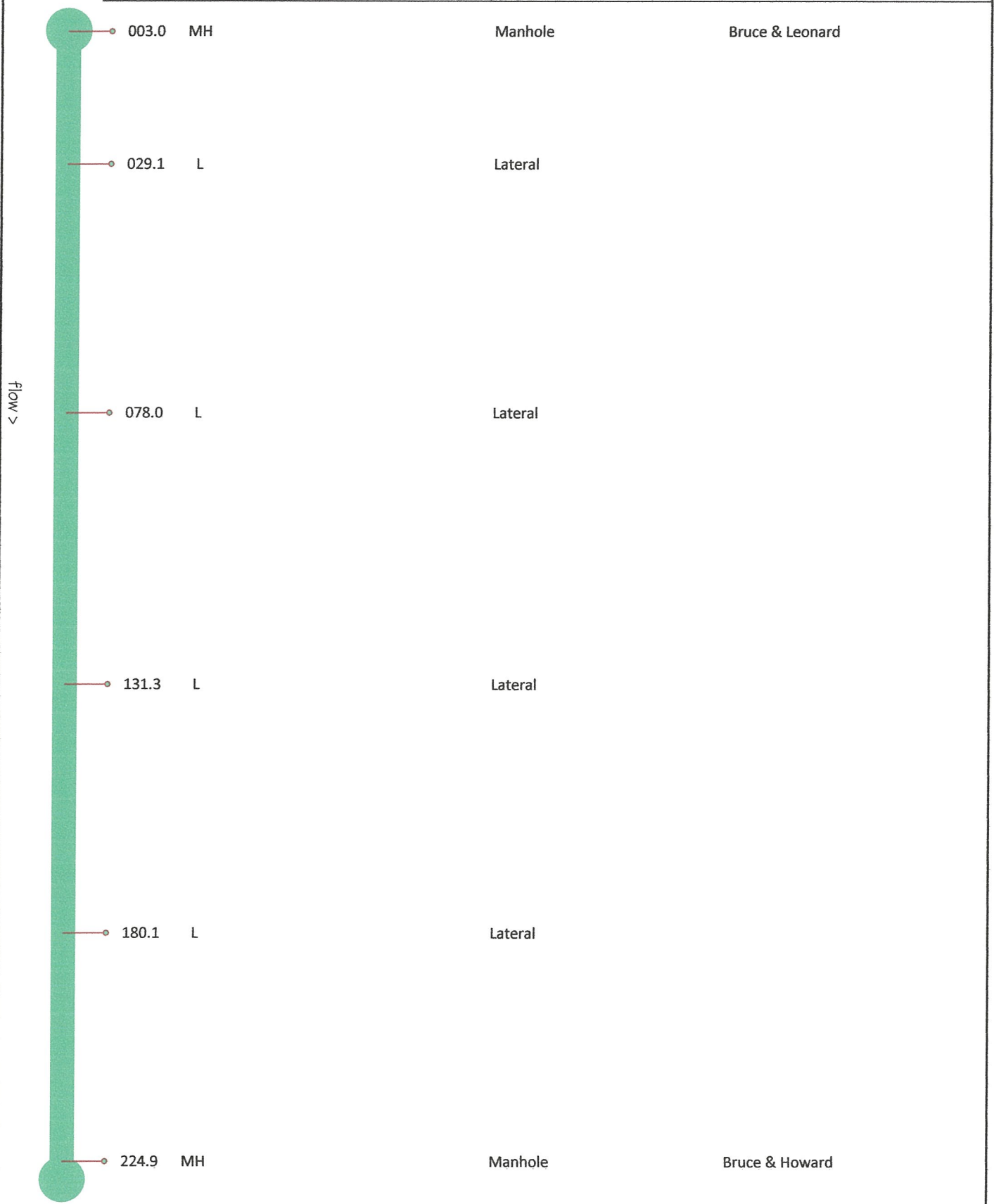
Sketch



Schematic Top View

Bruce & Leonard

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Bruce & Howard

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

Purpose:

Pre-Cleaning:

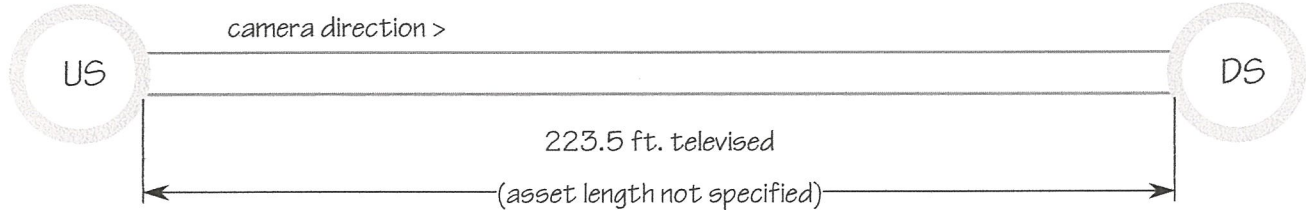
Weather:

Location Details:

Sketch

Bruce & Howard

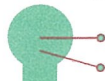
Bruce & Granite



Schematic Top View

Bruce & Howard

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH
004.8 L

Manhole
Lateral

Bruce & Howard



052.9 L

Lateral

flow >

097.0 L

Lateral

104.7 L

Lateral

153.1 L

Lateral

196.6 L

Lateral

204.9 L

Lateral

223.5 MH

Manhole

Bruce & Granite



Bruce & Granite

Asset Information

Upstream MH: Leonard 1

USMH Depth:

Downstream MH: Bruce & Leonard

DSMH Depth:

Pipe Size: 6 in.

Material: VC

Street: Leonard Ave.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 15-Oct-2019 2:42 PM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

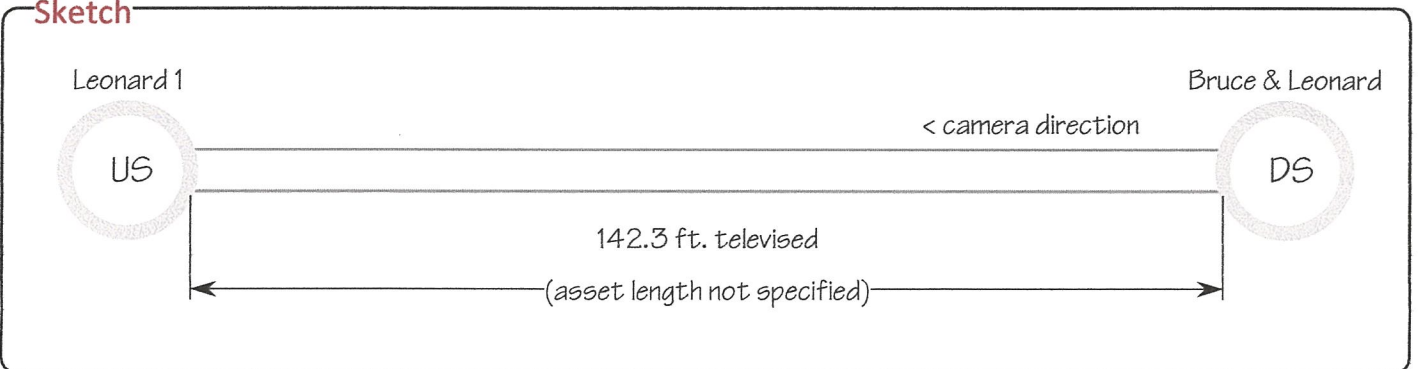
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

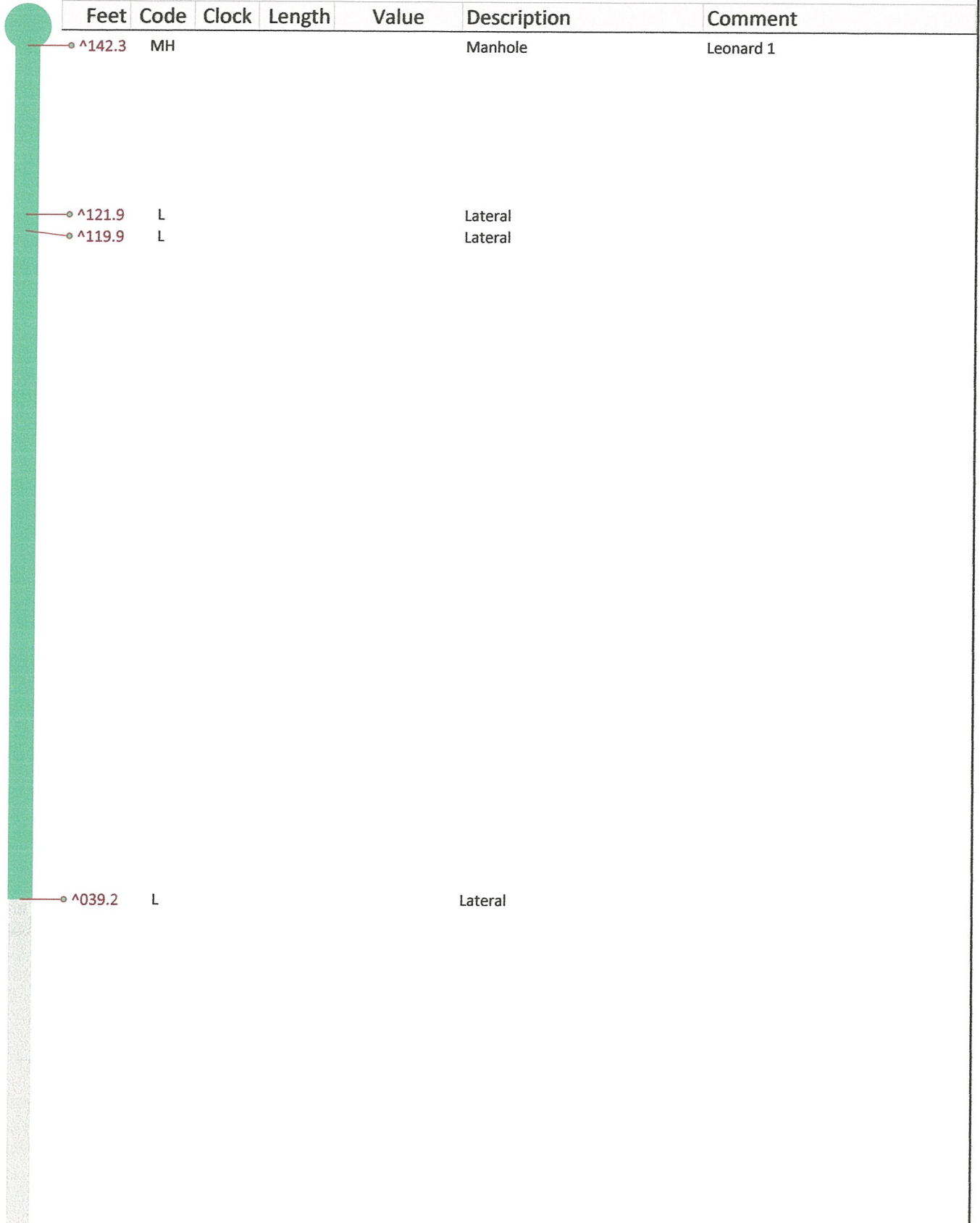
Location Details:

Sketch



Schematic Top View

Leonard 1



Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^142.3	MH				Manhole	Leonard 1
--------	----	--	--	--	---------	-----------

^121.9	L				Lateral	
^119.9	L				Lateral	

^039.2	L				Lateral	
--------	---	--	--	--	---------	--

Bruce & Leonard

Asset Information

Upstream MH: Leonard 2
 USMH Depth:
Downstream MH: Leonard 1
 DSMH Depth:
Pipe Size: 6 in.
Material: VC
Street: Leonard Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

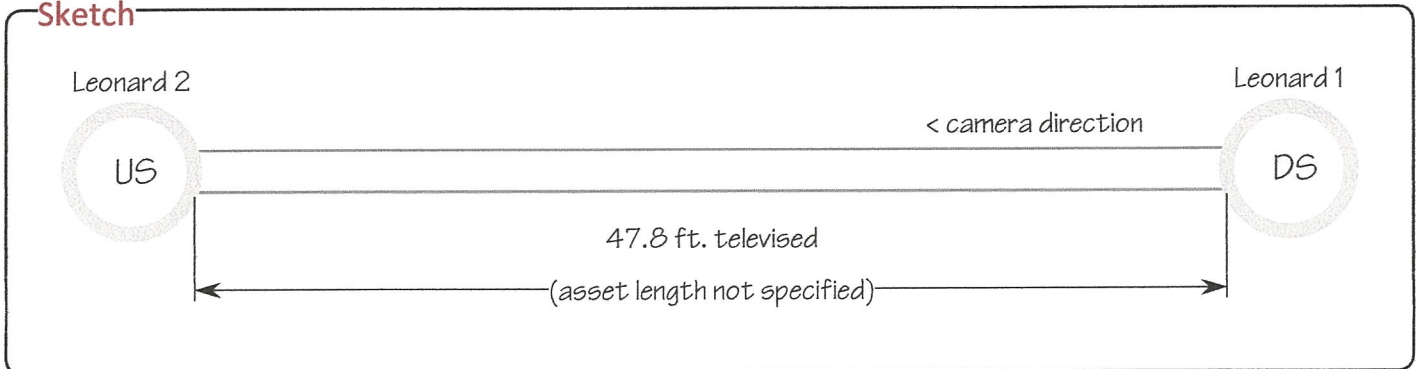
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 15-Oct-2019 2:53 PM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

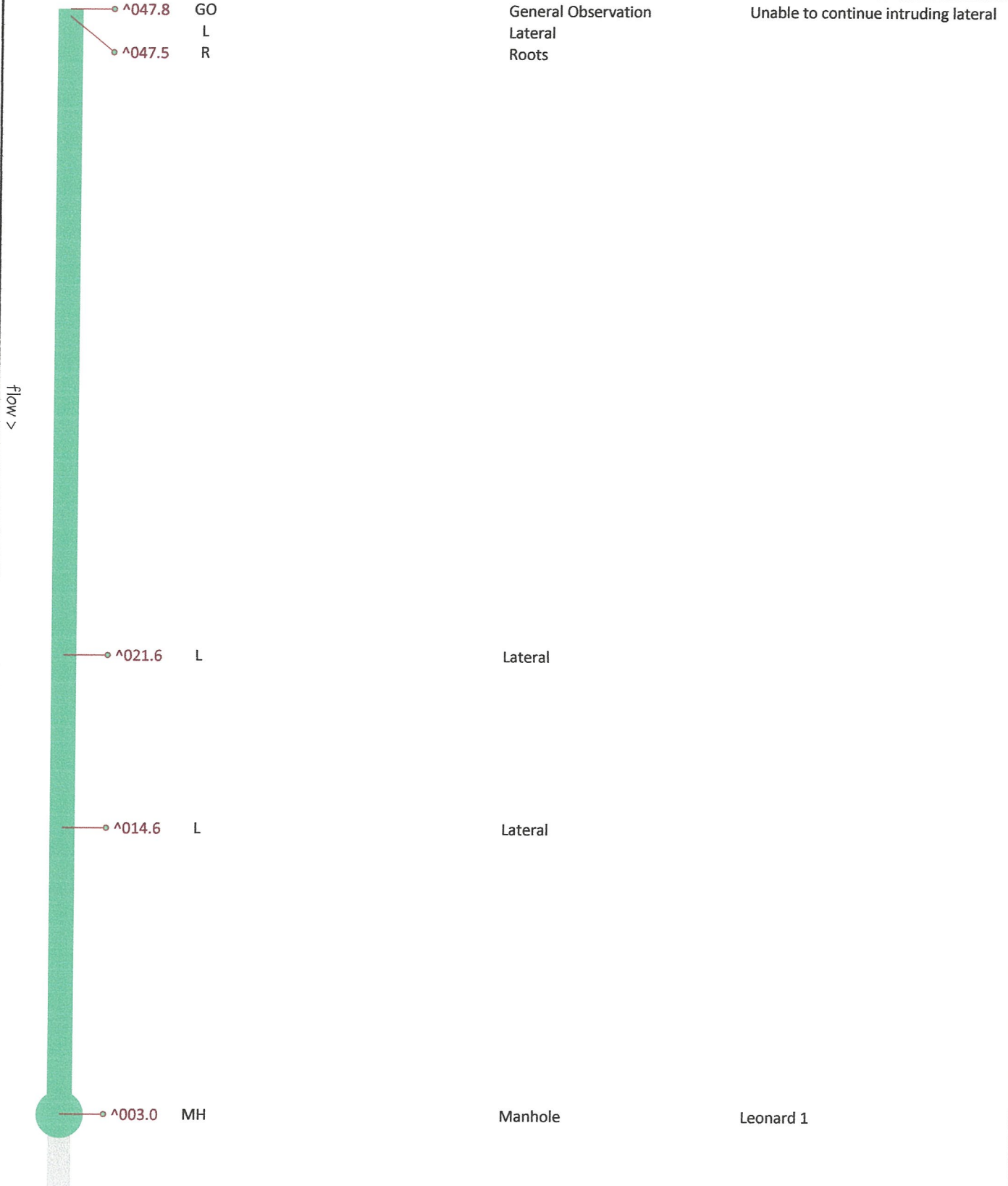
Sketch



Schematic Top View

Leonard 2

Feet	Code	Clock	Length	Value	Description	Comment
^047.8	GO				General Observation	Unable to continue intruding lateral
	L				Lateral	
^047.5	R				Roots	



Leonard 1

Exhibit A – Day 2

Exhibit A - Day 2



Pipeline Inspection Report

Asset Information

Upstream MH: Brenner 4

USMH Depth:

Downstream MH: Brenner 3

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Brenner St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 16-Oct-2019 8:40 AM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

Purpose: Maintenance Related

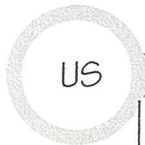
Pre-Cleaning: Not Known

Weather: Dry

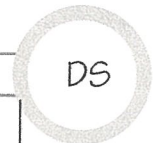
Location Details:

Sketch

Brenner 4



Brenner 3



< camera direction

38.8 ft. televised

(asset length not specified)

.007 mile

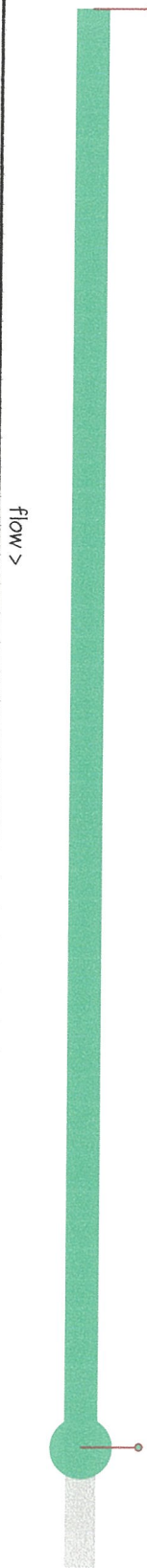
TOTAL MILE

.063

Schematic Top View

Brenner 4

Feet	Code	Clock	Length	Value	Description	Comment
038.8	GO				General Observation	Unable to continue due to debris



Manhole

Brenner 3

Brenner 3

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

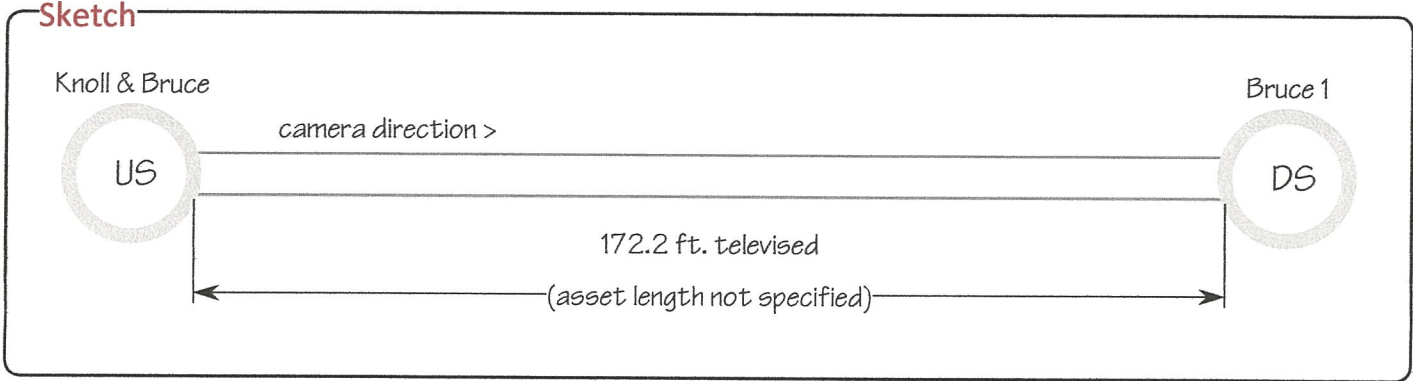
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

Knoll & Bruce

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



002.0	GO				General Observation	Revideo off plugged line Knoll & Bruce
003.0	MH				Manhole	



172.2	MH				Manhole	Bruce 1
-------	----	--	--	--	---------	---------

Bruce 1

Asset Information

Upstream MH: Alderman 2
 USMH Depth:
 Downstream MH: Alderman 3
 DSMH Depth:
 Pipe Size: 8 in.
 Material: VC
 Street: Alderman St.
 City: June Lake
 System Owner: June Lake
 Sewer Use: Sanitary
 Length: (unspecified)

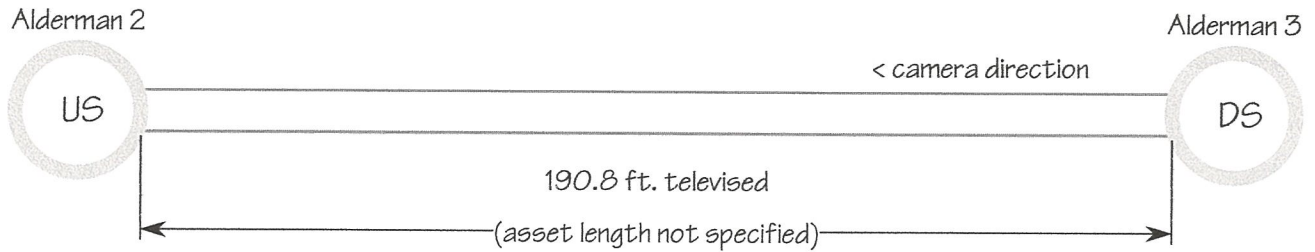
Project Information

Project: June Lake
 Job:
 Survey Customer: June Lake
 Comments:

Inspection Information

Date: 16-Oct-2019 9:53 AM
 Surveyed By: Tyrone Jones
 Camera Direction: Upstream
 Purpose: Maintenance Related
 Pre-Cleaning: Not Known
 Weather: Dry
 Location Details:

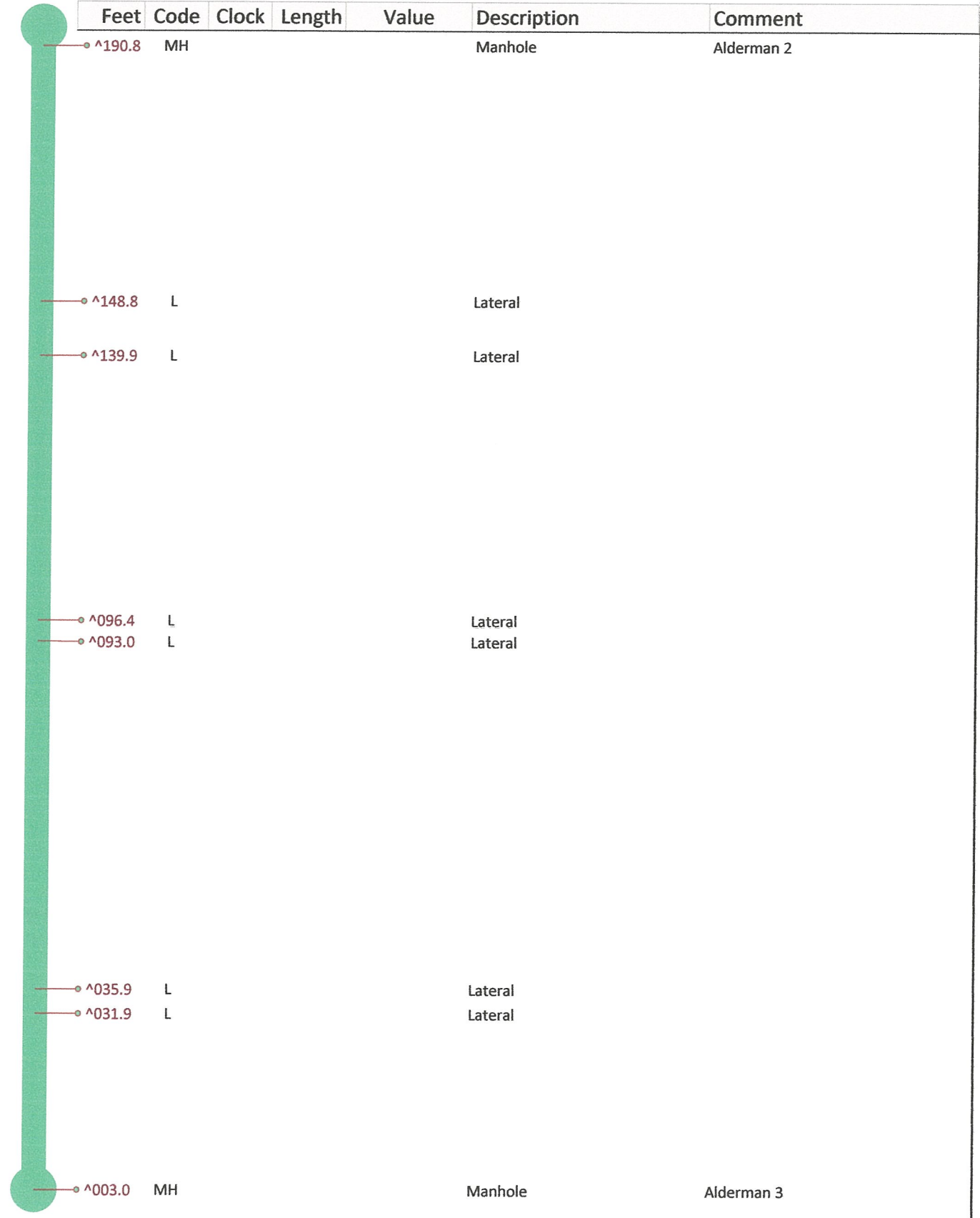
Sketch



Schematic Top View

Alderman 2

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



flow >

Alderman 3

Asset Information

Upstream MH: Alderman 1

USMH Depth:

Downstream MH: Alderman 2

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Alderman St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 16-Oct-2019 10:19 AM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

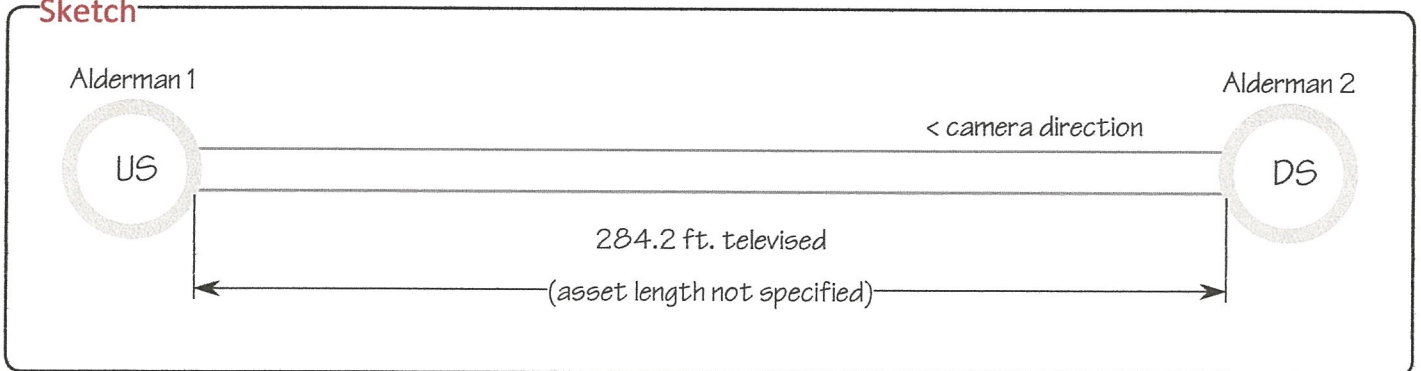
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

Sketch



Schematic Top View

Alderman 1

Feet	Code	Clock	Length	Value	Description	Comment
284.2	MH				Manhole	ALDERMAN 1
275.7	L				Lateral	
273.3	L				Lateral	
269.9	L				Lateral	
259.4	L				Lateral	
258.0	GO				General Observation	PIPE MATERIAL CHANGED BACK TO VC
253.5	GO				General Observation	Pipe Material change to PVC
251.6	L				Lateral	
248.2	L				Lateral	
242.5	L				Lateral	
205.9	L				Lateral	
201.4	L				Lateral	
148.8	L				Lateral	
124.1	L				Lateral	
100.6	L				Lateral	
97.1	L				Lateral	
74.3	L				Lateral	
14.6	L				Lateral	
6.9	L				Lateral	
3.0	MH				Manhole	Alderman 2

Flow >

Alderman 2

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

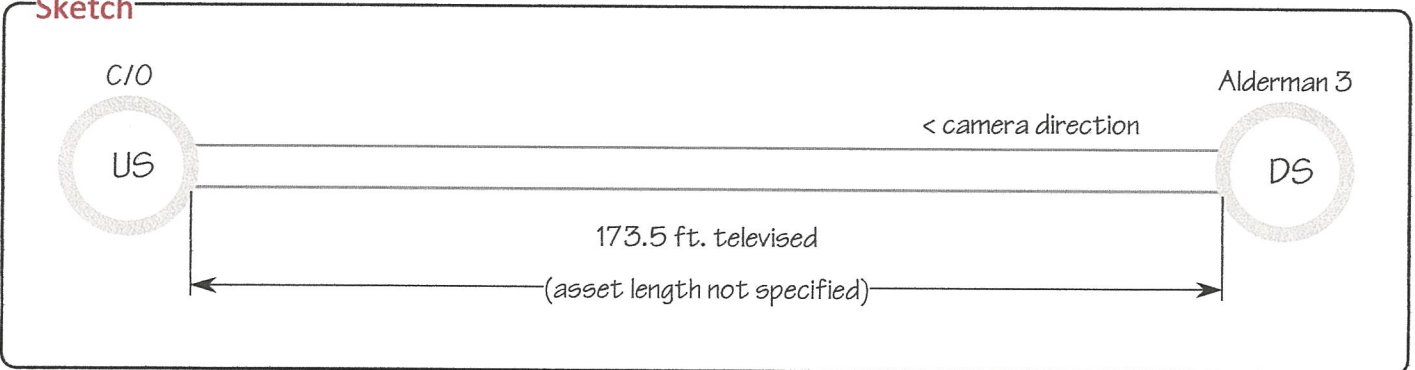
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

173.5	GO				General Observation	Plug
162.5	L				Lateral	
159.8	L				Lateral	
115.5	L				Lateral	
100.1	L				Lateral	
099.4	L				Lateral	
018.0	L				Lateral	
015.2	L				Lateral	
003.0	MH				Manhole	Alderman 3

flow >

Alderman 3

Asset Information

Upstream MH: Alderman 3
 USMH Depth:
Downstream MH: Alderman 4
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Alderman St.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

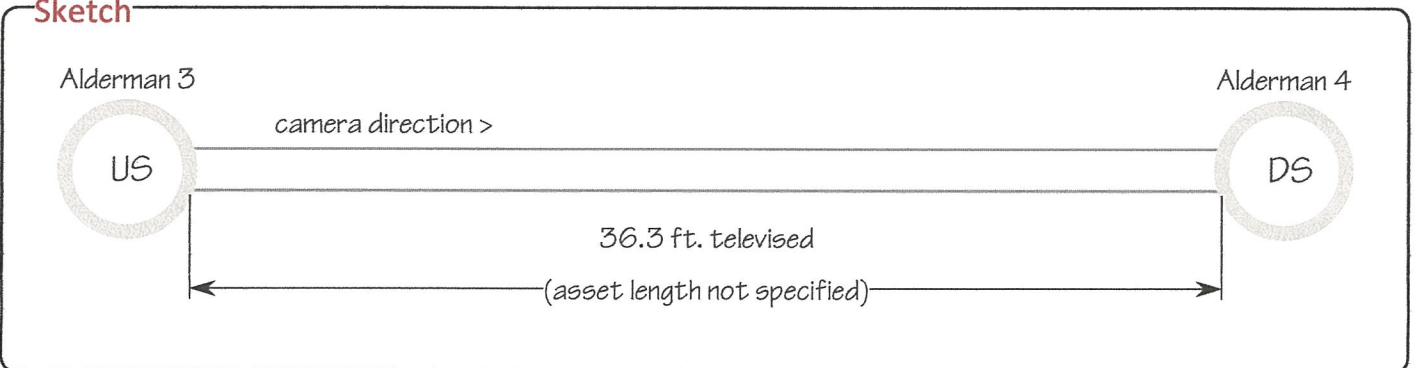
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 16-Oct-2019 11:04 AM
Surveyed By: Tyrone Jones
Camera Direction: Downstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Alderman 3

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

Alderman 3



flow >



036.3 MH

Manhole

Alderman 4

Alderman 4

Asset Information

Upstream MH: Alderman 4
 USMH Depth:
Downstream MH: Alderman & Foster
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Alderman St.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

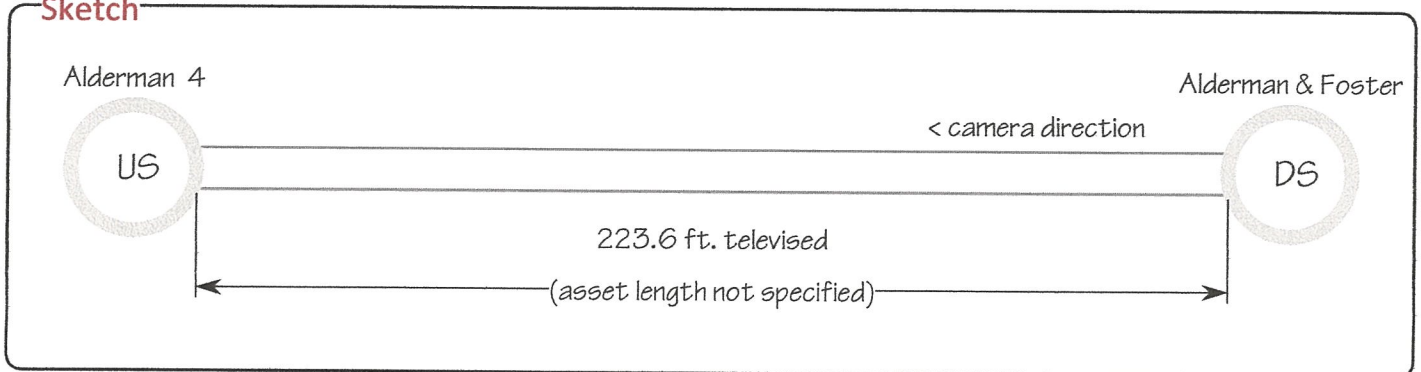
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 16-Oct-2019 11:24 AM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Alderman 4

Flow >

Feet	Code	Clock	Length	Value	Description	Comment
223.6	MH				Manhole	Alderman 4
186.9	L				Lateral	6
181.6	I				Infiltration	
155.3	GO				General Observation	Broken
	I				Infiltration	
126.8	GO				General Observation	Broken
124.0	L				Lateral	
121.3	L				Lateral	8
098.0	L				Lateral	
070.0	L				Lateral	
025.9	L				Lateral	
022.4	L				Lateral	
003.0	MH				Manhole	Alderman & Foster

Alderman & Foster

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

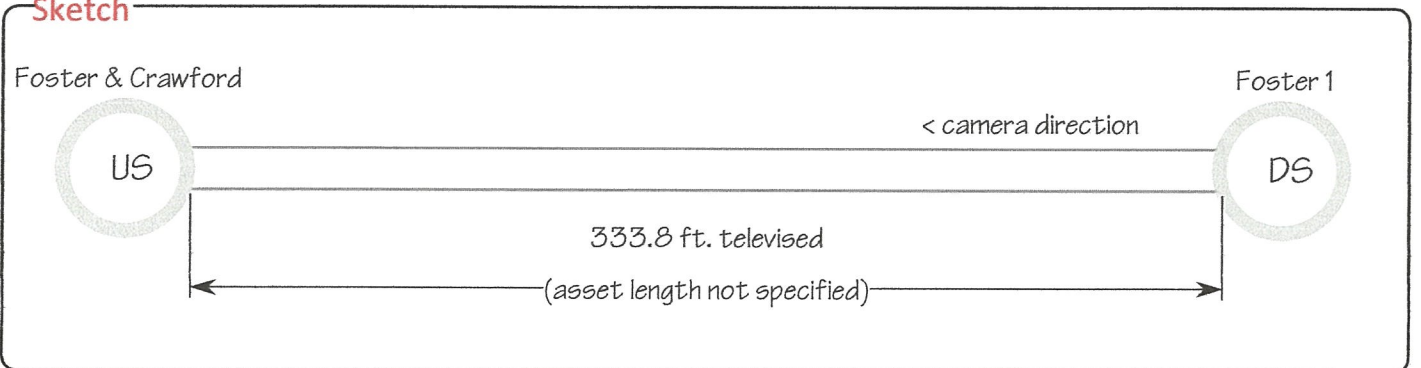
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

Foster & Crawford

Feet	Code	Clock	Length	Value	Description	Comment
333.8	MH				Manhole	Foster & Crawford VIDEO COMING BACK 50 FT. UNDERWATER
333.7	GO				General Observation	
245.2	L				Lateral	
222.3	L				Lateral	
168.9	L				Lateral	
130.9	L				Lateral	
128.4	L				Lateral	
75.8	L C I				Lateral Crack Infiltration	9
47.1	L				Lateral	
003.0	MH				Manhole	Foster 1

Flow >

Foster 1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

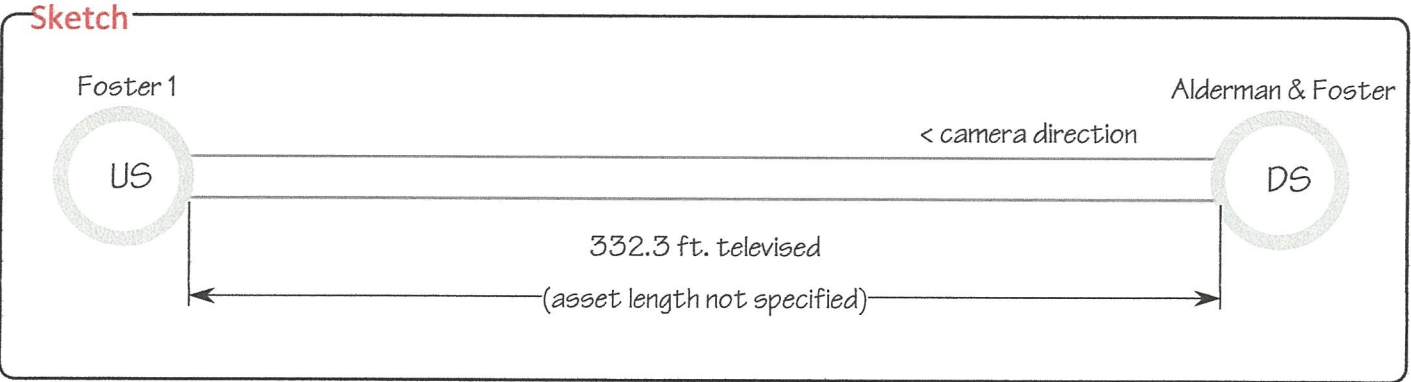
Camera Direction:

Purpose:

Pre-Cleaning:

Weather:

Location Details:



Schematic Top View

Foster 1

	Feet	Code	Clock	Length	Value	Description	Comment
Flow >	332.3	MH				Manhole	Foster 1
	324.1	L				Lateral	
	320.8	L				Lateral	
	277.8	L				Lateral	
	274.5	L				Lateral	
	236.6	L				Lateral	
	230.6	L				Lateral	
	228.1	L				Lateral	
	174.6	L				Lateral	
	171.0	L				Lateral	
	162.8	L				Lateral	
	156.3	C				Crack	61
	147.4	L				Lateral	
	124.4	L				Lateral	
	091.7	L				Lateral	
	070.5	L				Lateral	
	068.3	L				Lateral	
	050.3	L				Lateral	
	023.8	L				Lateral	
020.5	L				Lateral		
003.0	MH				Manhole	Alderman & Foster	

Alderman & Foster

Asset Information

Upstream MH: Alderman & Foster
 USMH Depth:
Downstream MH: Alderman & Crawford
 DSMH Depth:
Pipe Size: 10 in.
Material: VC
Street: Alderman St.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

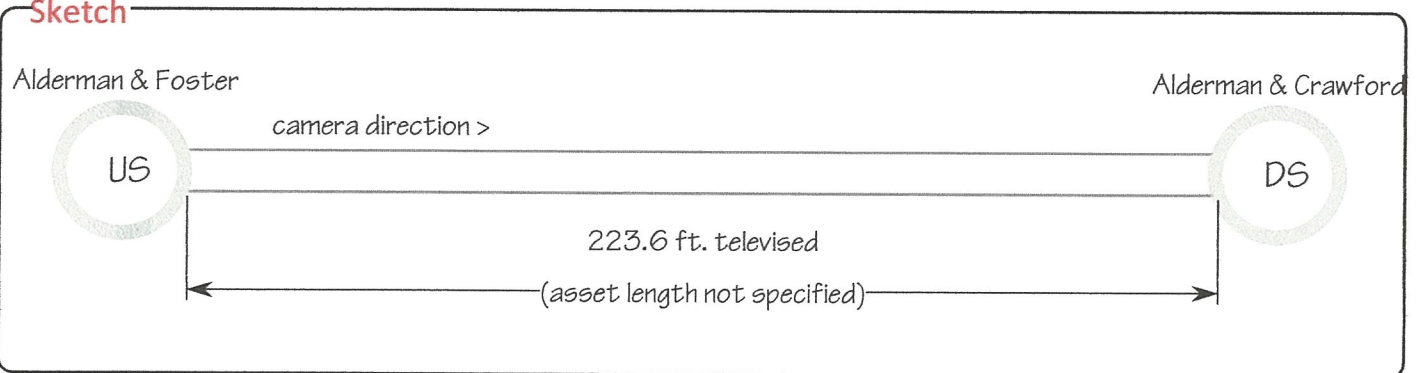
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 16-Oct-2019 1:13 PM
Surveyed By: Tyrone Jones
Camera Direction: Downstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



NOTES ARE MISSING

Asset Information

Upstream MH: Granite & Alderman
 USMH Depth:
Downstream MH: Gull Lake Ave.
 DSMH Depth:
Pipe Size: 10 in.
Material: VC
Street: Granite Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

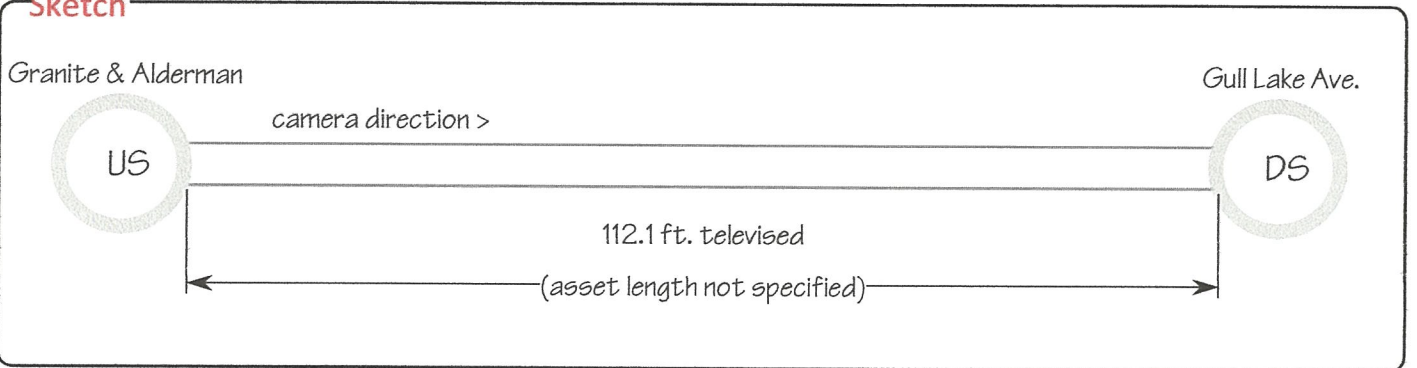
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 16-Oct-2019 2:03 PM
Surveyed By: Tyrone Jones
Camera Direction: Downstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

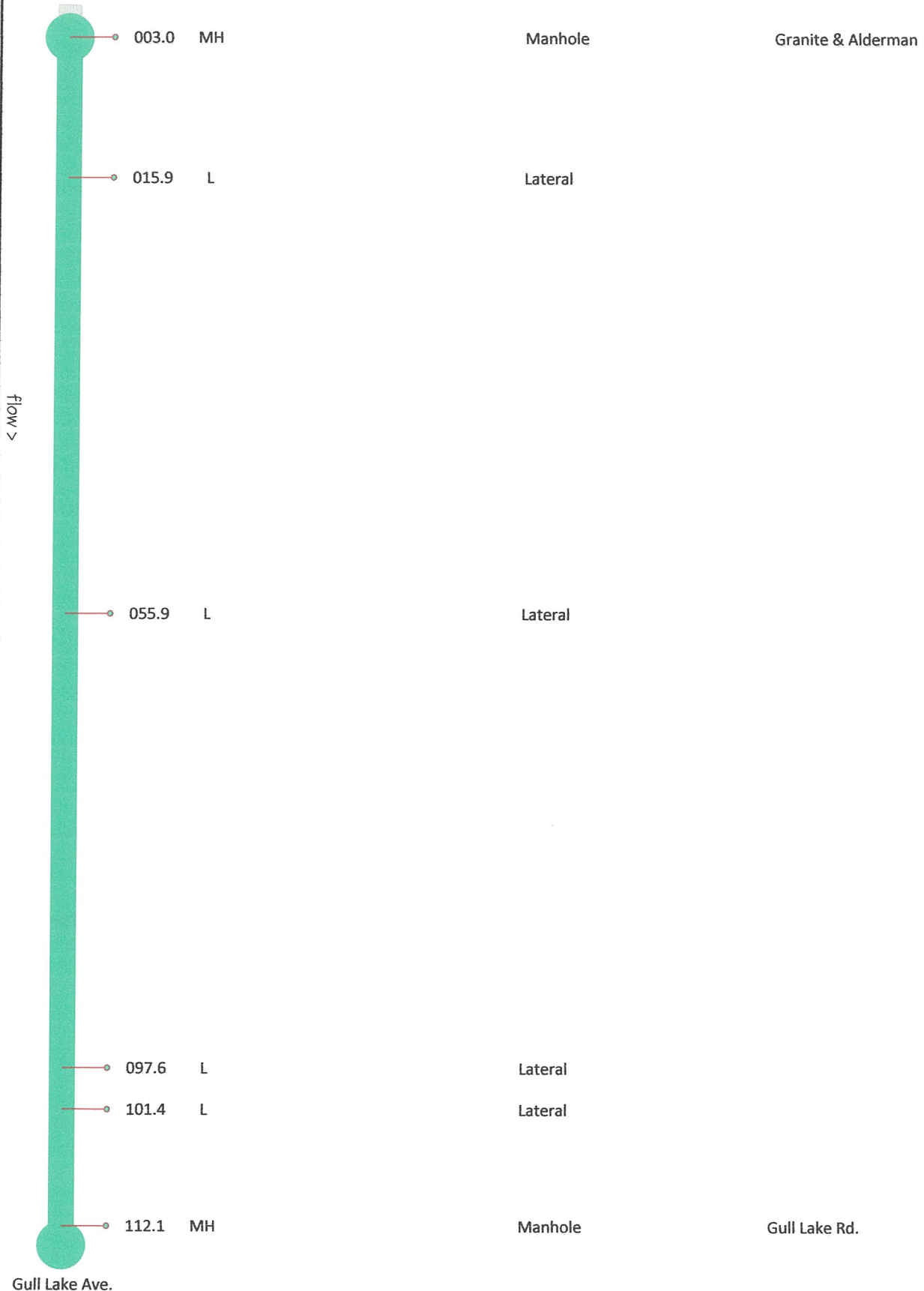
Sketch



Schematic Top View

Granite & Alderman

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Gull Lake Ave.

Exhibit A – Day 3

Exhibit A - Day 3



Pipeline Inspection Report

Asset Information

Upstream MH: Knoll A

USMH Depth:

Downstream MH: Knoll & Crawford

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Knoll Ave.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 17-Oct-2019 7:28 AM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

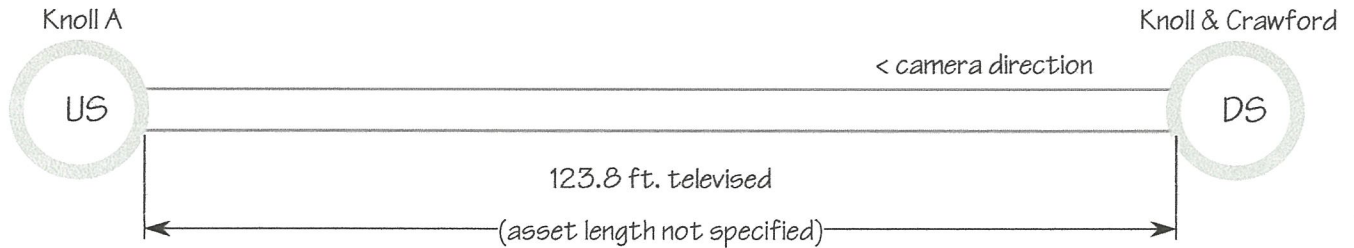
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

Sketch



Schematic Top View

Knoll A

Feet	Code	Clock	Length	Value	Description	Comment
123.8	MH				Manhole	Knoll A
108.9	L				Lateral	
95.9	L				Lateral	
42.2	L				Lateral	
03.0	MH				Manhole	Knoll & Crawford

Flow >

Knoll & Crawford

Asset Information

Upstream MH: Knoll & Boulder
 USMH Depth:
Downstream MH: Knoll A
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Knoll Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

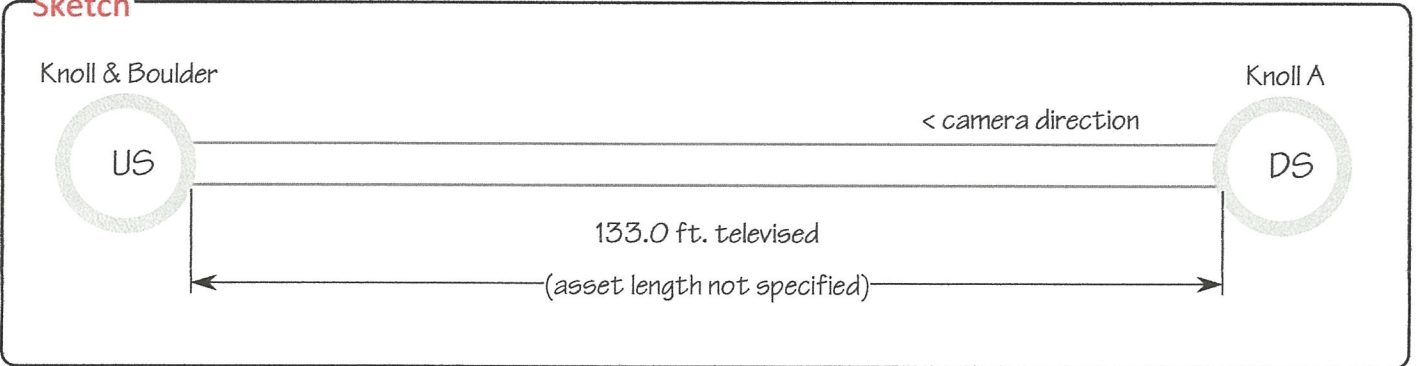
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 17-Oct-2019 7:38 AM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Knoll & Boulder

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

133.0	MH				Manhole	Knoll & Boulder
-------	----	--	--	--	---------	-----------------

Flow >



54.0	R				Roots	roots in lateral - where?
52.8	L				Lateral	

45.6	R				Roots	Roots at joint
------	---	--	--	--	-------	----------------

25.3	L				Lateral	
22.2	L				Lateral	

03.0	MH				Manhole	Knoll A
------	----	--	--	--	---------	---------

Knoll A

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

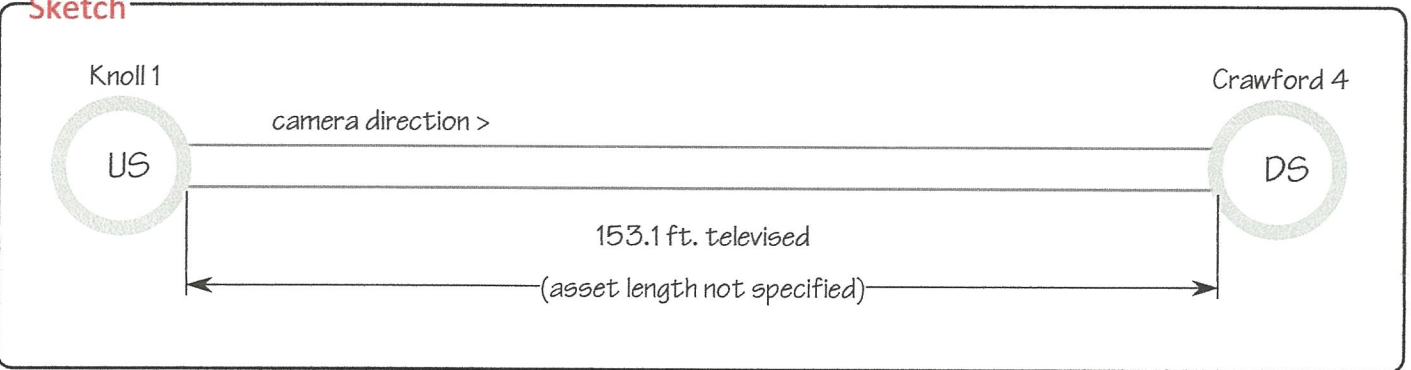
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

Knoll 1

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	Knoll 1
-------	----	--	--	--	---------	---------



Flow >

035.6	L				Lateral	
-------	---	--	--	--	---------	--

114.7	L				Lateral	
-------	---	--	--	--	---------	--

153.1	MH				Manhole	Crawford 4
-------	----	--	--	--	---------	------------



Crawford 4

Asset Information

Upstream MH: Crawford 3
 USMH Depth:
Downstream MH: Crawford 2
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Crawford Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

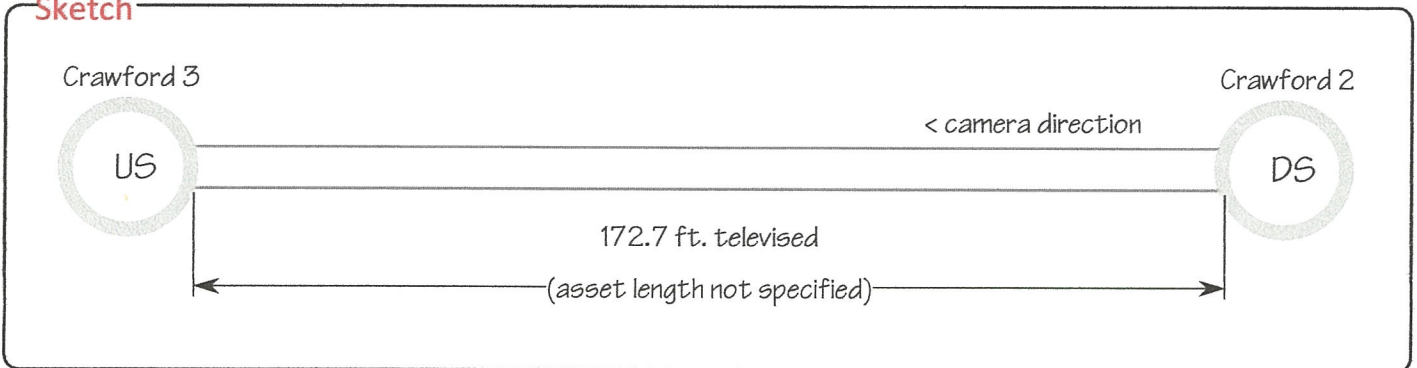
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 17-Oct-2019 8:17 AM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Crawford 3

Feet	Code	Clock	Length	Value	Description	Comment
172.7	MH				Manhole	Crawford 3
155.9	C				Crack	
141.1	L				Lateral	
132.9	L				Lateral	
99.5	L				Lateral	
71.5	L				Lateral	
52.8	L				Lateral	
24.7	L				Lateral	
7.5	L				Lateral	
3.0	MH				Manhole	Crawford 2

Flow >

Crawford 2

Asset Information

Upstream MH: Crawford 4

USMH Depth:

Downstream MH: Foster & Crawford

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Crawford Ave.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 17-Oct-2019 8:48 AM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

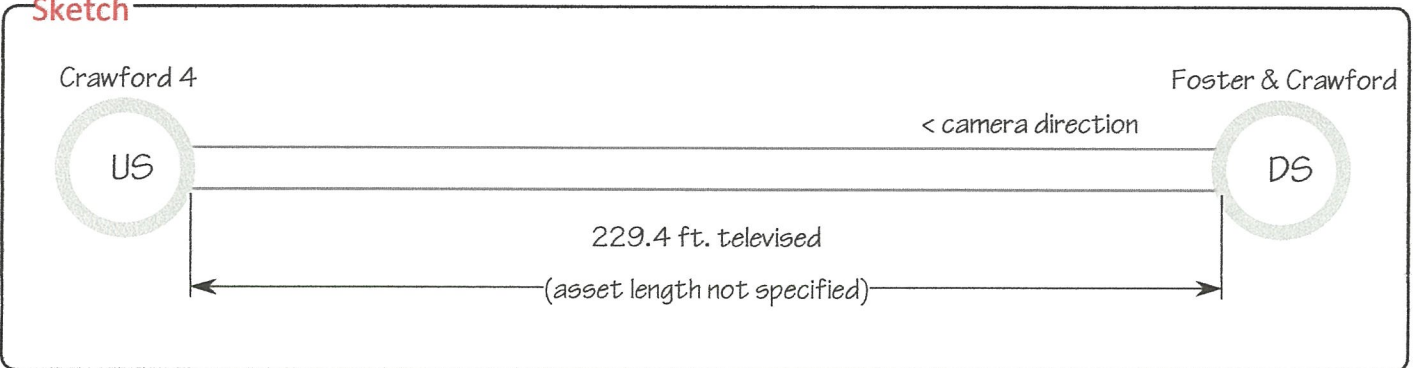
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

Sketch



Schematic Top View

Crawford 4

Feet	Code	Clock	Length	Value	Description	Comment
229.4	MH				Manhole	Crawford 4
181.1	C				Crack	
180.1	L				Lateral	
175.1	L				Lateral	
151.5	L				Lateral	
87.8	L				Lateral	
80.1	L				Lateral	
72.7	L				Lateral	
64.8	L				Lateral	
005.9	L				Lateral	
003.0	MH				Manhole	Foster & Crawford

221.9?

flow >

Foster & Crawford

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

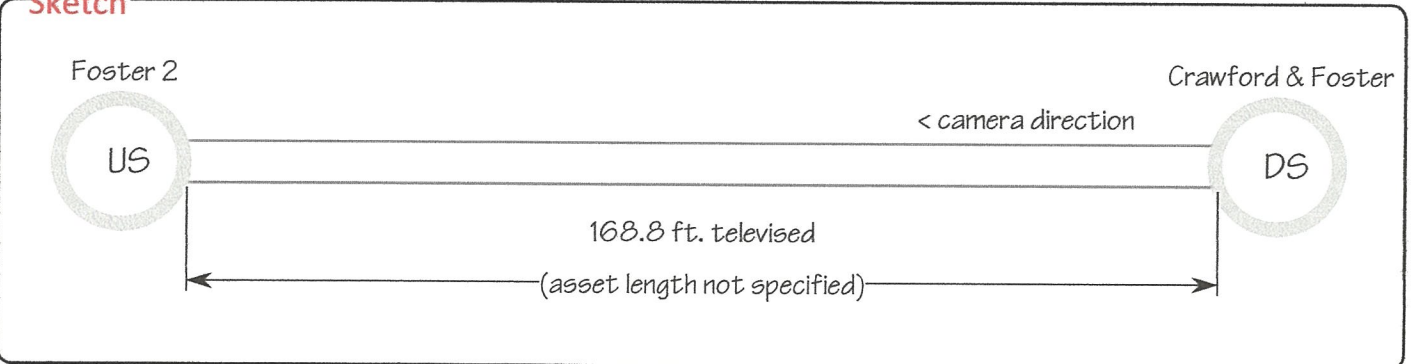
Purpose:

Pre-Cleaning:

Weather:

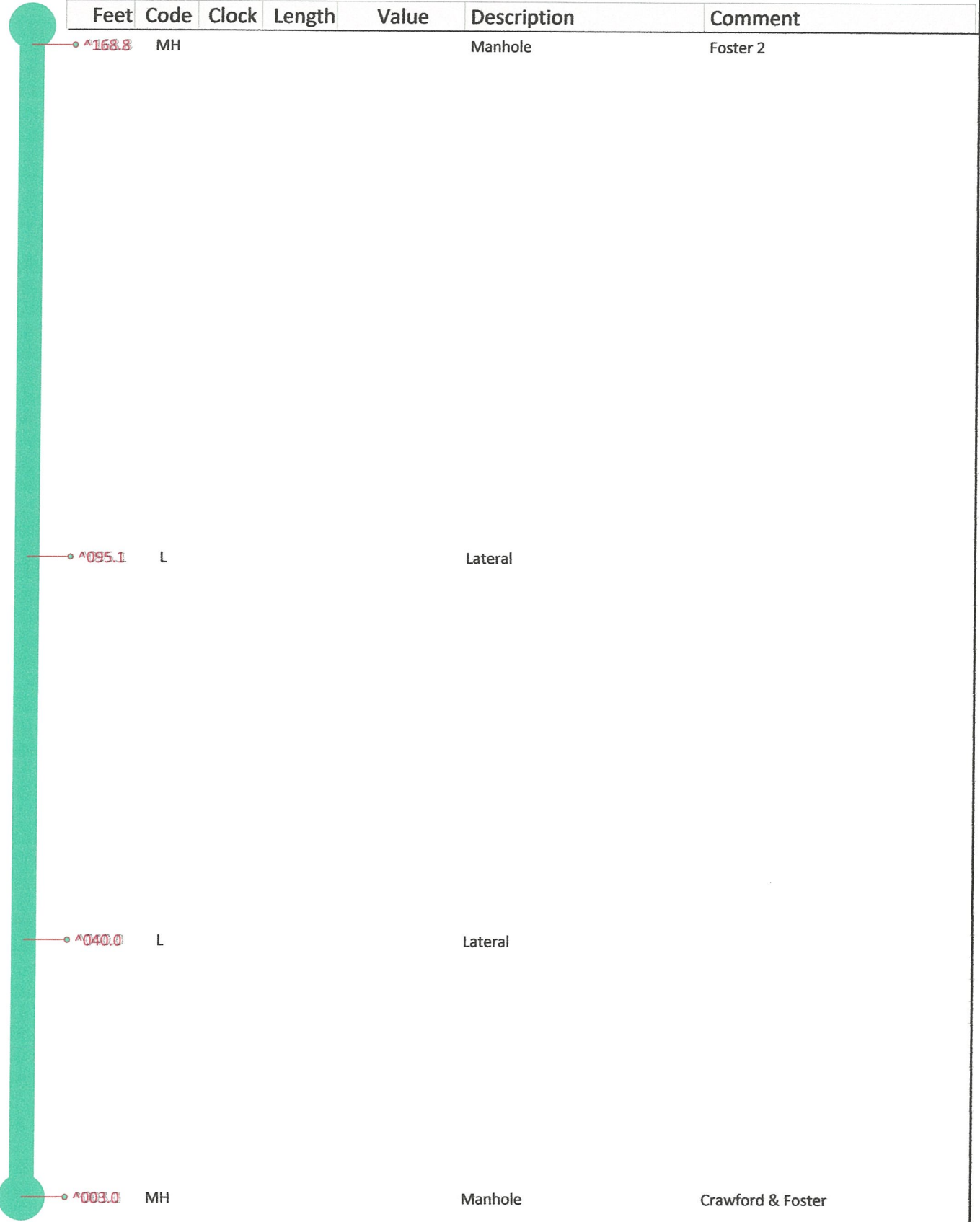
Location Details:

Sketch



Schematic Top View

Foster 2



Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^168.8	MH				Manhole	Foster 2
--------	----	--	--	--	---------	----------

^095.1	L				Lateral	
--------	---	--	--	--	---------	--

^040.0	L				Lateral	
--------	---	--	--	--	---------	--

^003.0	MH				Manhole	Crawford & Foster
--------	----	--	--	--	---------	-------------------

Crawford & Foster

Asset Information

Upstream MH: Crawford 5
 USMH Depth:
Downstream MH: Crawford & Foster
 DSMH Depth:
Pipe Size: 6 in.
Material: VC
Street: Crawford Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

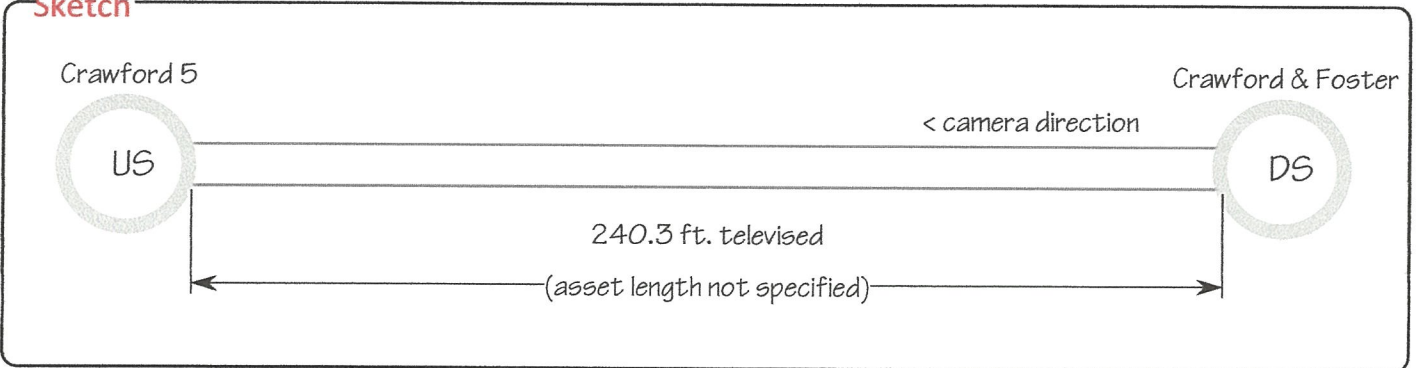
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information













Date: 17-Oct-2019 9:53 AM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Crawford 5

	Feet	Code	Clock	Length	Value	Description	Comment
	240.3	MH				Manhole	Crawford 5
	234.6	L				Lateral	
	231.2	L				Lateral	
	219.0	L				Lateral	
	204.6	L				Lateral	
	156.9	L				Lateral	
	123.3	L				Lateral	
	105.0	L				Lateral	
	102.7	L				Lateral	
	83.7	L				Lateral	
	71.6	L				Lateral	
	003.0	MH				Manhole	Crawford & Foster

Flow >

Crawford & Foster

Asset Information

Upstream MH: Crawford 2
 USMH Depth:
 Downstream MH: Crawford 1
 DSMH Depth:
 Pipe Size: 8 in.
 Material: VC
 Street: Crawford Ave.
 City: June Lake
 System Owner: June Lake
 Sewer Use: Sanitary
 Length: (unspecified)

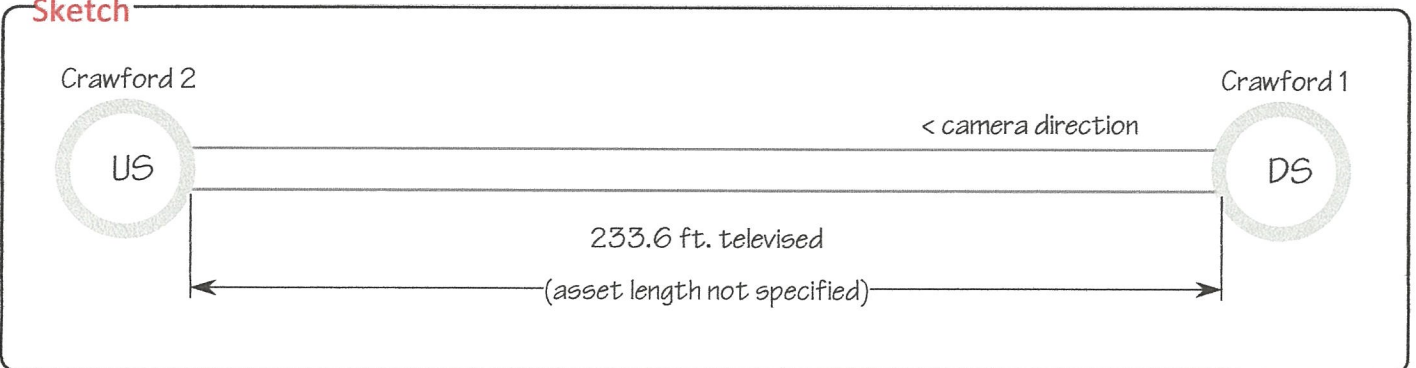
Project Information

Project: June Lake
 Job:
 Survey Customer: June Lake
 Comments:

Inspection Information

Date: 17-Oct-2019 10:31 AM
 Surveyed By: Tyrone Jones
 Camera Direction: Upstream
 Purpose: Maintenance Related
 Pre-Cleaning: Not Known
 Weather: Dry
 Location Details:

Sketch



Schematic Top View

Crawford 2

Feet	Code	Clock	Length	Value	Description	Comment
233.6	MH				Manhole	Crawford 2
213.9	L				Lateral	
210.0	L				Lateral	
202.2	L				Lateral	
193.8	L				Lateral	
166.2	L				Lateral	
162.3	L				Lateral	
149.5	L				Lateral	
115.7	L				Lateral	
62.5	L				Lateral	
58.8	L				Lateral	
10.2	L				Lateral	
06.4	L				Lateral	
03.0	MH				Manhole	Crawford 1

flow >

Crawford 1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

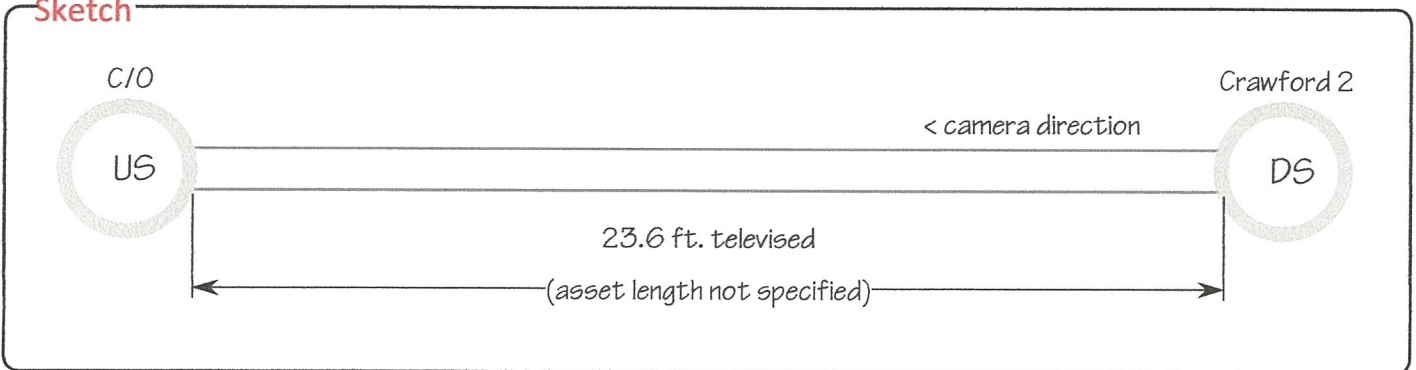
Purpose:

Pre-Cleaning:

Weather:

Location Details:

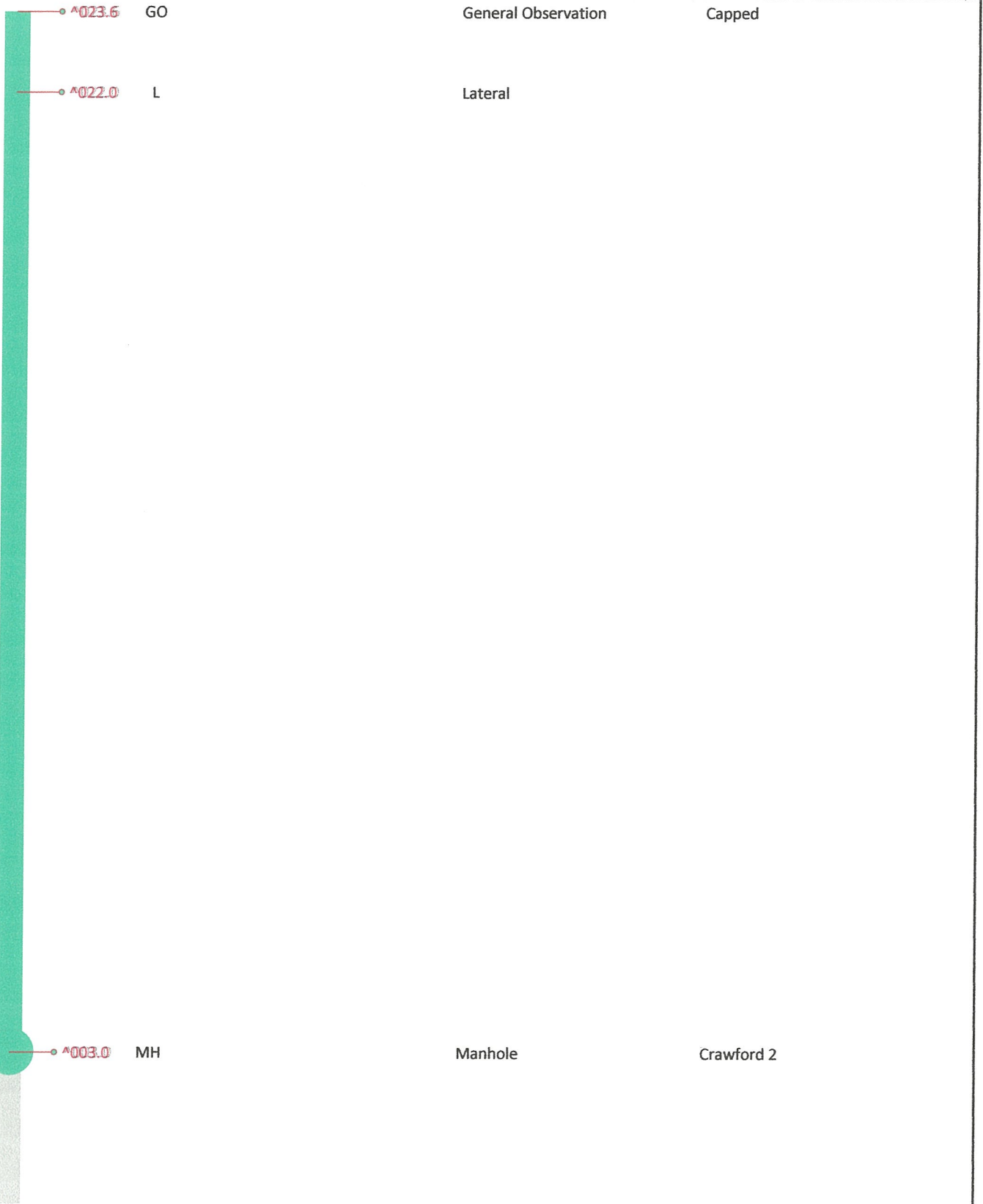
Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Crawford 2

Asset Information

Upstream MH: Crawford 1
 USMH Depth:
Downstream MH: Crawford & Alderman
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Crawford Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

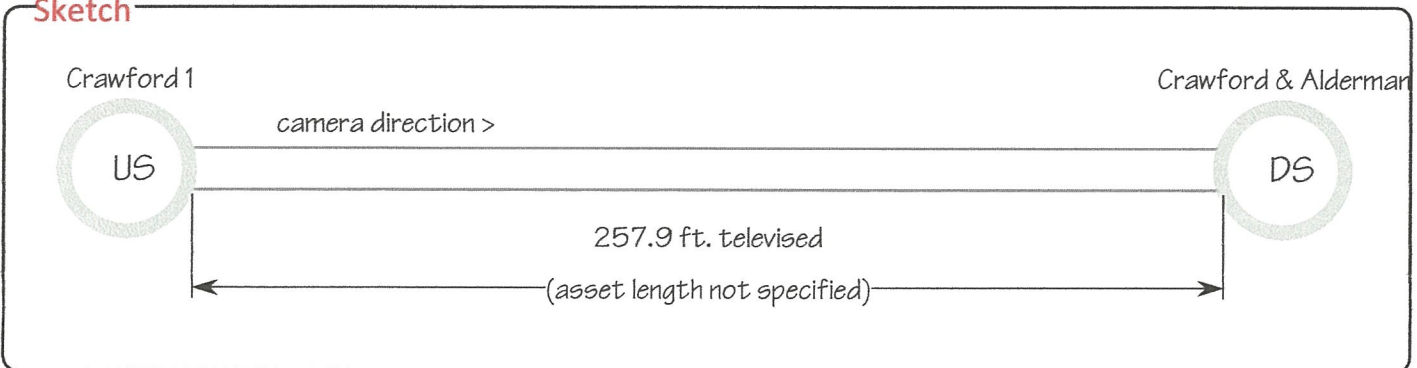
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 17-Oct-2019 11:11 AM
Surveyed By: Tyrone Jones
Camera Direction: Downstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Crawford 1

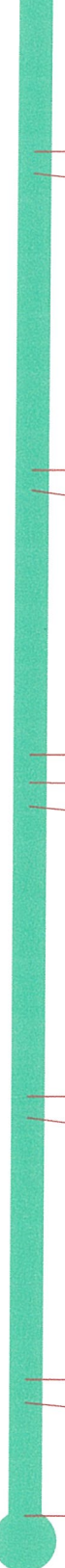
Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

Crawford 1



033.6 L

Lateral

037.2 L

Lateral

Flow >

086.0 L

Lateral

089.3 L

Lateral

132.8 L

Lateral

137.4 L

Lateral

141.3 L

Lateral

189.0 L

Lateral

192.5 L

Lateral

235.5 L

Lateral

239.3 L

Lateral



257.9 MH

Manhole

Crawford & Alderman

Crawford & Alderman

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

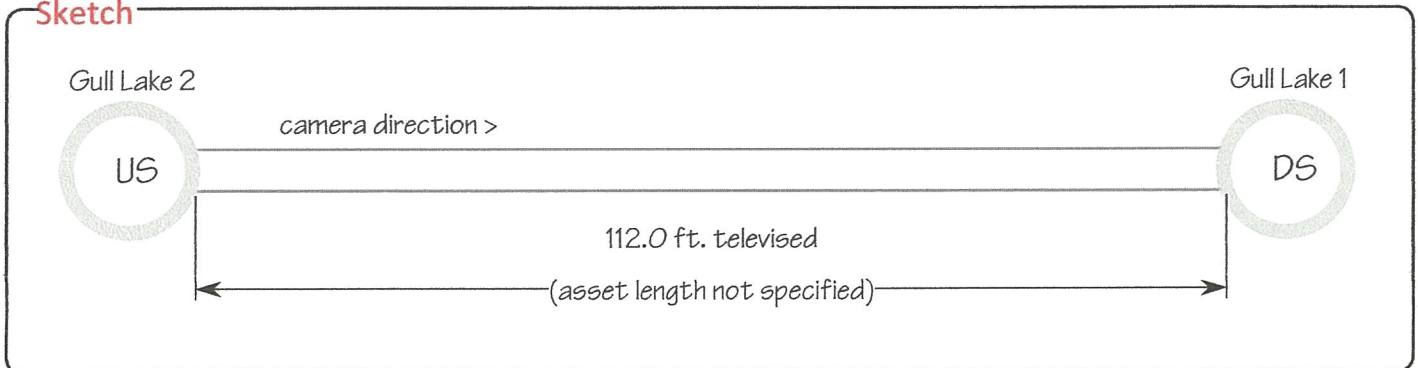
Purpose:

Pre-Cleaning:

Weather:

Location Details:

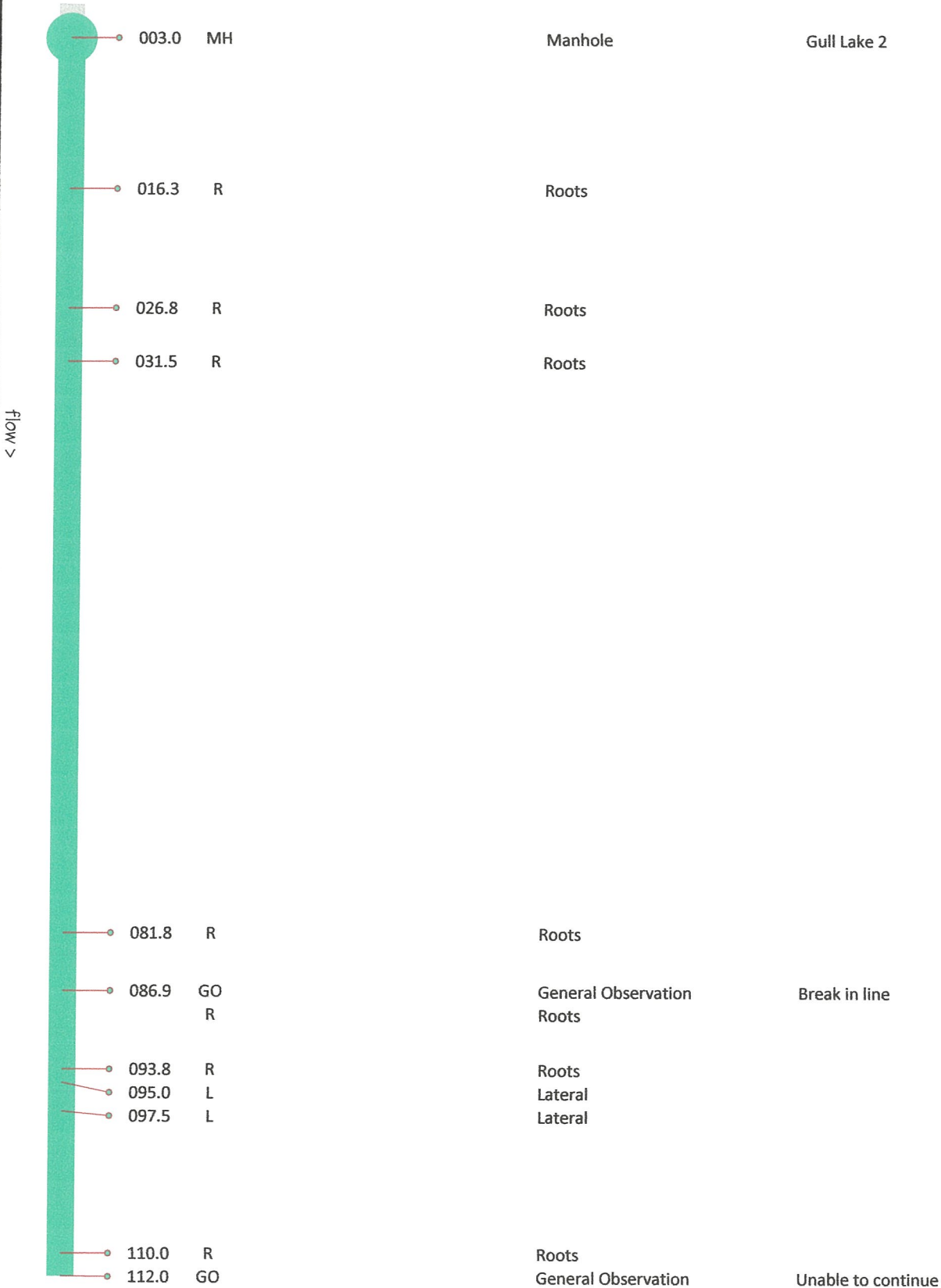
Sketch



Schematic Top View

Gull Lake 2

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Gull Lake 1

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

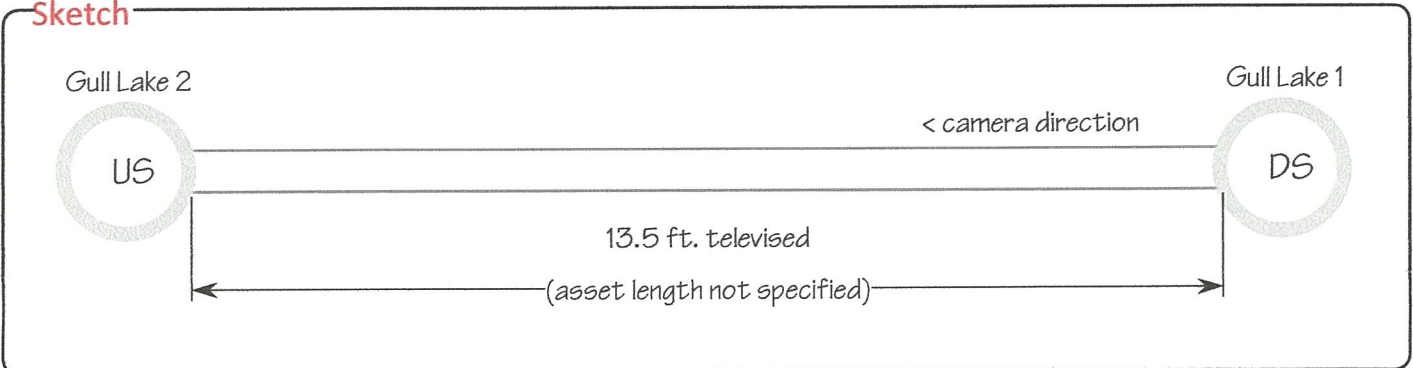
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

Gull Lake 2

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

013.5	GO				General Observation	Unable to continue
-------	----	--	--	--	---------------------	--------------------

Flow >

006.4	L				Lateral	
-------	---	--	--	--	---------	--

003.0	MH				Manhole	Gull Lake 1
-------	----	--	--	--	---------	-------------

Gull Lake 1

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

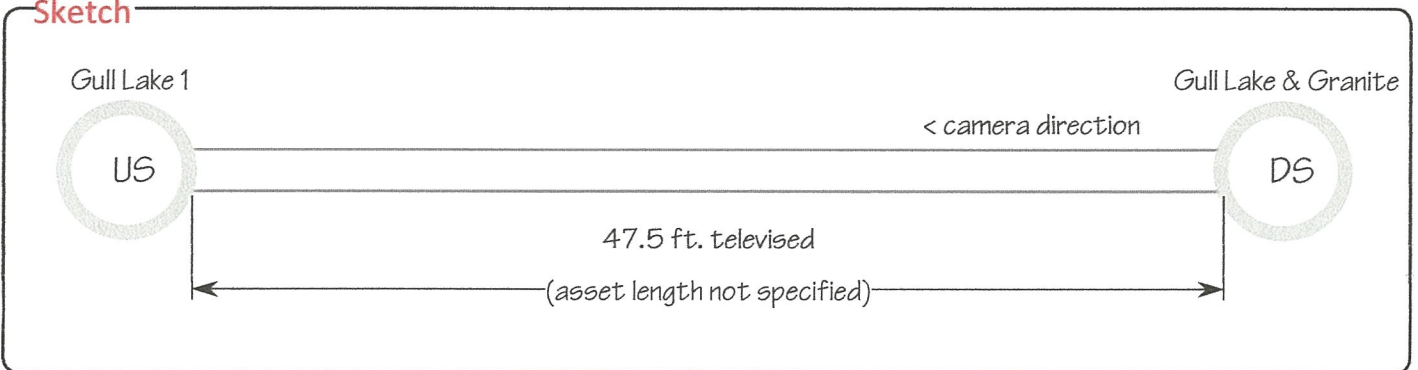
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

Gull Lake 1

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^047.5	GO				General Observation	Unable to continue
	GO				General Observation	Break in pipe
^045.8	L				Lateral	



^003.0	MH				Manhole	Gull Lake & Granite
--------	----	--	--	--	---------	---------------------

Gull Lake & Granite

Asset Information

Upstream MH: Alderman & Crawford

USMH Depth:

Downstream MH: Granite & Alderman

DSMH Depth:

Pipe Size: 10 in.

Material: VC

Street: Alderman St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 17-Oct-2019 12:41 PM

Surveyed By: Tyrone Jones

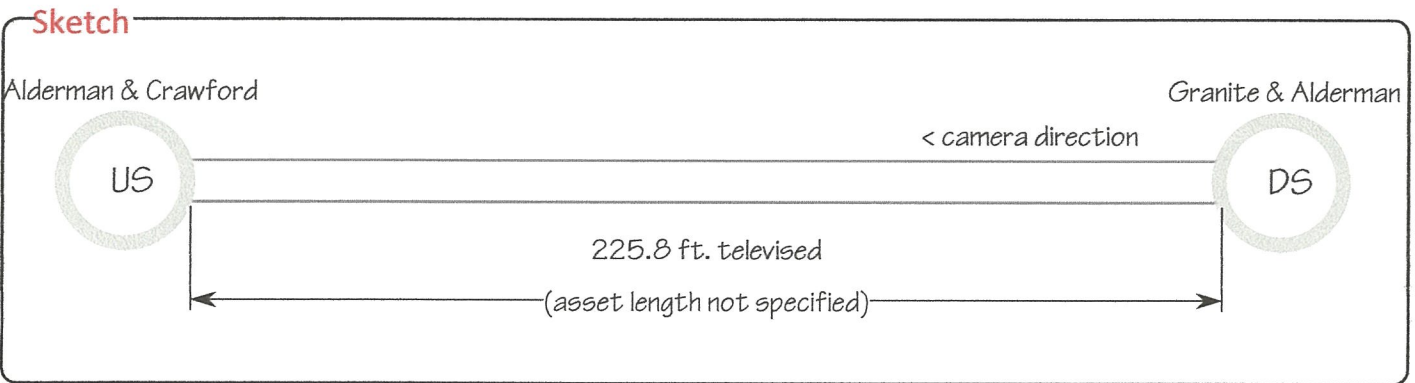
Camera Direction: Upstream

Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

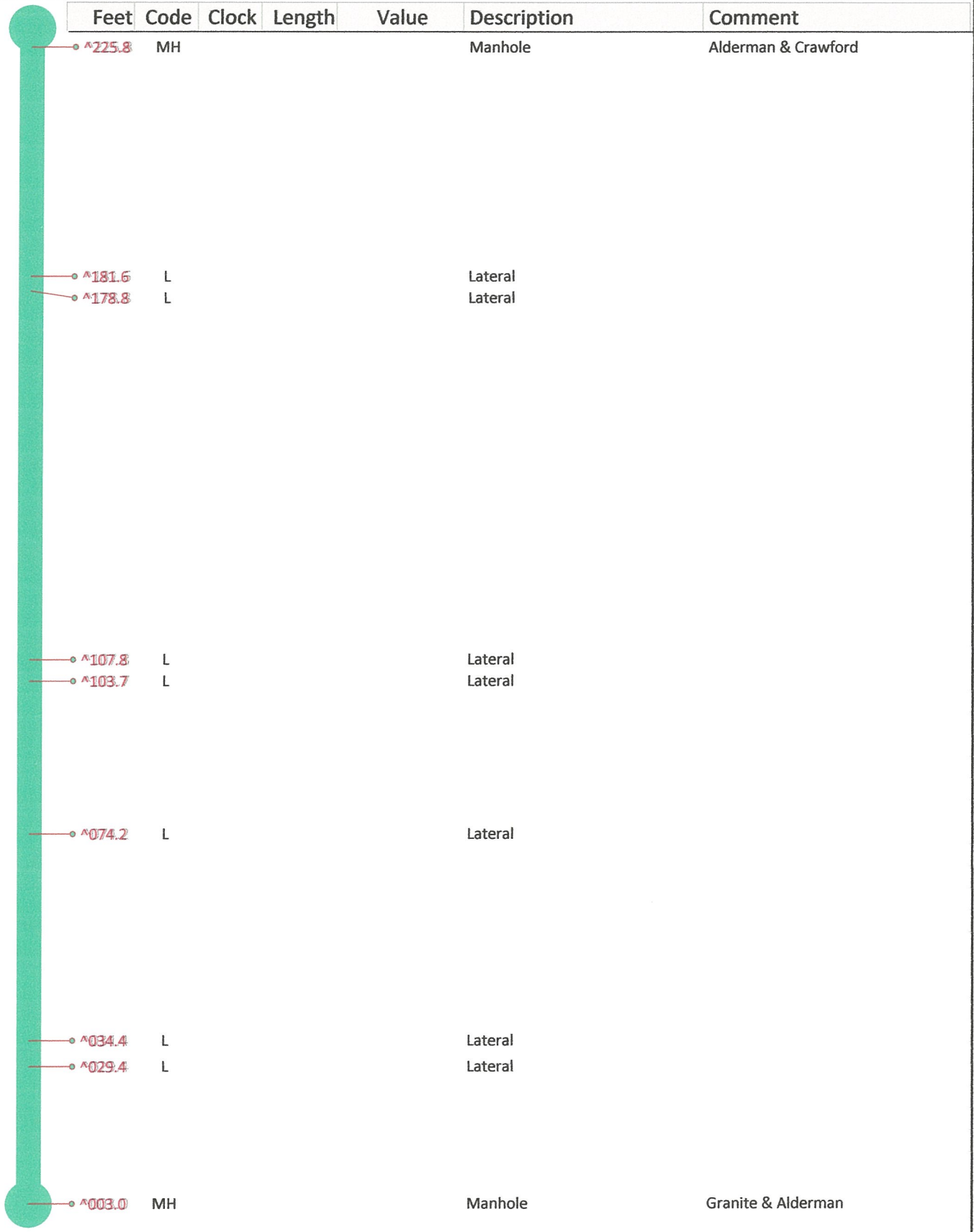
Location Details:



Schematic Top View

Alderman & Crawford

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



flow >

Granite & Alderman

Asset Information

Upstream MH: Granite & Gull Lake

USMH Depth:

Downstream MH: Bruce & Granite

DSMH Depth:

Pipe Size: 10 in.

Material: VC

Street: Granite Ave.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 17-Oct-2019 1:26 PM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

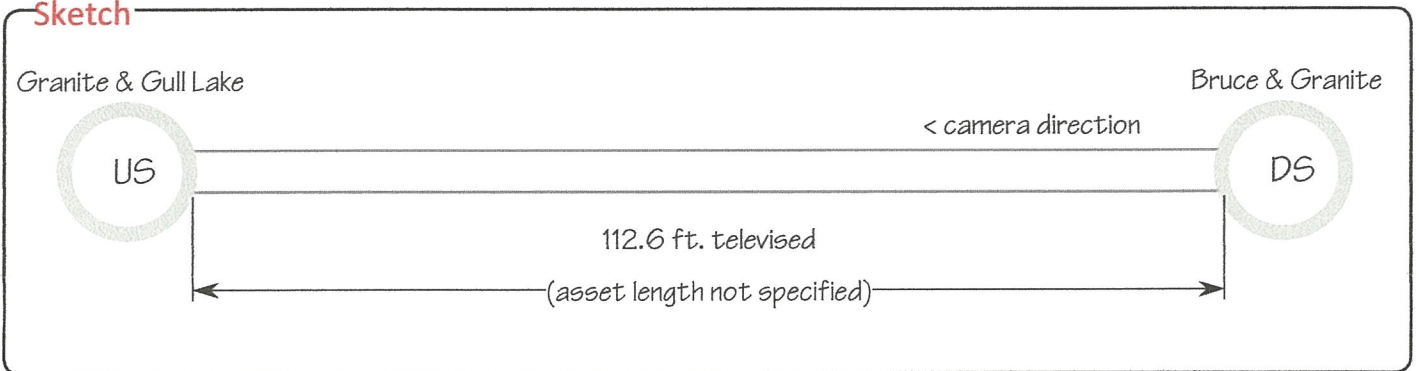
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

Sketch



Schematic Top View

Granite & Gull Lake

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



112.6	MH				Manhole	Granite & Gull Lake
-------	----	--	--	--	---------	---------------------



flow >

74.9	L				Lateral	
------	---	--	--	--	---------	--

29.8	L				Lateral	
------	---	--	--	--	---------	--

16.6	L				Lateral	
------	---	--	--	--	---------	--

12.7	L				Lateral	
------	---	--	--	--	---------	--



003.0	MH				Manhole	Bruce & Granite
-------	----	--	--	--	---------	-----------------

Bruce & Granite

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

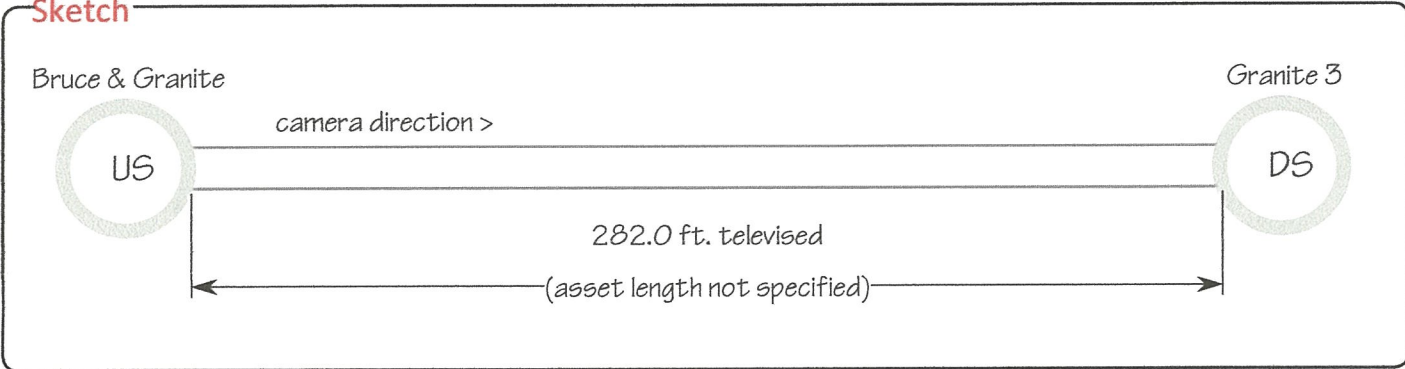
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

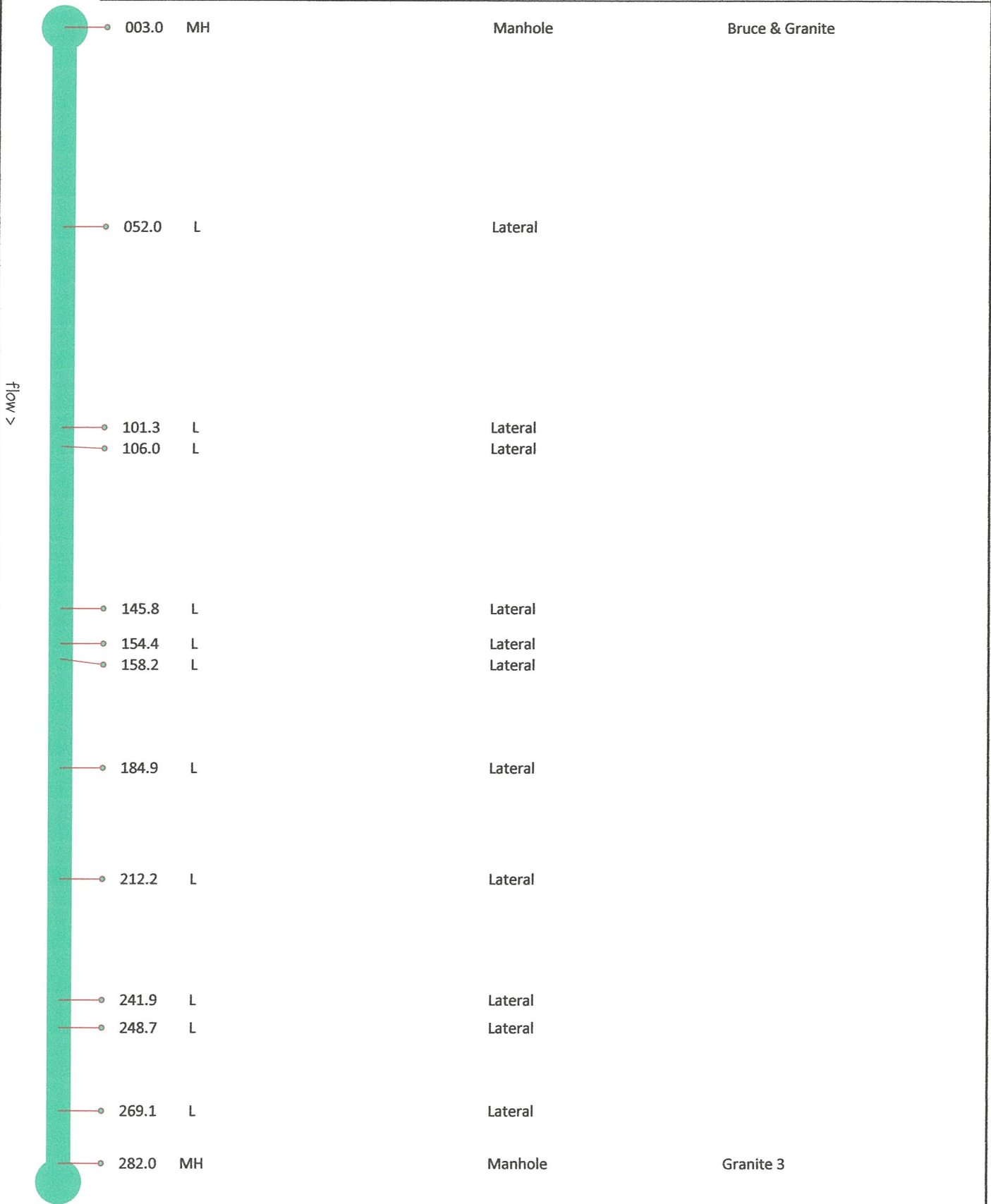
Sketch



Schematic Top View

Bruce & Granite

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Granite 3

Asset Information

Upstream MH: Granite 4
 USMH Depth:
Downstream MH: Granite 3
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Granite Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

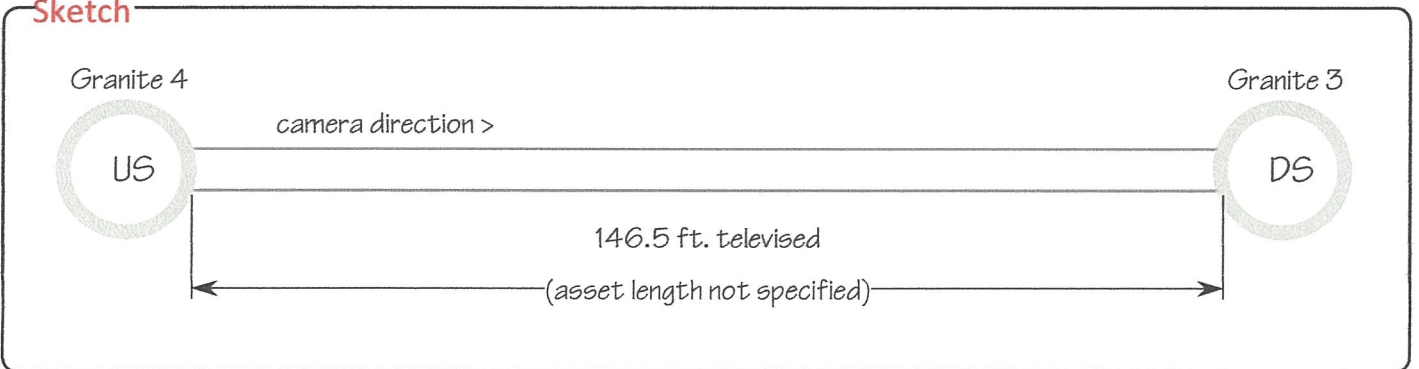
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 17-Oct-2019 2:09 PM
Surveyed By: Tyrone Jones
Camera Direction: Downstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Granite 4

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

Granite 4



flow >



146.5 MH

Manhole

Granite 3

Granite 3

Asset Information

Upstream MH: Granite 2
 USMH Depth:
Downstream MH: Granite 1
 DSMH Depth:
Pipe Size: 8 in.
Material: VC
Street: Granite Ave.
City: June Lake
System Owner: June Lake
Sewer Use: Sanitary
Length: (unspecified)

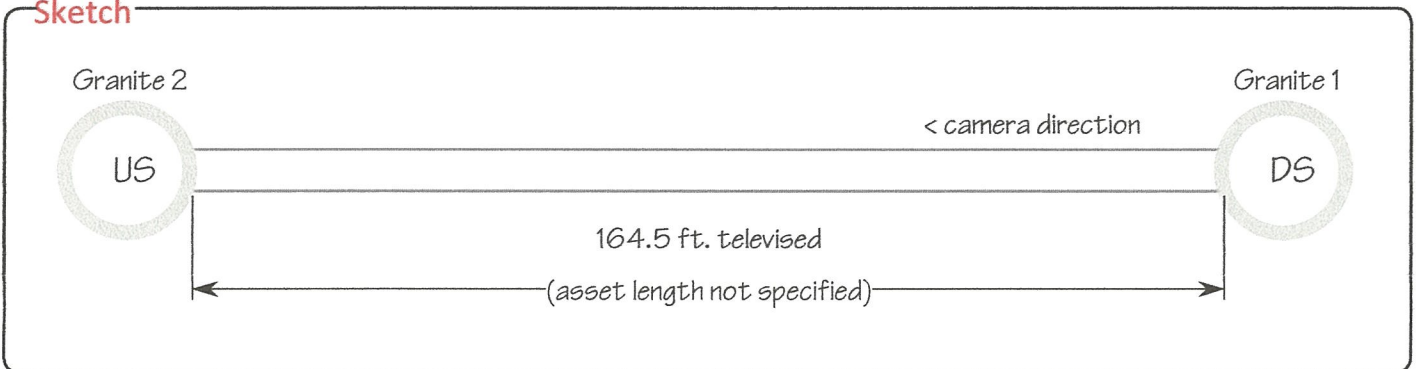
Project Information

Project: June Lake
Job:
Survey Customer: June Lake
Comments:

Inspection Information

Date: 17-Oct-2019 2:31 PM
Surveyed By: Tyrone Jones
Camera Direction: Upstream
Purpose: Maintenance Related
Pre-Cleaning: Not Known
Weather: Dry
Location Details:

Sketch



Schematic Top View

Granite 2

Feet	Code	Clock	Length	Value	Description	Comment
164.5	MH				Manhole	Granite 2
157.5	L				Lateral	
153.1	L				Lateral	
80.4	L				Lateral	
56.1	L				Lateral	
18.6	L				Lateral	
15.7	L				Lateral	
3.0	MH				Manhole	Granite 1

flow >

Granite 1

Pipeline Inspection Report

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

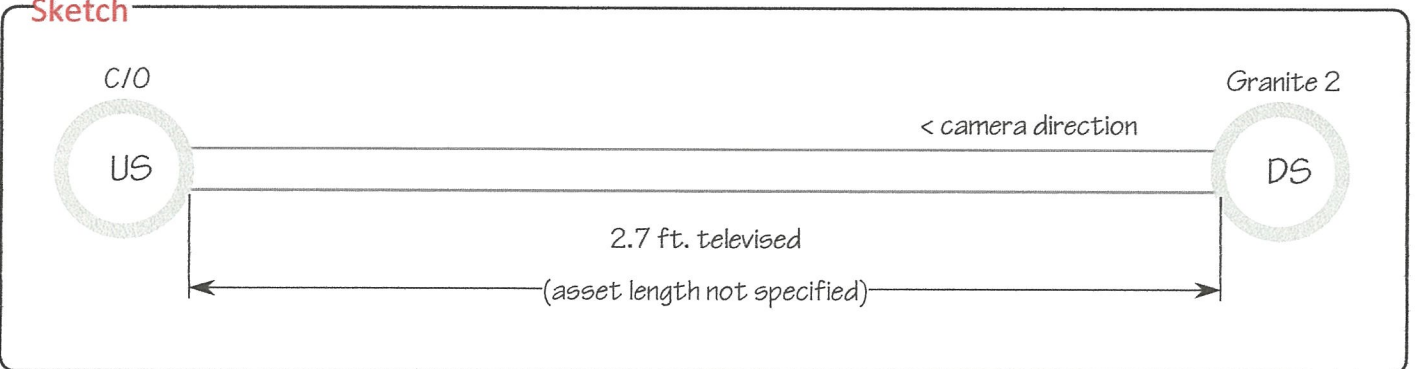
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^002.7 GO General Observation C/O

Flow >



^000.0 MH

Manhole

Granite 2

Granite 2

Exhibit B – Day 1

Garnet

June Lake

11-12-19 Tuesday

Garnet Rd.	MH 3-4	upstream	12"	40.6 ft debris	Unable to continue
Garnet Rd.	MH 3-1	Downstream	12"	180.7 ft	
Garnet Rd.	MH-1-2	Downstream	12"	201.2 ft	
Garnet Rd.	MH 2-24	Downstream	12"	202.1 ft	
Rainbow Dr.	MH 1-6	Upstream	8"	162	
Garnet Rd.	MH-24/10	Downstream	12"	Unable to find MH 10	
Mono Dr.	MH 28-29	Upstream	8"		
Mono Dr.	MH 28-25	Downstream	8"		
Mono Dr.	MH 26-25	Downstream	8"	Broken pipe @ 74 ft	Roots in Joint @ 72 ft
Mono Dr.	MH 27-26	Downstream	8"		
Mono Dr.	MH 27-30	Upstream	6"	46 ft	
Piute Dr.	MH 24-24A	Upstream	8"	348 ft.	
Jessie St.	MH 24-25	Upstream	8"		
Jessie St.	MH 24-22	Downstream	8"	182.1 ft	
Piute Dr.	MH 19-24	Downstream Upstream	8"	240	

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

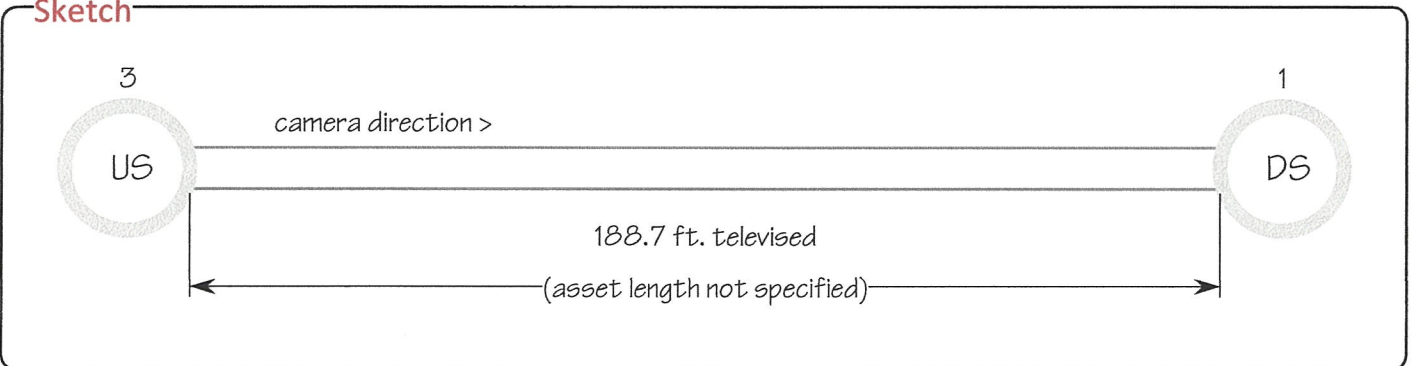
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch

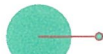


.035
MILES

Schematic Top View

3

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

3

flow >

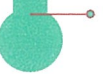


094.8 L 1

Lateral

098.3 L 2

Lateral



188.7 MH

Manhole

1

1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

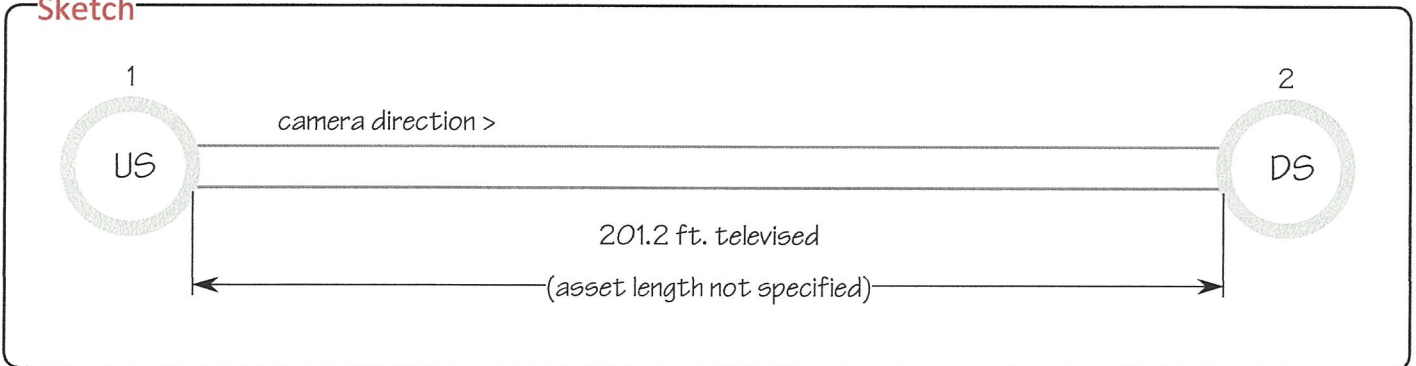
Purpose:

Pre-Cleaning:

Weather:

Location Details:

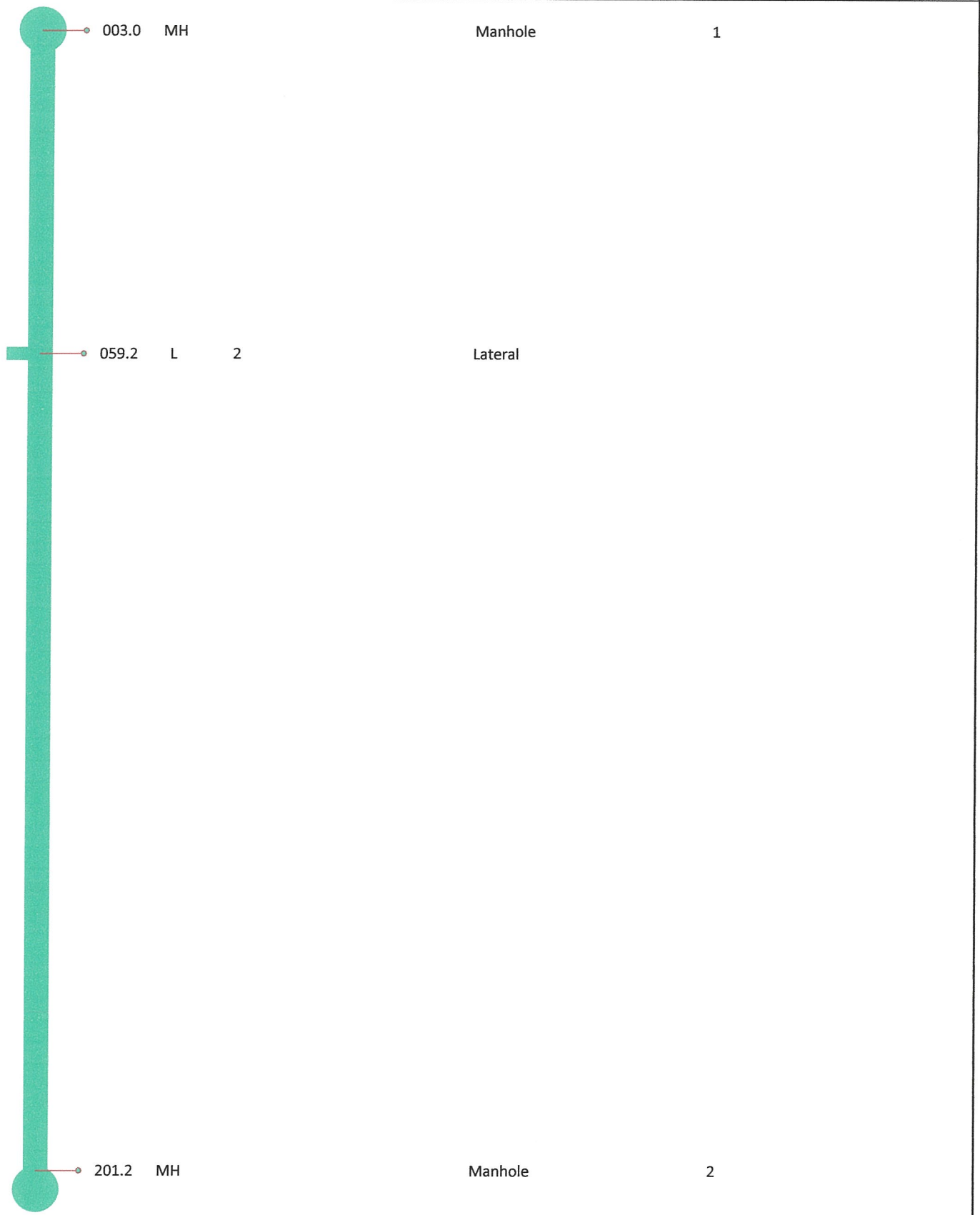
Sketch



Schematic Top View

1

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	1
-------	----	--	--	--	---------	---

059.2	L	2			Lateral	
-------	---	---	--	--	---------	--

201.2	MH				Manhole	2
-------	----	--	--	--	---------	---

2

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

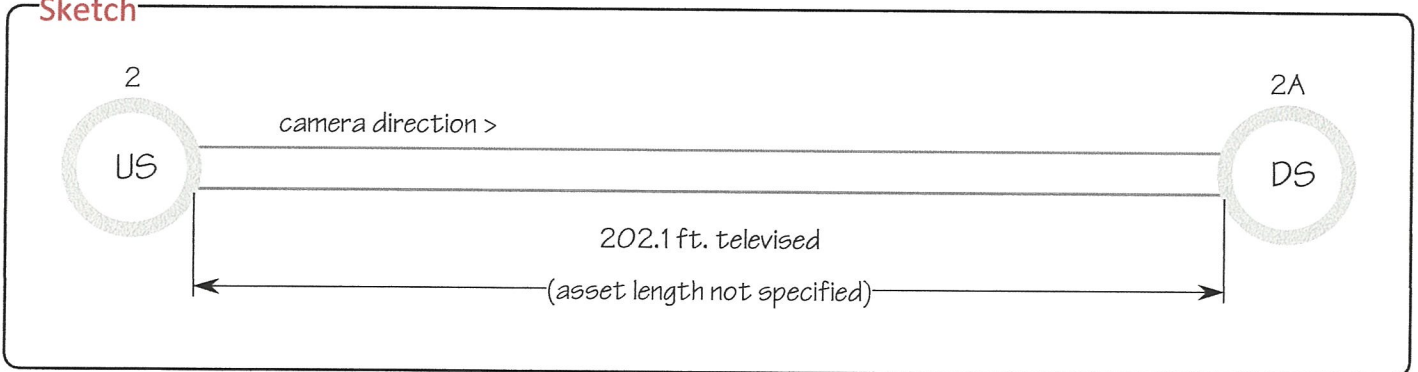
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

2

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

2

Flow >



202.1 MH

Manhole

2A

2A

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

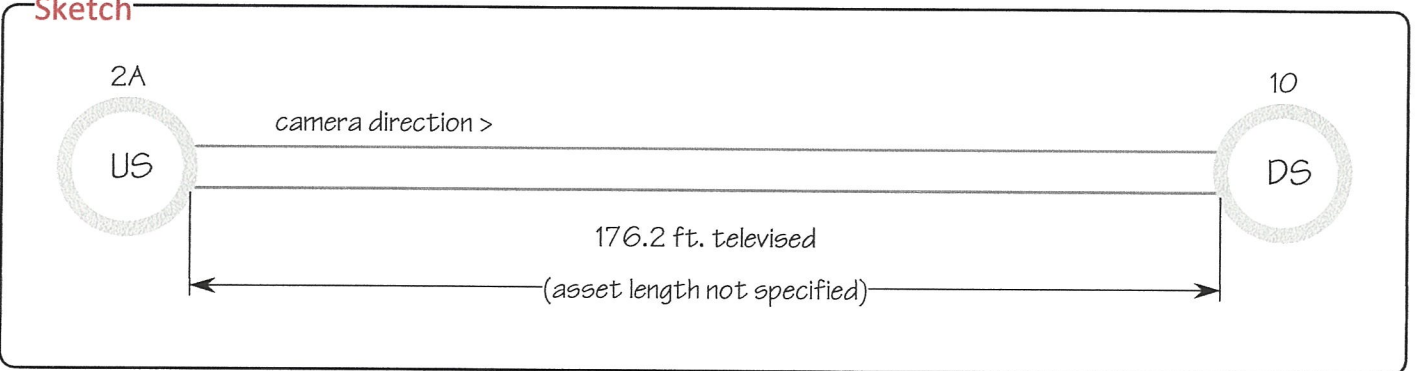
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

2A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

2A



flow >



176.2 MH

Manhole

10

10

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

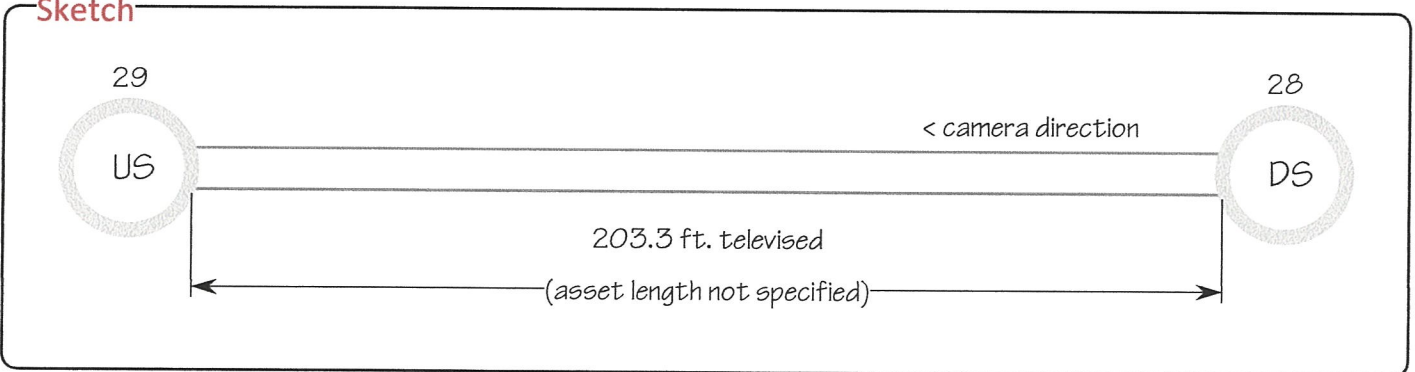
Purpose:

Pre-Cleaning:

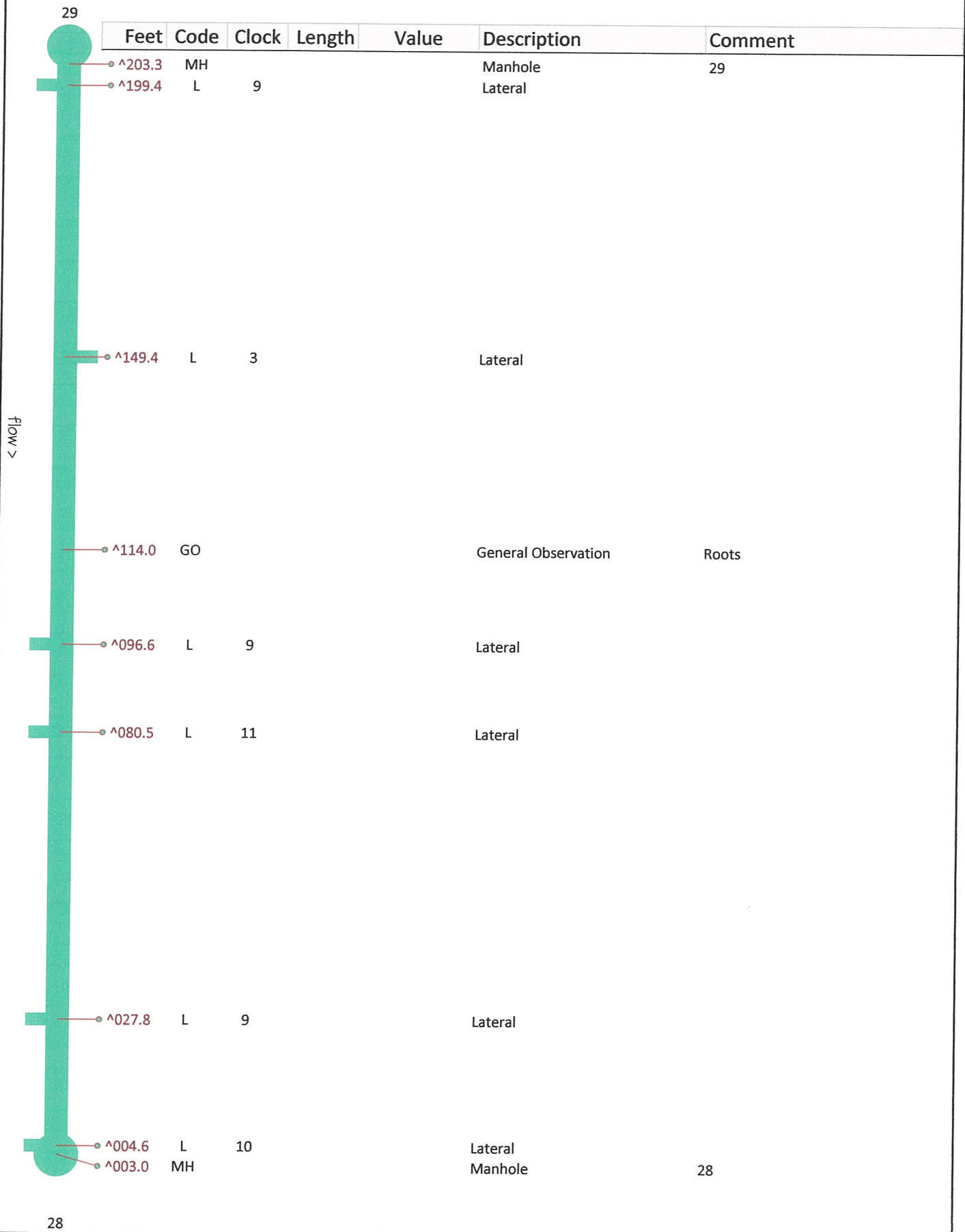
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

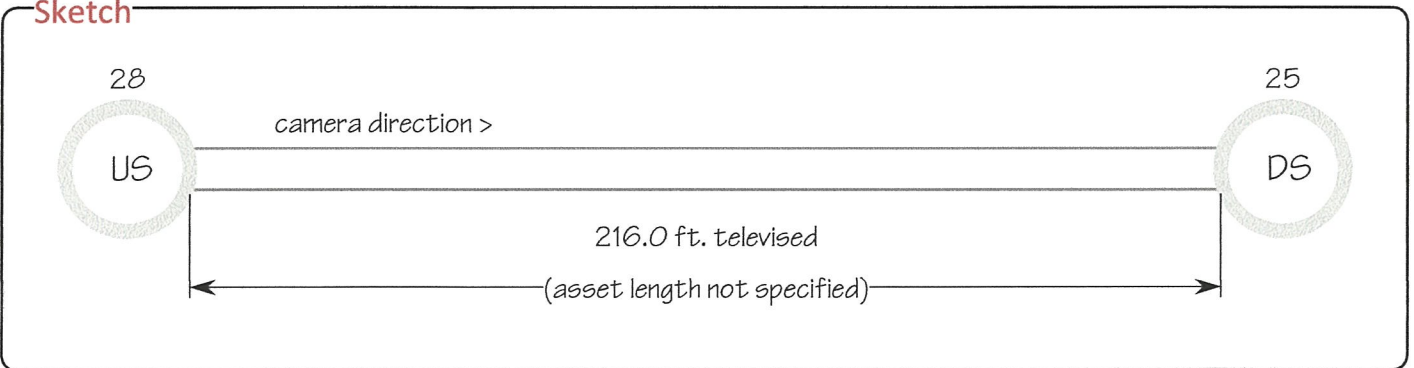
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

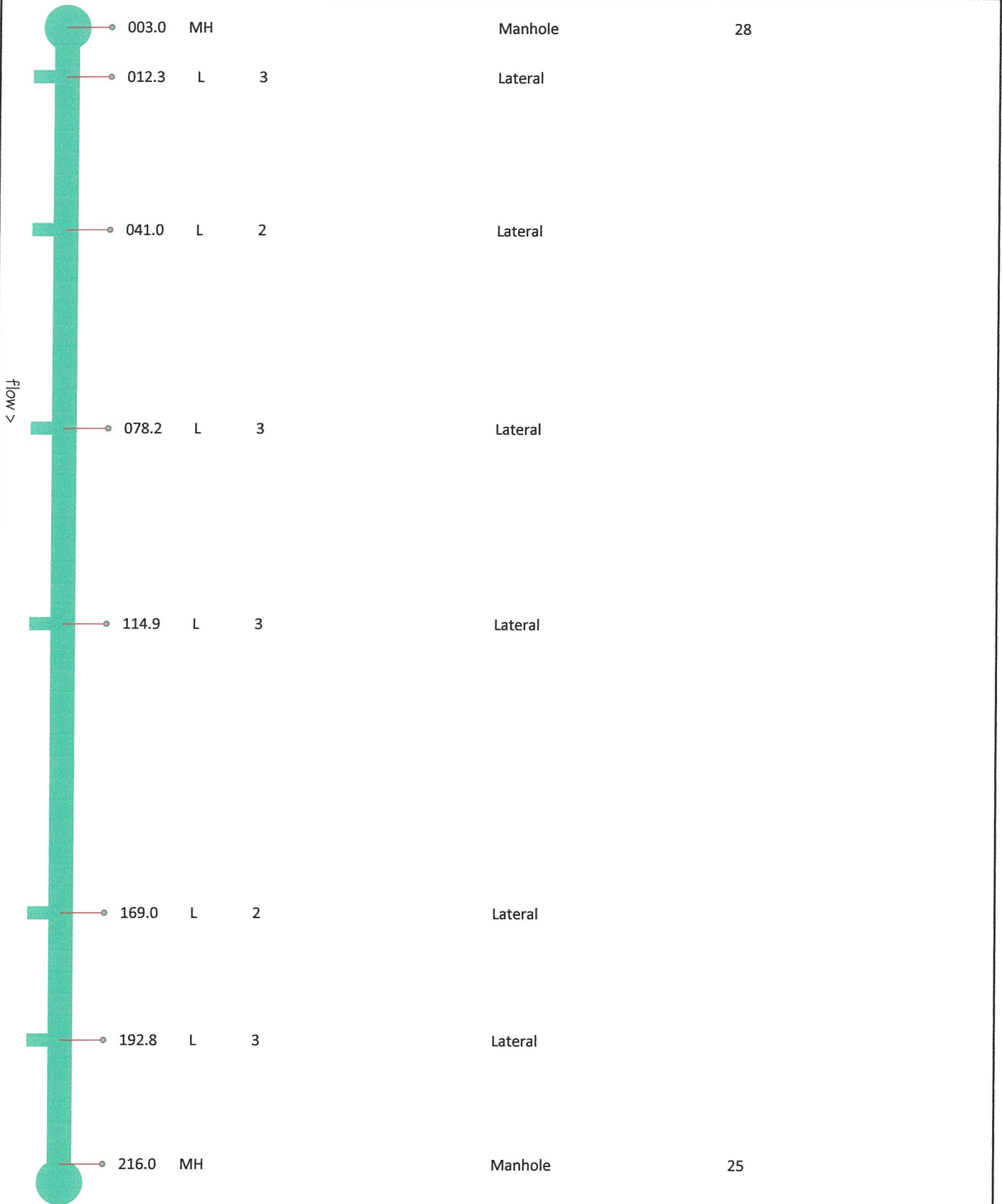
Sketch



Schematic Top View

28

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



25

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

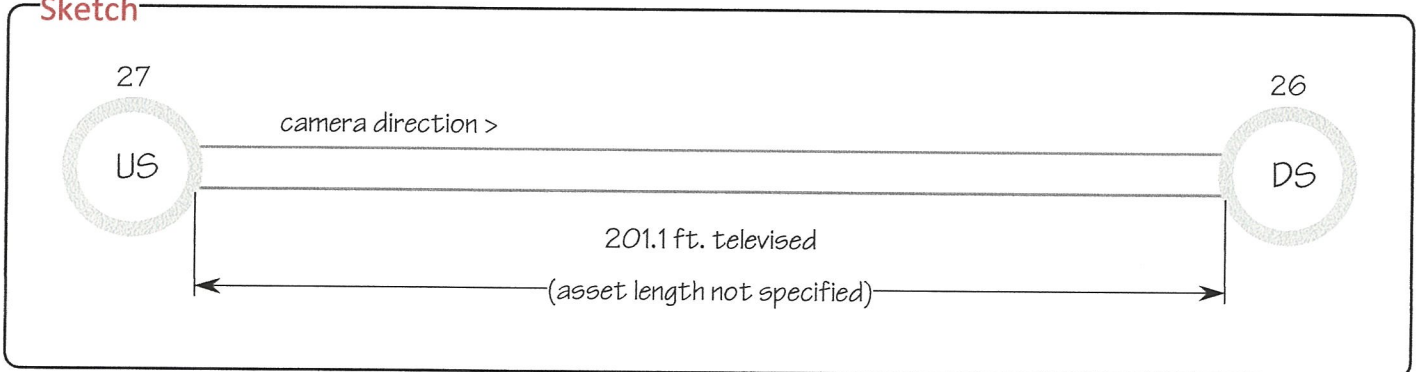
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

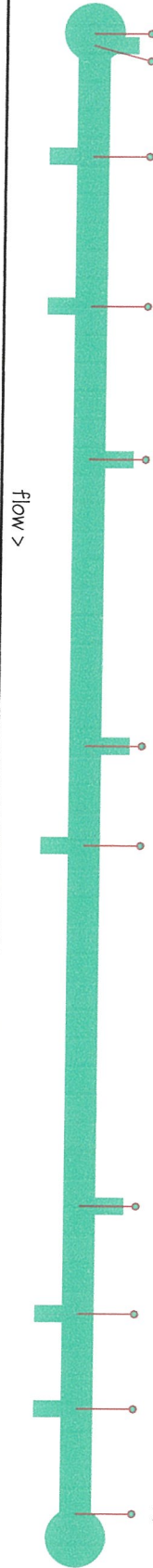
Sketch



Schematic Top View

27

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	27
004.6	L	9			Lateral	
019.5	L	3			Lateral	
039.6	L	3			Lateral	
060.1	L	9			Lateral	
098.5	L	9			Lateral	
111.8	L	3			Lateral	
160.0	L	9			Lateral	
174.4	L	3			Lateral	
187.1	L	3			Lateral	
201.1	MH				Manhole	26

26

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

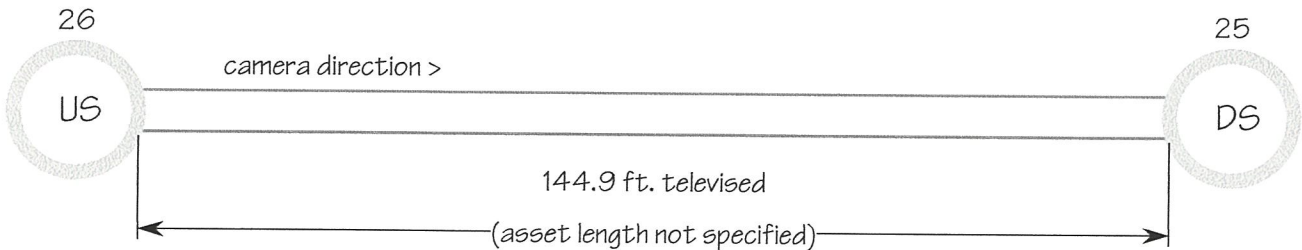
Purpose:

Pre-Cleaning:

Weather:

Location Details:

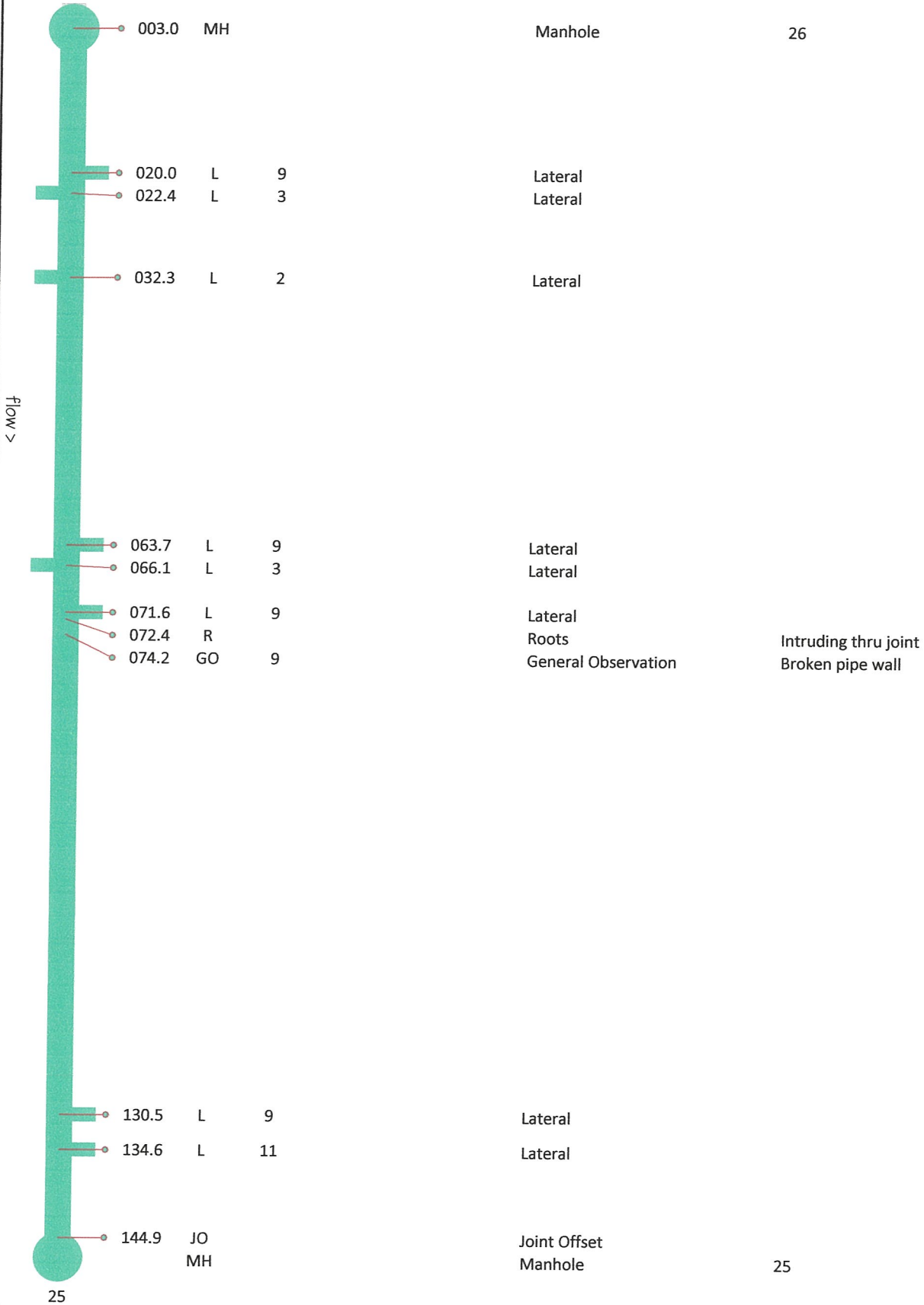
Sketch



Schematic Top View

26

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



25

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

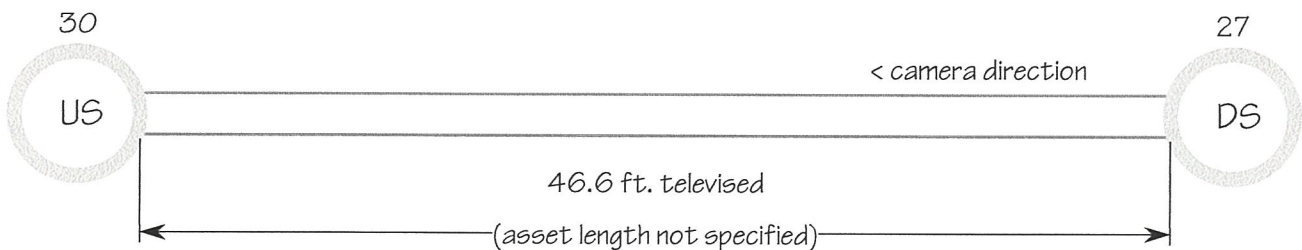
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

30

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^046.6	MH				Manhole	30
--------	----	--	--	--	---------	----

Flow >

^003.0 MH

Manhole 27

27

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

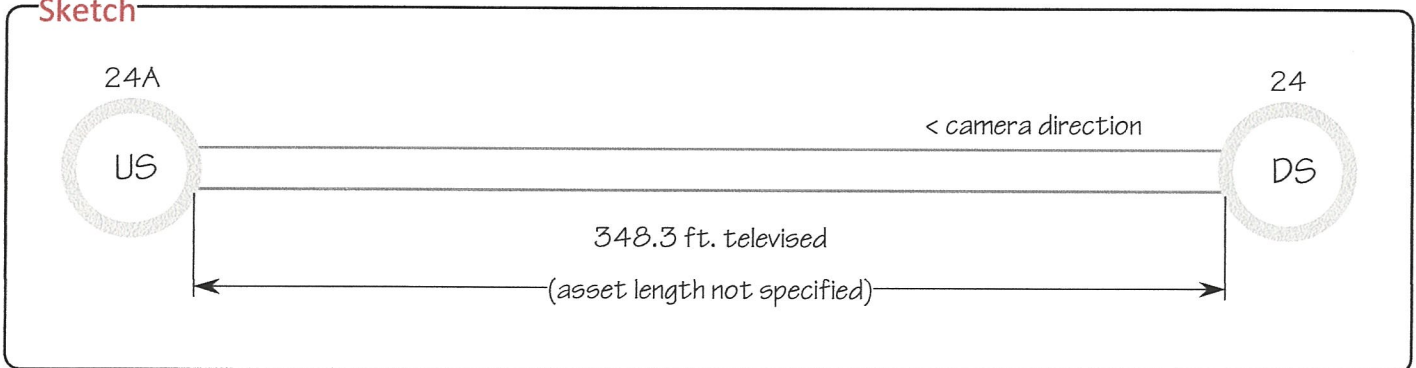
Purpose:

Pre-Cleaning:

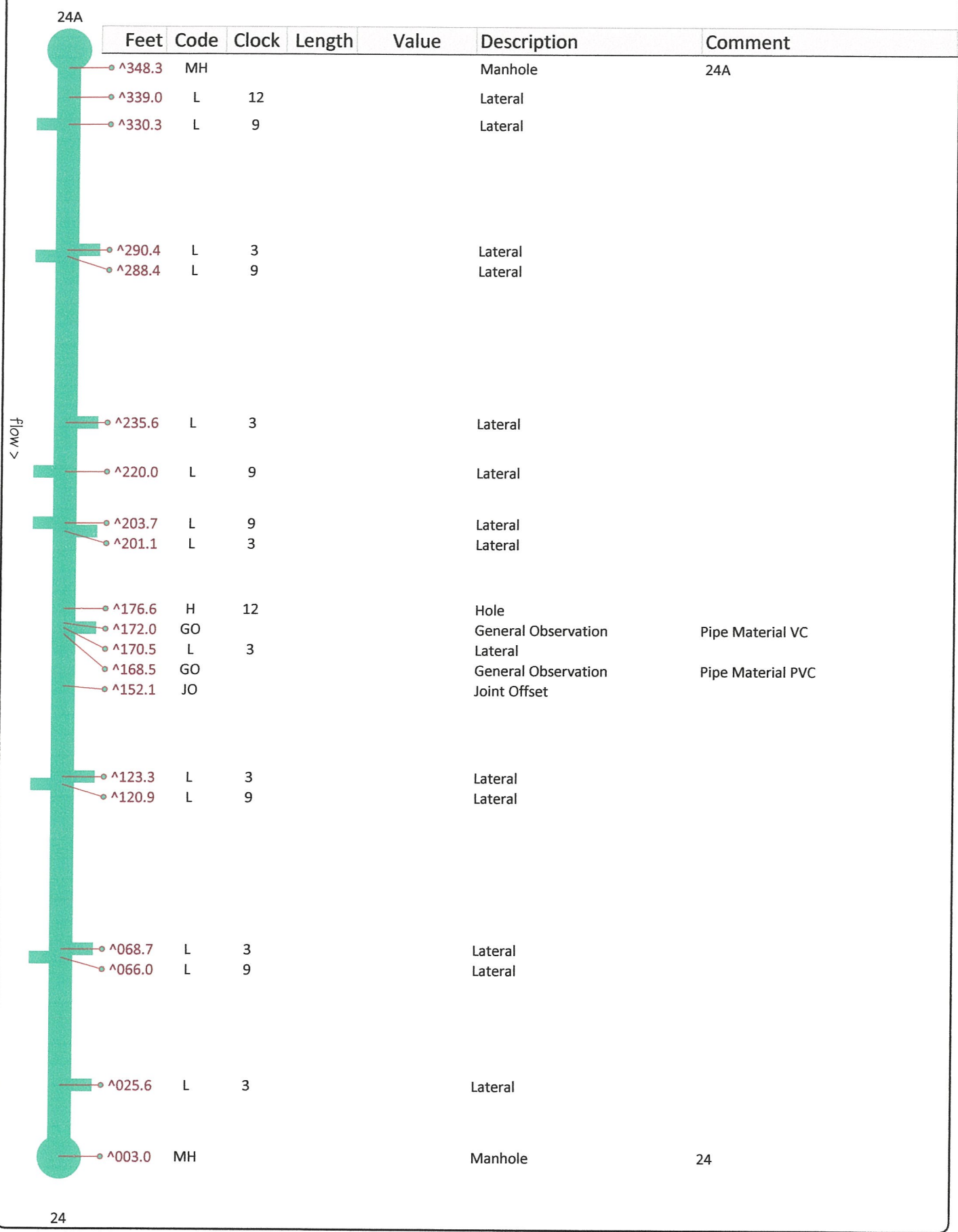
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

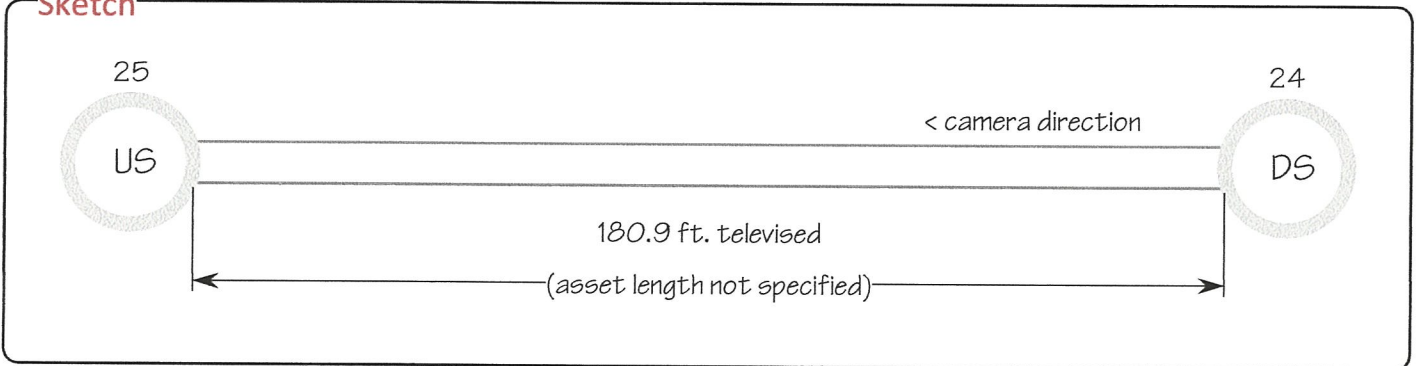
Project Information

Project:
Job:
Survey Customer:
Comments:

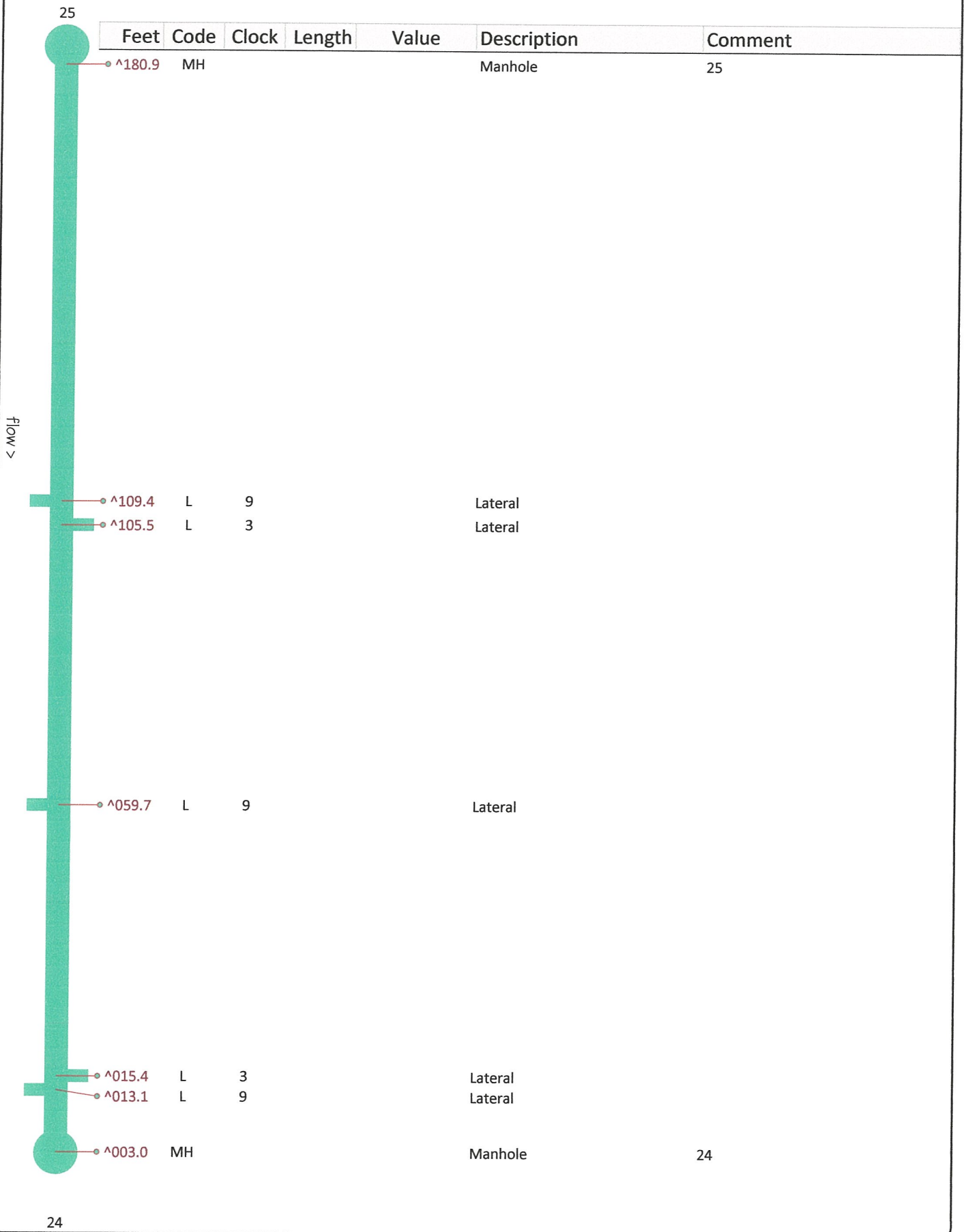
Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View



Feet	Code	Clock	Length	Value	Description	Comment
^180.9	MH				Manhole	25
^109.4	L		9		Lateral	
^105.5	L		3		Lateral	
^059.7	L		9		Lateral	
^015.4	L		3		Lateral	
^013.1	L		9		Lateral	
^003.0	MH				Manhole	24

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

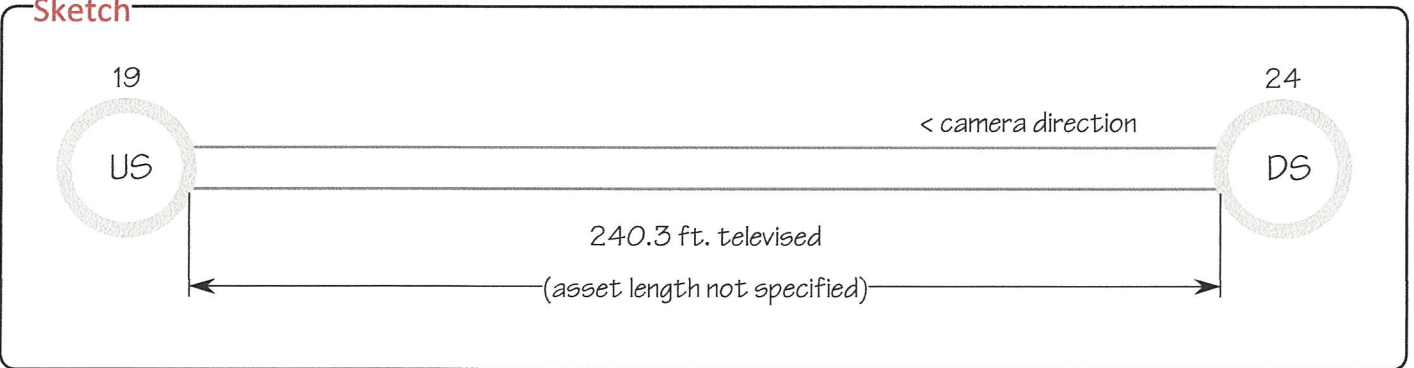
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

19

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



^240.3	GO				General Observation	Clean out
^238.0	L	9			Lateral	

Flow >

^128.5	L	9			Lateral	
--------	---	---	--	--	---------	--

^092.1	L	9			Lateral	
--------	---	---	--	--	---------	--

^003.0	MH				Manhole	19
--------	----	--	--	--	---------	----

24

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

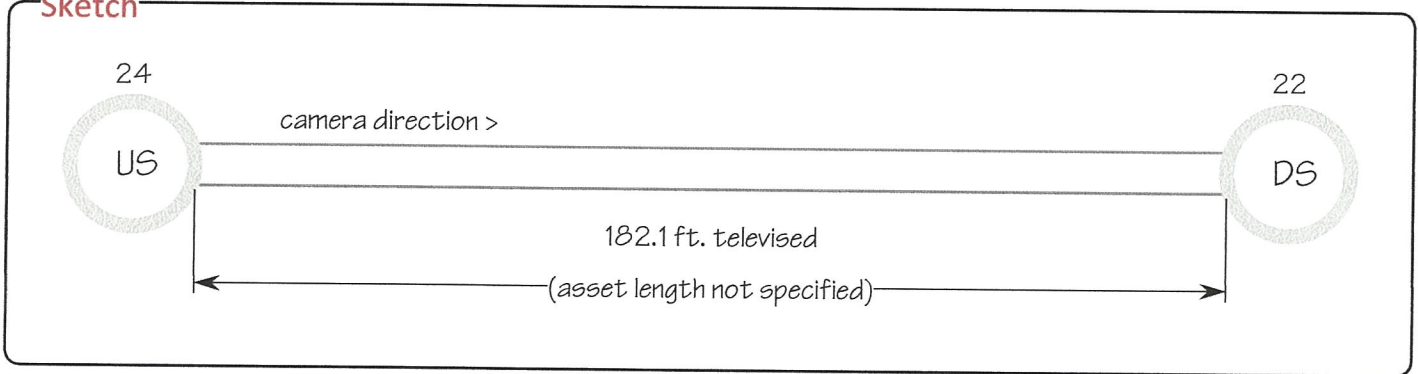
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

24

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

24



flow >

058.5 L 3
059.0 L 3
061.6 L 9

Lateral
Lateral
Lateral

139.9 L 9

Lateral



182.1 MH

Manhole

22

22

Exhibit B – Day 2

June Lake 11-13-19 Wednesday

Upstream	MH 22-21	8"	349.3 ft	Palisades Dr.
Downstream	MH 22-18	8"	136.6 ft	Root block pipe / Palisades Dr.
Upstream	MH 22-18	8"	81.0 ft	Roots from Downstream / Palisades Dr.
Downstream	MH 18-17	8"	195.7 ft	Palisades Dr.
Upstream	MH 18-16	6"	161.5 ft	Palisades Dr. / Recorded in Reverse
Upstream	MH-13-14	6"	27.3 ft	Roots block pipe No Upstream MH / Pipe
Downstream	MH 14-15	6"	99.6 ft	Piute Dr
Upstream	MH 15-12	8"	106.0 ft	Rainbow Dr.
Upstream	MH 12A-12	8"	174.7 ft	Palisades Dr. / Roots block pipe
Downstream	MH 12-11	8"	187.6 ft	Rainbow Dr.
Downstream	MH 11-6	8"	177.5 ft	Rainbow Dr.
Downstream	MH 6-1	8"	192 ft	Rainbow Dr.
Downstream	MH 12A-12	8"	19.8 ft	Roots block pipe / Palisades Dr.
Upstream	MH 11-7	8"	161.1 ft	Steelhead Rd.
Upstream	MH 20-9A	8"	247.7 ft	Minaret Rd.
Upstream	MH 9A-20A	8"	59.5 ft	Jessie St.
Upstream	MH 20A-22	8"	259.0 ft	Jessie St. / Cleanout
Downstream	MH 9A-9	8"	27 ³ / ₈ ft	Minaret Rd.
Downstream	MH 9-6	8"	225.6 ft	Minaret Rd.
Upstream	MH 17-17A	8"	51.6 ft	Steelhead Rd.
Upstream	MH 17-C0	8"	203.2 ft	Steelhead Rd.
Upstream	MH 17A-C0/2	8"	38.1 ft	Steelhead Rd. Debris
Downstream	MH 17A-9	8"	183.0 ft	Steelhead Rd.

Asset Information

Upstream MH: 21

USMH Depth:

Downstream MH: 22

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Palisades Dr.

City: June lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 13-Nov-2019 8:22 AM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

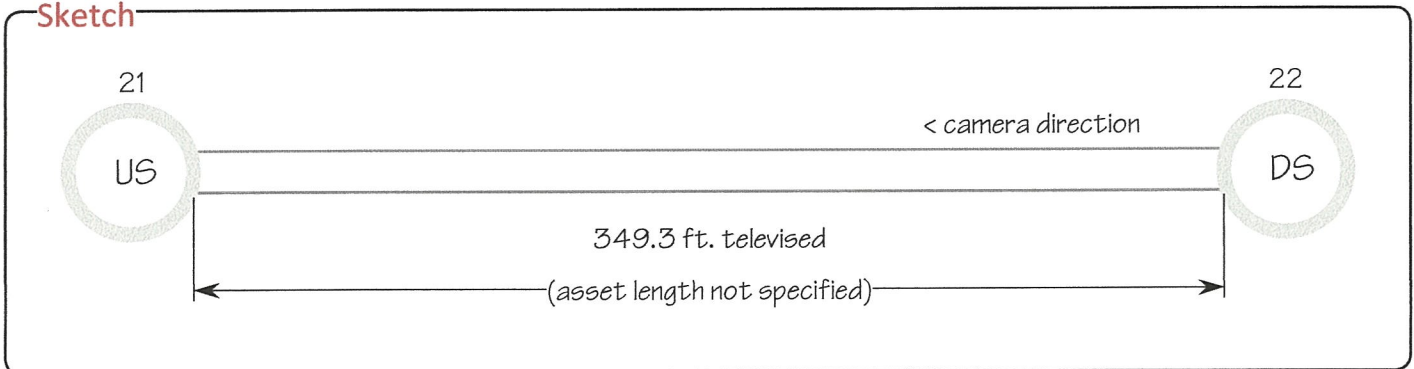
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

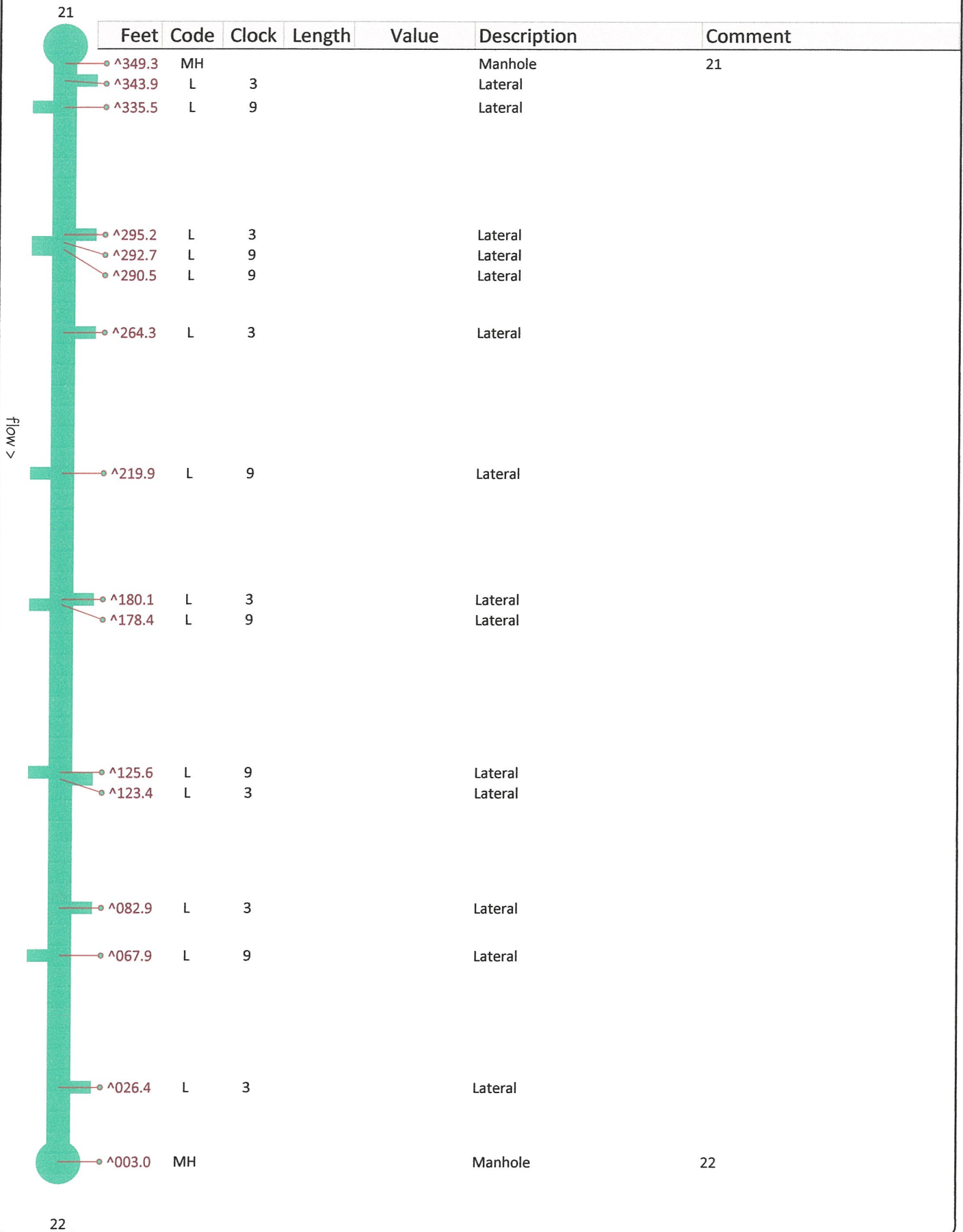
Location Details:

Sketch



1.066 mile
TOTAL mile
1.114

Schematic Top View



Asset Information

Upstream MH: 18

USMH Depth:

Downstream MH: 22

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Palisades Dr.

City: June lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 13-Nov-2019 8:43 AM

Surveyed By: Tyrone Jones

Camera Direction: Downstream

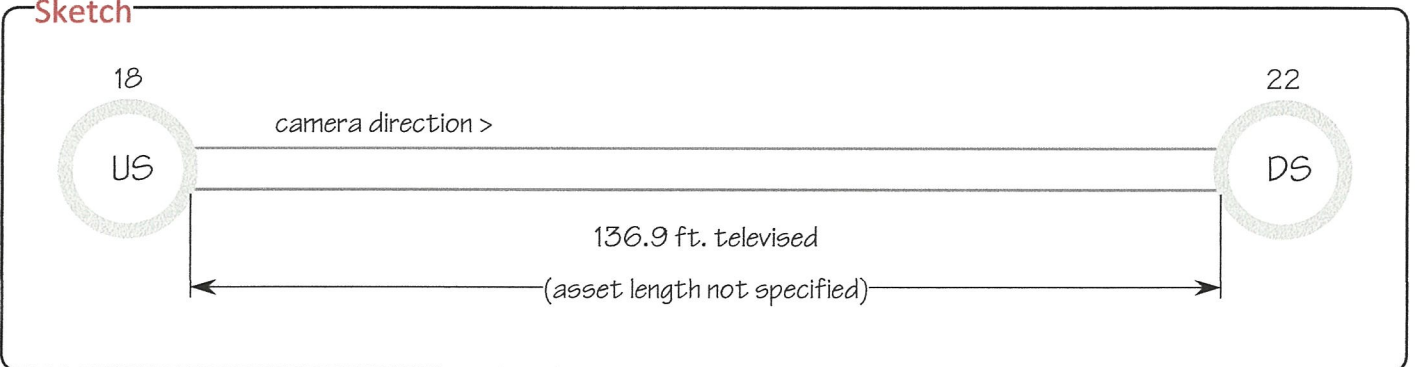
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

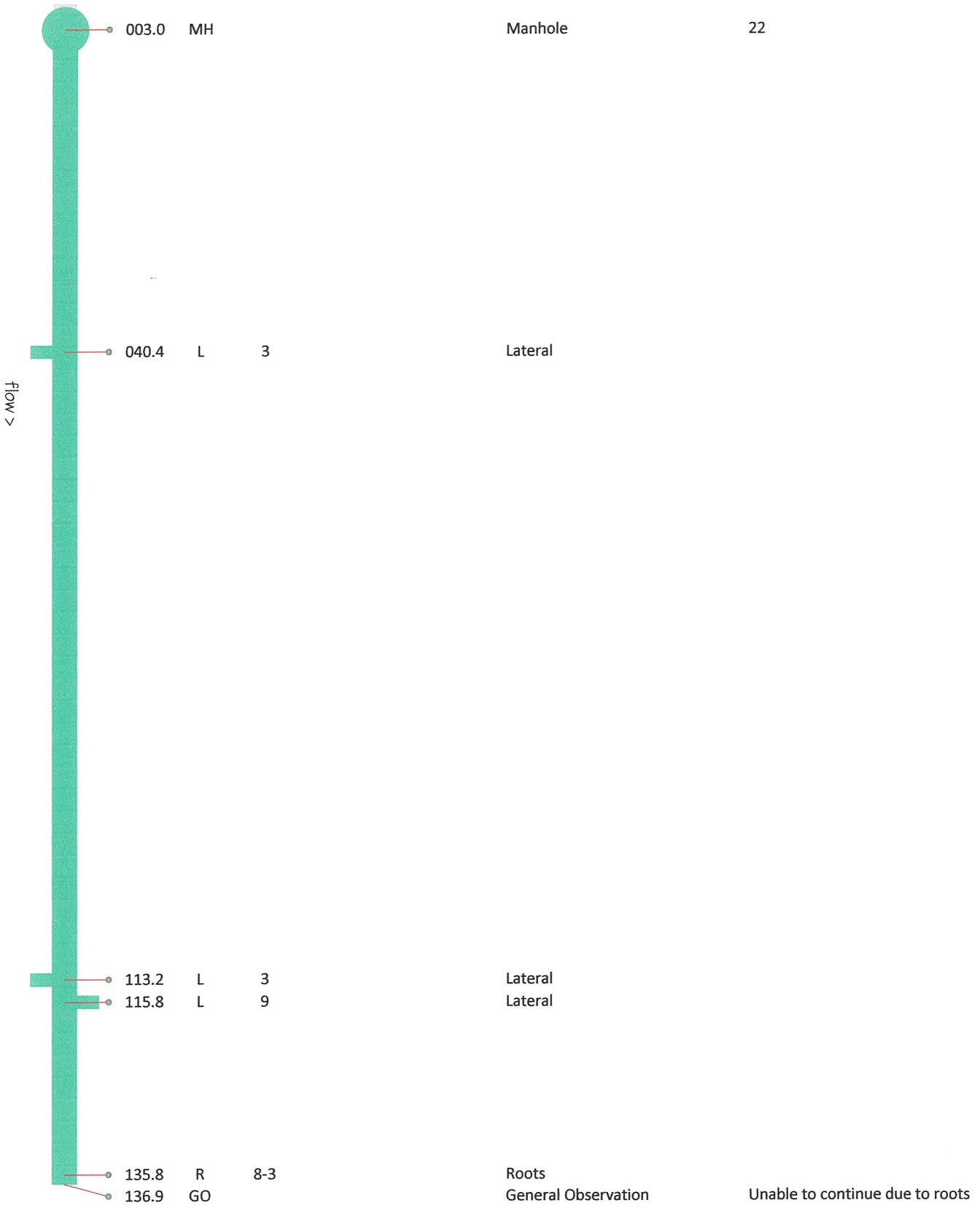
Sketch



Schematic Top View

18

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



22

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

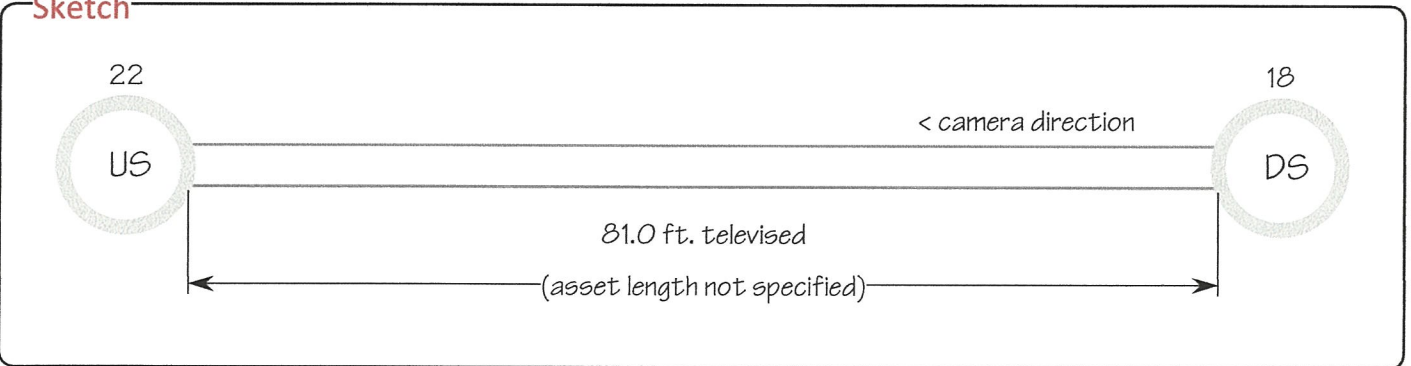
Purpose:

Pre-Cleaning:

Weather:

Location Details:

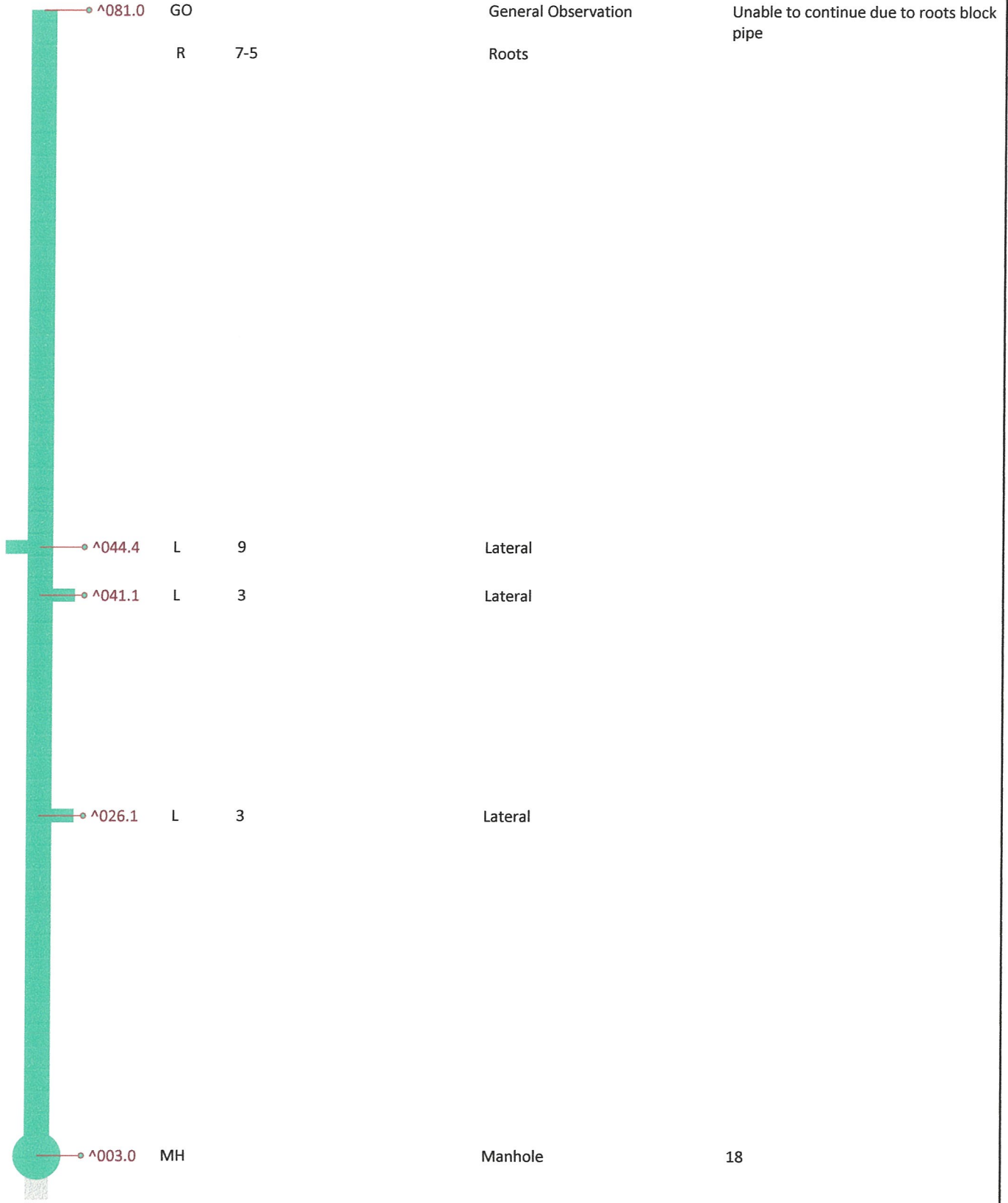
Sketch



Schematic Top View

22

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



22	GO				General Observation	Unable to continue due to roots block pipe
	R	7-5			Roots	
18	L	9			Lateral	
15	L	3			Lateral	
12	L	3			Lateral	
0	MH				Manhole	18

18

Asset Information

Upstream MH: 18

USMH Depth:

Downstream MH: 17

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Palisades Dr.

City: June lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 13-Nov-2019 9:18 AM

Surveyed By: Tyrone Jones

Camera Direction: Downstream

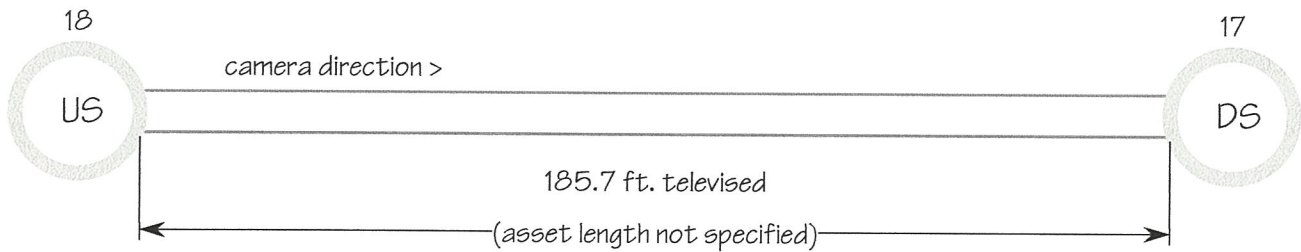
Purpose: Maintenance Related

Pre-Cleaning: Not Known

Weather: Dry

Location Details:

Sketch



Schematic Top View

18

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

18



flow >



080.0 H 12

Hole



082.9 L 9

Lateral



085.3 L 3

Lateral



163.3 L 9

Lateral



165.0 L 3

Lateral



185.7 MH

Manhole

17

17

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

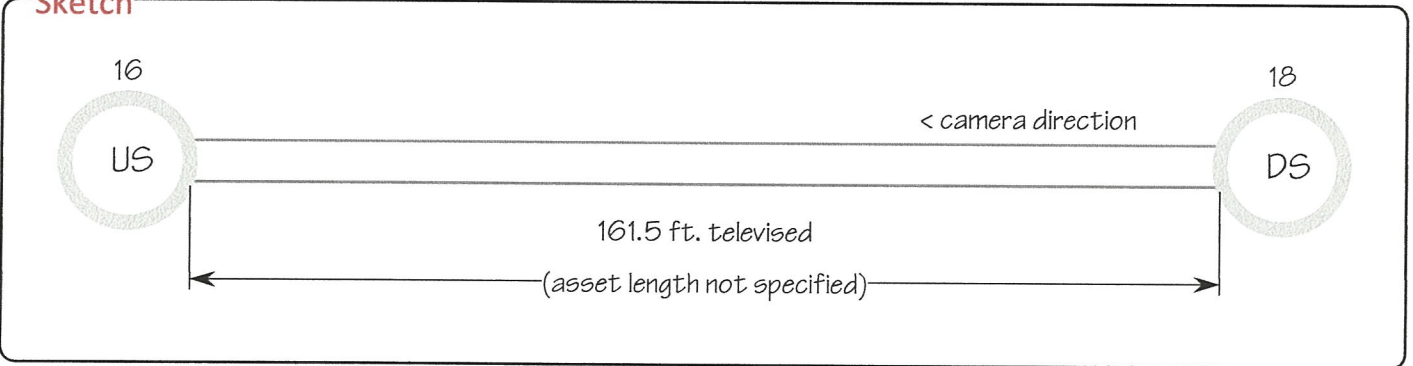
Purpose:

Pre-Cleaning:

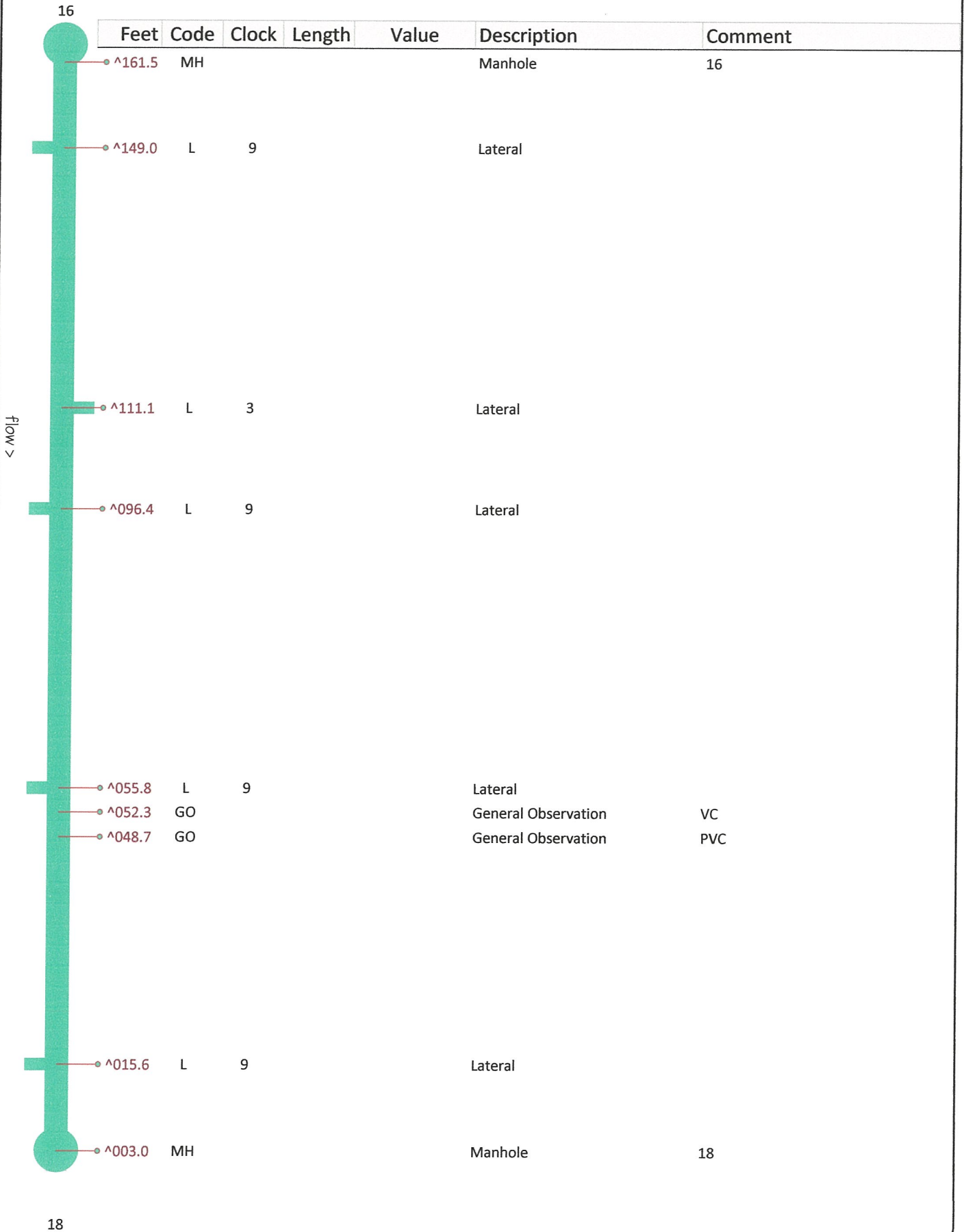
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

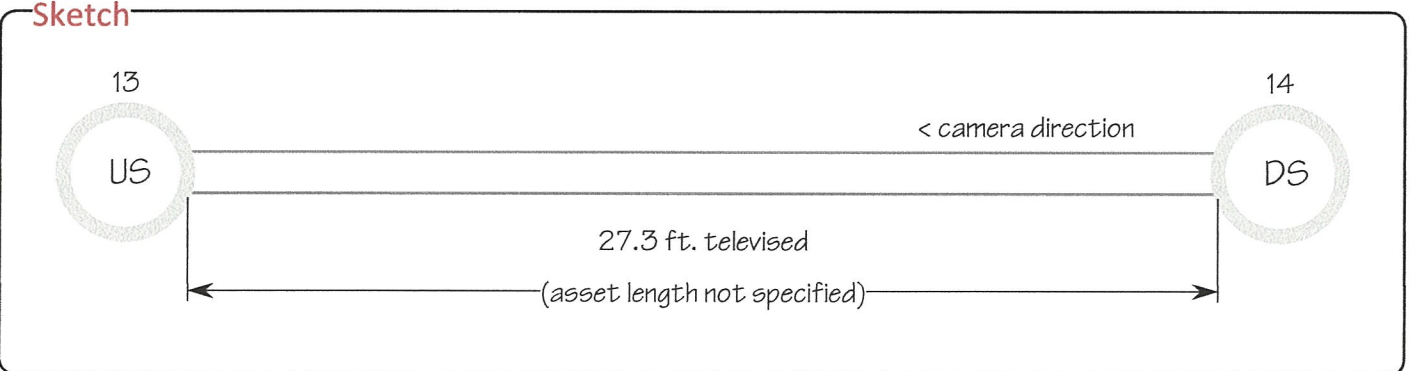
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

13

Feet	Code	Clock	Length	Value	Description	Comment
^027.3	GO				General Observation	Unable to continue due to roots block pipe
^026.6	R				Roots	

Flow >

^003.0 MH

Manhole

14

14

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

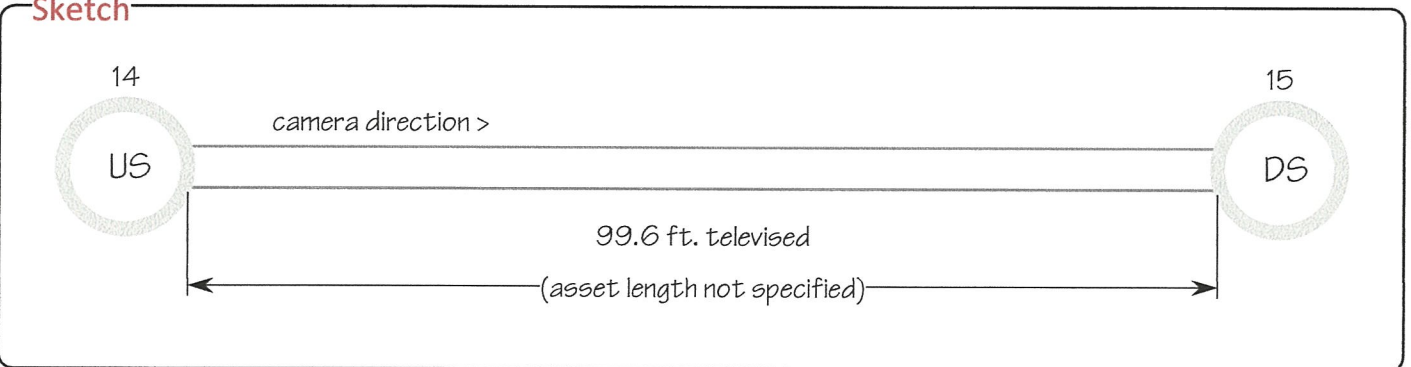
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

14

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

14



027.3 L 3

Lateral

flow >



099.6 MH

Manhole

15

15

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

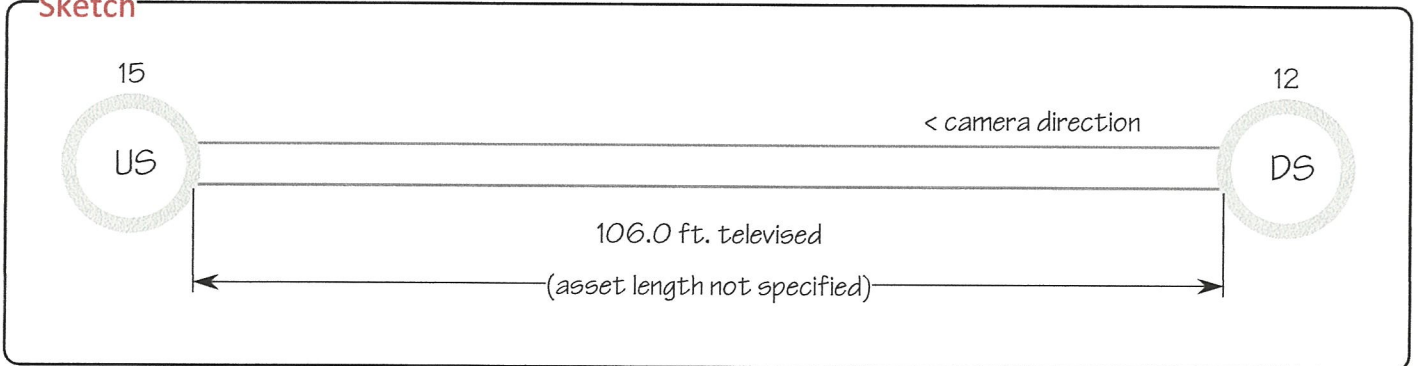
Purpose:

Pre-Cleaning:

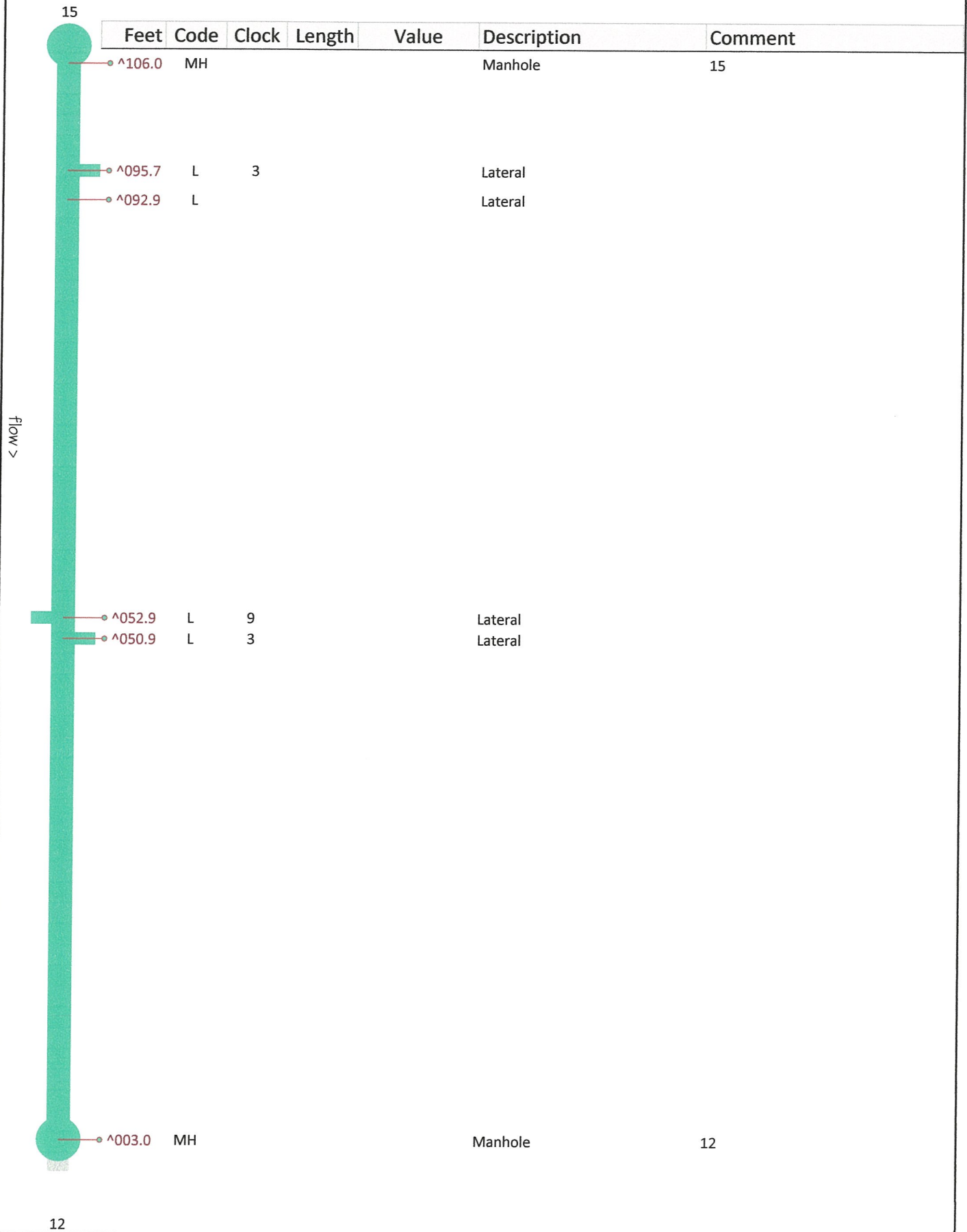
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

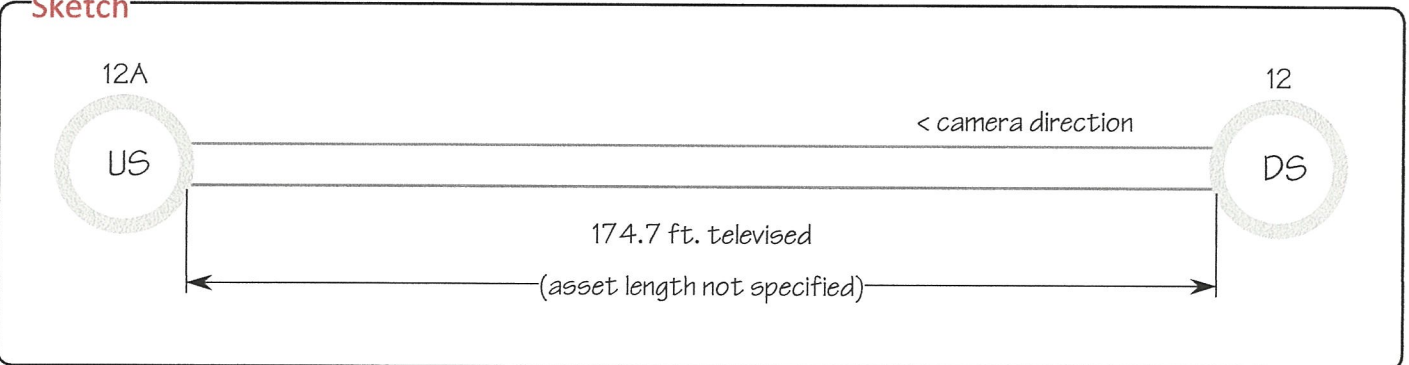
Purpose:

Pre-Cleaning:

Weather:

Location Details:

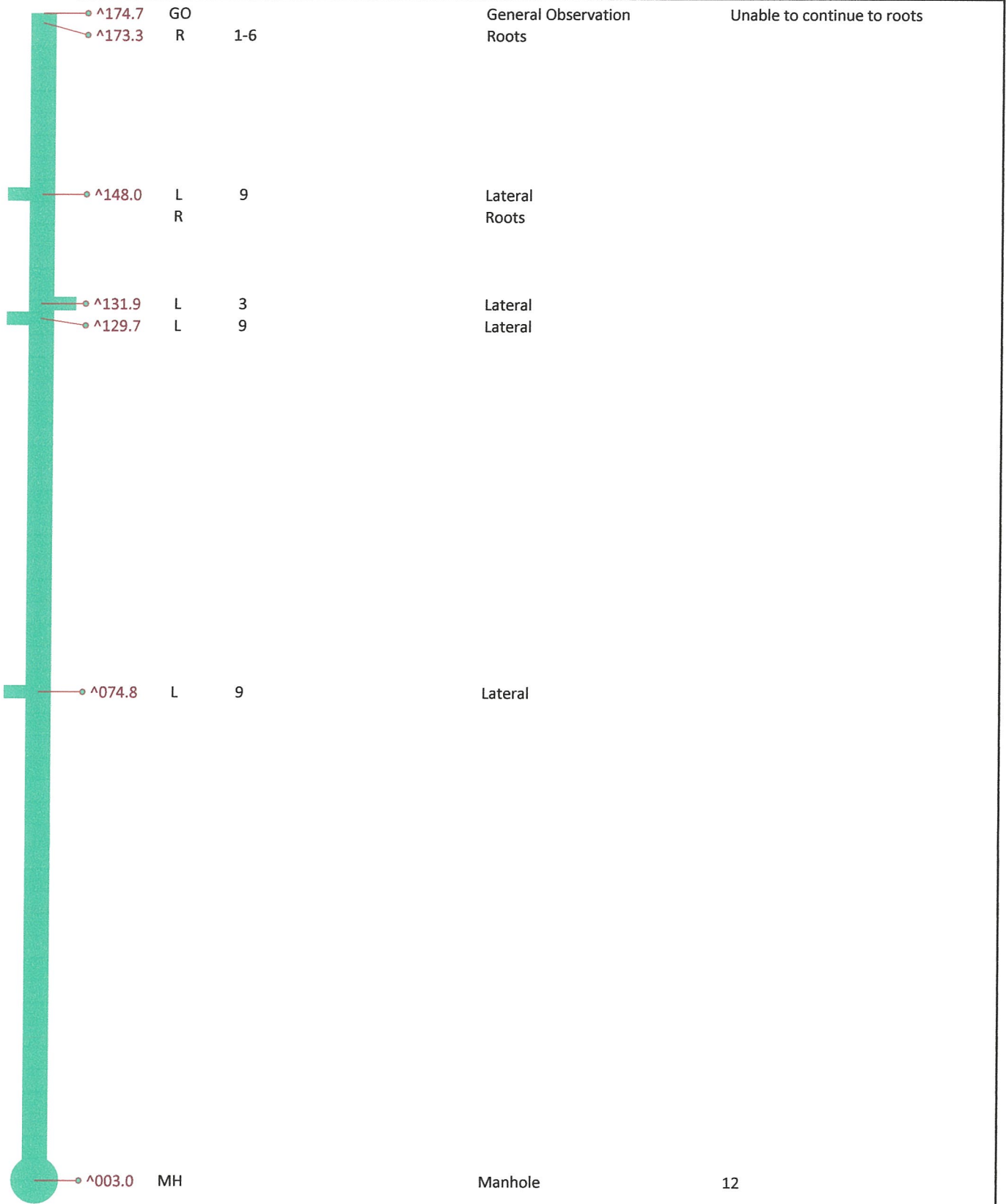
Sketch



Schematic Top View

12A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



12

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

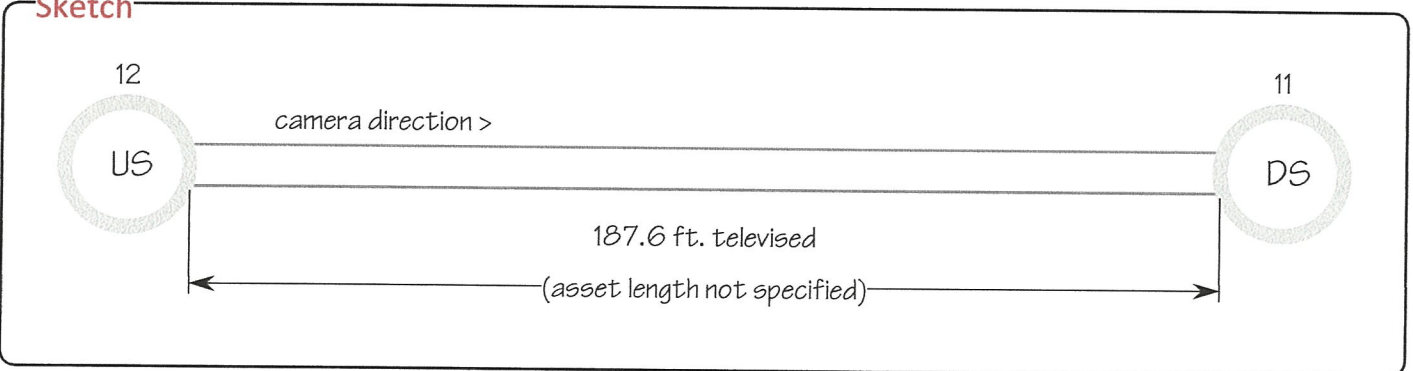
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

12

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

12



Flow >



073.2 L 3

Lateral



077.3 L 9

Lateral



168.1 L 3

Lateral



187.6 MH

Manhole

11

11

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
 Material:
 Street:
 City:
 System Owner:
 Sewer Use:
 Length:

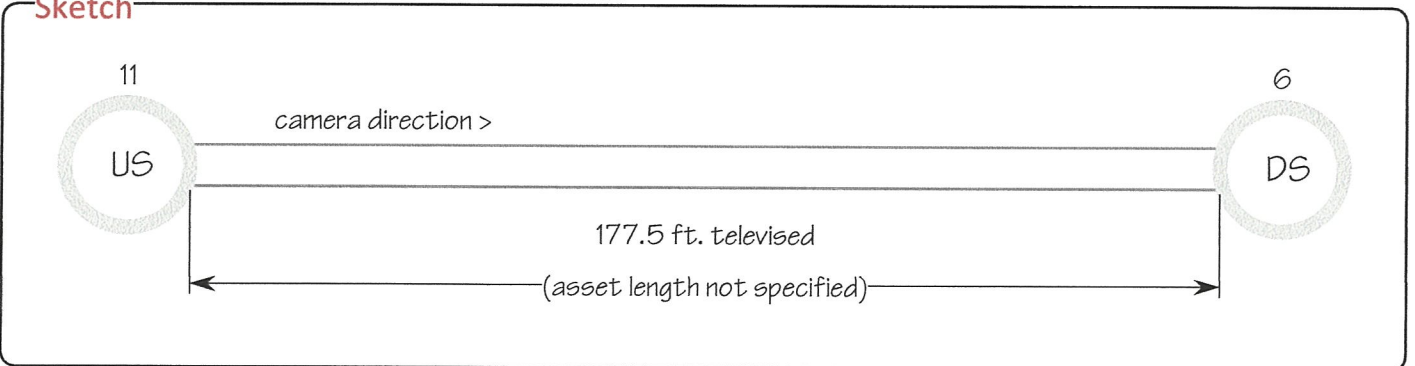
Project Information

Project:
 Job:
 Survey Customer:
 Comments:

Inspection Information

Date:
 Surveyed By:
 Camera Direction:
 Purpose:
 Pre-Cleaning:
 Weather:
 Location Details:

Sketch



Schematic Top View

11

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	11
040.5	L		12		Lateral	
073.4	L		3		Lateral	
	L		9		Lateral	
102.2	L		9		Lateral	
148.7	L		9		Lateral	
150.2	L		3		Lateral	
177.5	MH				Manhole	6

6

Pipeline Inspection Report

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

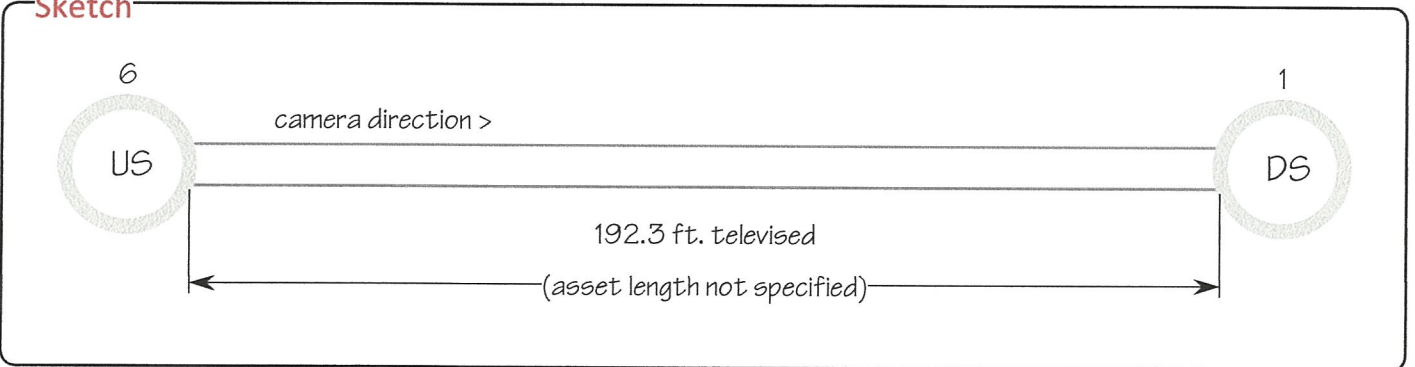
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

6

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

6

Flow >



092.7 L 9

Lateral

093.6 L 3

Lateral

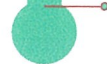


170.3 L 9

Lateral

171.5 L 3

Lateral



192.3 MH

Manhole

1

1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

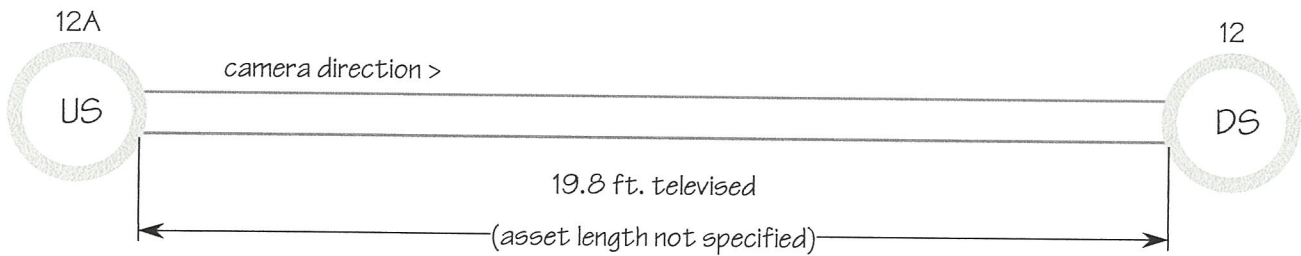
Purpose:

Pre-Cleaning:

Weather:

Location Details:

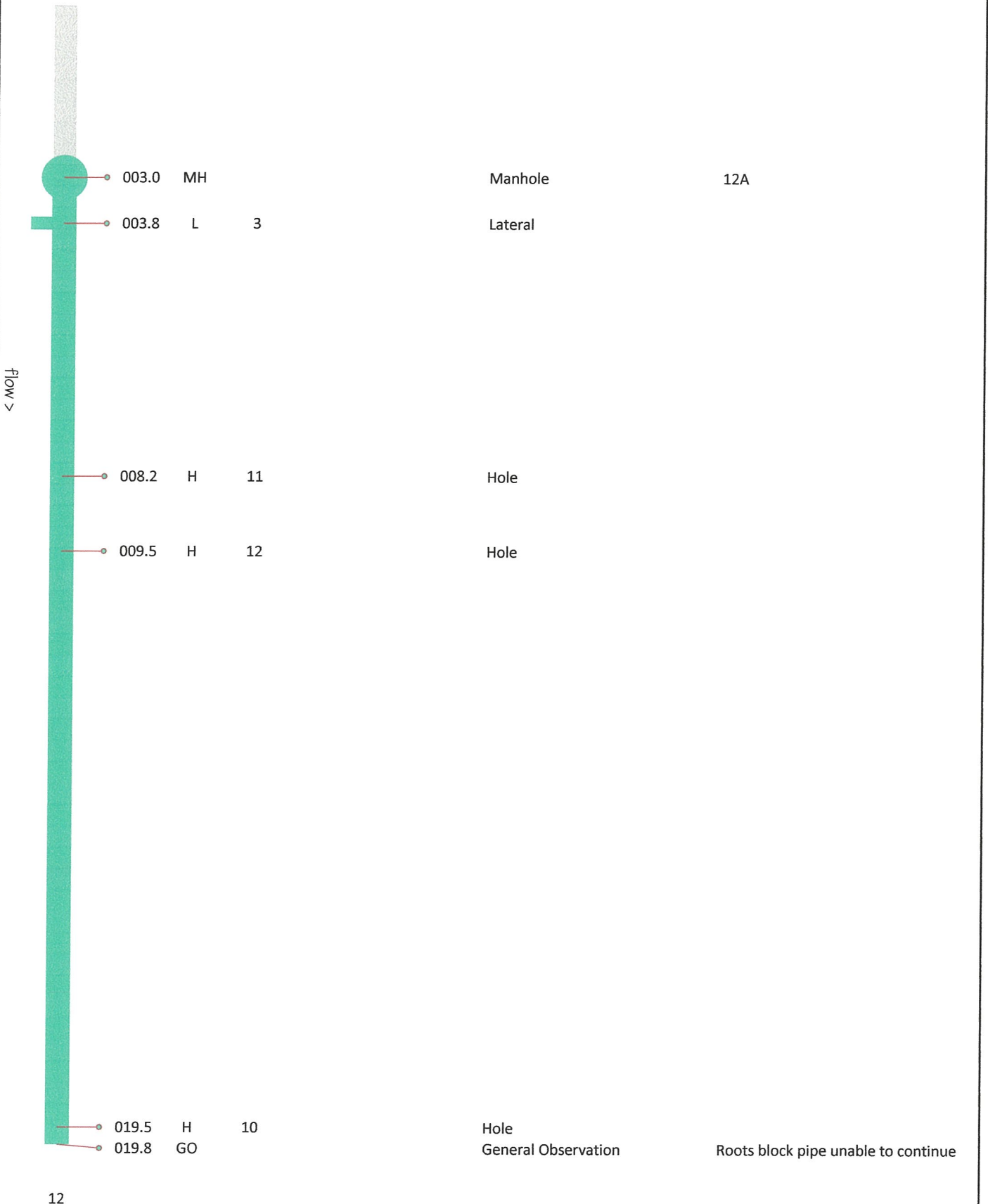
Sketch



Schematic Top View

12A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH Manhole 12A

003.8 L 3 Lateral

008.2 H 11 Hole

009.5 H 12 Hole

019.5 H 10 Hole
 019.8 GO General Observation Roots block pipe unable to continue

12

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

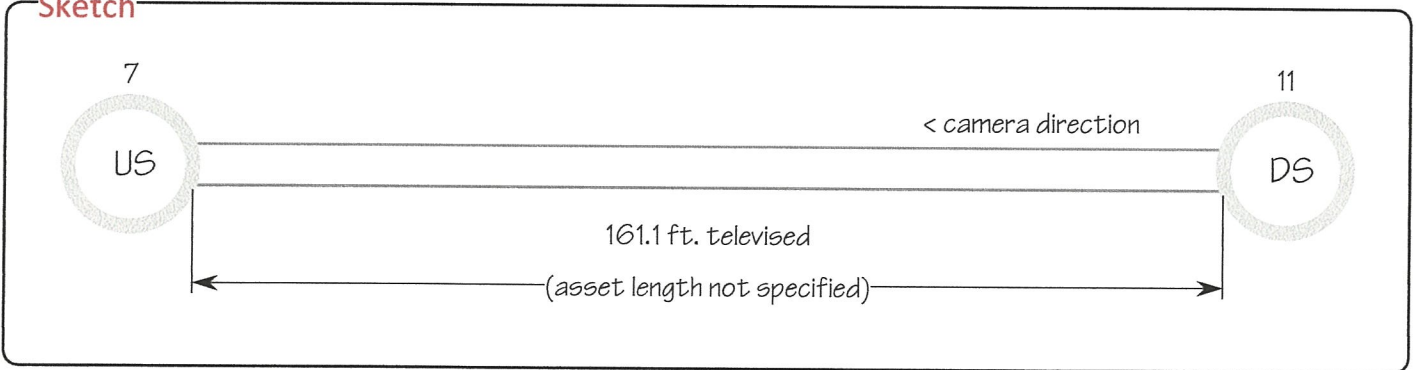
Purpose:

Pre-Cleaning:

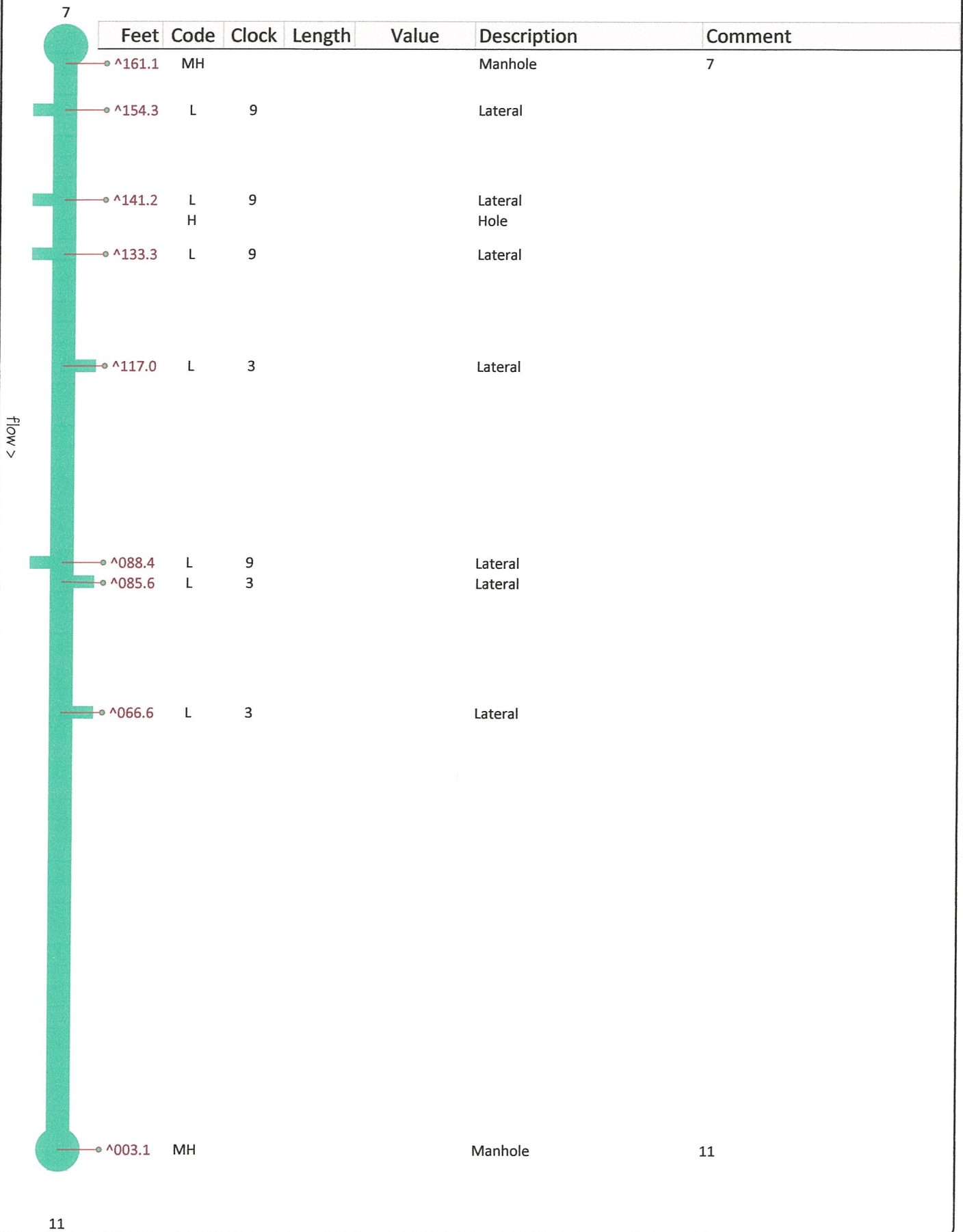
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

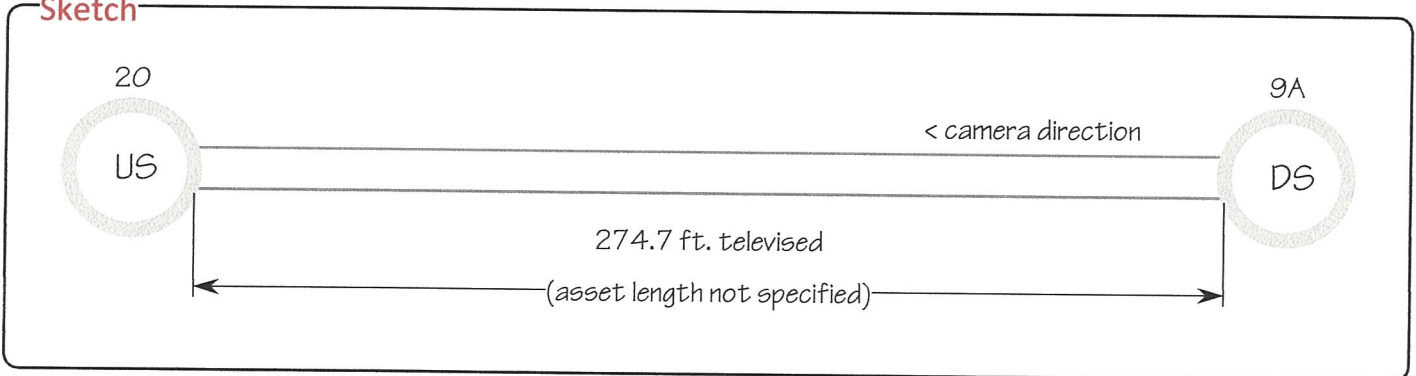
Project Information

Project:
Job:
Survey Customer:
Comments:

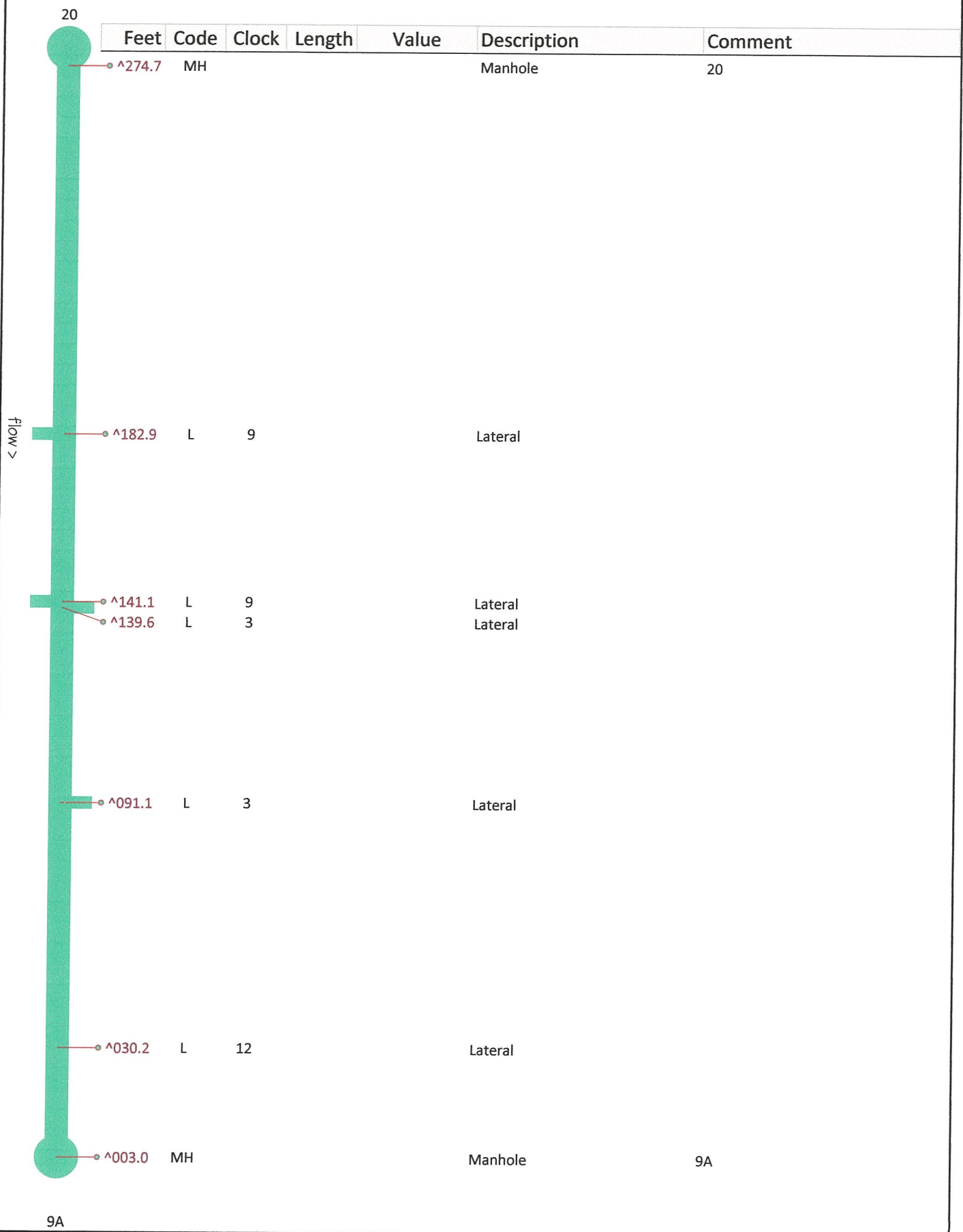
Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

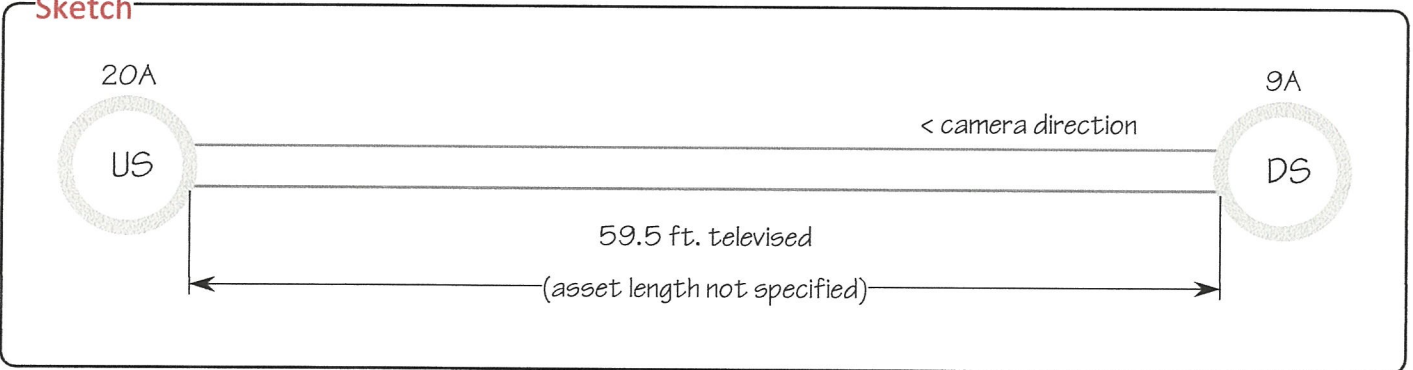
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

20A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

→ ^059.5 MH Manhole 20A

Flow >

→ ^003.0 MH Manhole 9A

9A

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

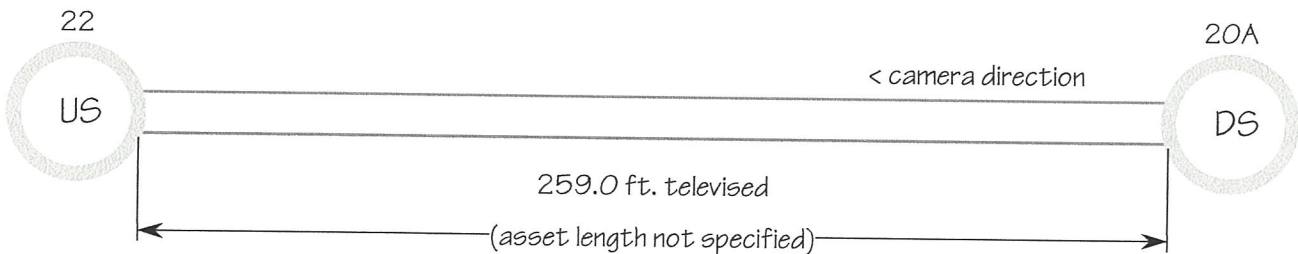
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

22

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



259.0	GO				General Observation Lateral	CLEANOUT
-------	----	--	--	--	-----------------------------	----------

184.0	L		9		Lateral	
-------	---	--	---	--	---------	--

110.8	L		9		Lateral	
-------	---	--	---	--	---------	--

008.8	L		9		Lateral	
003.0	MH				Manhole	20A

20A

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

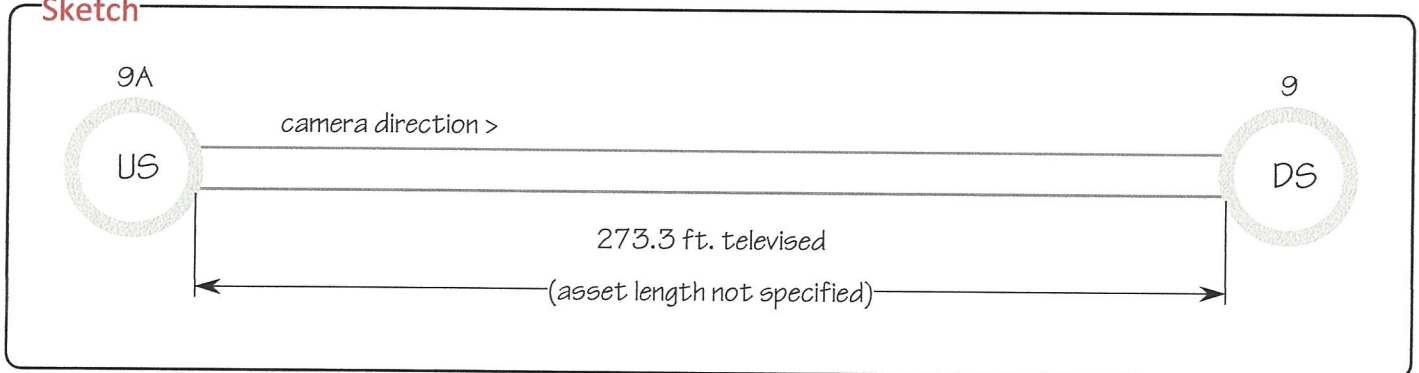
Purpose:

Pre-Cleaning:

Weather:

Location Details:

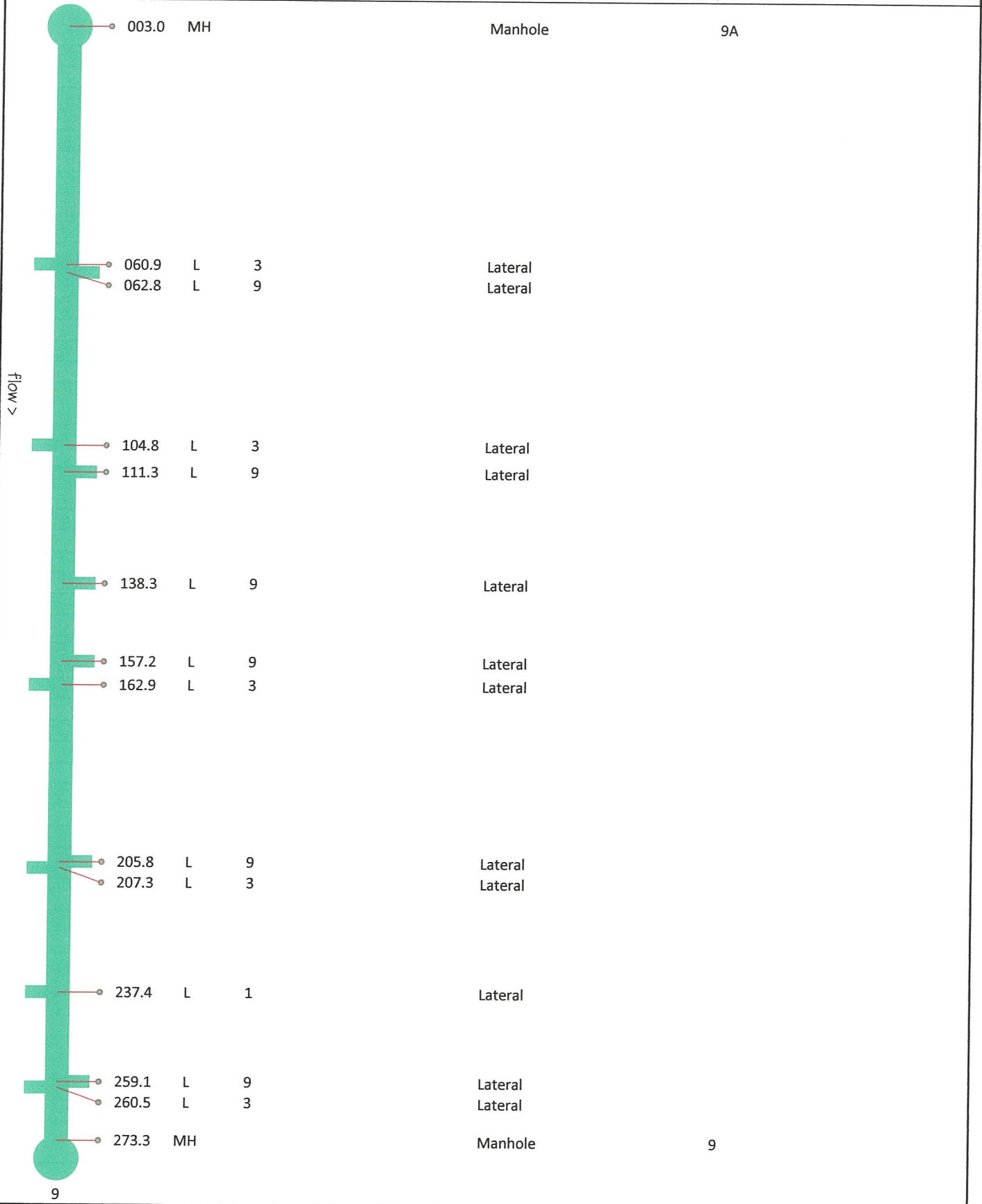
Sketch



Schematic Top View

9A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

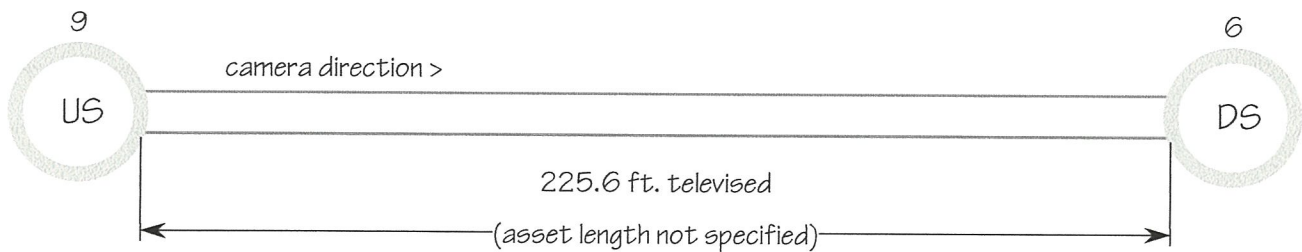
Purpose:

Pre-Cleaning:

Weather:

Location Details:

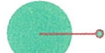
Sketch



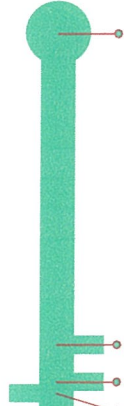
Schematic Top View

9

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	9
-------	----	--	--	--	---------	---

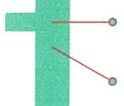


046.4	L		10		Lateral	
051.6	L		9		Lateral	
053.2	L		3		Lateral	

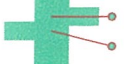
flow >



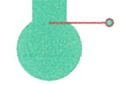
081.1	L		9		Lateral	
082.4	L		3		Lateral	



143.3	GO				General Observation	PVC
	L		3		Lateral	
146.8	GO				General Observation	VC



167.6	L		9		Lateral	
169.6	L		3		Lateral	



225.6	MH				Manhole	6
-------	----	--	--	--	---------	---

6

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

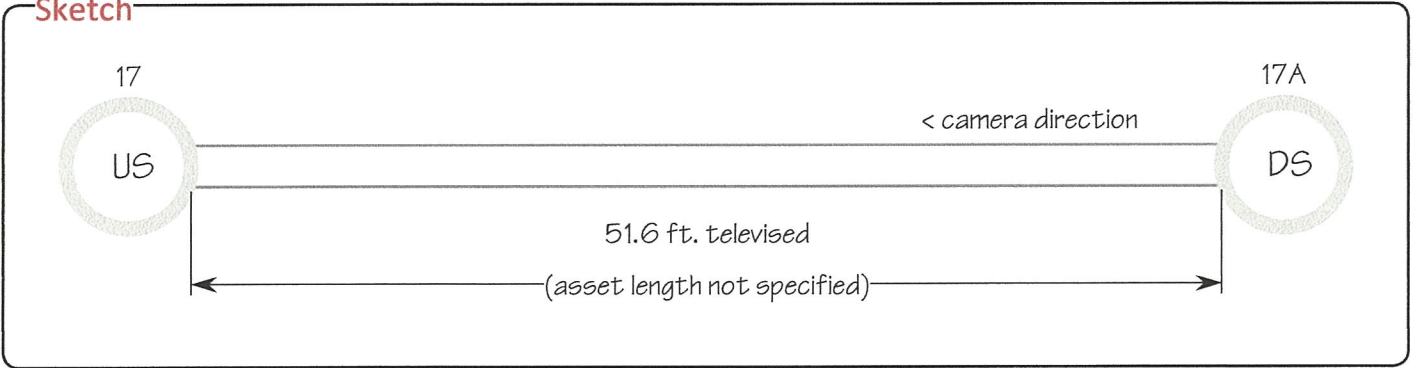
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

17

Feet	Code	Clock	Length	Value	Description	Comment
^051.6	MH				Manhole	17

Flow >



^003.0 MH

Manhole

17A

17A

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

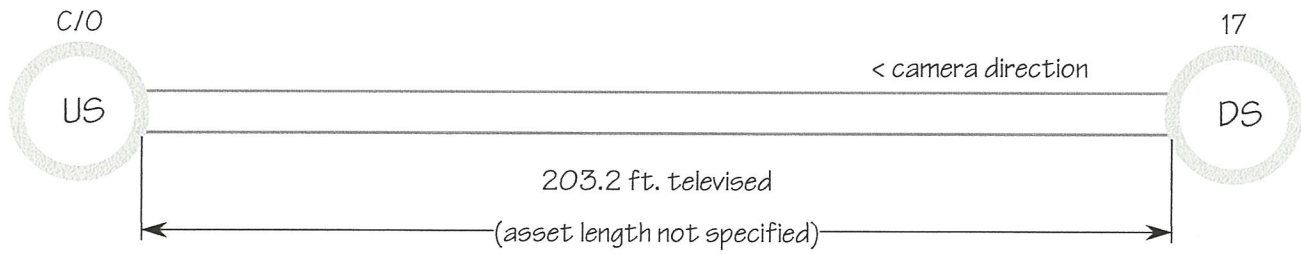
Purpose:

Pre-Cleaning:

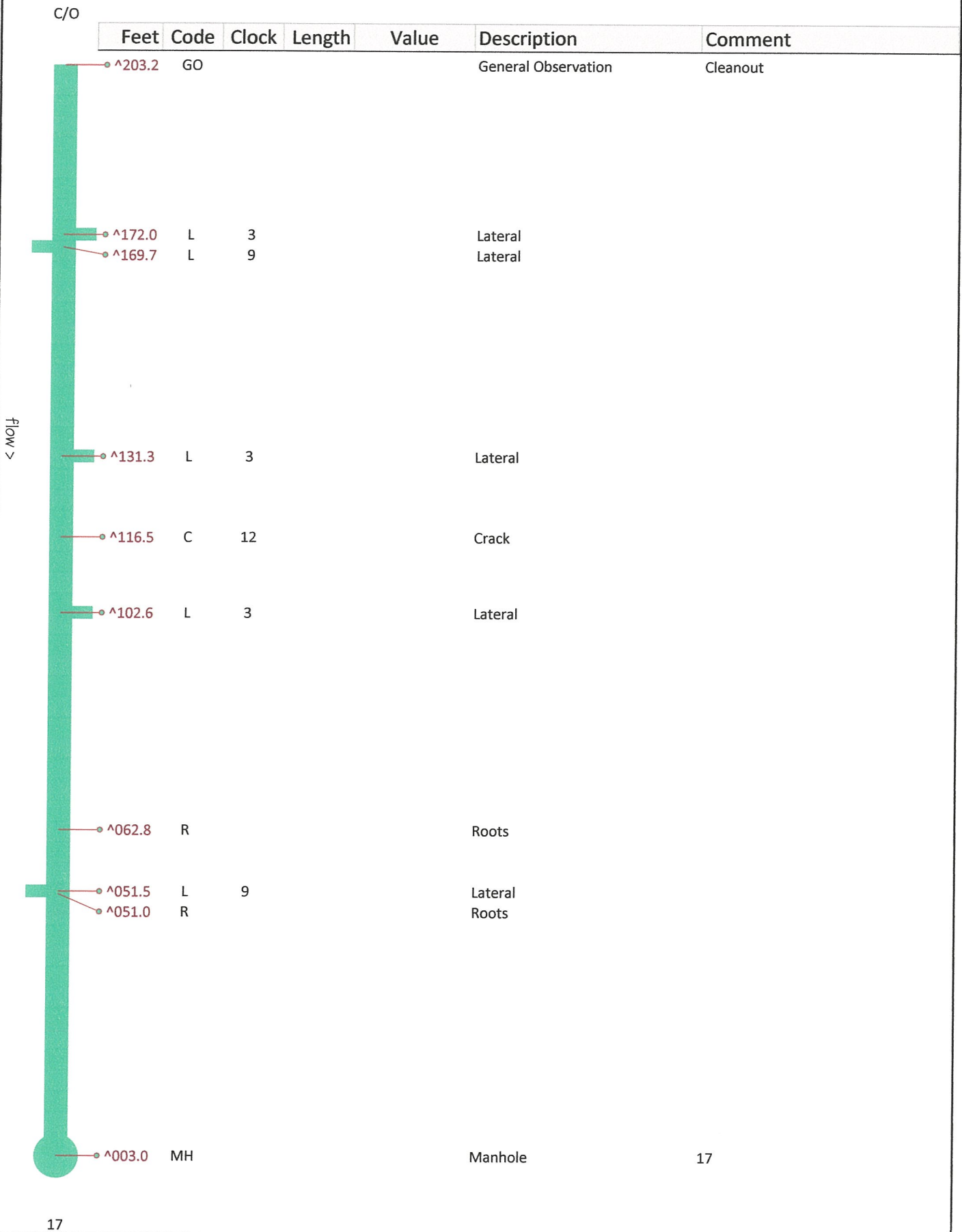
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

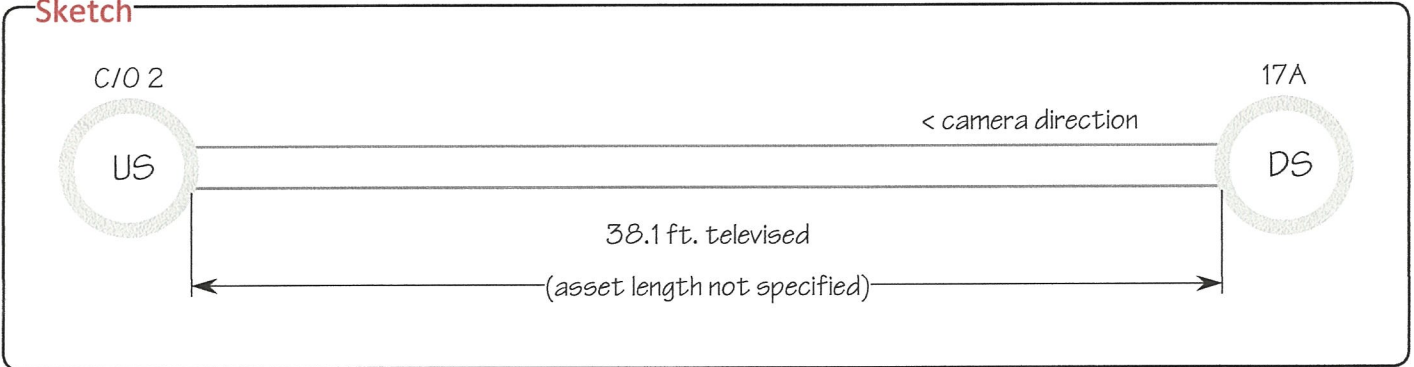
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

C/O 2

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



17A

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

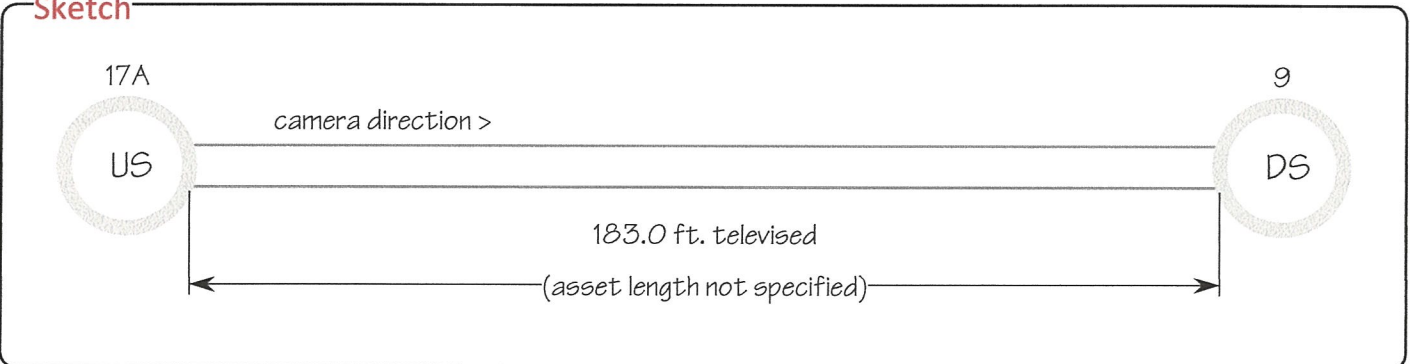
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

17A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	17A
-------	----	--	--	--	---------	-----



flow >

054.9	L	12			Lateral	
-------	---	----	--	--	---------	--



088.0	L	9			Lateral	
090.4	L	3			Lateral	

130.1	L	12			Lateral	
-------	---	----	--	--	---------	--



183.0	MH				Manhole	9
-------	----	--	--	--	---------	---

9

Exhibit B – Day 3

June Lake 11-14-19 Thursday

Minaret Rd.	MH 6-8	8"	upstream	Line plugged @ 61.9 ft
Minaret Rd.	MH 8-10	8"	Downstream	Drop in line @ 210.2 ft.
Rainbow Dr.	MH 1-C/O	6"	upstream	Camera underwater from 6 ft. to 80 ft. / 1/19
Aspen Rd.	MH 31-33	12"	Downstream	60.9 ft
Aspen Rd.	MH 32-31	12"	Downstream	149.8 ft
Aspen Rd.	MH 33-34	12"	Downstream	66.8 ft
Willow Ave	MH 34-35	12"	Downstream	337.8 ft.
Aspen Rd.	MH 36-31	8"	Downstream	186.0 ft.
Aspen Rd.	MH 36-37	8"	upstream	111.3 ft.
Aspen Rd.	MH 37-38	8"	upstream	187.8 ft
Pine Crest Ave.	MH 39-40	8"	upstream	103.9 ft. / offset unable to continue
Piute Dr.	MH 39-41	8"	Downstream	96.2 ft.
Piute Dr.	MH 41-42	8"	Downstream	231.8 ft.
Piute Dr.	MH 41-C/O	6"	Upstream	47.6 ft
Bay St.	MH 42-C/O	6"	upstream	Unable to continue offset 21.2 ft
Bay St.	MH 42-43	8"	Downstream	200.8 312.7 ft
Bay St.	MH 43-44	8"	Upstream	191.1 ft
Bay St.	MH 44-45	8"	Downstream	19.9 ft Debris block line
Shadow Pines Rd.	MH 46-47	8"	Downstream	62 ft.
Shadow Pines Rd.	MH 46-48	8"	Downstream	200.4 ft.
Shadow Pines Rd.	MH 49-48	8"	Downstream	35 ft.
Shadow pines Rd	MH 50-49	8"	Downstream Upstream	97.7 ft
Shadow pines Rd	MH 50-C/O	6"	Upstream	128.7 ft.
Shadow pines Rd.	MH 50-51	6"	Upstream	169.1 ft

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

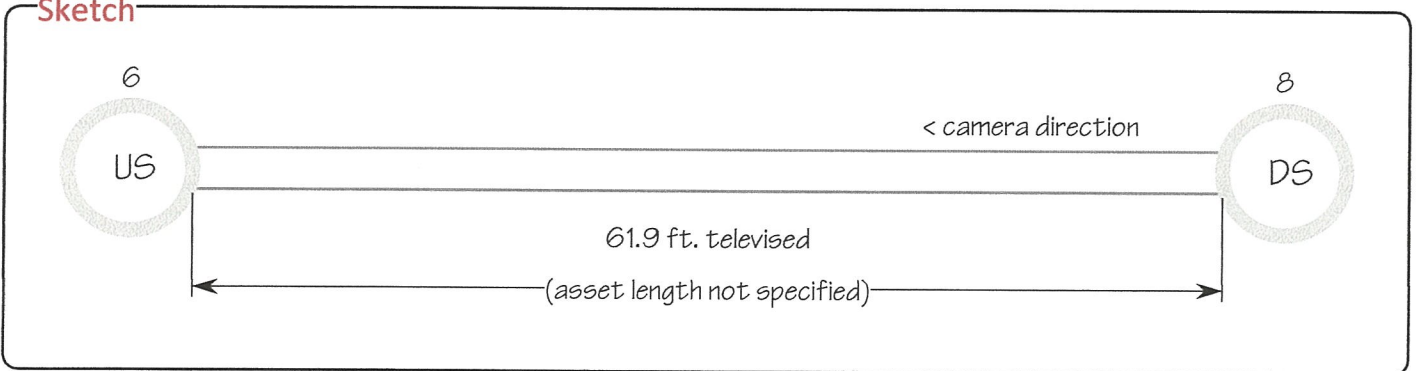
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch

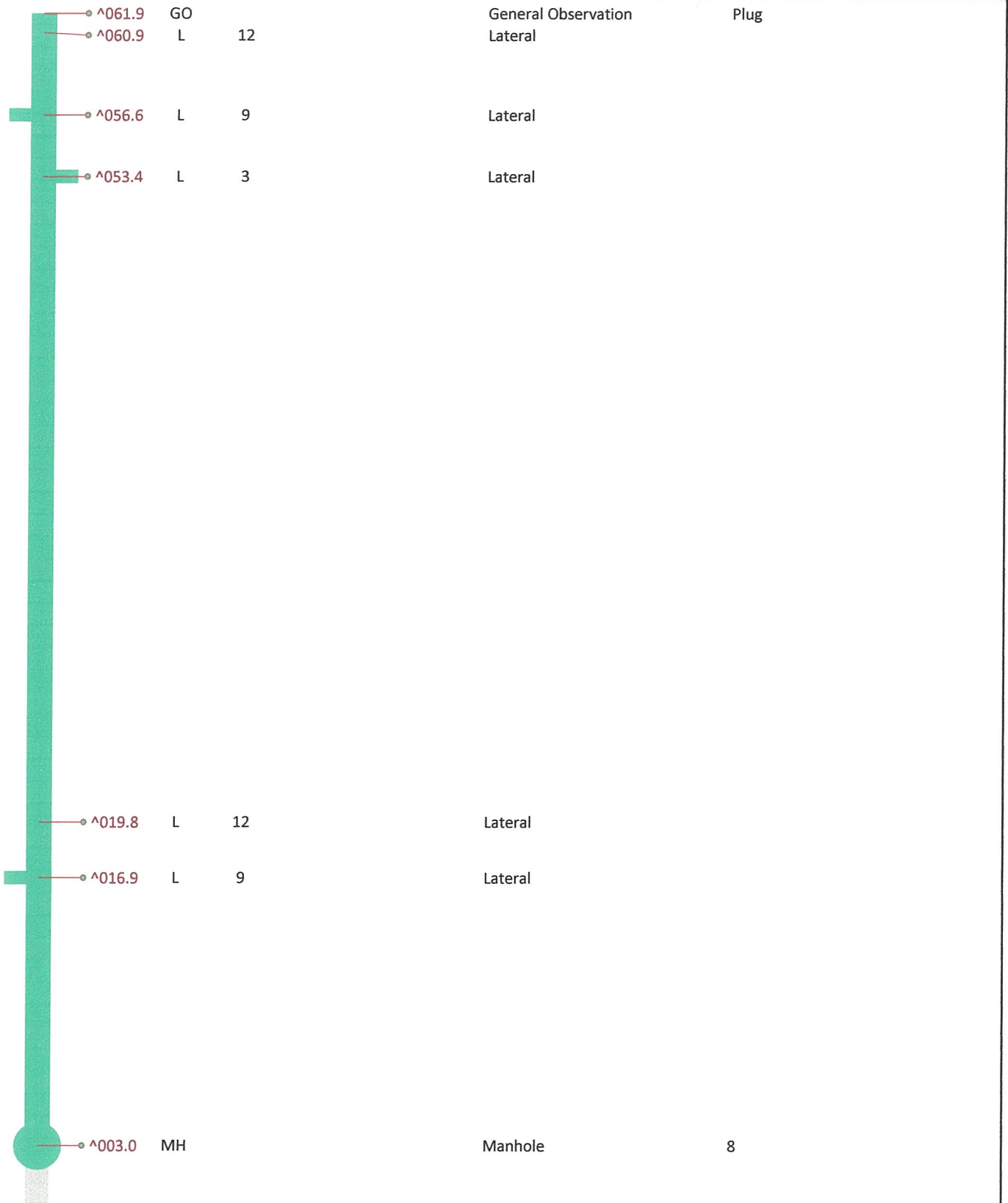


1011 mile

Schematic Top View

6

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



601.9	GO				General Observation	Plug
609.9	L	12			Lateral	
556.6	L	9			Lateral	
553.4	L	3			Lateral	
19.8	L	12			Lateral	
16.9	L	9			Lateral	
003.0	MH				Manhole	8

8

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
 Material:
 Street:
 City:
 System Owner:
 Sewer Use:
 Length:

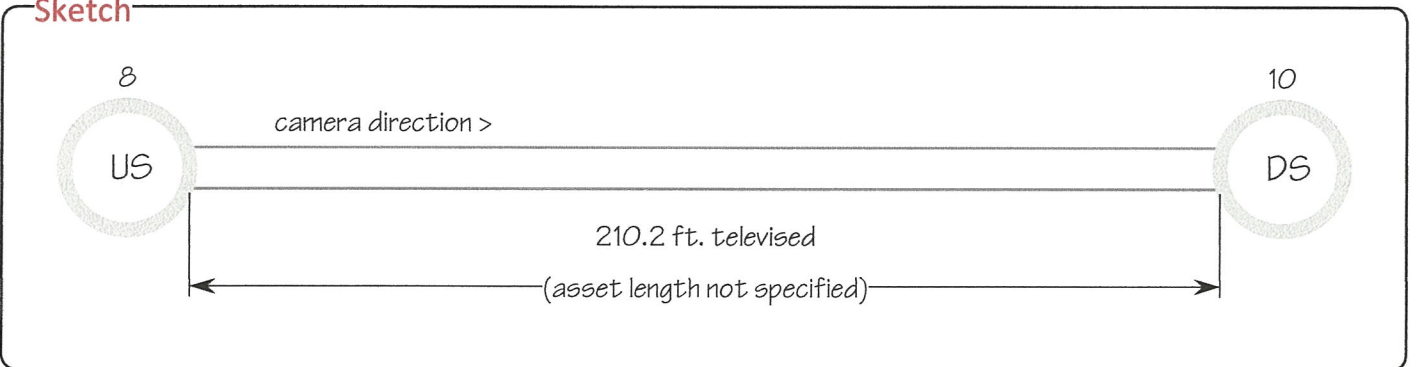
Project Information

Project:
 Job:
 Survey Customer:
 Comments:

Inspection Information

Date:
 Surveyed By:
 Camera Direction:
 Purpose:
 Pre-Cleaning:
 Weather:
 Location Details:

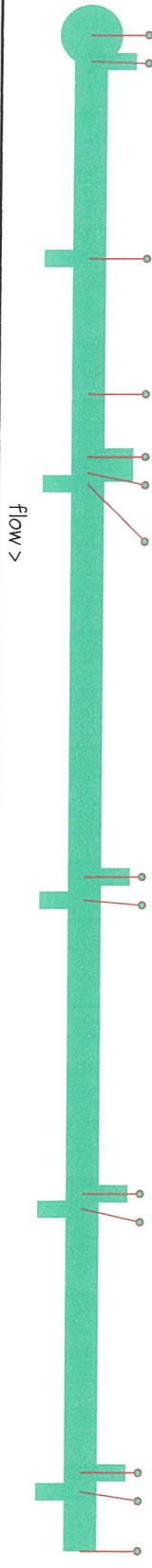
Sketch



Schematic Top View

8

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	8
006.6	L	9			Lateral	
033.6	L	3			Lateral	
052.1	L	12			Lateral	
060.7	L	10			Lateral	
062.9	L	9			Lateral	
	GO				General Observation	Clogged lateral
064.4	L	3			Lateral	
118.1	L	9			Lateral	
121.3	L	3			Lateral	
161.4	L	9			Lateral	
163.5	L	3			Lateral	
199.5	L	9			Lateral	
202.1	L	3			Lateral	
210.2	GO				General Observation	Drop in line

10

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

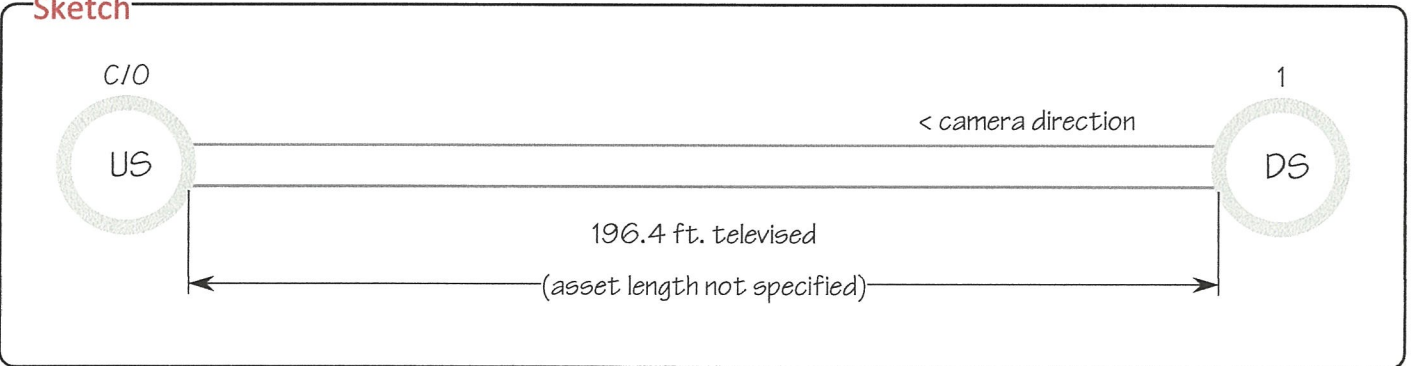
Purpose:

Pre-Cleaning:

Weather:

Location Details:

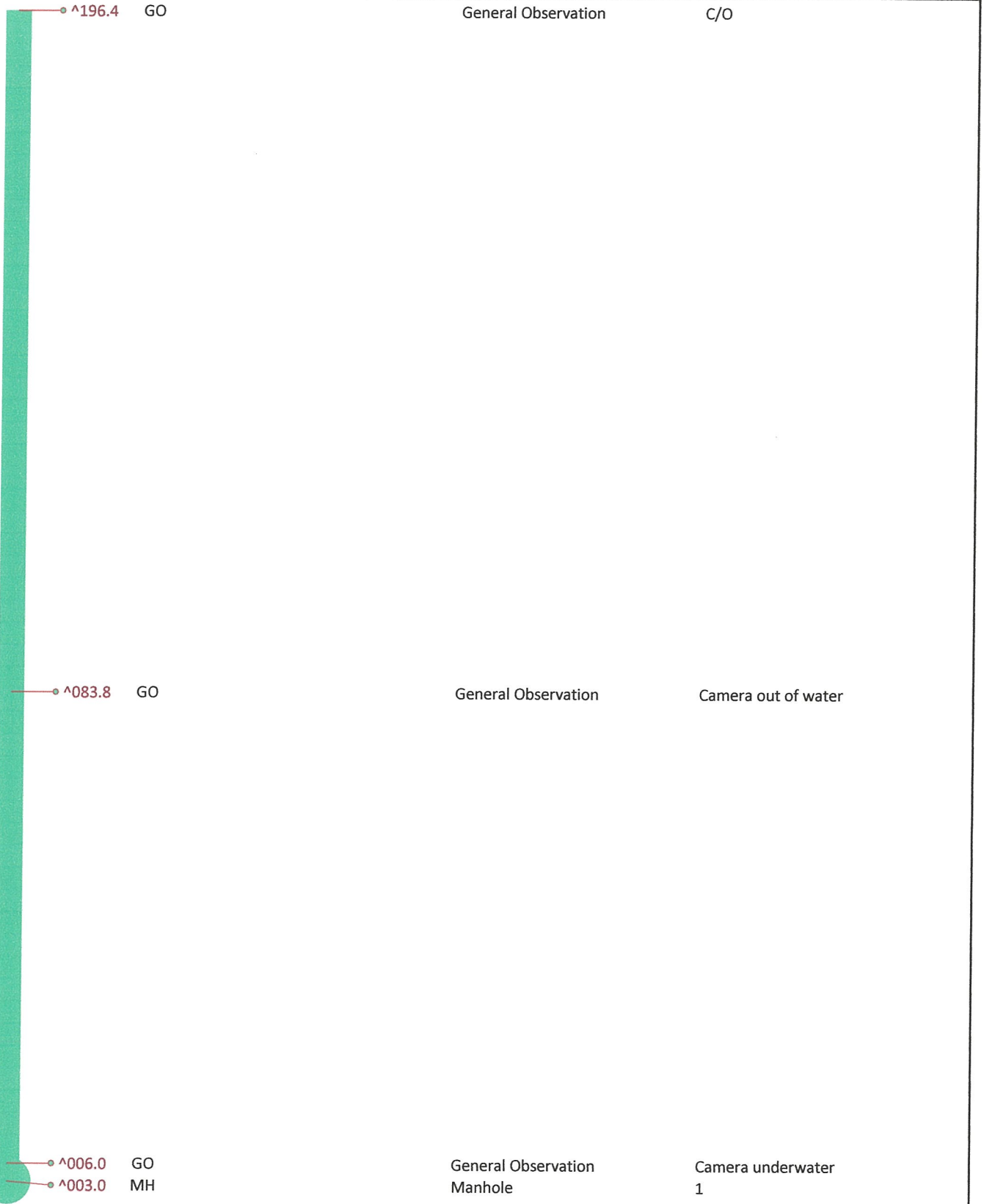
Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

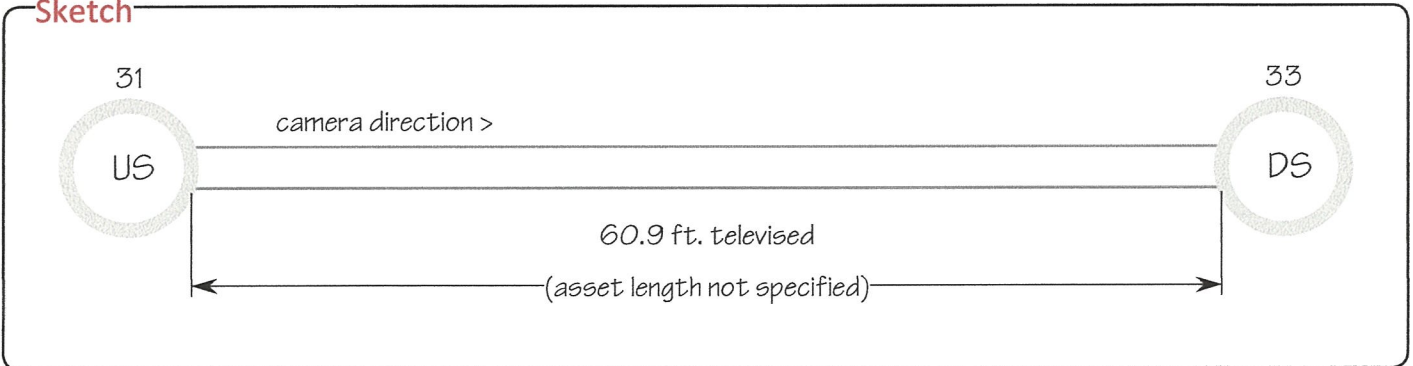
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

31

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

31

Flow >



060.9 MH

Manhole

33

33

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

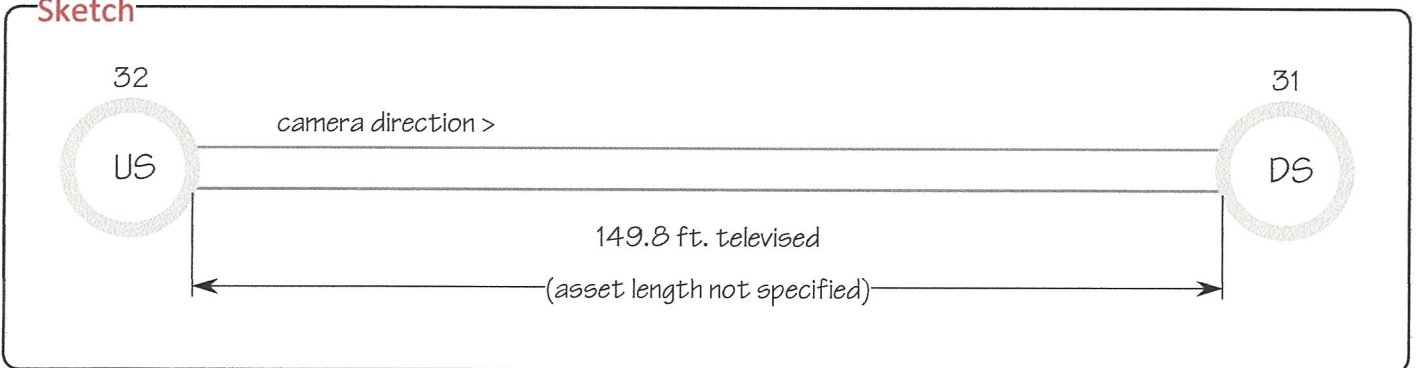
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

32

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

32



Flow >



118.8 L 3

Lateral



149.8 MH

Manhole

31

31

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

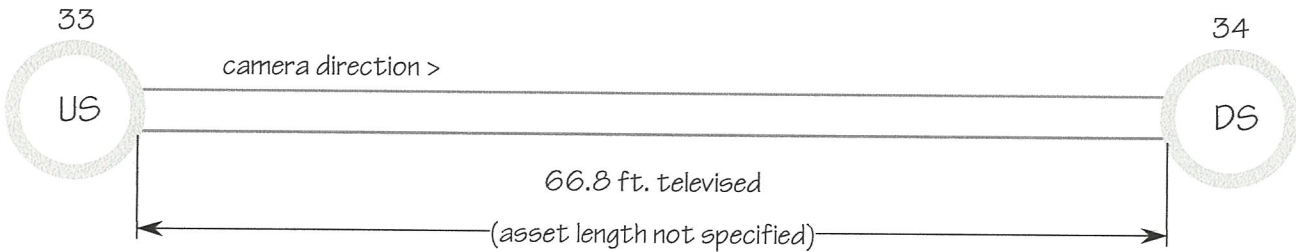
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

33

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

33

flow >

038.5 L 12

Lateral



066.8 MH

Manhole

34

34

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

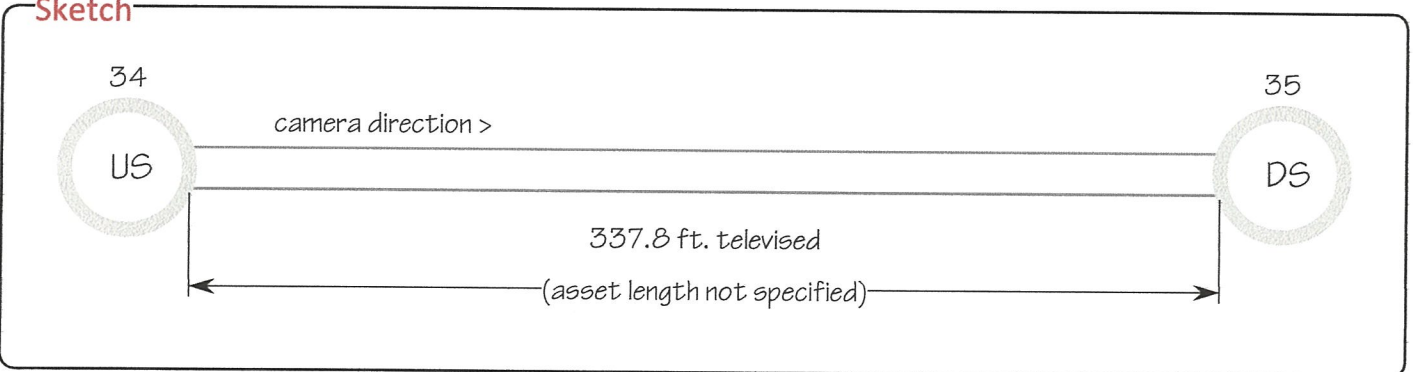
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

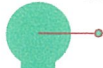
Sketch



Schematic Top View

34

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



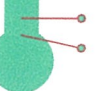
003.0 MH

Manhole

34



Flow >



334.3 R
337.8 MH

Roots
Manhole

35

35

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

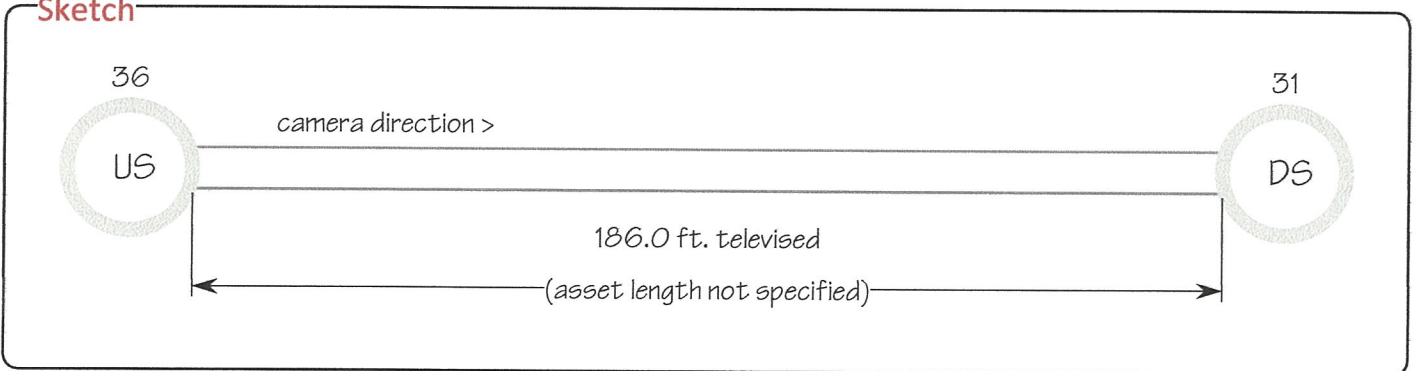
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

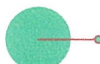
Sketch



Schematic Top View

36

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

36

flow >



072.3 L 3

Lateral



072.7 L 9

Lateral



100.8 L 3

Lateral



163.7 L 3

Lateral



186.0 MH

Manhole

31

31

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

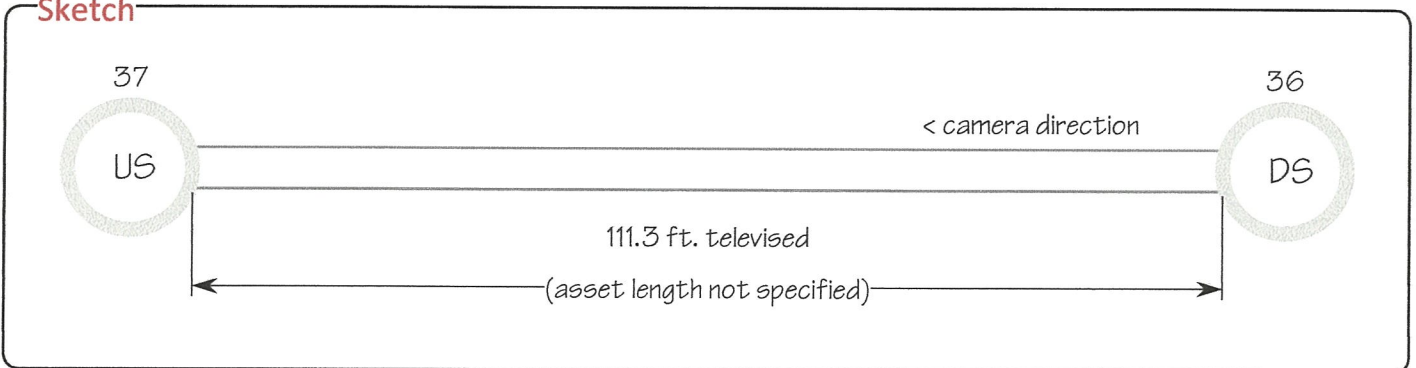
Project Information

Project:
Job:
Survey Customer:
Comments:

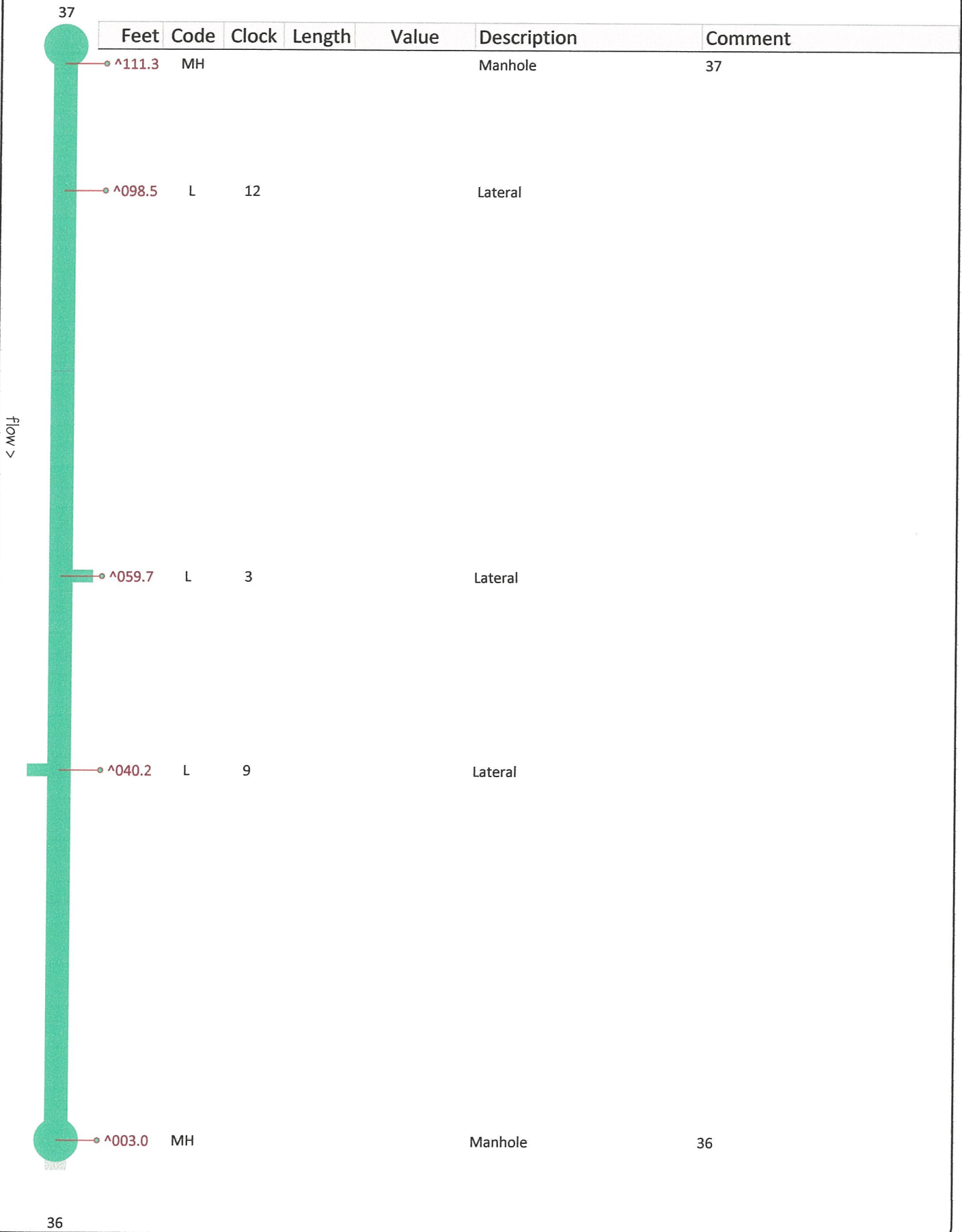
Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View



Feet	Code	Clock	Length	Value	Description	Comment
^111.3	MH				Manhole	37
^098.5	L		12		Lateral	
^059.7	L		3		Lateral	
^040.2	L		9		Lateral	
^003.0	MH				Manhole	36

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

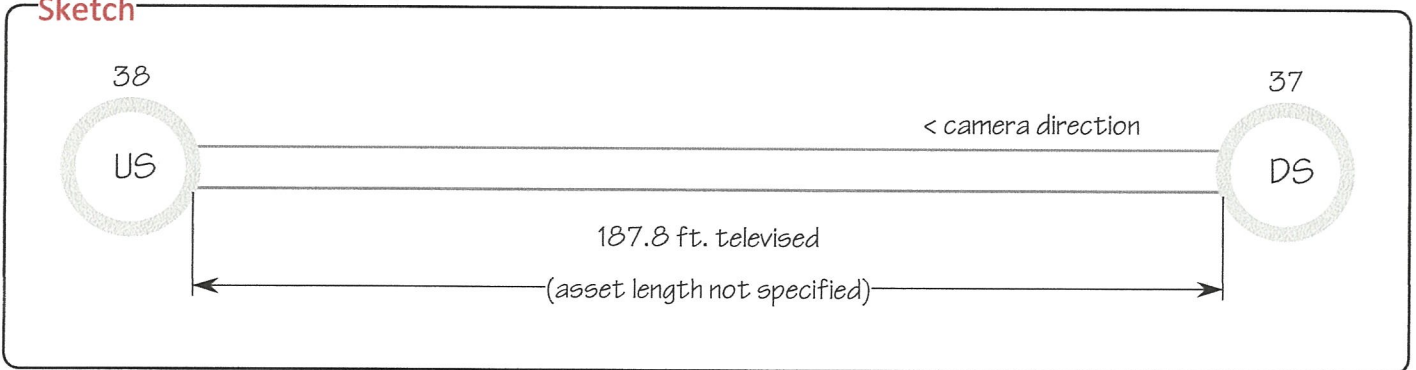
Purpose:

Pre-Cleaning:

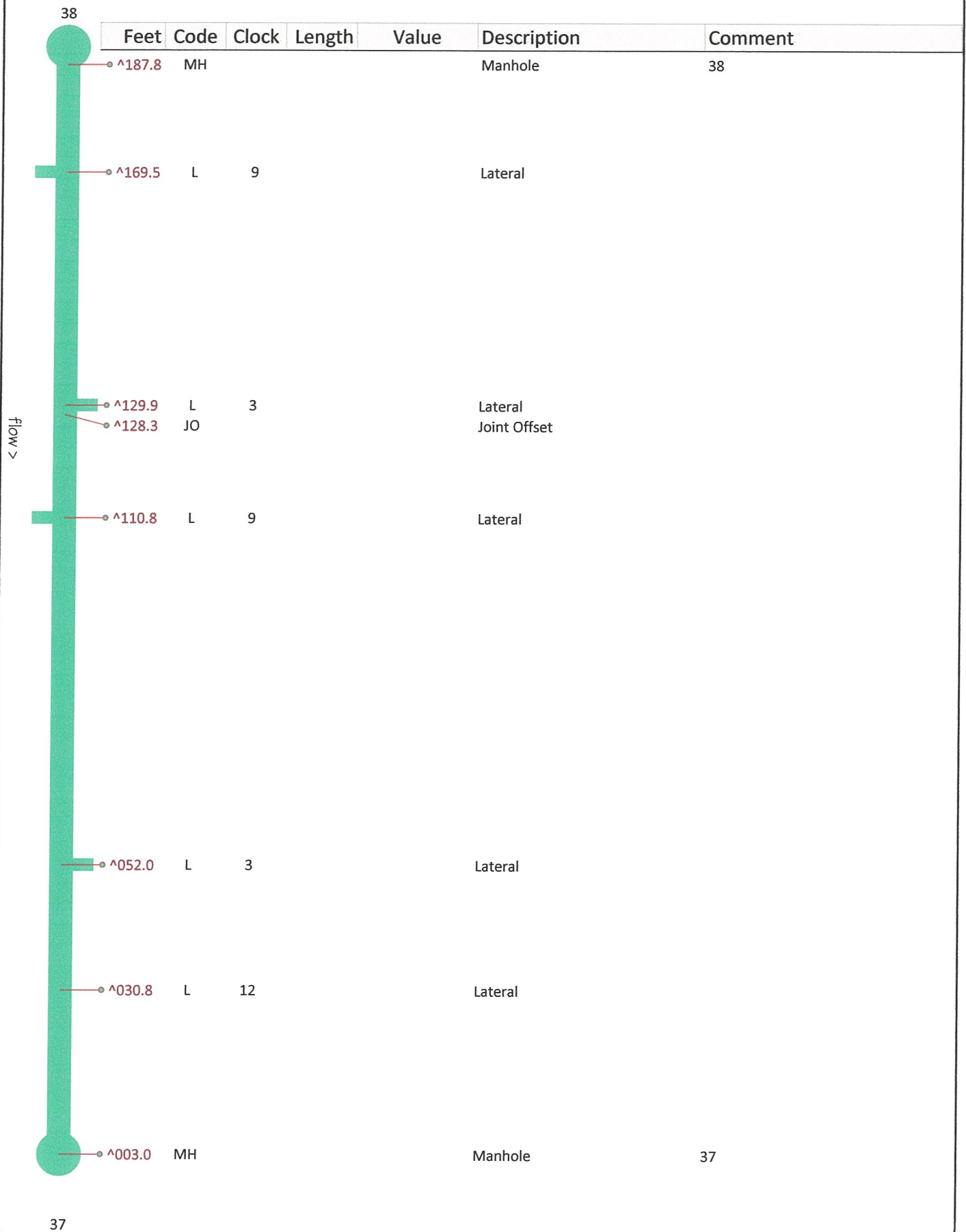
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

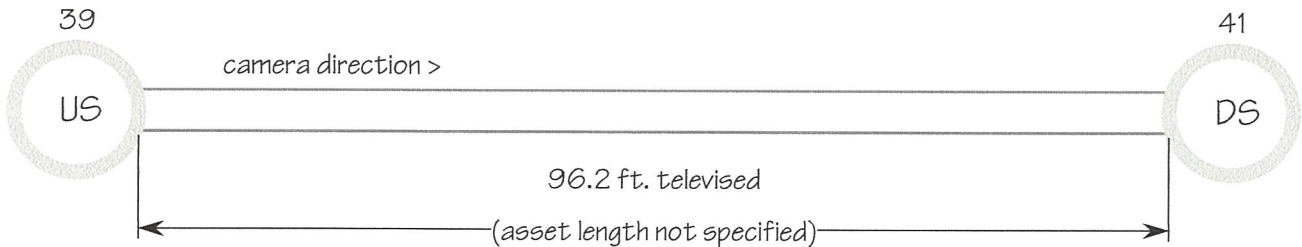
Purpose:

Pre-Cleaning:

Weather:

Location Details:

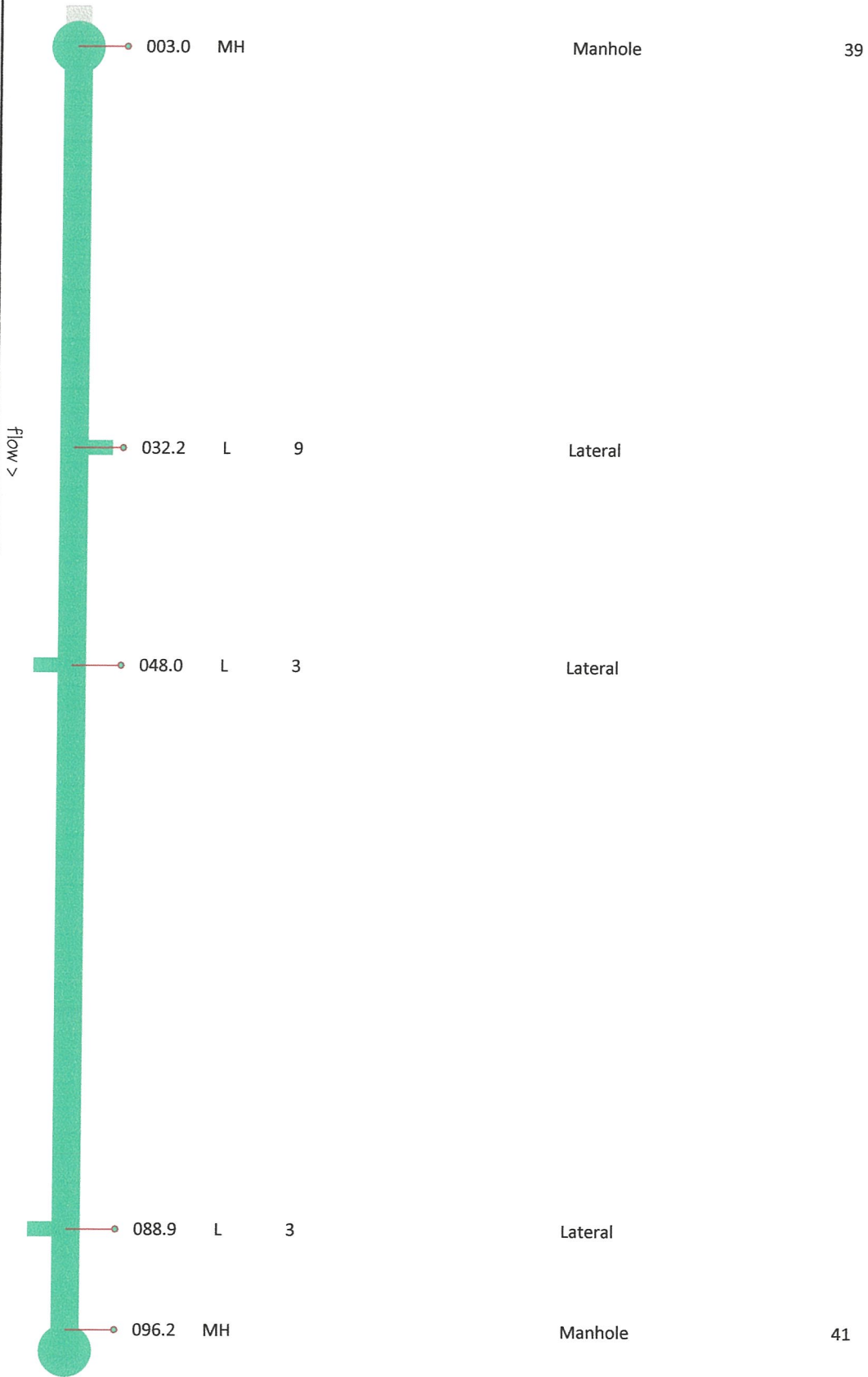
Sketch



Schematic Top View

39

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



41

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

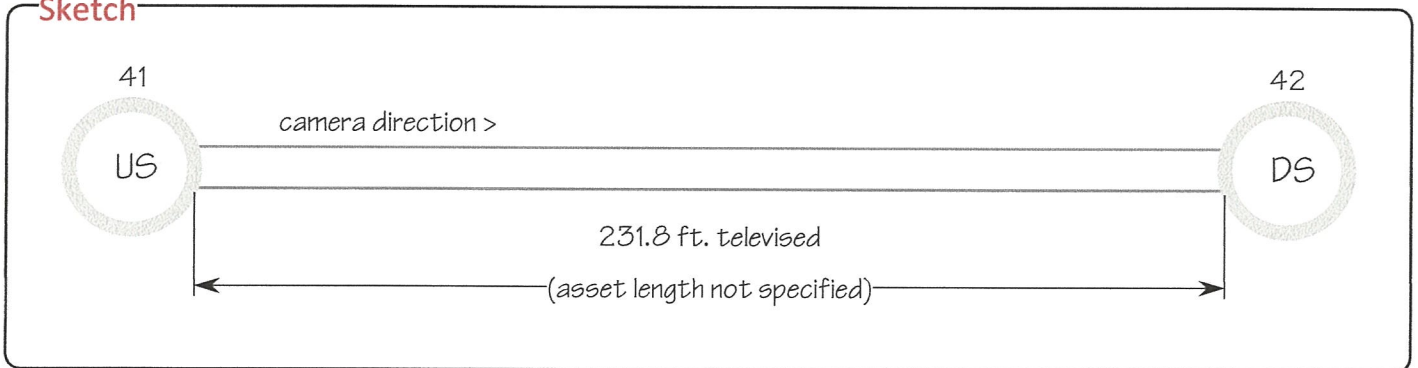
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

41

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	41
-------	----	--	--	--	---------	----



Flow >



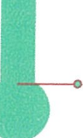
091.1	L	9			Lateral	
093.4	L	3			Lateral	



159.5	L	9			Lateral	
162.2	L	3			Lateral	



213.6	L	9			Lateral	
215.4	L	3			Lateral	



42

231.8	MH				Manhole	42
-------	----	--	--	--	---------	----

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

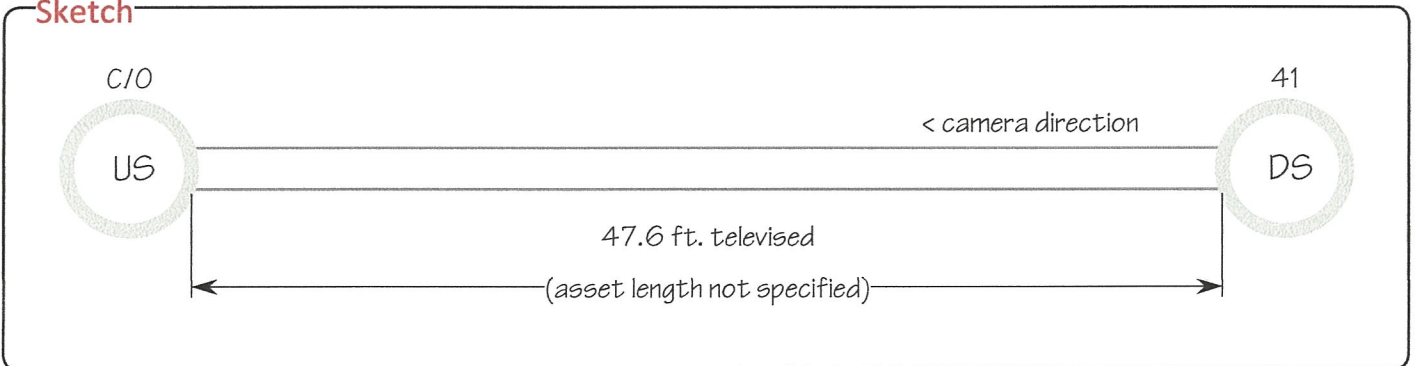
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

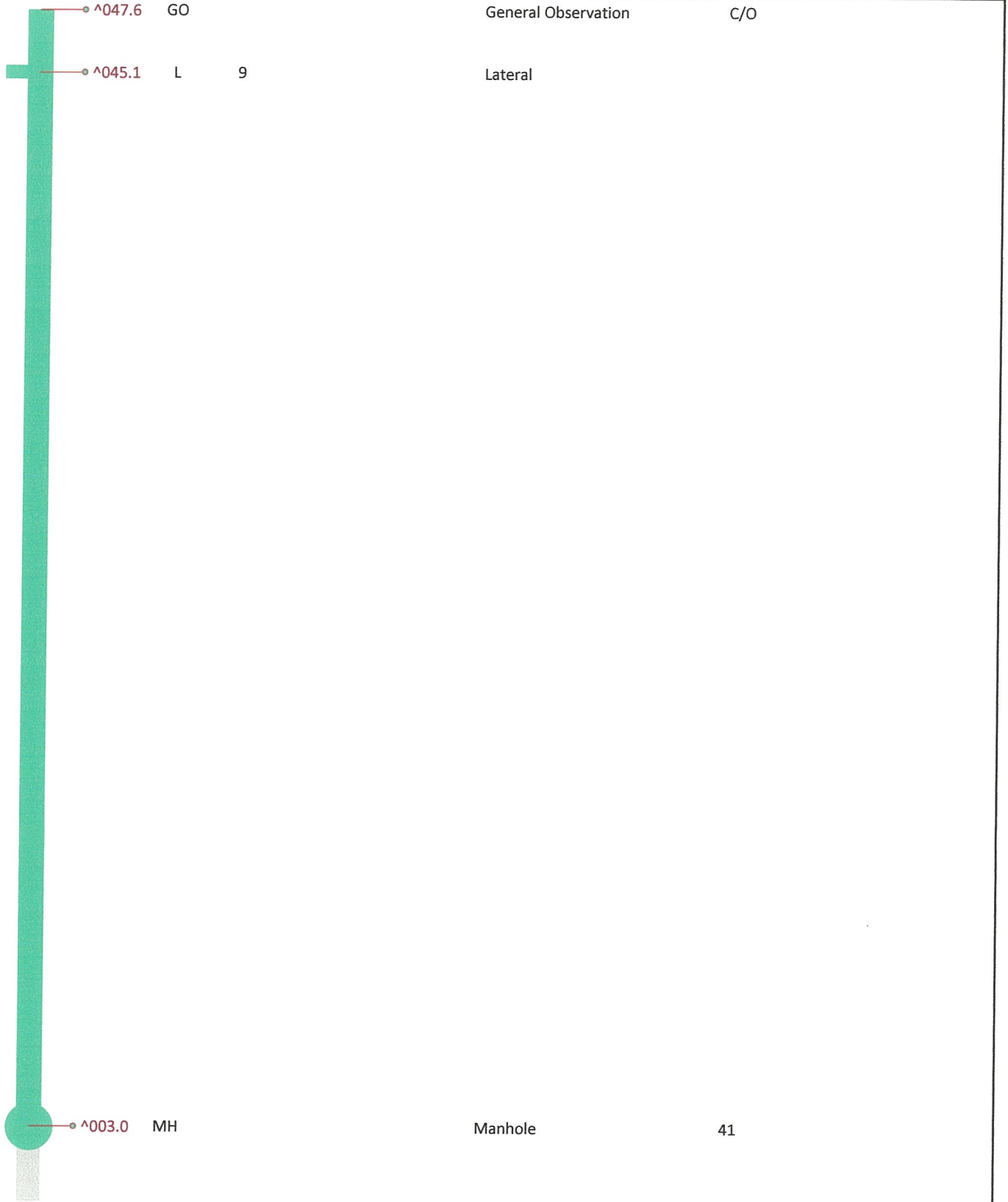
Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



flow >

41

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

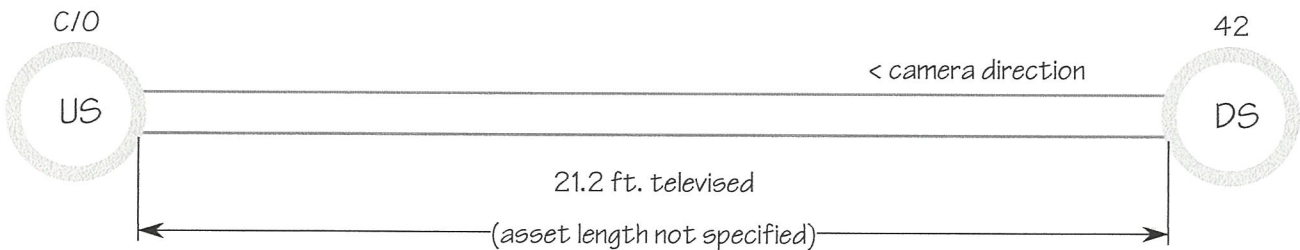
Purpose:

Pre-Cleaning:

Weather:

Location Details:

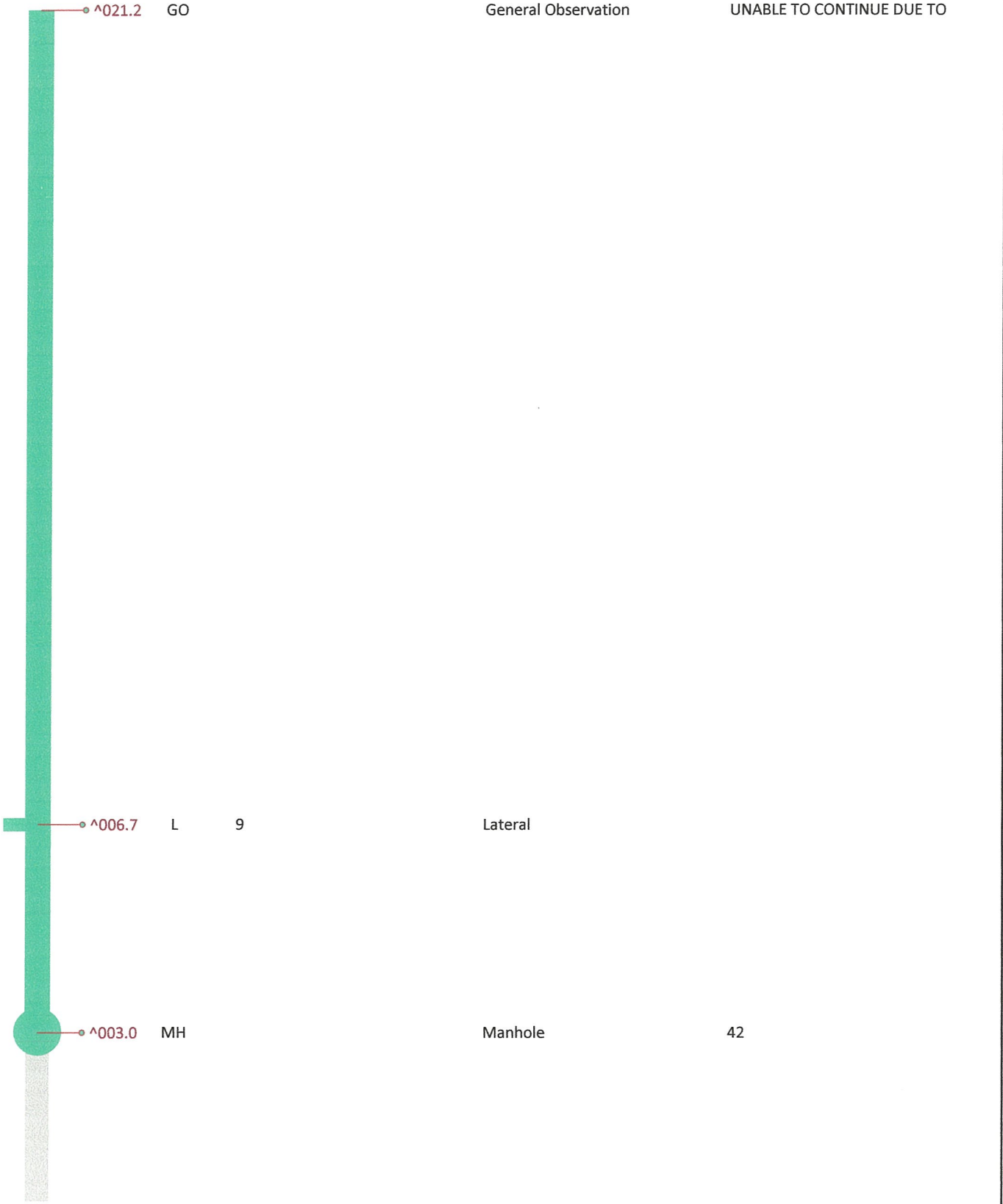
Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



	^021.2	GO			General Observation	UNABLE TO CONTINUE DUE TO
	^006.7	L	9		Lateral	
	^003.0	MH			Manhole	42

42

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

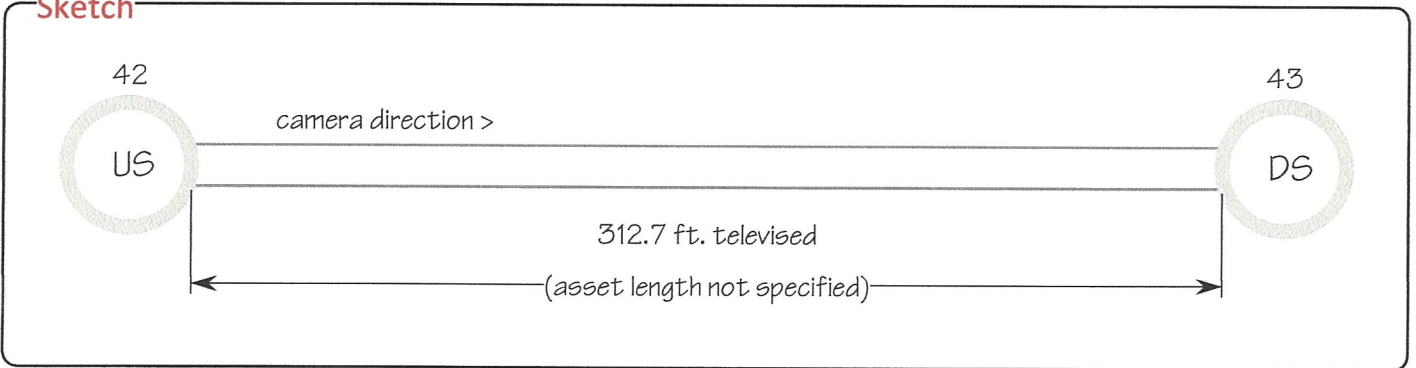
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

42

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	42
-------	----	--	--	--	---------	----



029.7	I				Infiltration Hole	
030.0	H					

Flow >

120.6	R				Roots	
-------	---	--	--	--	-------	--

133.8	R				Roots	
-------	---	--	--	--	-------	--



143.5	H	9			Hole	
-------	---	---	--	--	------	--

144.9	L	3			Lateral	
-------	---	---	--	--	---------	--

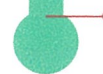
145.7	L	12			Lateral	
-------	---	----	--	--	---------	--



186.9	L	3			Lateral	
-------	---	---	--	--	---------	--



290.6	L	9			Lateral	
-------	---	---	--	--	---------	--



312.7	MH				Manhole	43
-------	----	--	--	--	---------	----

43

Asset Information

Upstream MH: 43

USMH Depth:

Downstream MH: 44

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Bay St.

City: June lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 14-Nov-2019 1:59 PM

Surveyed By: Tyrone Jones

Camera Direction: Upstream

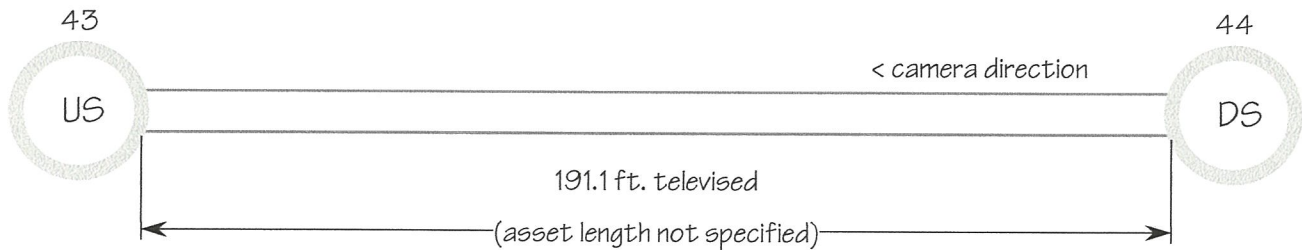
Purpose: Maintenance Related

Pre-Cleaning: Not Known

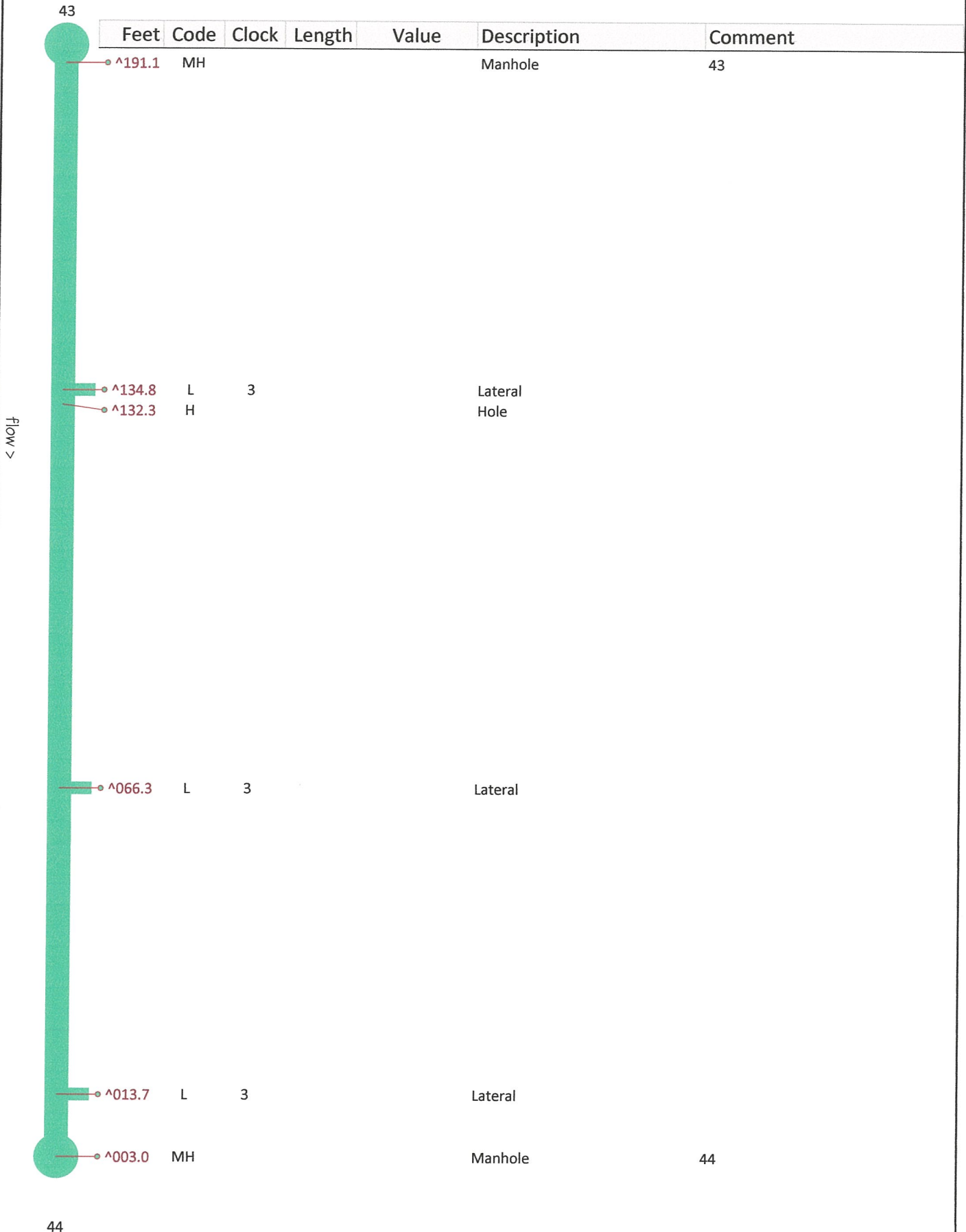
Weather: Dry

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

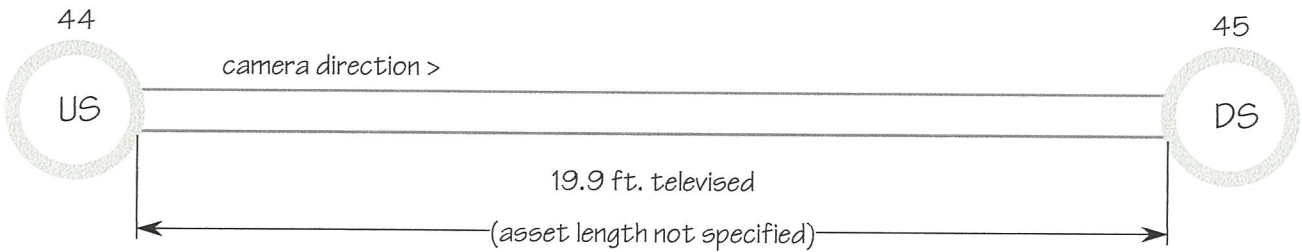
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

44

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

44

Flow >



019.9 GO

General Observation

Unable to continue due to debris

45

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

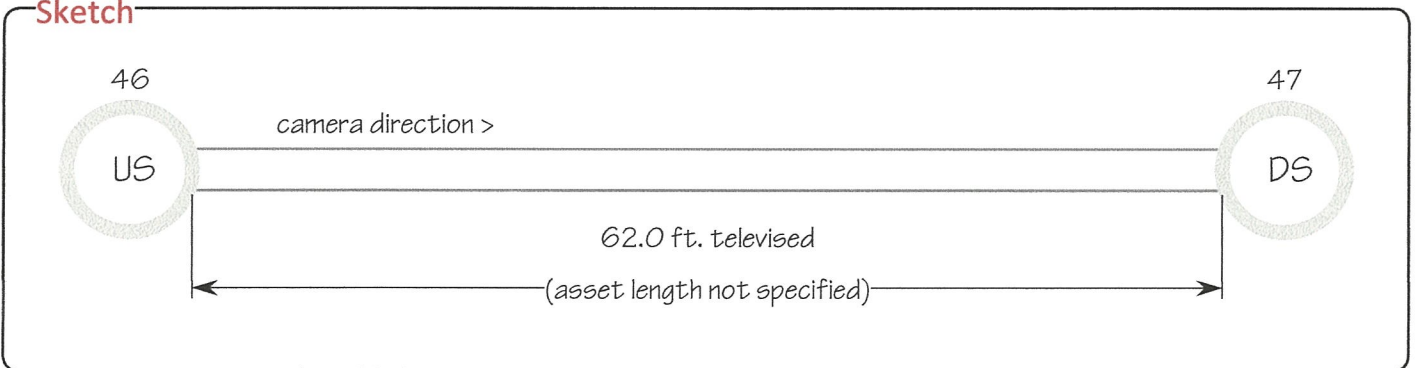
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

46

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

46



Flow >

021.6 L 9

Lateral



062.0 MH

Manhole

47

47

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

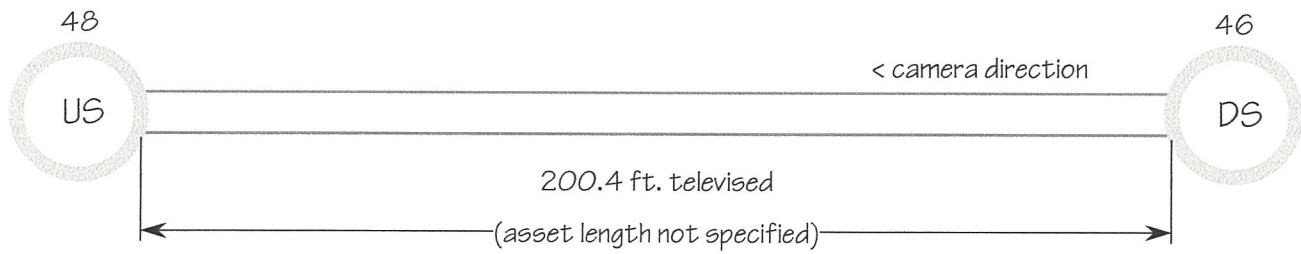
Purpose:

Pre-Cleaning:

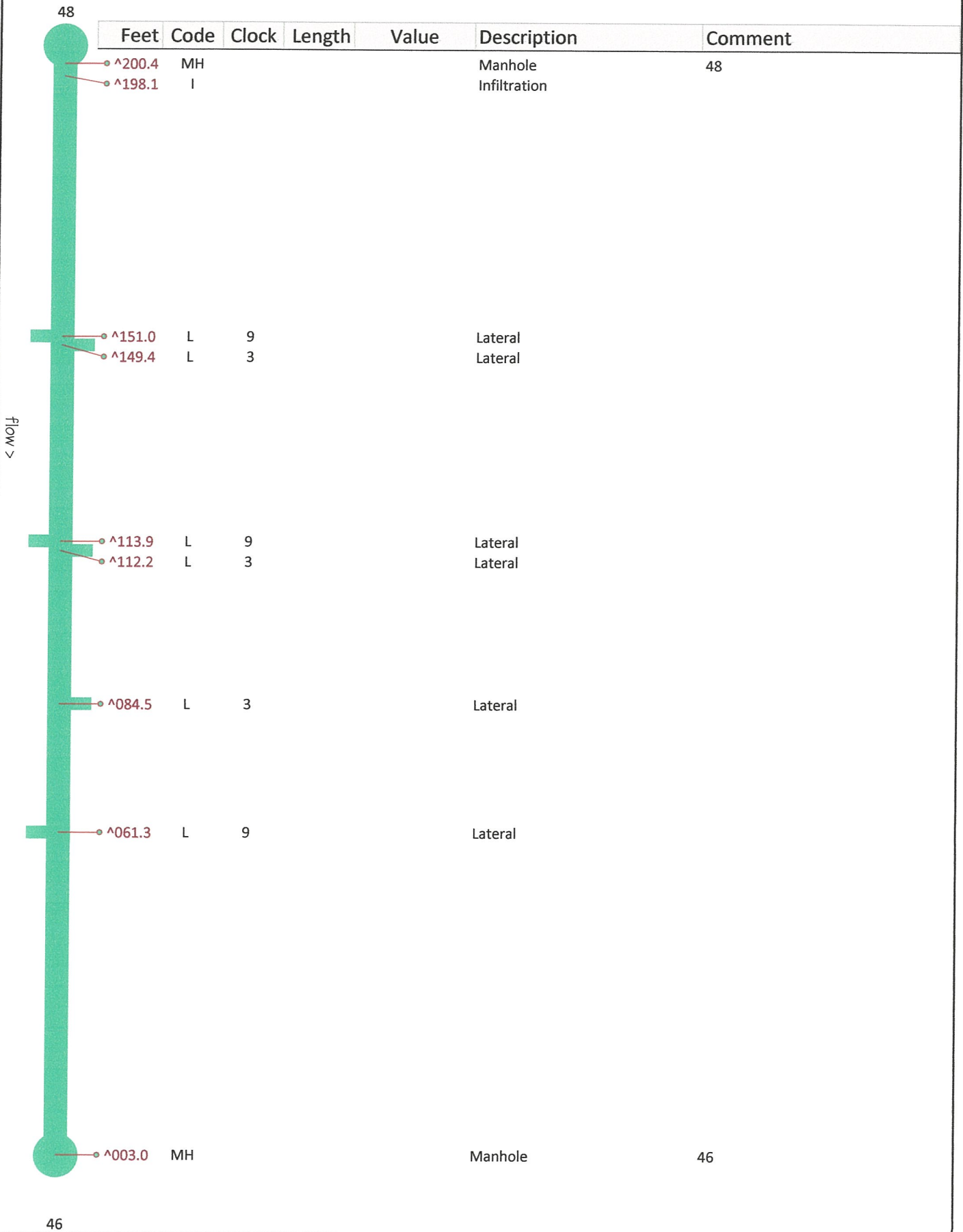
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

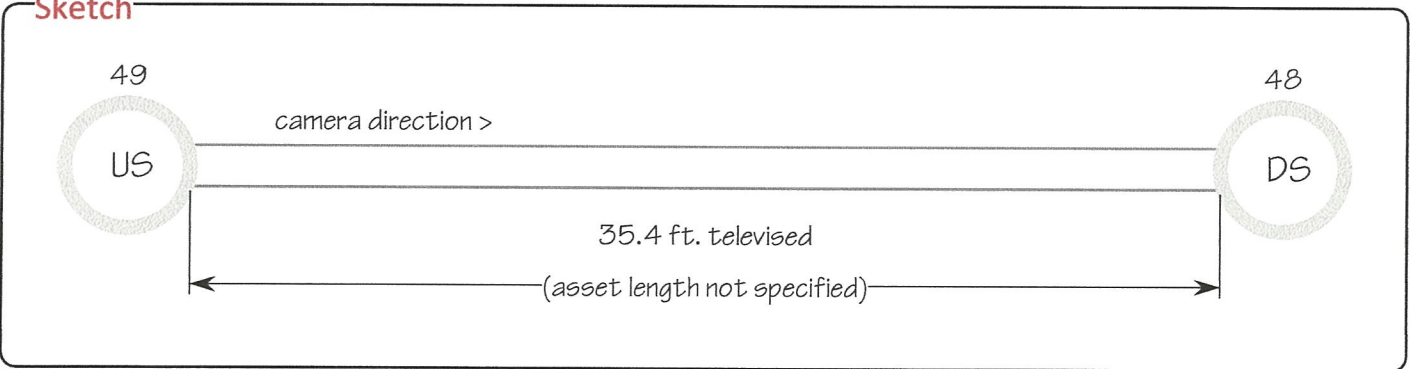
Purpose:

Pre-Cleaning:

Weather:

Location Details:

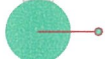
Sketch



Schematic Top View

49

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

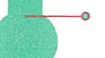
49



006.8 H

Hole

Flow >



035.4 MH

Manhole

48

48

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

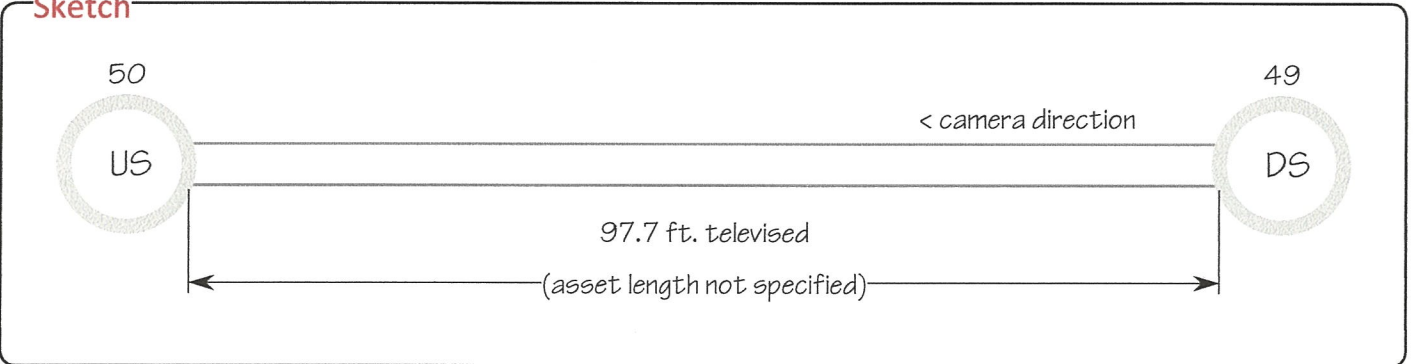
Purpose:

Pre-Cleaning:

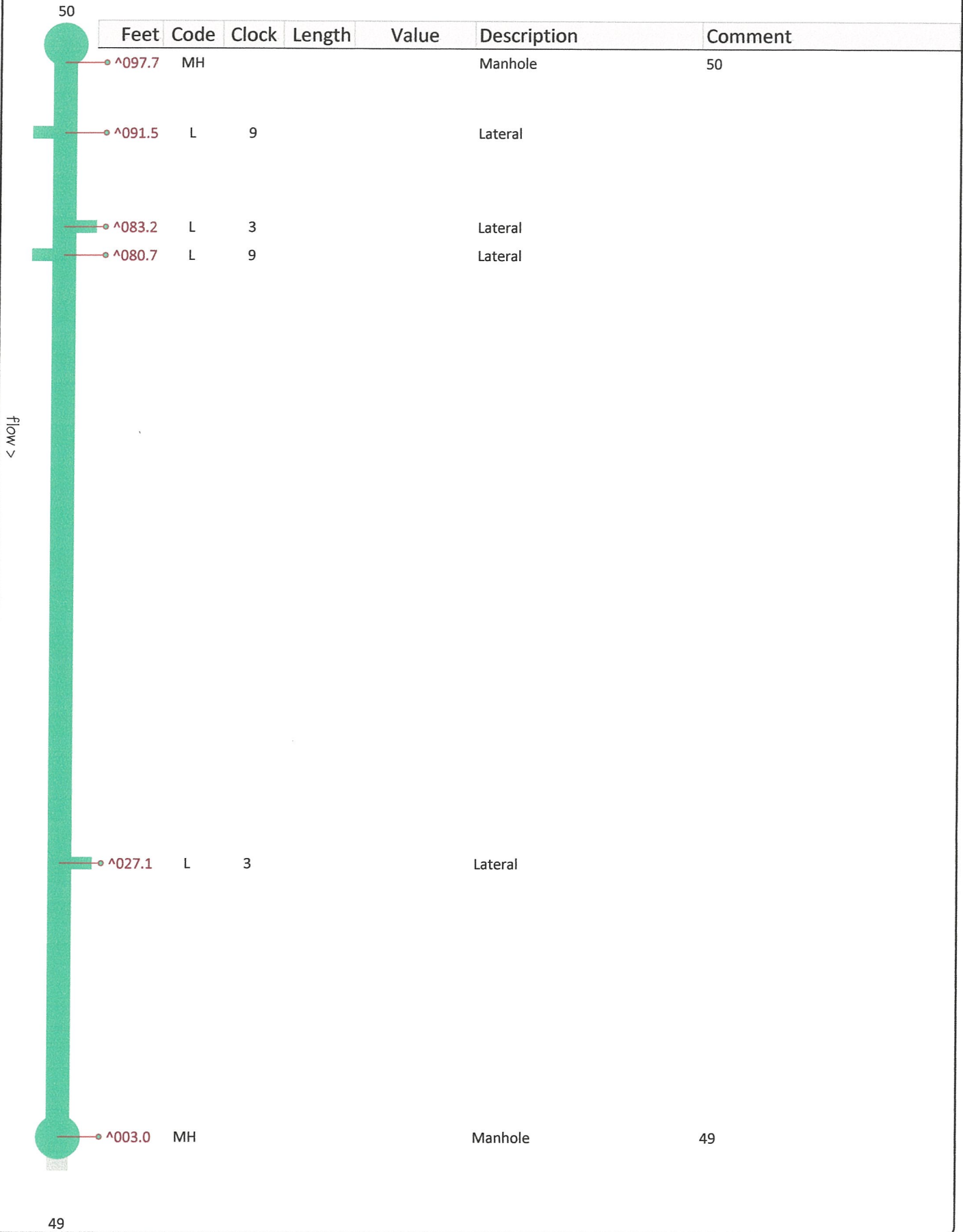
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

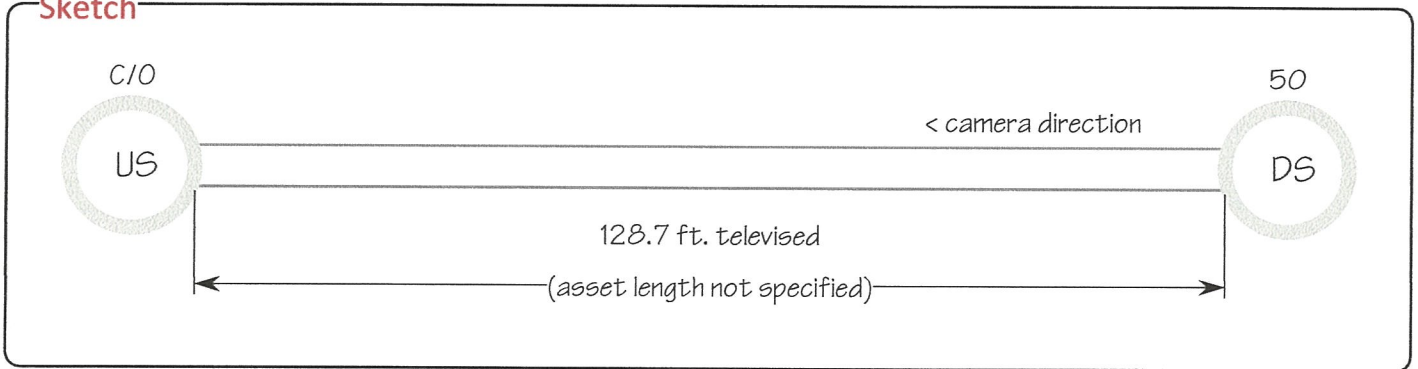
Purpose:

Pre-Cleaning:

Weather:

Location Details:

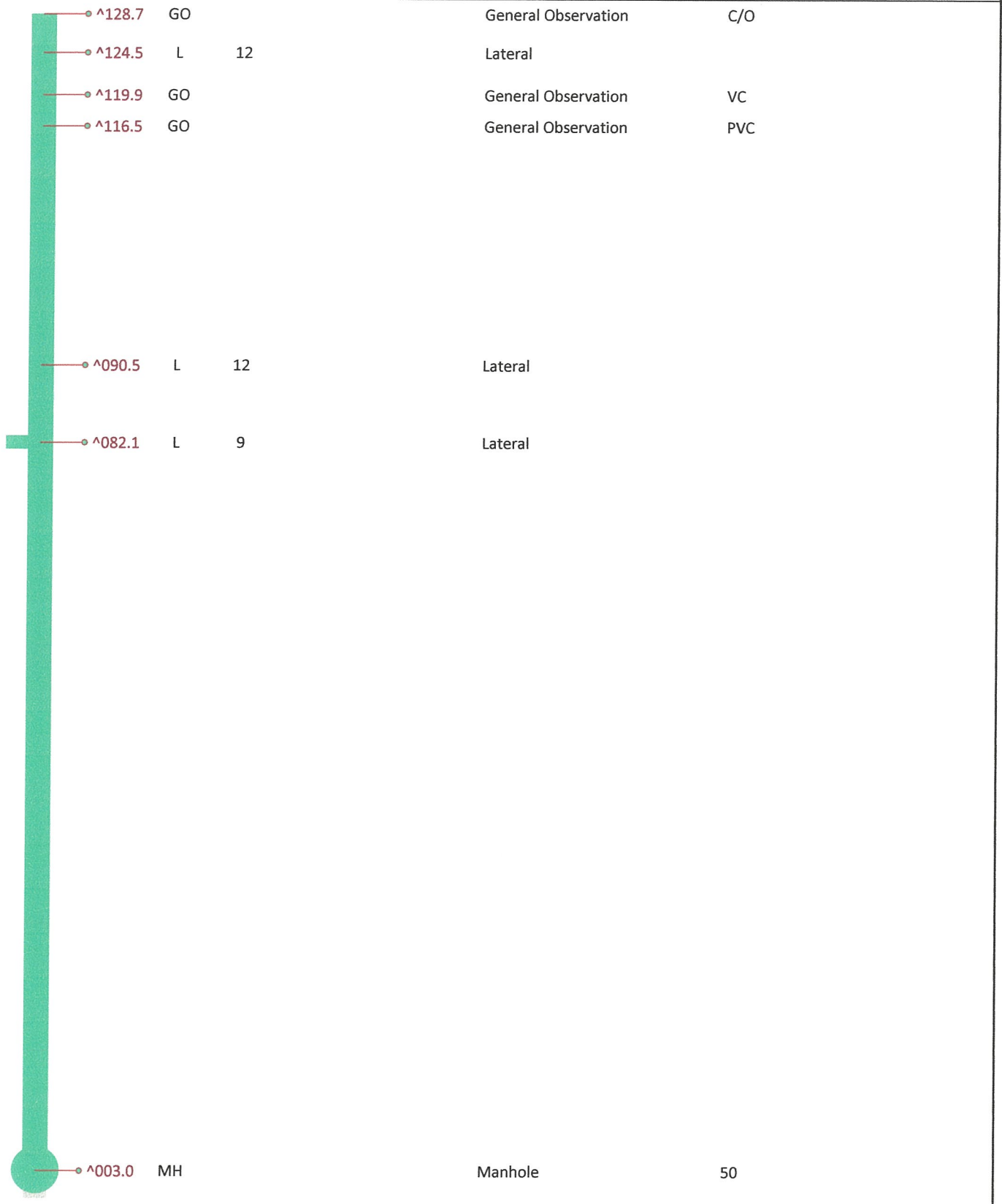
Sketch



Schematic Top View

C/O

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



50

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

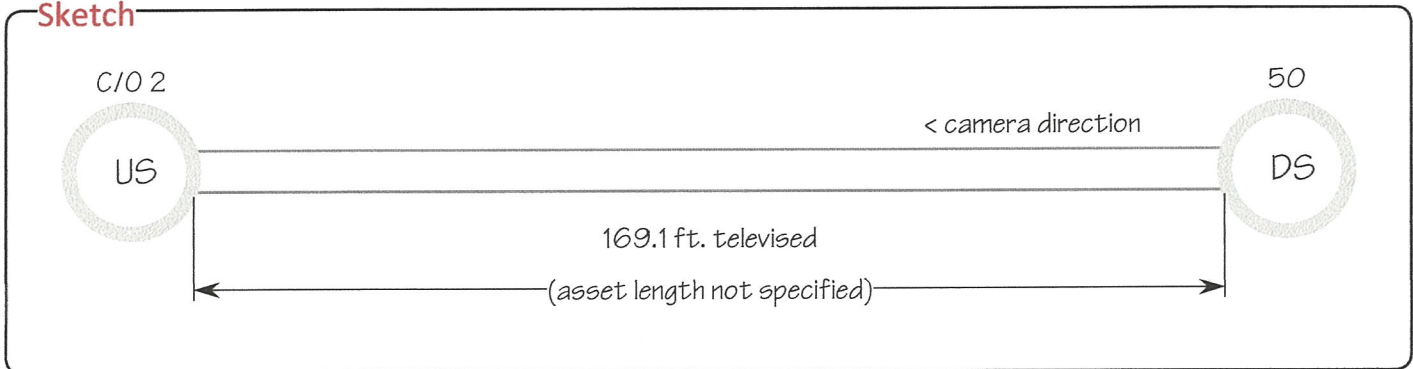
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

C/O 2

Feet	Code	Clock	Length	Value	Description	Comment
169.1	MH				Manhole	51
117.9	L		3		Lateral	
084.8	L		9		Lateral	
051.6	L		12		Lateral	
020.3	L		3		Lateral	
016.4	L		9		Lateral	
003.0	MH				Manhole	50

flow >

50

Exhibit B – Day 4

June Lake 11-15-19 Friday

Venice St.	MH 53-52	6"	Upstream	4.9 ft. / Unable to Continue
Venice St.	MH 52-54	8"	Upstream	207.0 ft. / Deformed pipe
Venice St.	MH 52-55	8"	Downstream	101.9 ft.
Los Angeles St.	MH 56-57	8"	Upstream	234.1 ft.
Los Angeles St.	MH 58-57	8"	Upstream	59. ft.
Los Angeles St.	MH 57-59	8"	Downstream	248.6 ft.
Los Angeles St.	MH 57-59	8"	Downstream	248.6 ft.

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

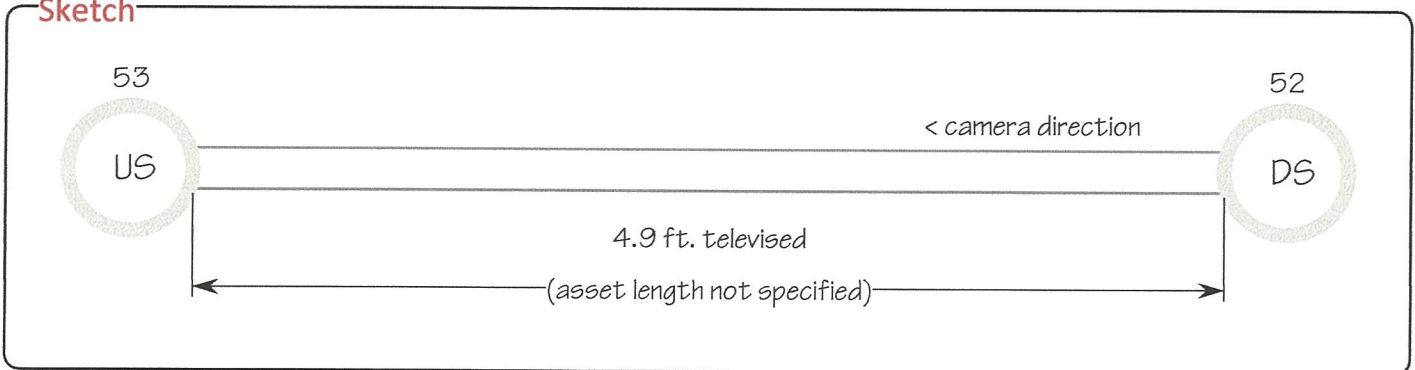
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



10009
MILE

Schematic Top View

53

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^004.9	GO				General Observation	Unable to continue due to flat wye.
--------	----	--	--	--	---------------------	-------------------------------------



^003.3	L	9			Lateral	
--------	---	---	--	--	---------	--

^003.0	MH				Manhole	52
--------	----	--	--	--	---------	----

52

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

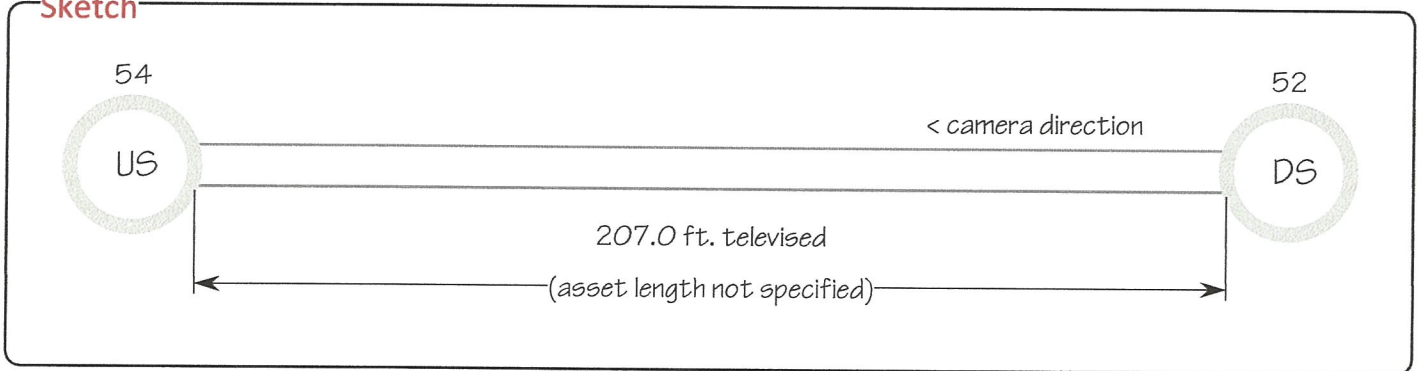
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

54

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^207.0	GO				General Observation	Unable to continue due to deform Crack
^205.8	C				Crack	

^181.7	L	3			Lateral	
--------	---	---	--	--	---------	--

^128.7	L	3			Lateral	
--------	---	---	--	--	---------	--

^053.1	L	3			Lateral	
--------	---	---	--	--	---------	--

^003.0	MH				Manhole	52
--------	----	--	--	--	---------	----

52

Flow >

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

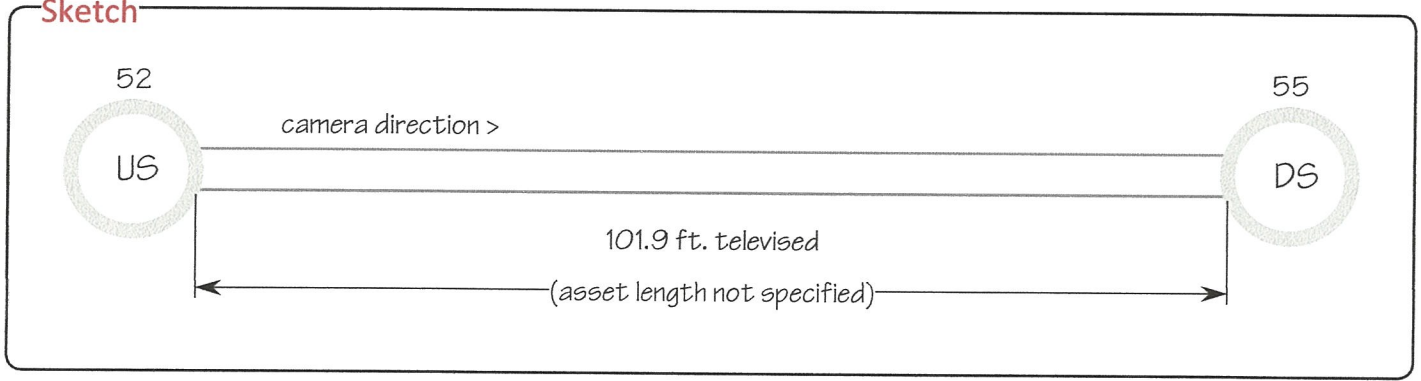
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

52

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

52



Flow >

101.9 MH

Manhole

55



55

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

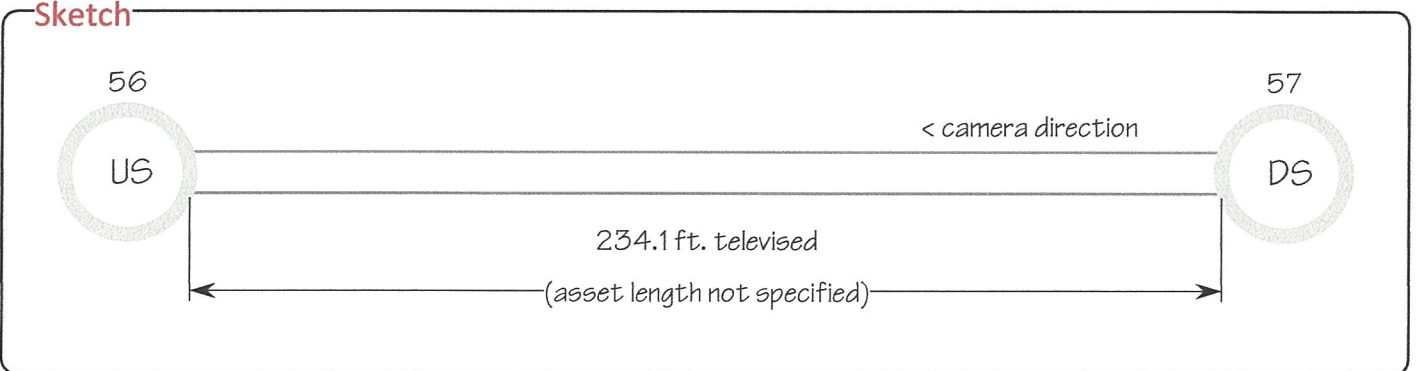
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

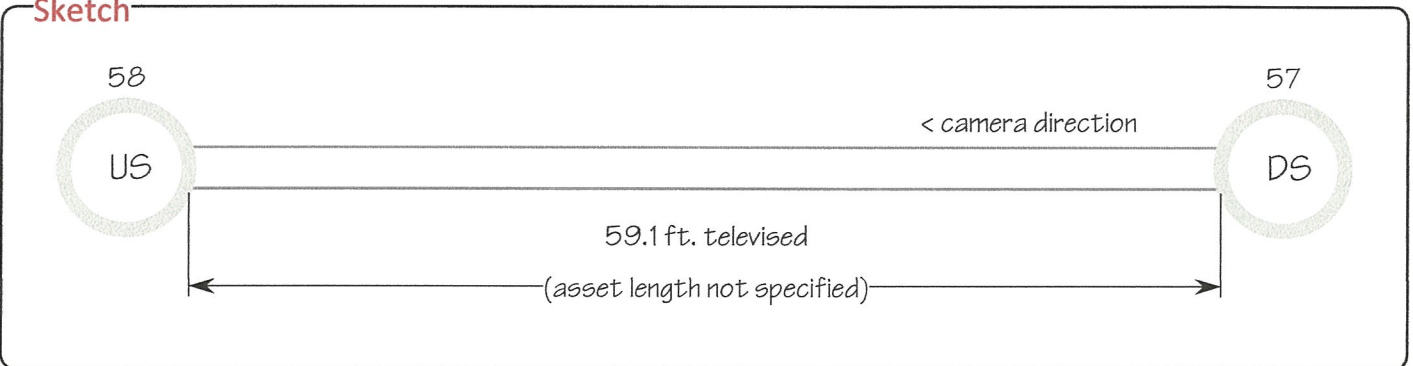
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

58

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^059.1	MH				Manhole	58
--------	----	--	--	--	---------	----

flow >

^003.0	MH				Manhole	57
--------	----	--	--	--	---------	----

57

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

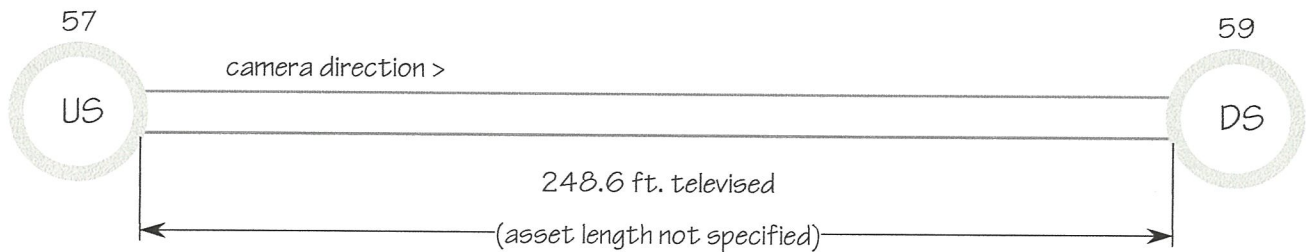
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

57

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	57
-------	----	--	--	--	---------	----



057.9	L	10			Lateral	
-------	---	----	--	--	---------	--



064.8	L	2			Lateral	
-------	---	---	--	--	---------	--



066.7	L	10			Lateral	
-------	---	----	--	--	---------	--

Flow >



107.5	L	2			Lateral	
-------	---	---	--	--	---------	--



166.8	L	10			Lateral	
-------	---	----	--	--	---------	--



207.3	L	2			Lateral	
-------	---	---	--	--	---------	--



222.6	L	10			Lateral	
-------	---	----	--	--	---------	--



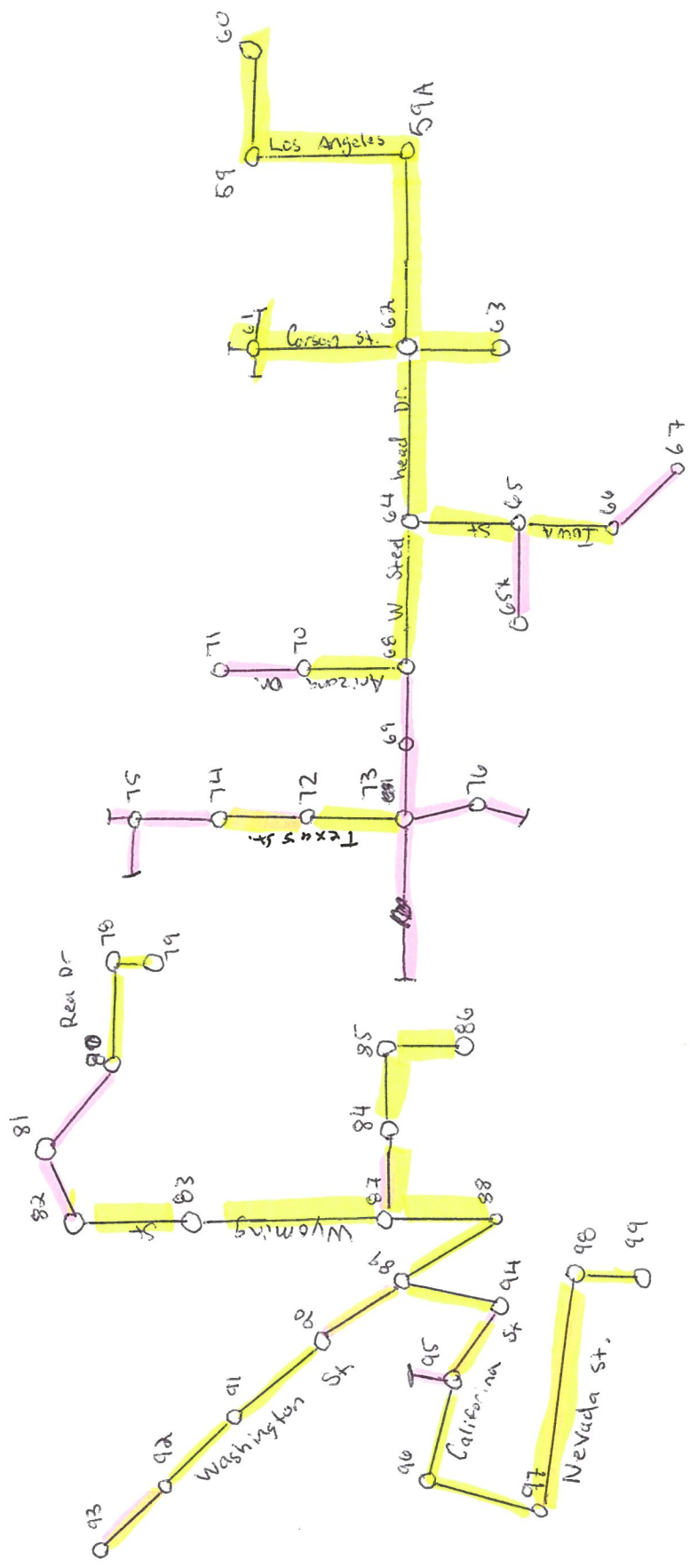
243.5	R				Roots	
-------	---	--	--	--	-------	--

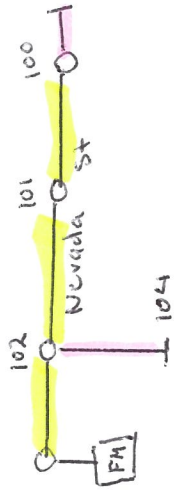


248.6	MH				Manhole	59
-------	----	--	--	--	---------	----

59

Exhibit C – Map





Dream Mountain Dr.

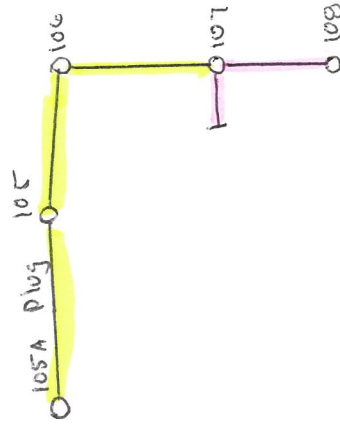


Exhibit C – Day 1

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

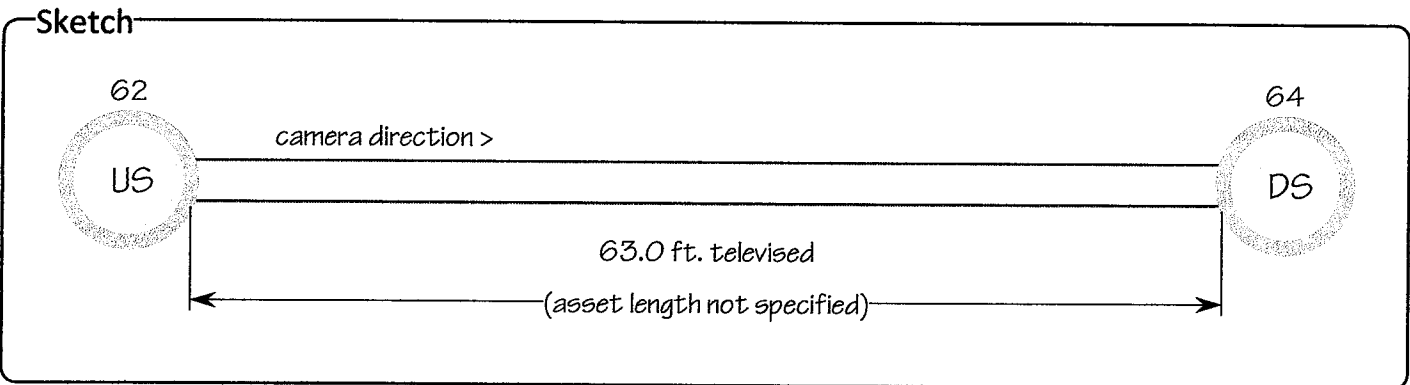
Camera Direction:

Purpose:

Pre-Cleaning:

Weather:

Location Details:



Schematic Top View

62

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.2 MH

Manhole

62



flow >

063.0 GO

General Observation

reduced pipe

64

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

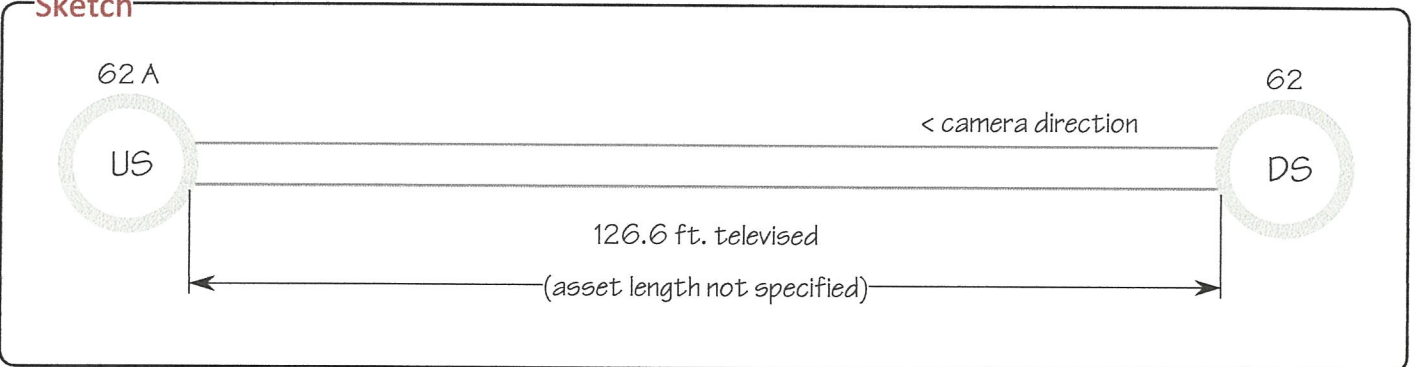
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

62 A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

126.6	GO				General Observation	Camera under water
-------	----	--	--	--	---------------------	--------------------

Flow >



14.5	L	2			Lateral	
------	---	---	--	--	---------	--

3.0	MH				Manhole	62
-----	----	--	--	--	---------	----

62

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

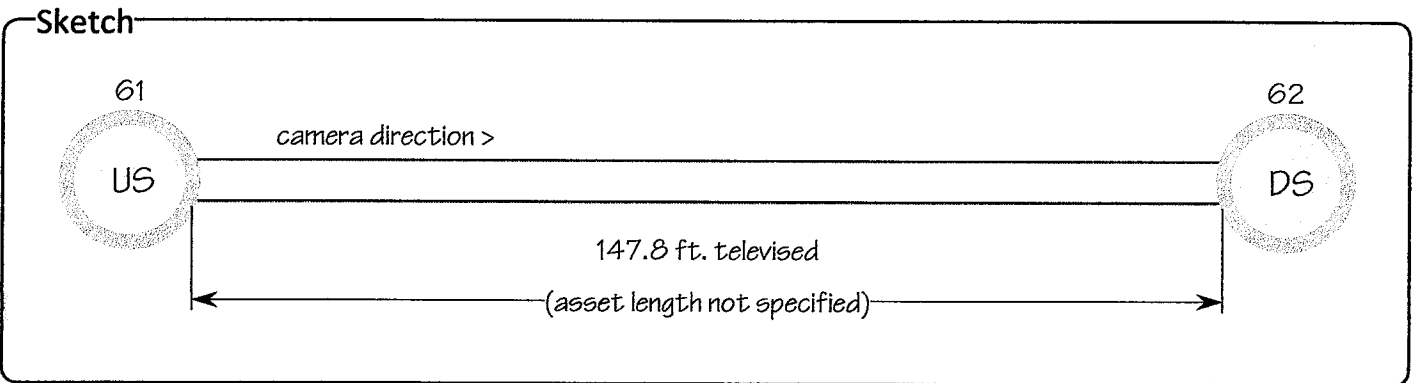
Camera Direction:

Purpose:

Pre-Cleaning:

Weather:

Location Details:



Schematic Top View

61

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

61



024.5 GO

General Observation

Camera Under water



051.1 GO

General Observation

camera out of water



071.6 I 9

Infiltration



092.0 L 10

Lateral



098.4 L 2

Lateral



147.8 MH

Manhole

62

62

Flow >

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

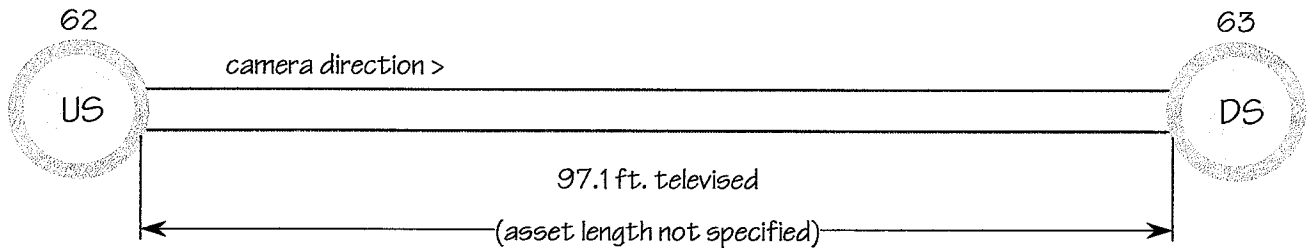
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

62

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

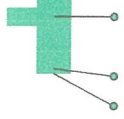


003.1 MH

Manhole

62

Flow >



093.7 R 9
 L 2
 096.8 L 12
 097.1 GO

Roots
 Lateral
 Lateral
 General Observation

Plug

63

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

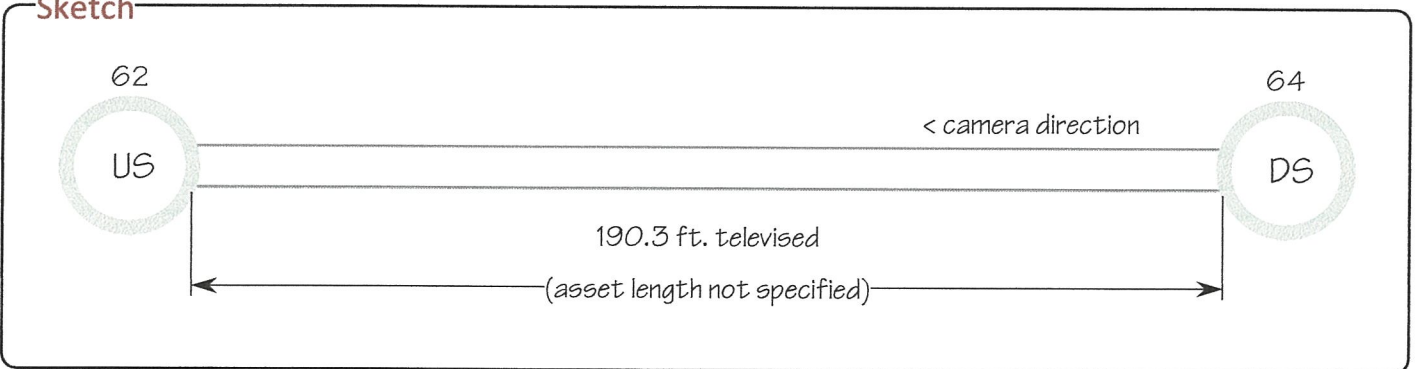
Project Information

Project:
Job:
Survey Customer:
Comments:

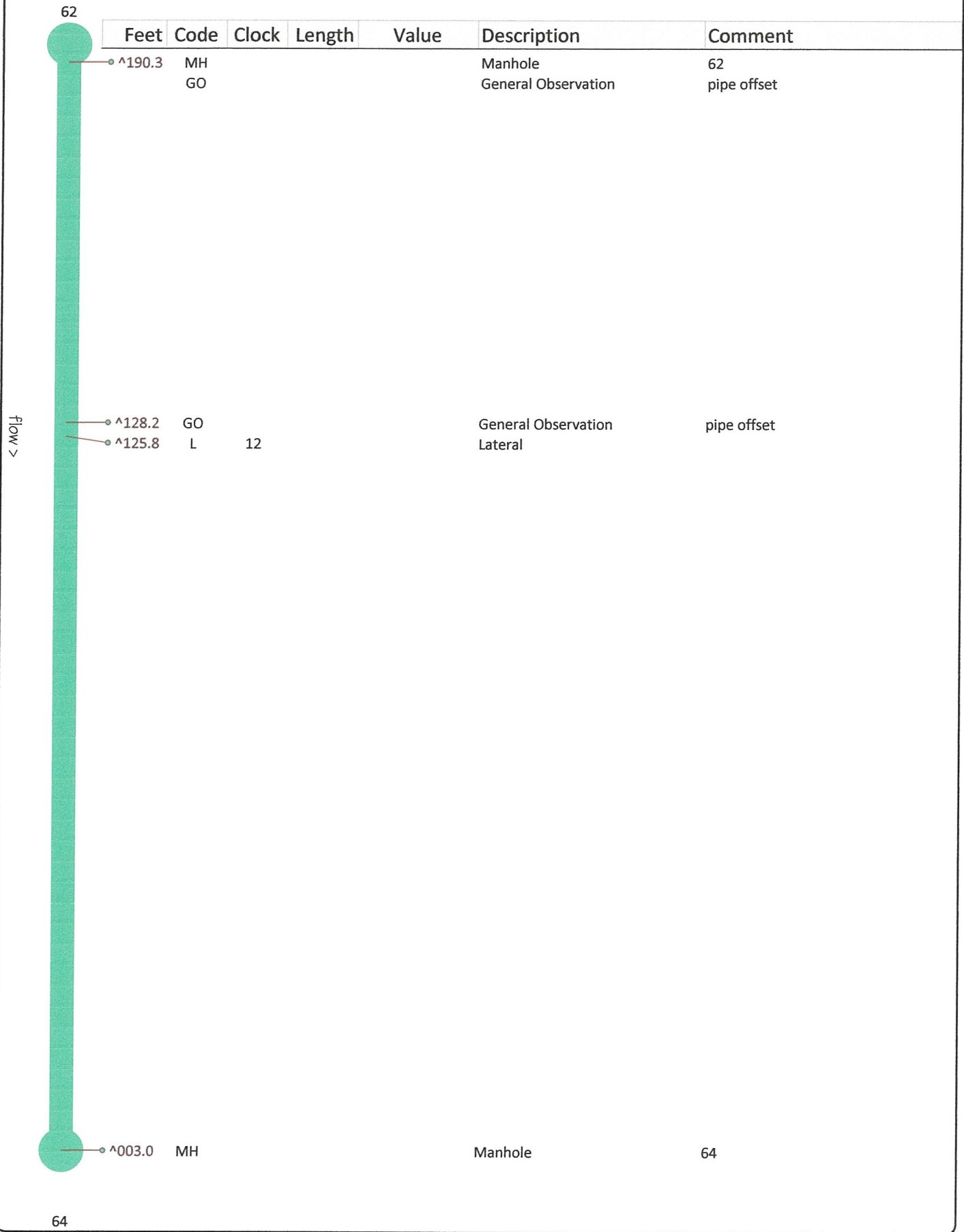
Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

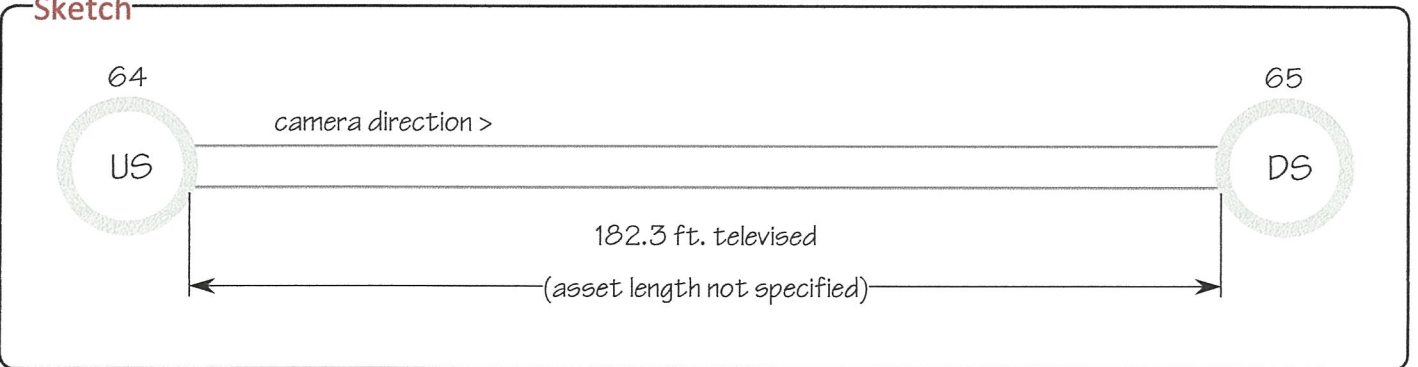
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

64

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.1 MH

Manhole

64



flow >



177.8

L

2

Lateral



182.3

MH

Manhole

65

65

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

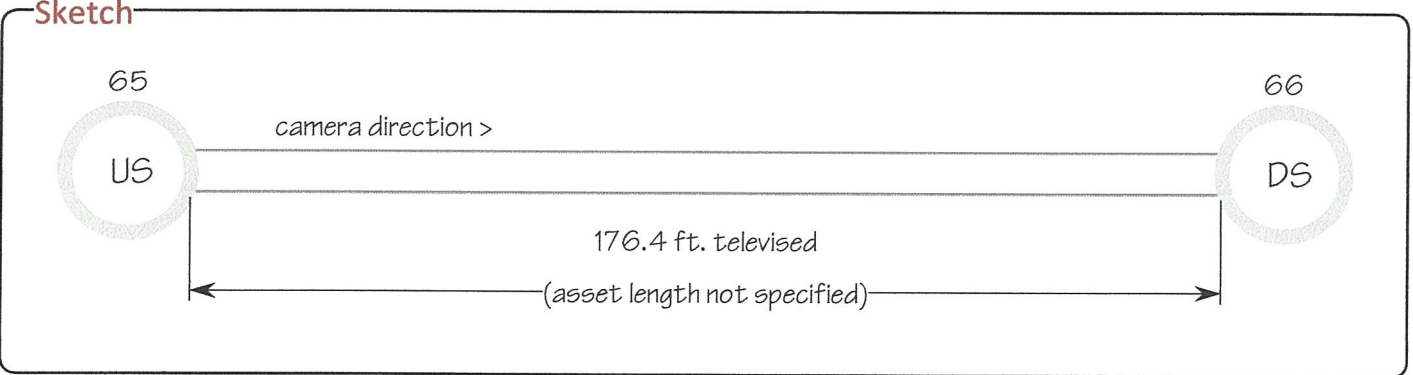
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

65

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

65

Flow >



078.1 I

Infiltration

Water



113.6 L 2

Lateral



155.8 L 2

Lateral



158.9 L 10

Lateral



176.4 MH

Manhole

66

66

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

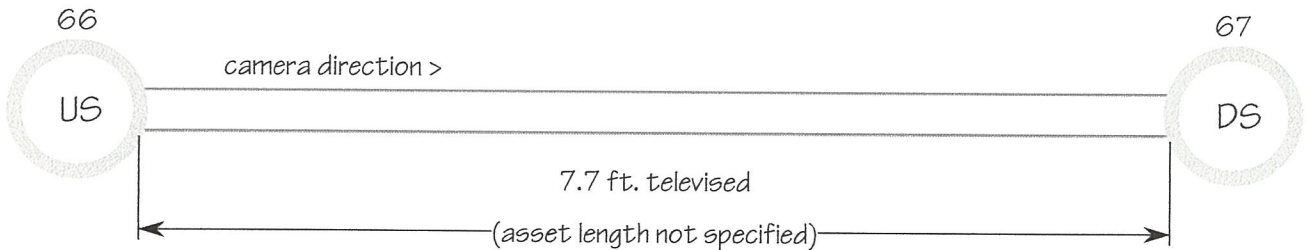
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

66

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

Flow >



003.0 MH

Manhole

66



007.7 GO

General Observation

Debris in the line

67

Asset Information

Upstream MH: 68
 USMH Depth:
 Downstream MH: 64
 DSMH Depth:
 Pipe Size: 8 in.
 Material: VC
 Street: W Steelhead St.
 City: June Lake
 System Owner: June Lake
 Sewer Use: Sanitary
 Length: (unspecified)

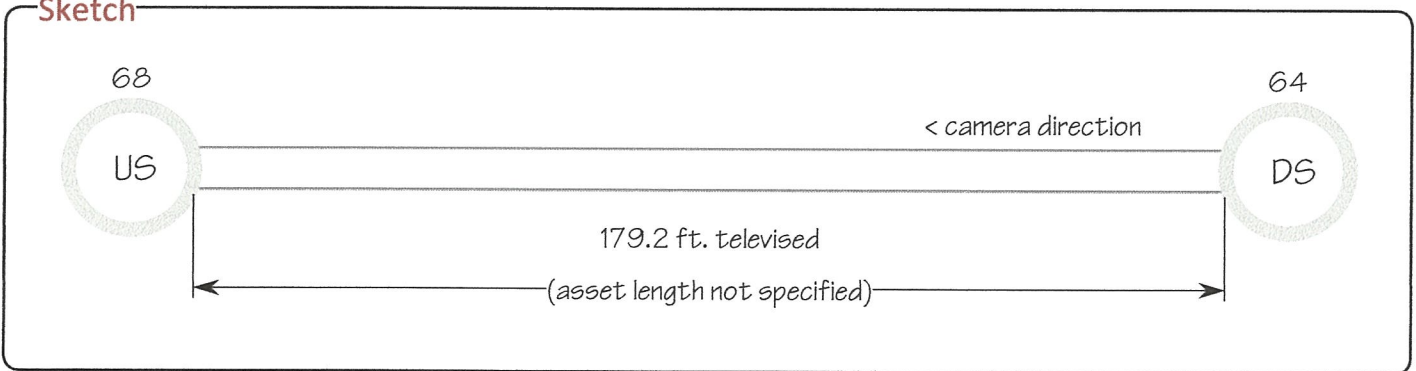
Project Information

Project: June Lake
 Job:
 Survey Customer: June Lake
 Comments:

Inspection Information

Date: 02-Jun-2020 11:16 AM
 Surveyed By: Matthew Hache
 Camera Direction: Upstream
 Purpose: Maintenance Related
 Pre-Cleaning:
 Weather:
 Location Details:

Sketch



Schematic Top View

68

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

179.2	MH				Manhole	68
-------	----	--	--	--	---------	----

flow >

003.0	MH				Manhole	64
-------	----	--	--	--	---------	----

64

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

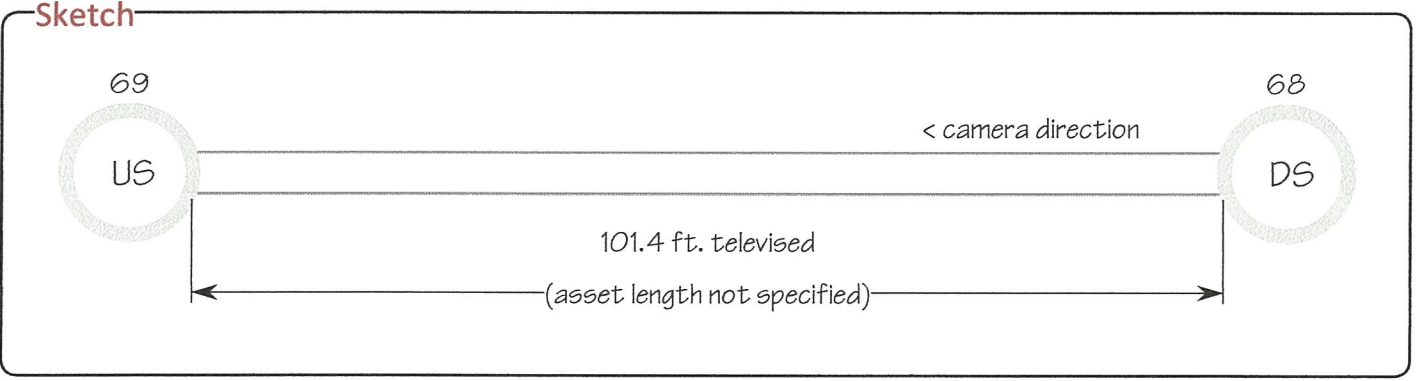
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

69

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

101.4	GO R				General Observation Roots	Unable to continue due to roots
-------	---------	--	--	--	------------------------------	---------------------------------

Flow >

050.7	R				Roots	
-------	---	--	--	--	-------	--

005.0	MH				Manhole	68
-------	----	--	--	--	---------	----

68

Asset Information

Upstream MH: 65 A

USMH Depth:

Downstream MH: 65

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Iowa st.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 02-Jun-2020 12:09 PM

Surveyed By: Matthew Hache

Camera Direction: Upstream

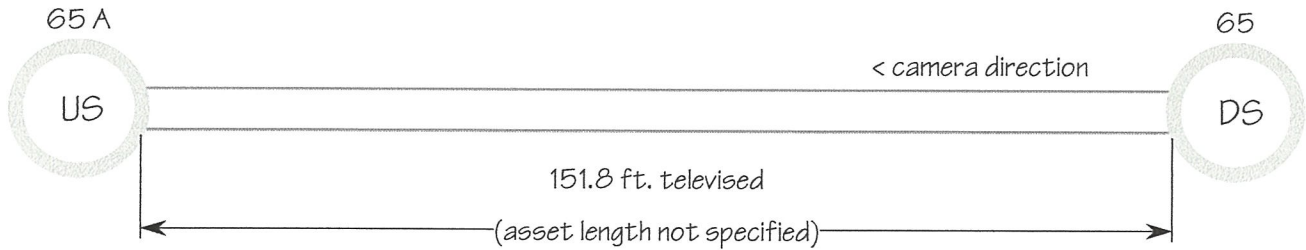
Purpose: Maintenance Related

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

65 A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

151.8	GO				General Observation	unable to continue due to debris
-------	----	--	--	--	---------------------	----------------------------------

110.7	L		10		Lateral	
	L		3		Lateral	

Flow >

003.0	MH				Manhole	65
-------	----	--	--	--	---------	----

65

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

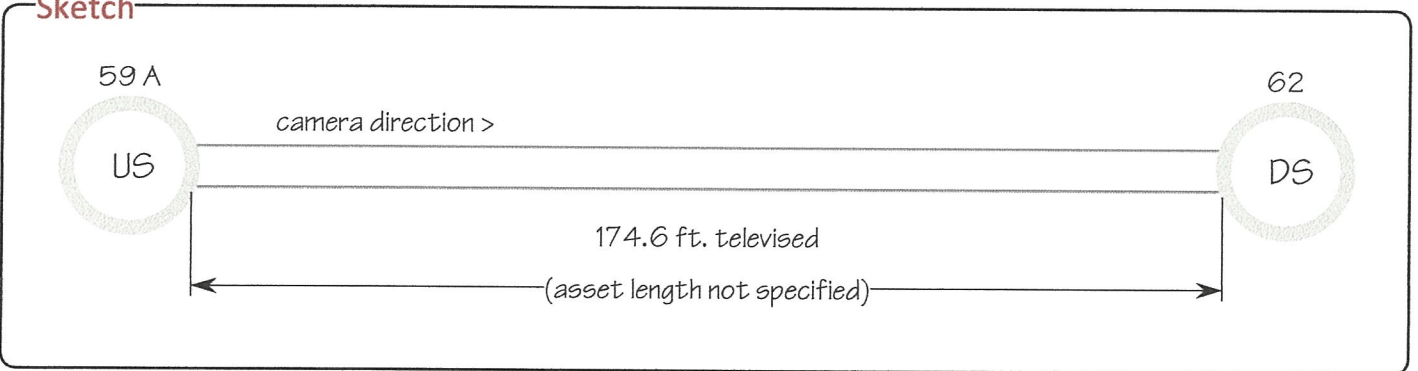
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

59 A

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

59 A



016.5 I

Infiltration

Unknown

Flow >



158.7 L 10

Lateral



174.6 MH

Manhole

62

62

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

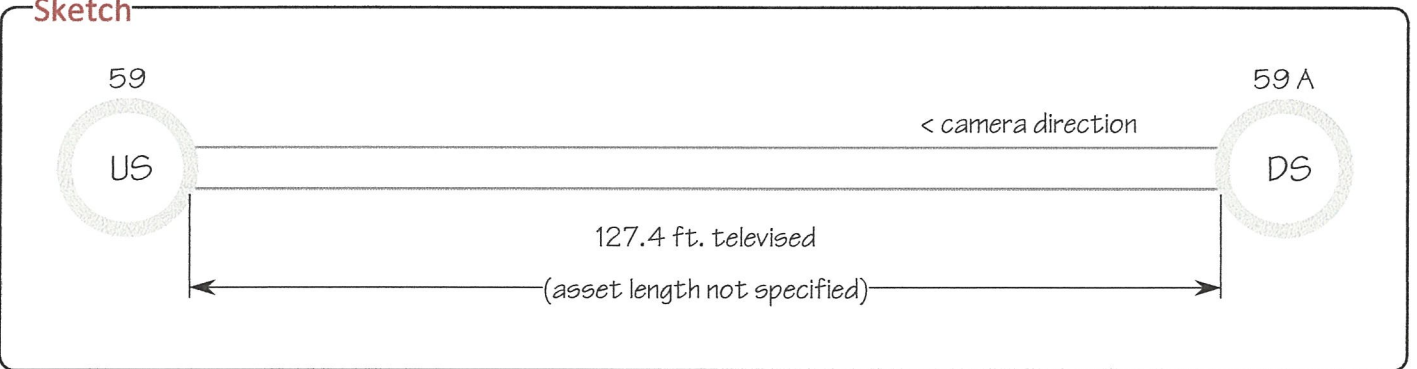
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

59

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

127.4	MH				Manhole	59
-------	----	--	--	--	---------	----

Flow >

005.7	L		2		Lateral	
003.5	L		10		Lateral	
003.0	MH				Manhole	59 A

59 A

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

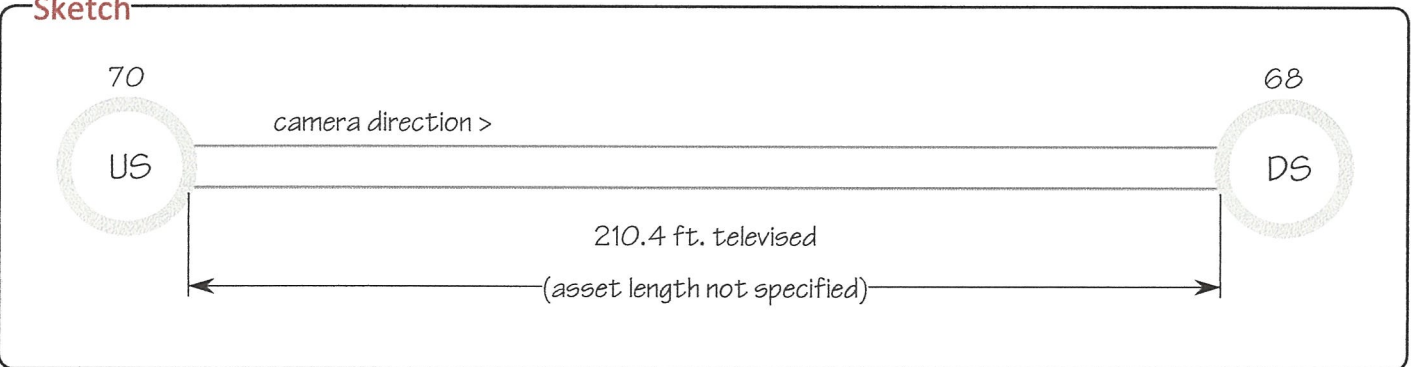
Purpose:

Pre-Cleaning:

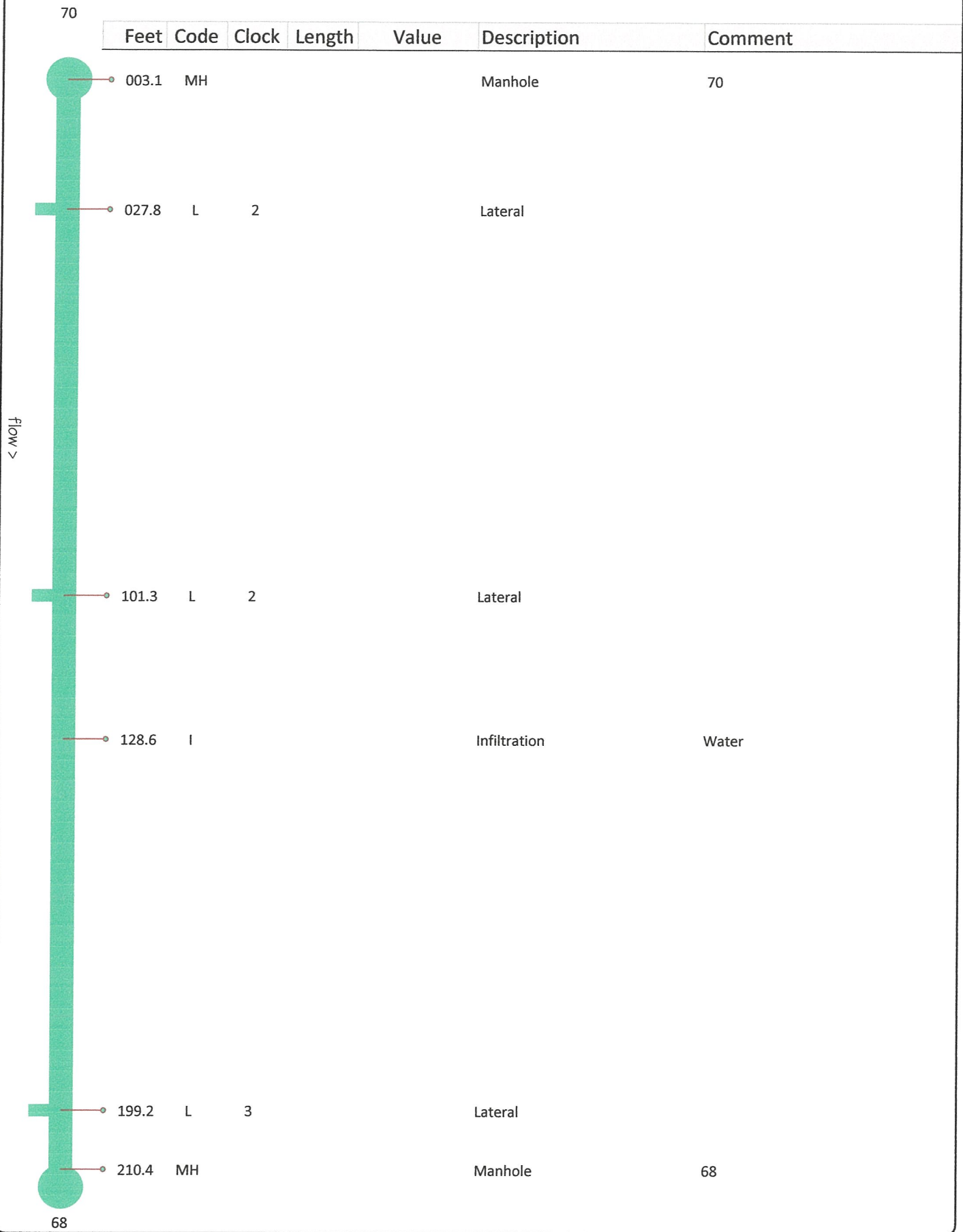
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

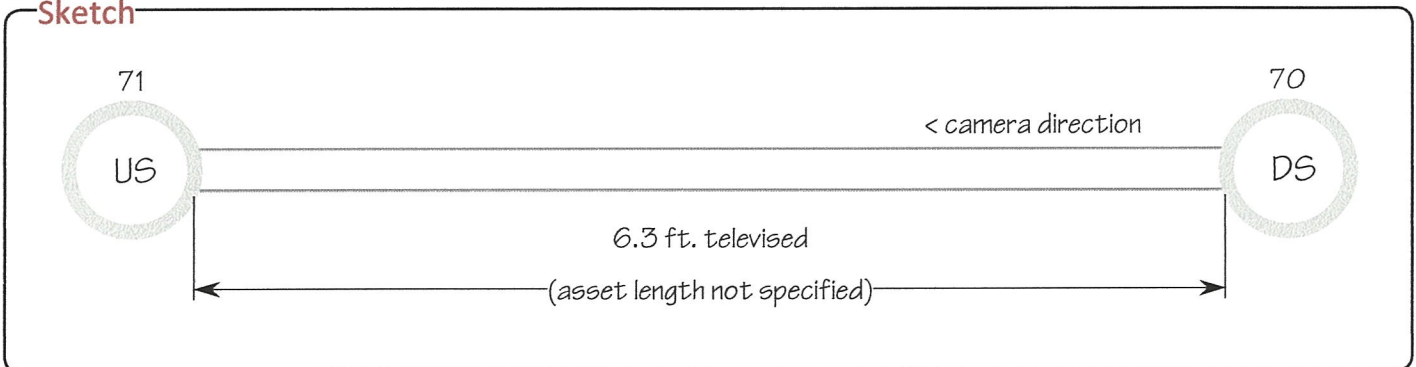
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

71

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^006.3	R				Roots	Can not continue due to roots
--------	---	--	--	--	-------	-------------------------------

flow >



^003.3	MH				Manhole	70
--------	----	--	--	--	---------	----



70

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

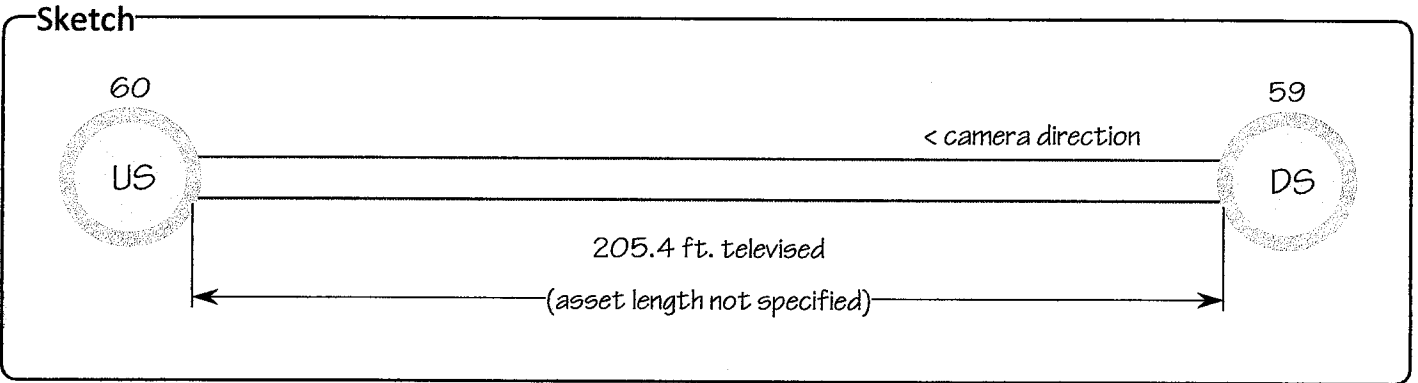
Camera Direction:

Purpose:

Pre-Cleaning:

Weather:

Location Details:



Schematic Top View

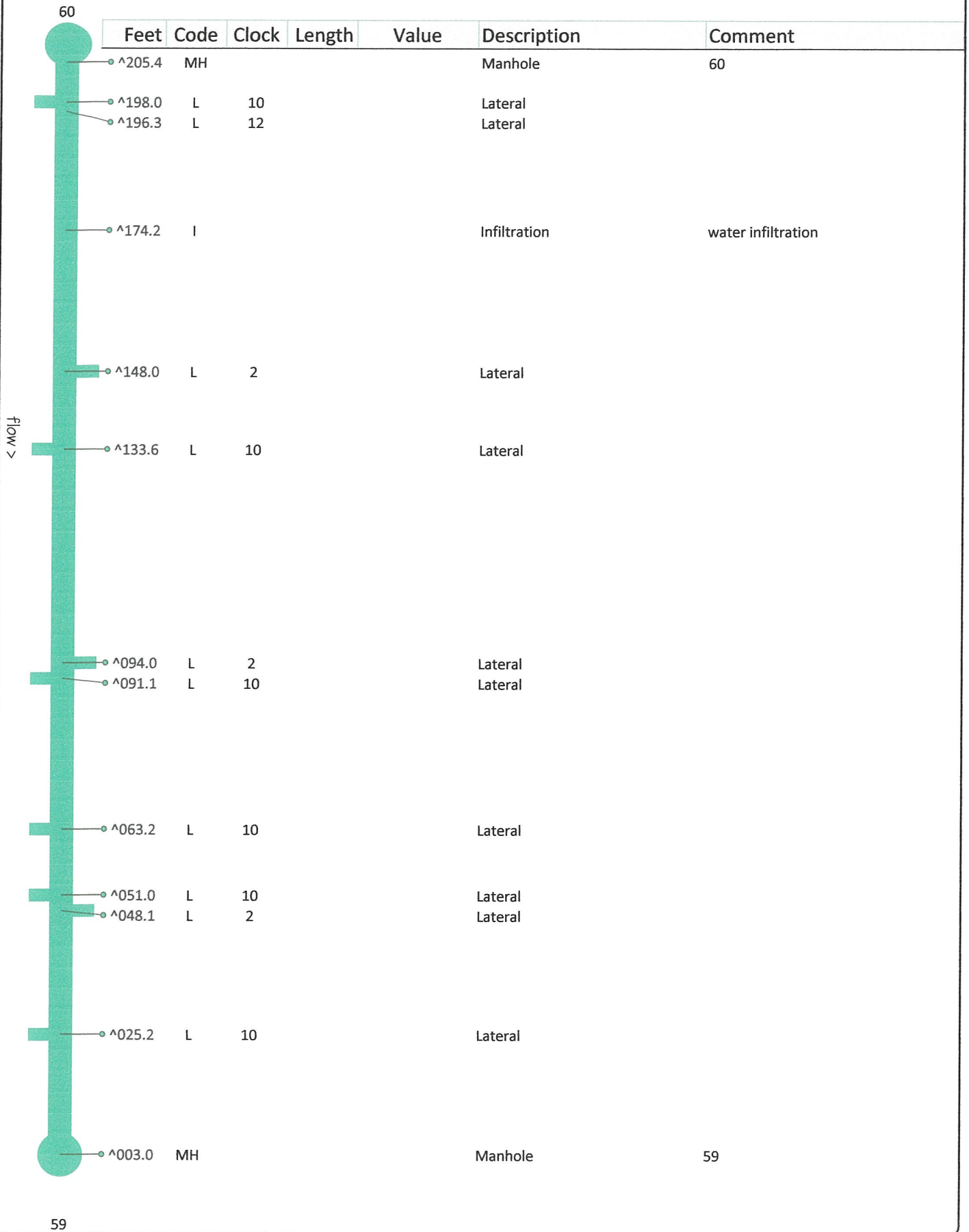


Exhibit C – Day 2

Asset Information

Upstream MH: 72

USMH Depth:

Downstream MH: 73

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Texas St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 03-Jun-2020 7:58 AM

Surveyed By: Matthew HALLIE

Camera Direction: Downstream

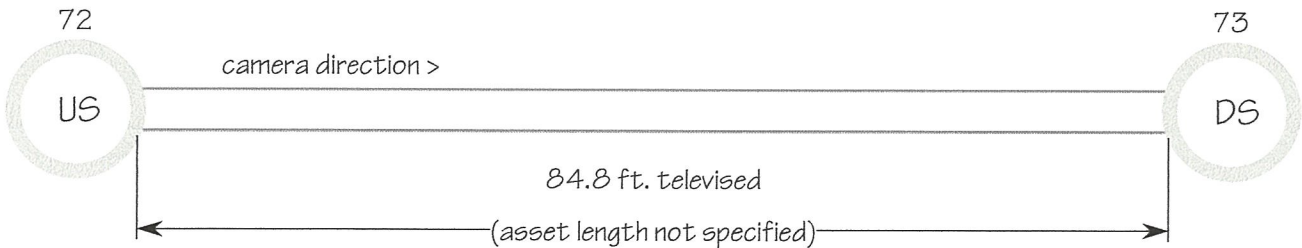
Purpose: Maintenance Related

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

72

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

72



Flow >



056.0 L 2

Lateral



084.8 MH

Manhole

73

73

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

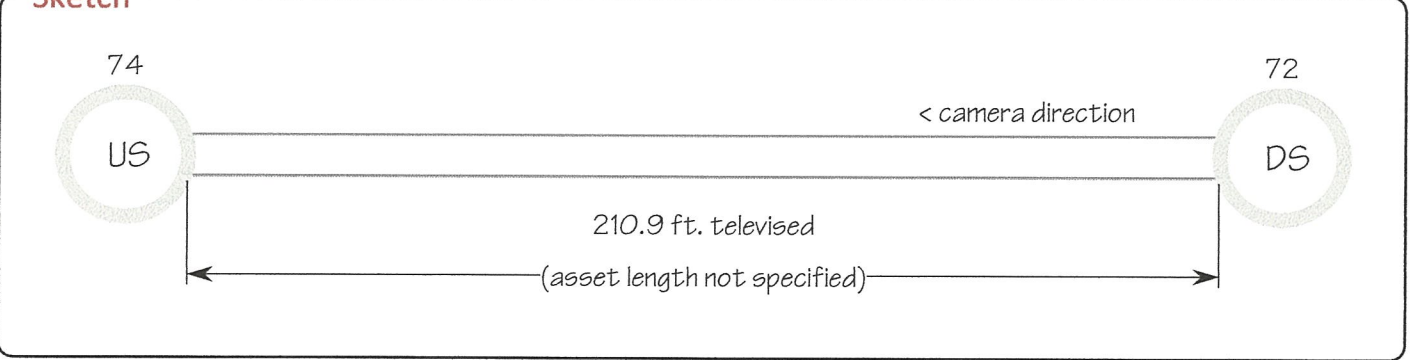
Purpose:

Pre-Cleaning:

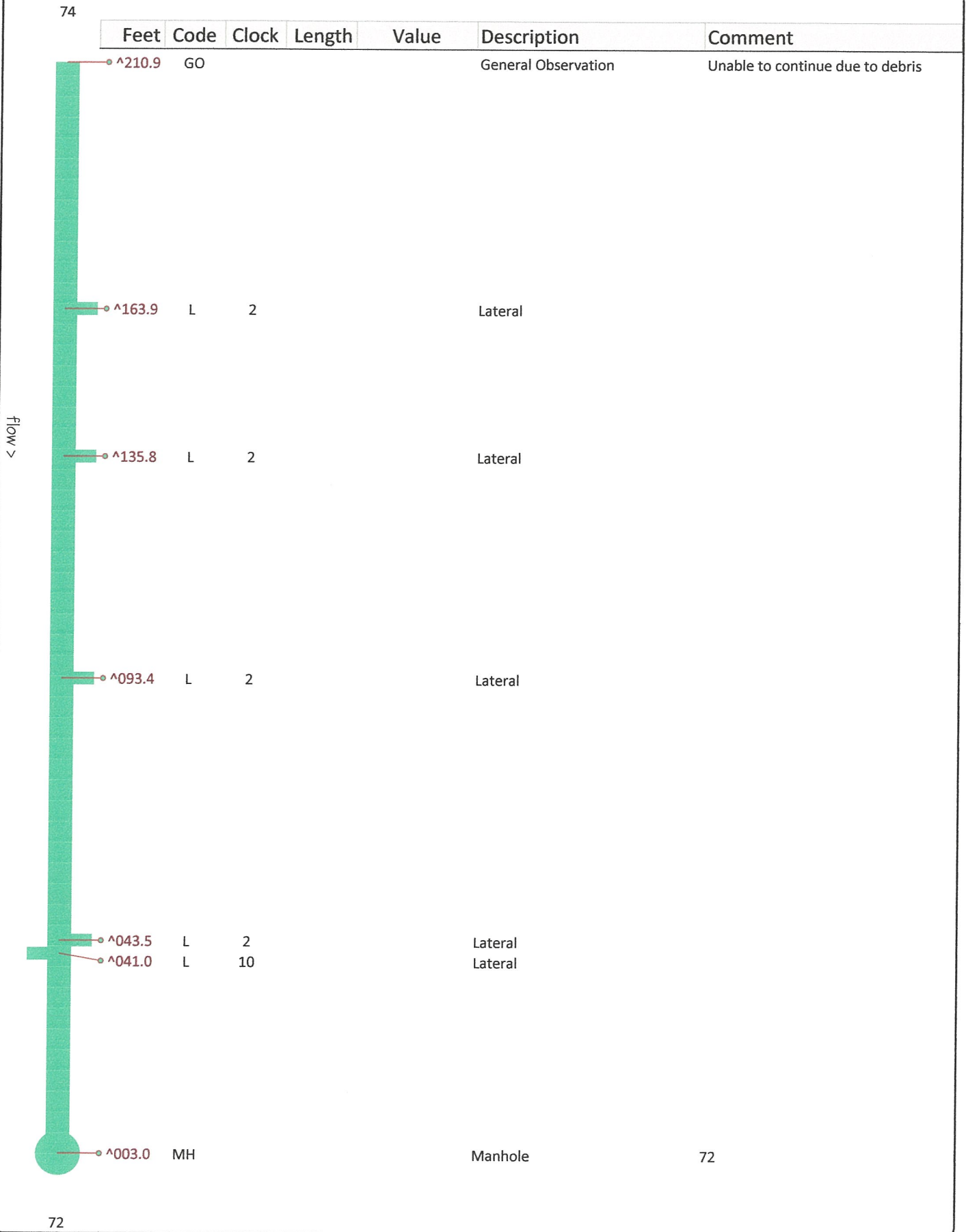
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

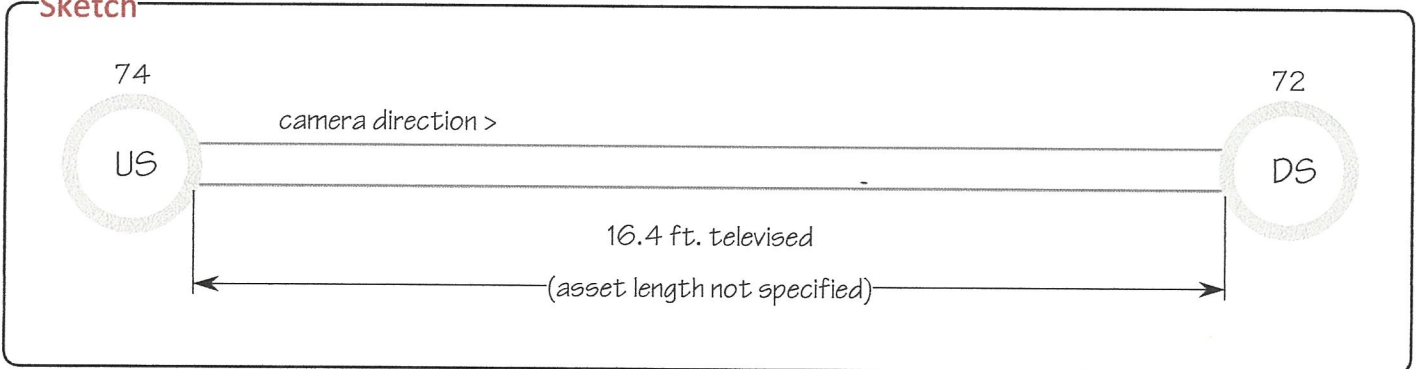
Purpose:

Pre-Cleaning:

Weather:

Location Details:

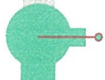
Sketch



Schematic Top View

74

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH
L 10

Manhole Lateral 74

Flow >

016.4 GO

General Observation unable to continue due to debris

72

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

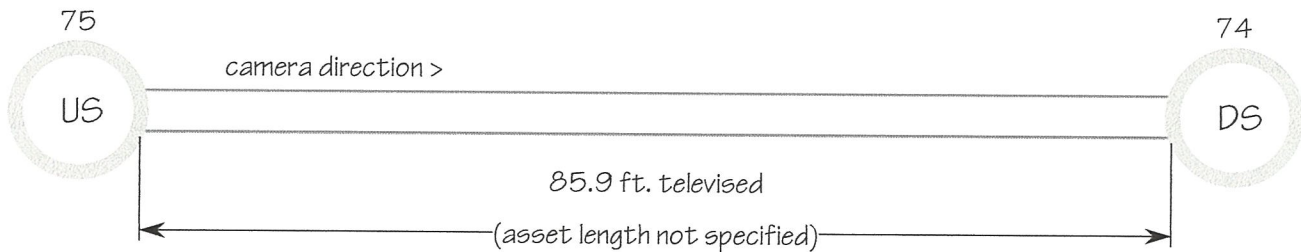
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

75

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

75

Flow >



085.9 GO

General Observation

Unknow material in the line

74

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

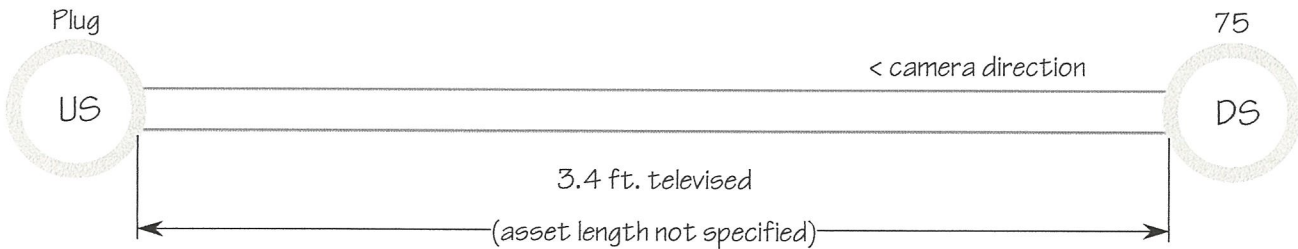
Purpose:

Pre-Cleaning:

Weather:

Location Details:

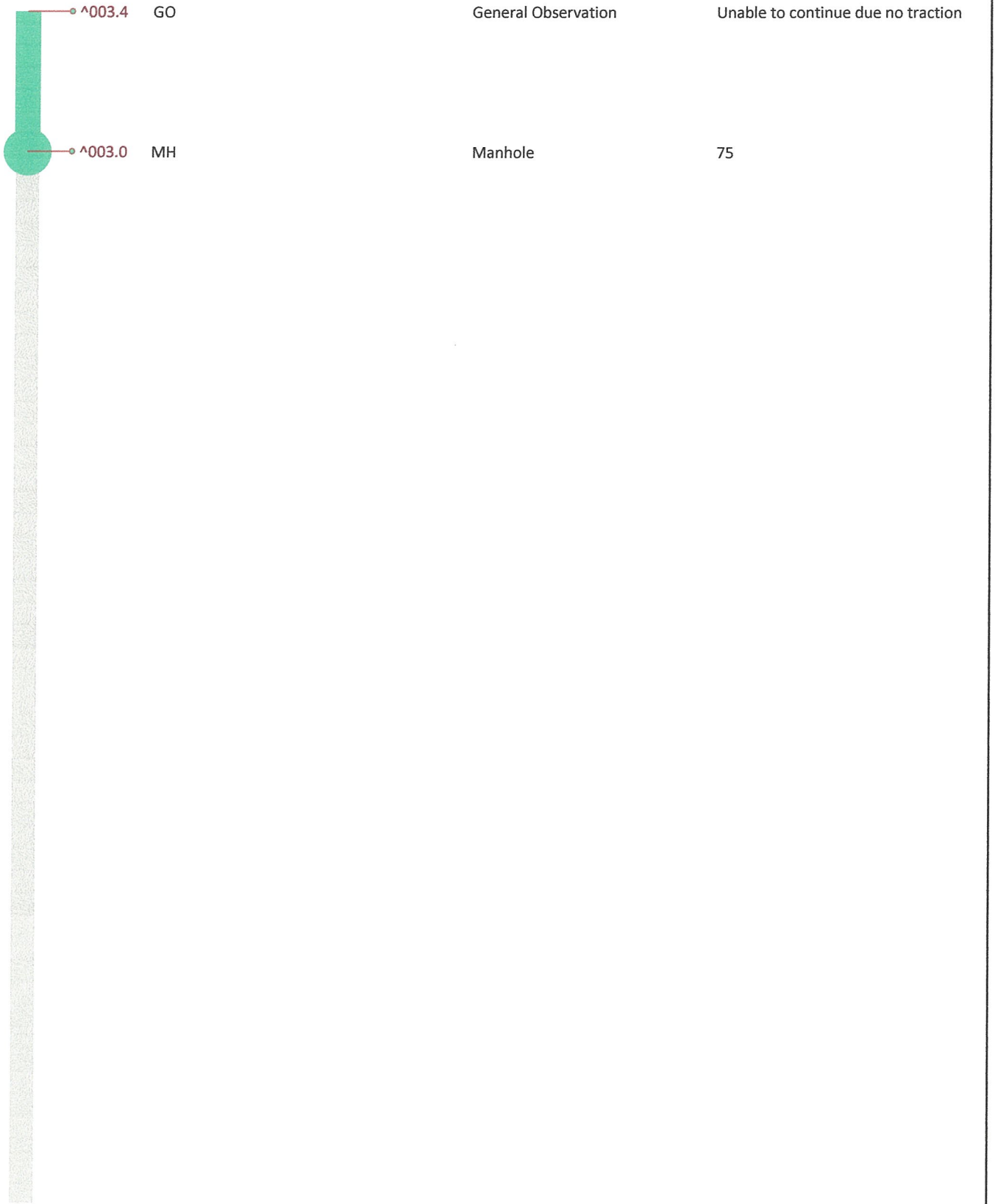
Sketch



Schematic Top View

Plug

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



75

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

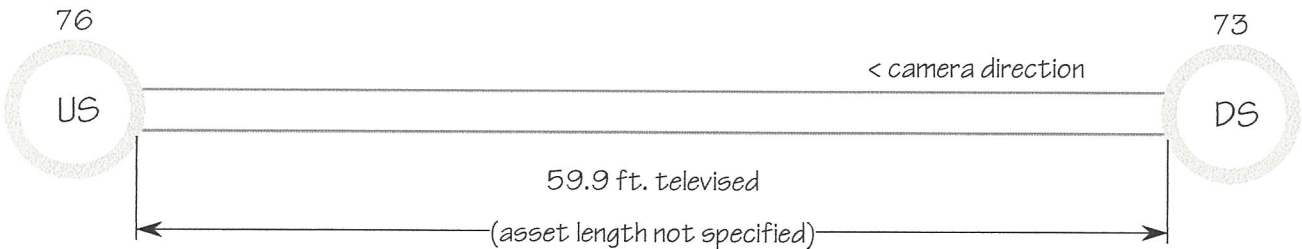
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

76

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^059.9	GO				General Observation	Pipe off sets to much to continue
--------	----	--	--	--	---------------------	-----------------------------------

^039.1	JO				Joint Offset	
--------	----	--	--	--	--------------	--

^006.9	R				Roots	
--------	---	--	--	--	-------	--

^003.0	MH				Manhole	73
--------	----	--	--	--	---------	----

73

Flow >

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

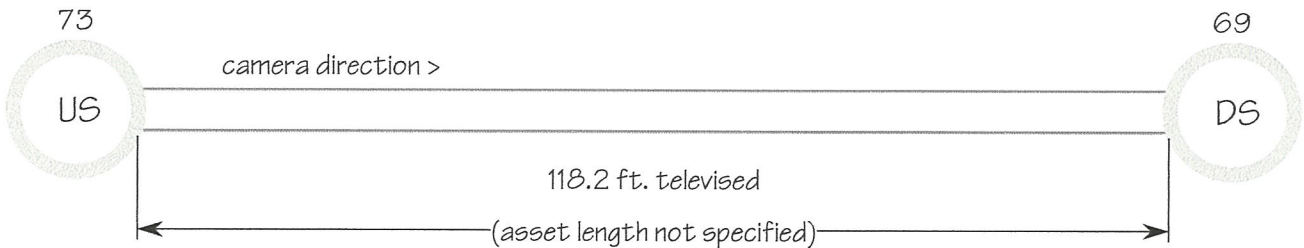
Purpose:

Pre-Cleaning:

Weather:

Location Details:

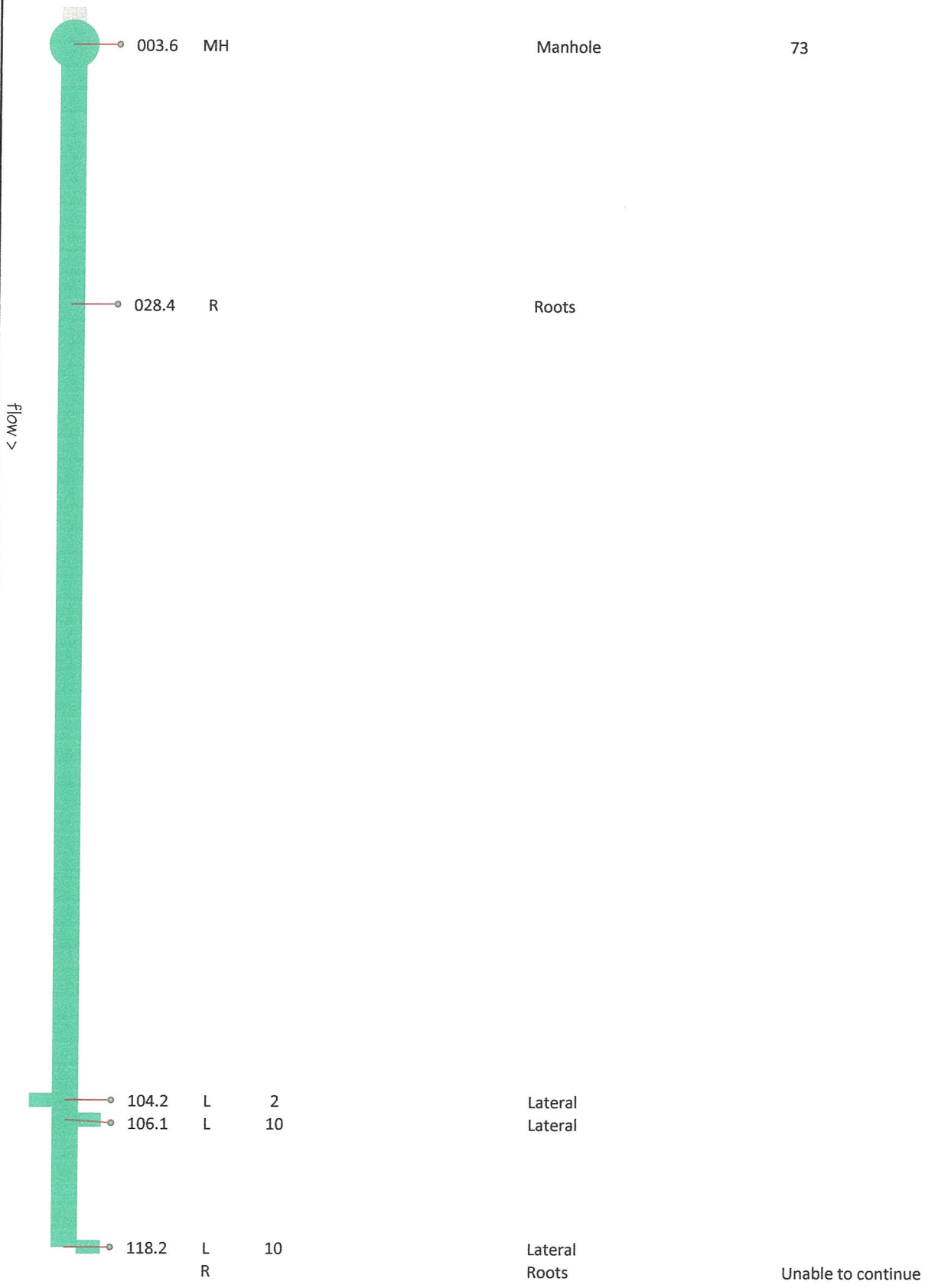
Sketch



Schematic Top View

73

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



69

Unable to continue

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

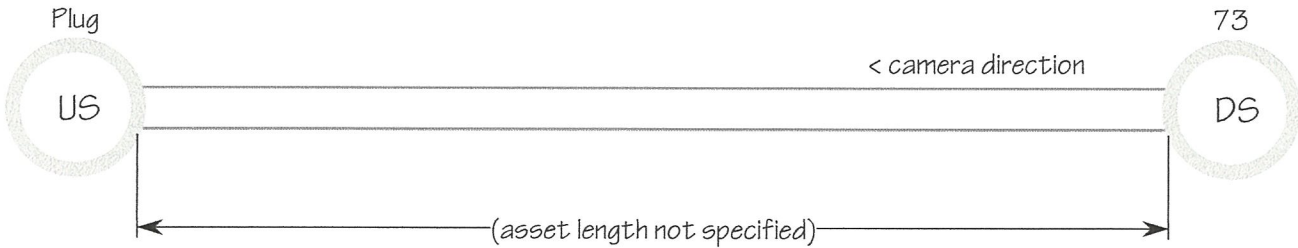
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

Plug

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



Flow >

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

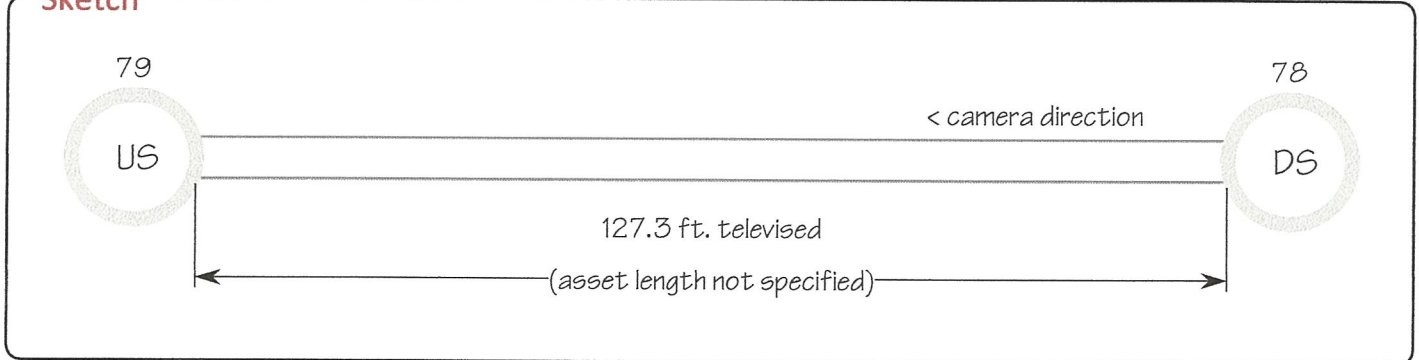
Purpose:

Pre-Cleaning:

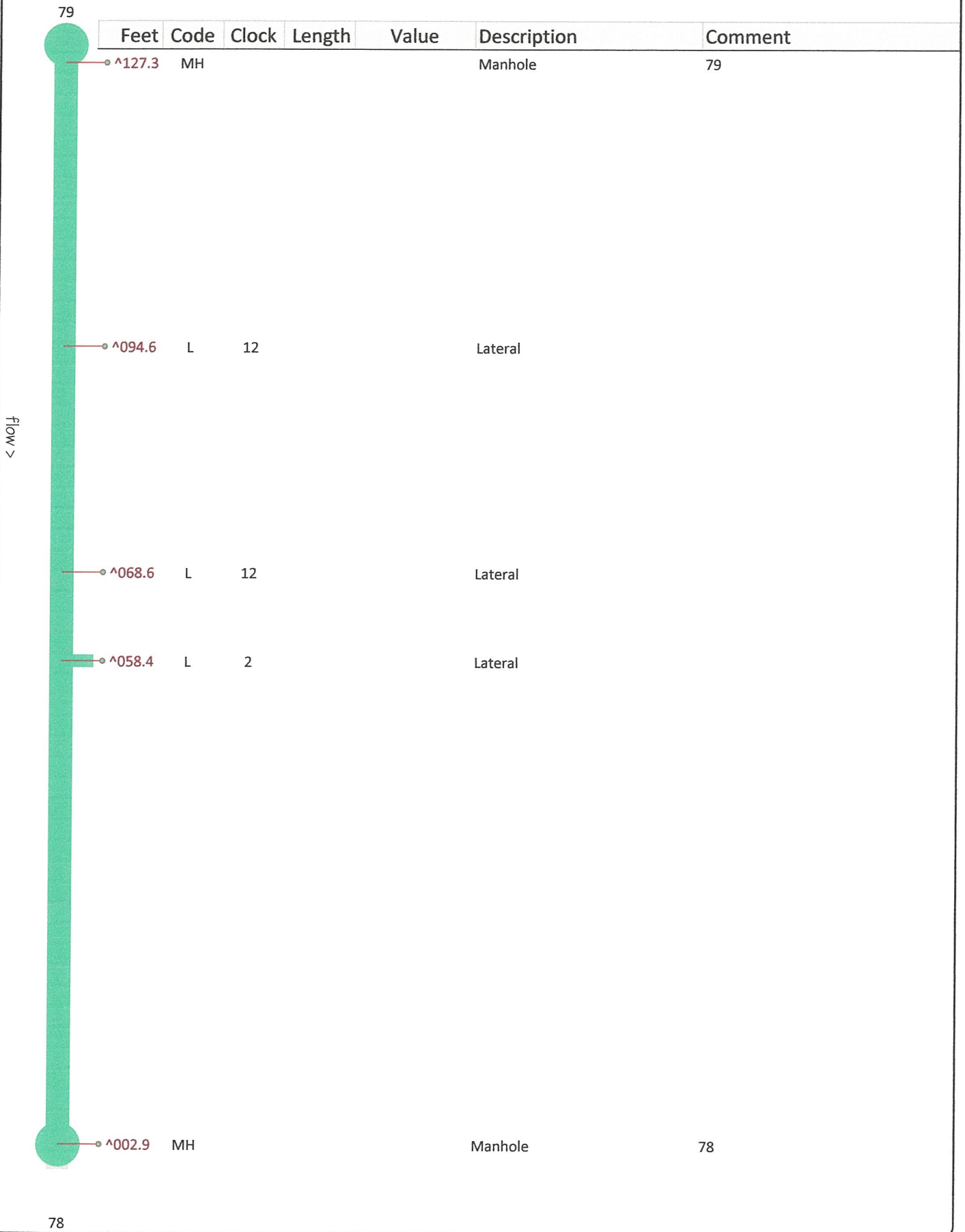
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

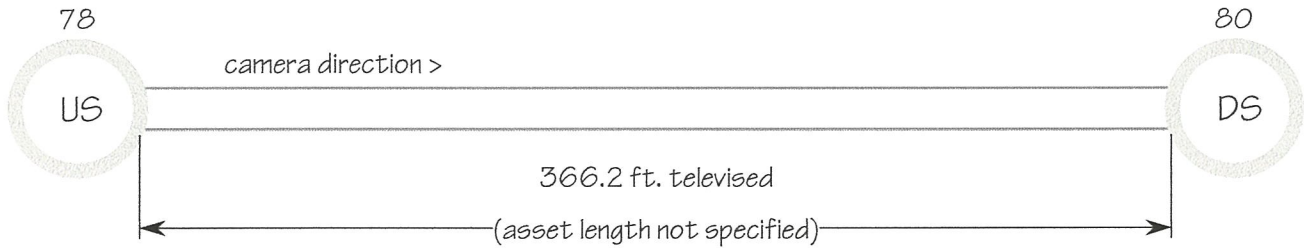
Purpose:

Pre-Cleaning:

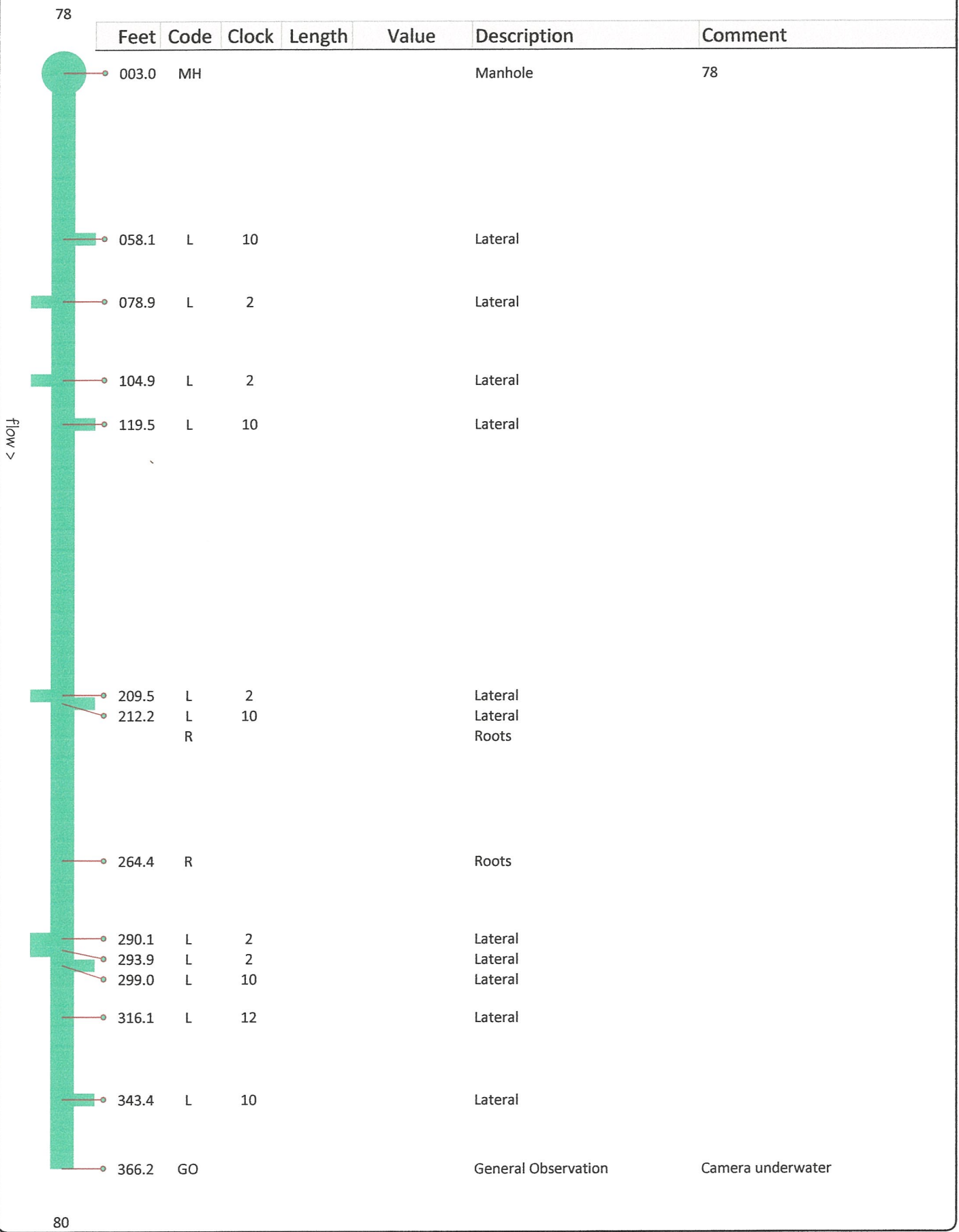
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

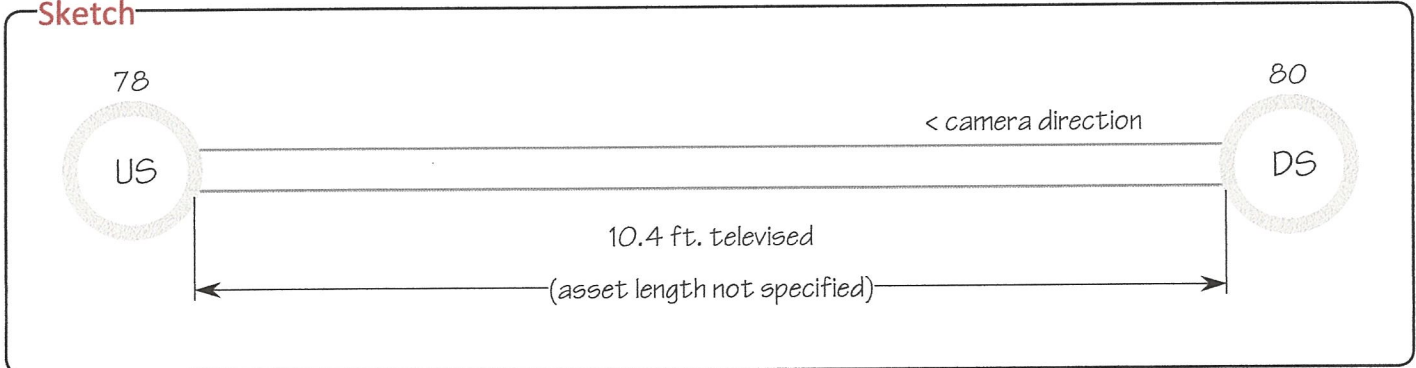
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

78

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^010.4	R				Roots	Unable to continue
	L	2			Lateral	

Flow >



^003.0	MH				Manhole	80
	L	2			Lateral	

80

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

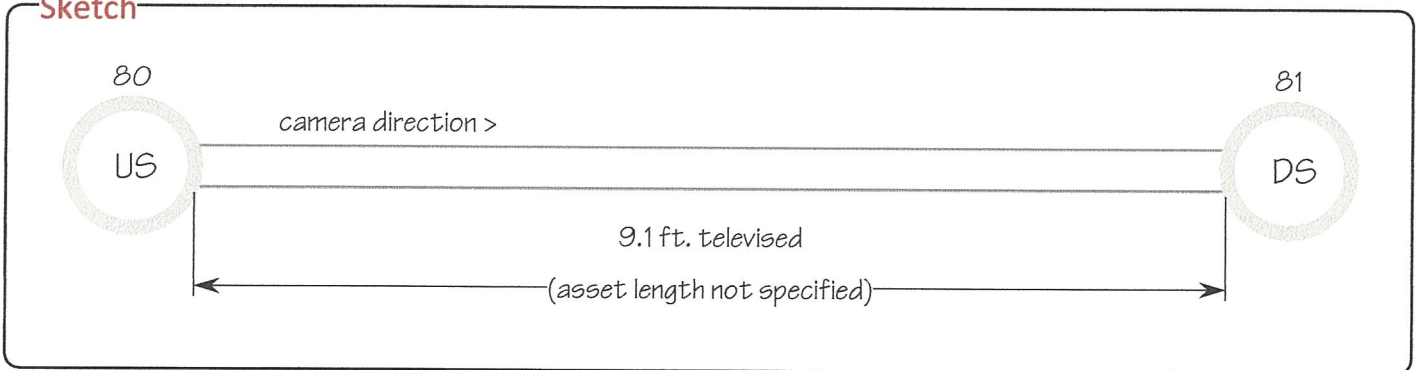
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

80

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

Flow >



003.0 MH

Manhole

80

007.8 R

Roots

009.1 GO

General Observation

Can not continue due to roots

81

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

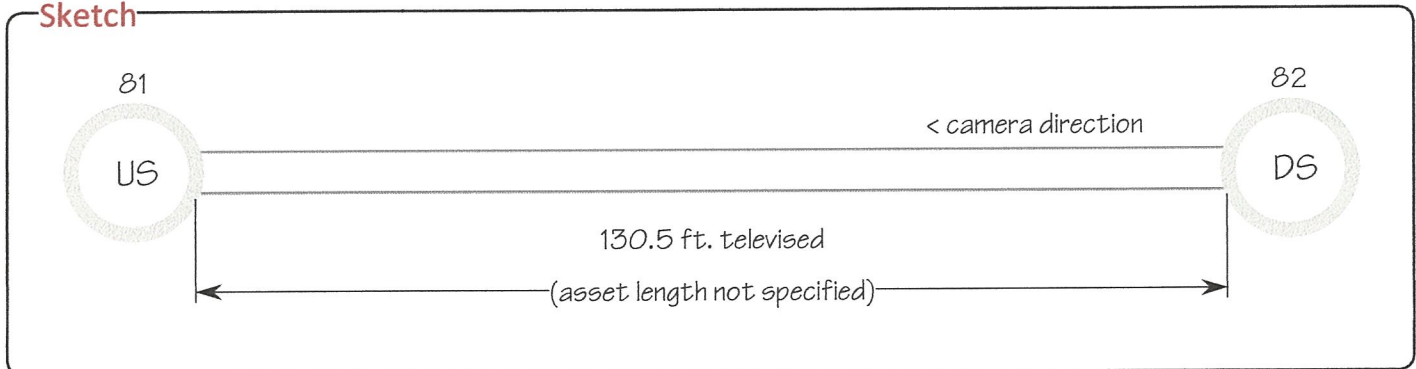
Purpose:

Pre-Cleaning:

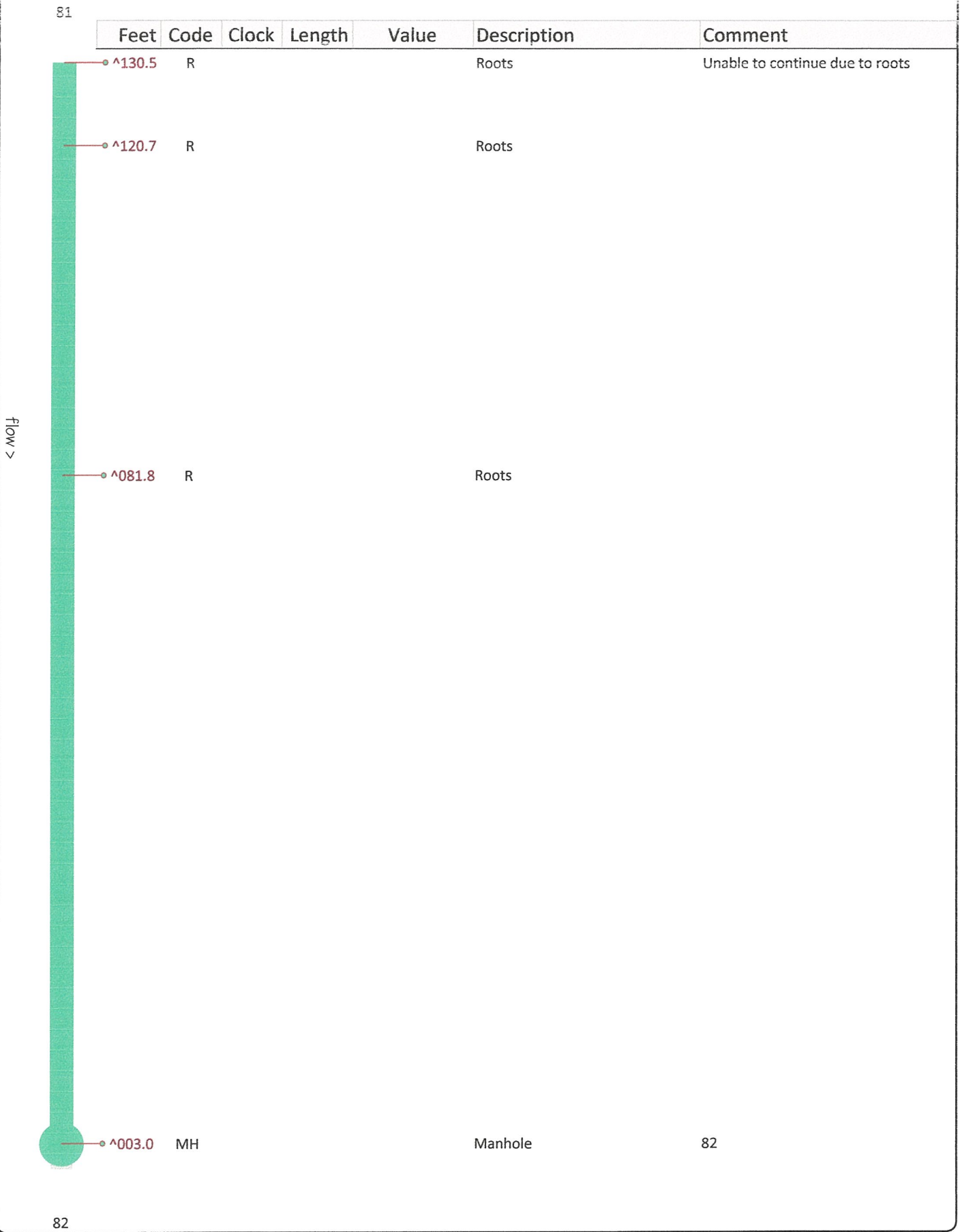
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

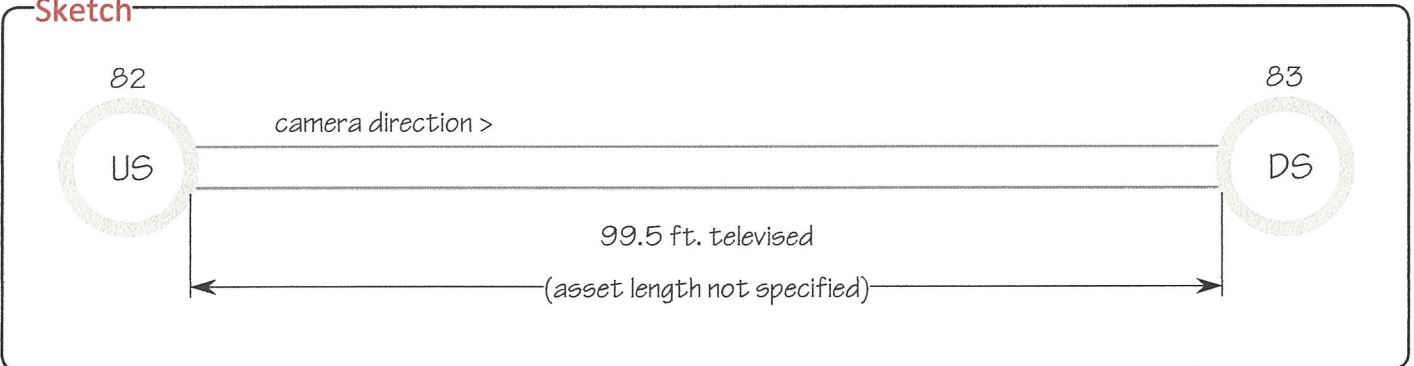
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

82

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.5 MH

Manhole

82



flow >

022.2 R

Roots



073.8 L 2

Lateral



099.5 MH

Manhole

83

83

Asset Information

Upstream MH: 83
 USMH Depth:
 Downstream MH: 87
 DSMH Depth:
 Pipe Size: 8 in.
 Material: VC
 Street: Wyoming St.
 City: June Lake
 System Owner: June Lake
 Sewer Use: Sanitary
 Length: (unspecified)

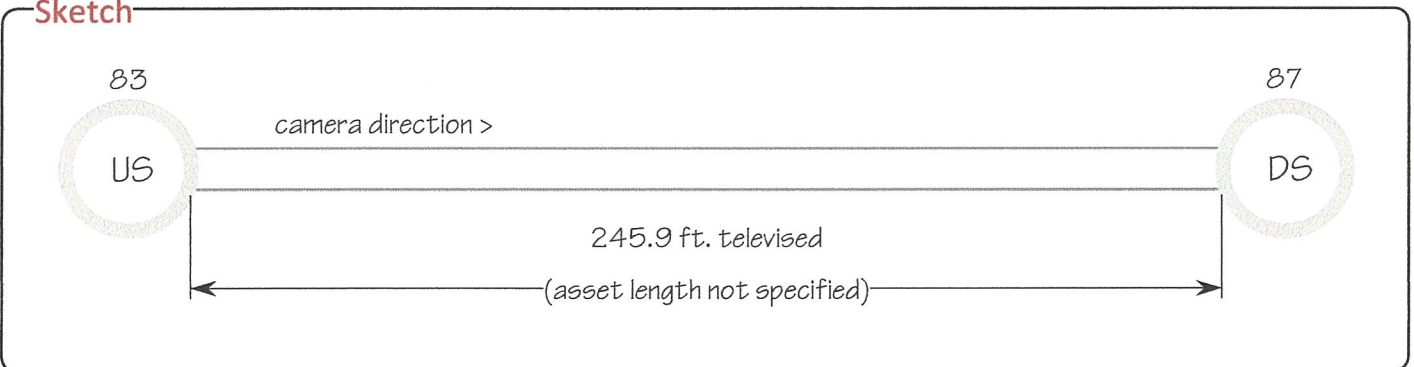
Project Information

Project: June Lake
 Job:
 Survey Customer: June Lake
 Comments:

Inspection Information

Date: 03-Jun-2020 1:05 PM
 Surveyed By: Matthew Hache
 Camera Direction: Downstream
 Purpose: Maintenance Related
 Pre-Cleaning:
 Weather:
 Location Details:

Sketch



Schematic Top View

83

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	83
-------	----	--	--	--	---------	----



Flow >



068.5	L		2		Lateral	
-------	---	--	---	--	---------	--



106.9	L		10		Lateral	
-------	---	--	----	--	---------	--



119.5	R				Roots	
-------	---	--	--	--	-------	--



134.6	L		2		Lateral	
-------	---	--	---	--	---------	--



187.7	L		10		Lateral	
-------	---	--	----	--	---------	--



245.9	MH				Manhole	87
-------	----	--	--	--	---------	----

87

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

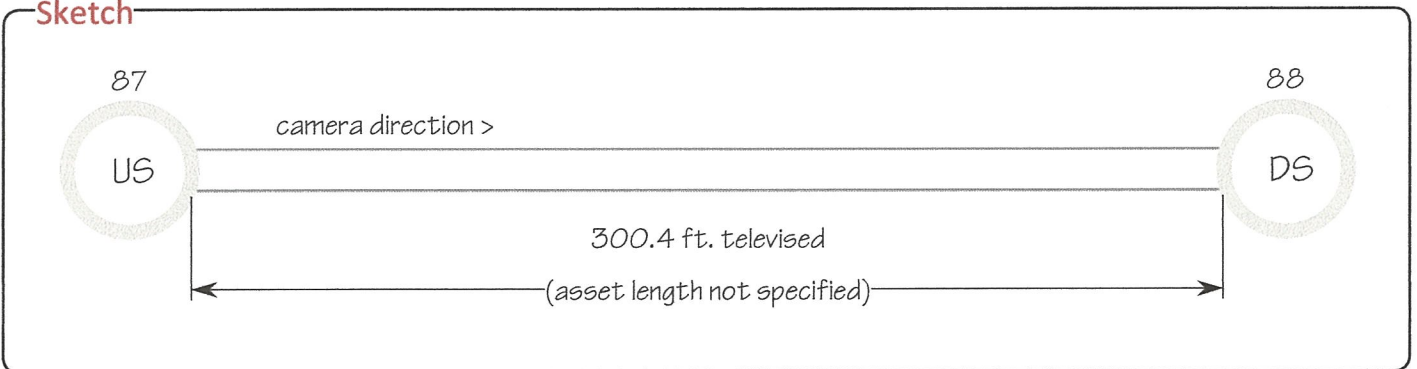
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

87

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	87
-------	----	--	--	--	---------	----



044.4	L	2			Lateral	
-------	---	---	--	--	---------	--



057.6	L	2			Lateral	
-------	---	---	--	--	---------	--

Flow >



111.0	R				Roots	
-------	---	--	--	--	-------	--



182.1	L	2			Lateral	
-------	---	---	--	--	---------	--



212.6	L	10			Lateral	
-------	---	----	--	--	---------	--



291.0	L	10			Lateral	
-------	---	----	--	--	---------	--



300.4	MH				Manhole	88
-------	----	--	--	--	---------	----

88

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

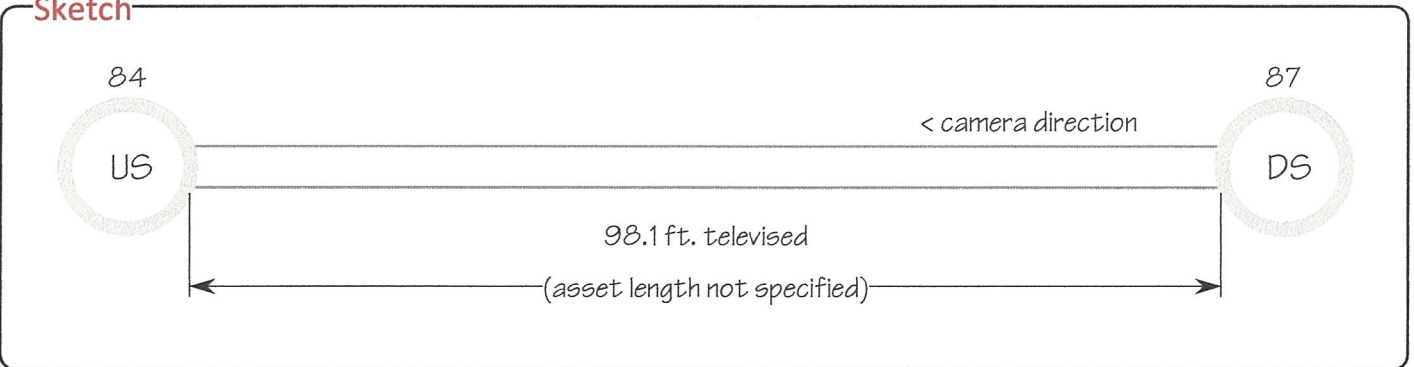
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch

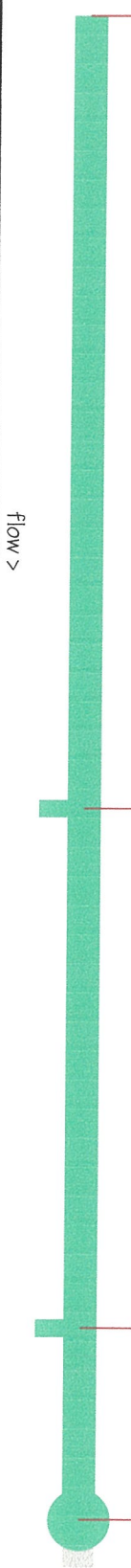


Schematic Top View

84

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

098.1	R				Roots	Can not continue
-------	---	--	--	--	-------	------------------



047.9	L	11			Lateral	
-------	---	----	--	--	---------	--

015.1	L	10			Lateral	
-------	---	----	--	--	---------	--

003.0	MH				Manhole	87
-------	----	--	--	--	---------	----

87

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

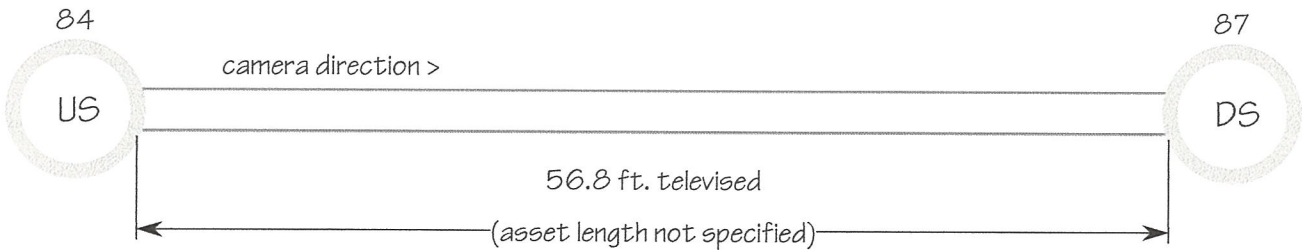
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

84

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

84

Flow >



027.3 L 12

Lateral



056.8 R

Roots

Unable to continue due to roots

87

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

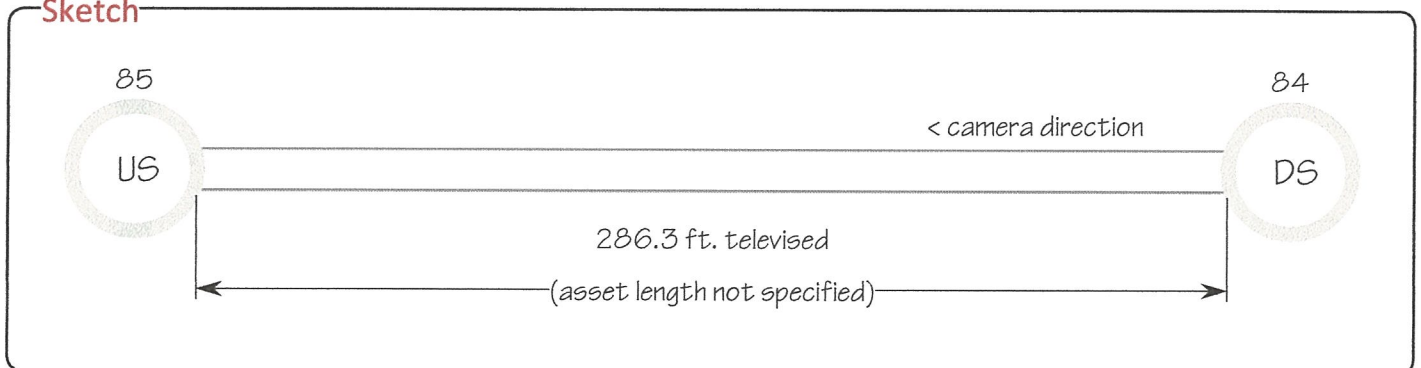
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

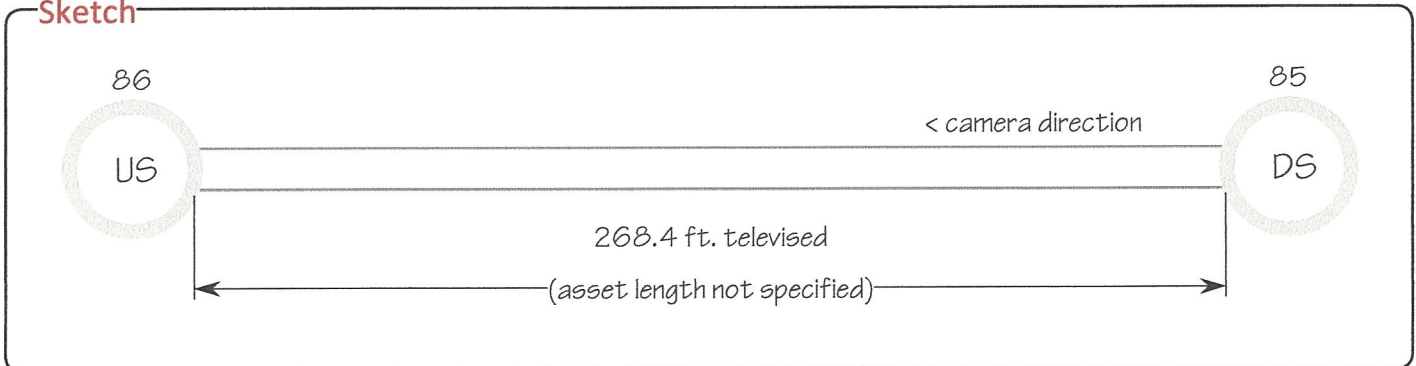
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View



Exhibit C – Day 3

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

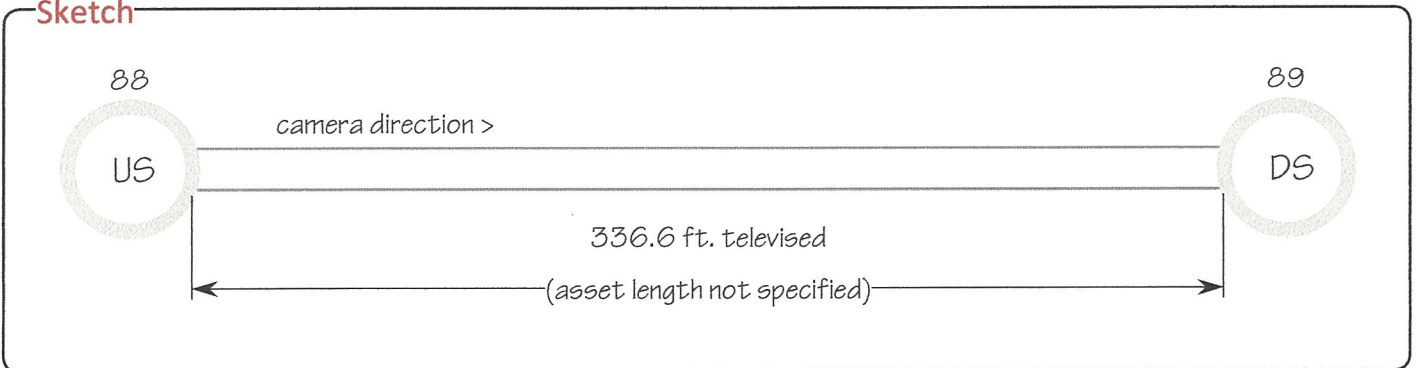
Purpose:

Pre-Cleaning:

Weather:

Location Details:

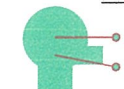
Sketch



Schematic Top View

88

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	88
006.7	L	10			Lateral	



028.5	L	2			Lateral	
-------	---	---	--	--	---------	--



080.9	L	10			Lateral	
-------	---	----	--	--	---------	--



121.7	L	10			Lateral	
-------	---	----	--	--	---------	--



159.5	L	2			Lateral	
-------	---	---	--	--	---------	--



175.7	L	2			Lateral	
-------	---	---	--	--	---------	--



199.9	L	10			Lateral	
-------	---	----	--	--	---------	--



244.8	L	10			Lateral	
-------	---	----	--	--	---------	--



253.5	L	10			Lateral	
-------	---	----	--	--	---------	--



265.6	L	2			Lateral	
-------	---	---	--	--	---------	--



315.4	L	2			Lateral	
-------	---	---	--	--	---------	--



336.6	MH				Manhole	89
-------	----	--	--	--	---------	----

89

Flow >



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

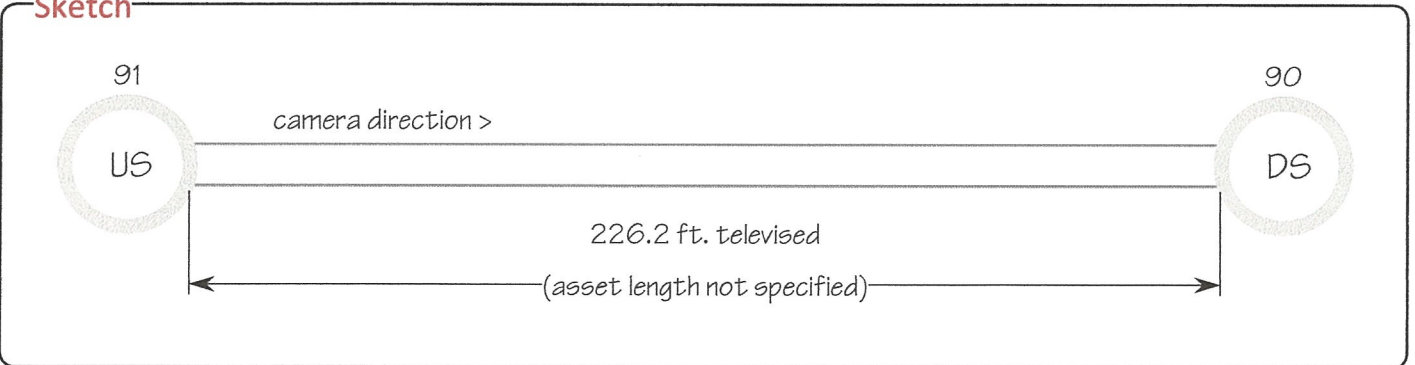
Purpose:

Pre-Cleaning:

Weather:

Location Details:

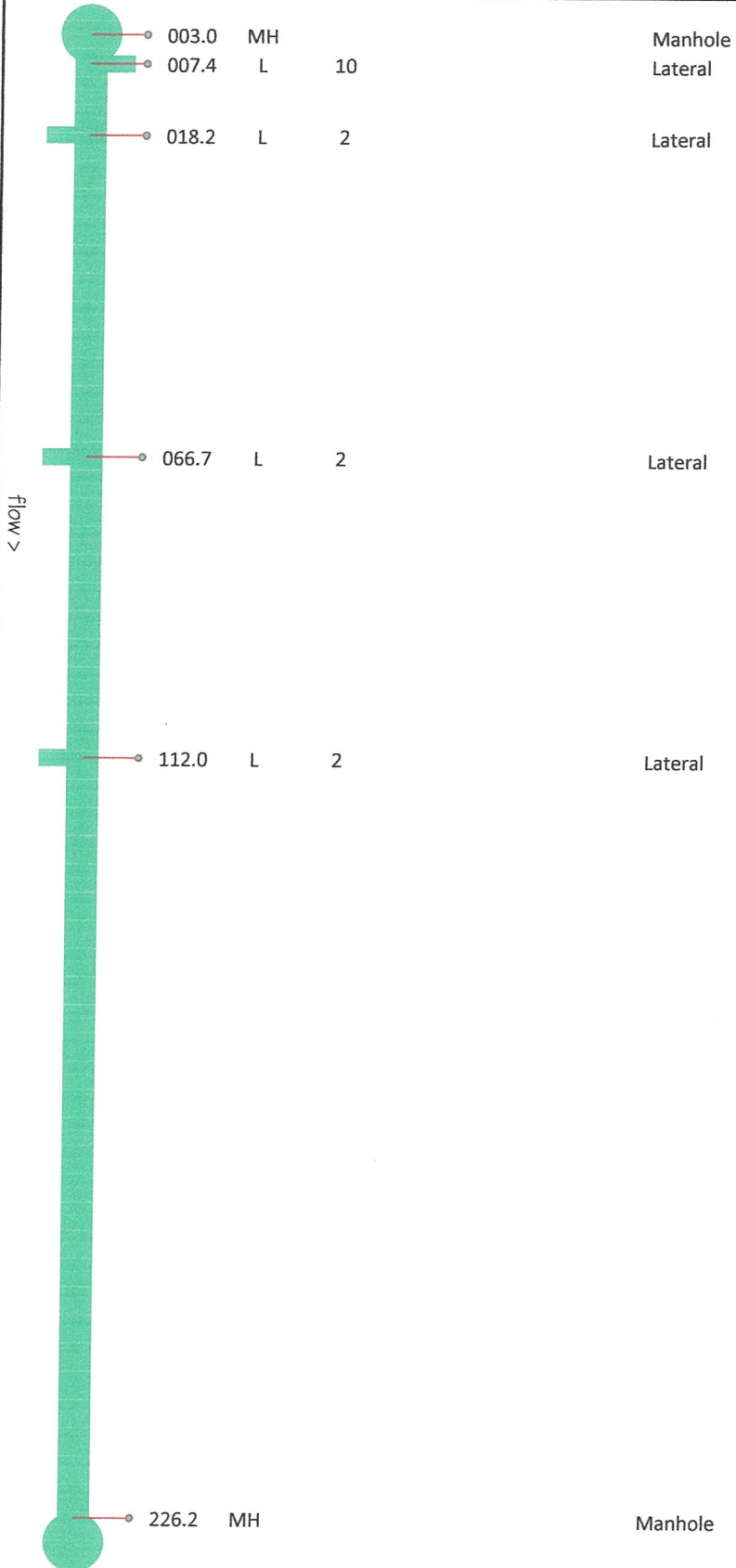
Sketch



Schematic Top View

91

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH
007.4 L 10 Manhole 91

018.2 L 2 Lateral

066.7 L 2 Lateral

112.0 L 2 Lateral

226.2 MH Manhole 90

90

Asset Information

Upstream MH: 90

USMH Depth:

Downstream MH: 89

DSMH Depth:

Pipe Size: 8 in.

Material: VC

Street: Washington St.

City: June Lake

System Owner: June Lake

Sewer Use: Sanitary

Length: (unspecified)

Project Information

Project: June Lake

Job:

Survey Customer: June Lake

Comments:

Inspection Information

Date: 04-Jun-2020 8:14 AM

Surveyed By: Matthew Hache

Camera Direction: Downstream

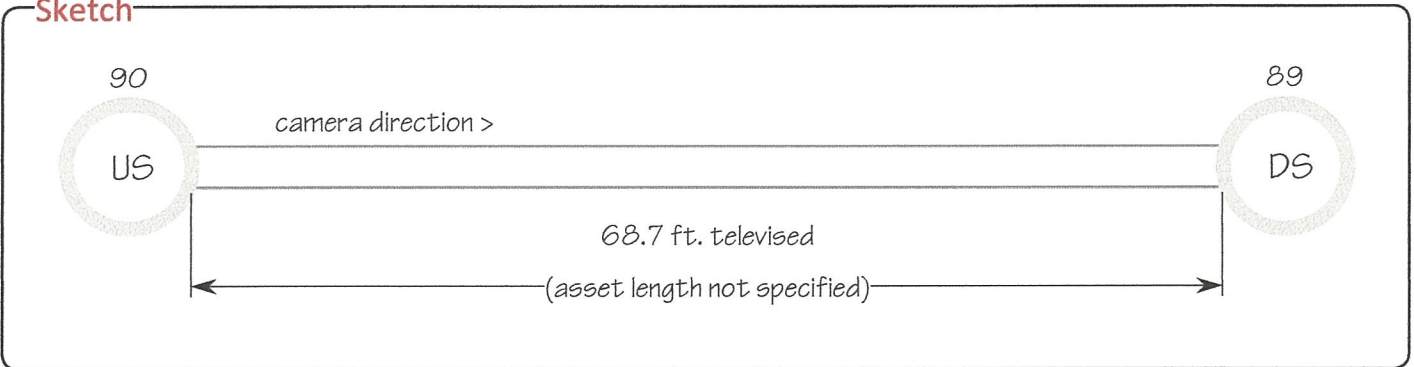
Purpose: Maintenance Related

Pre-Cleaning: Not Known

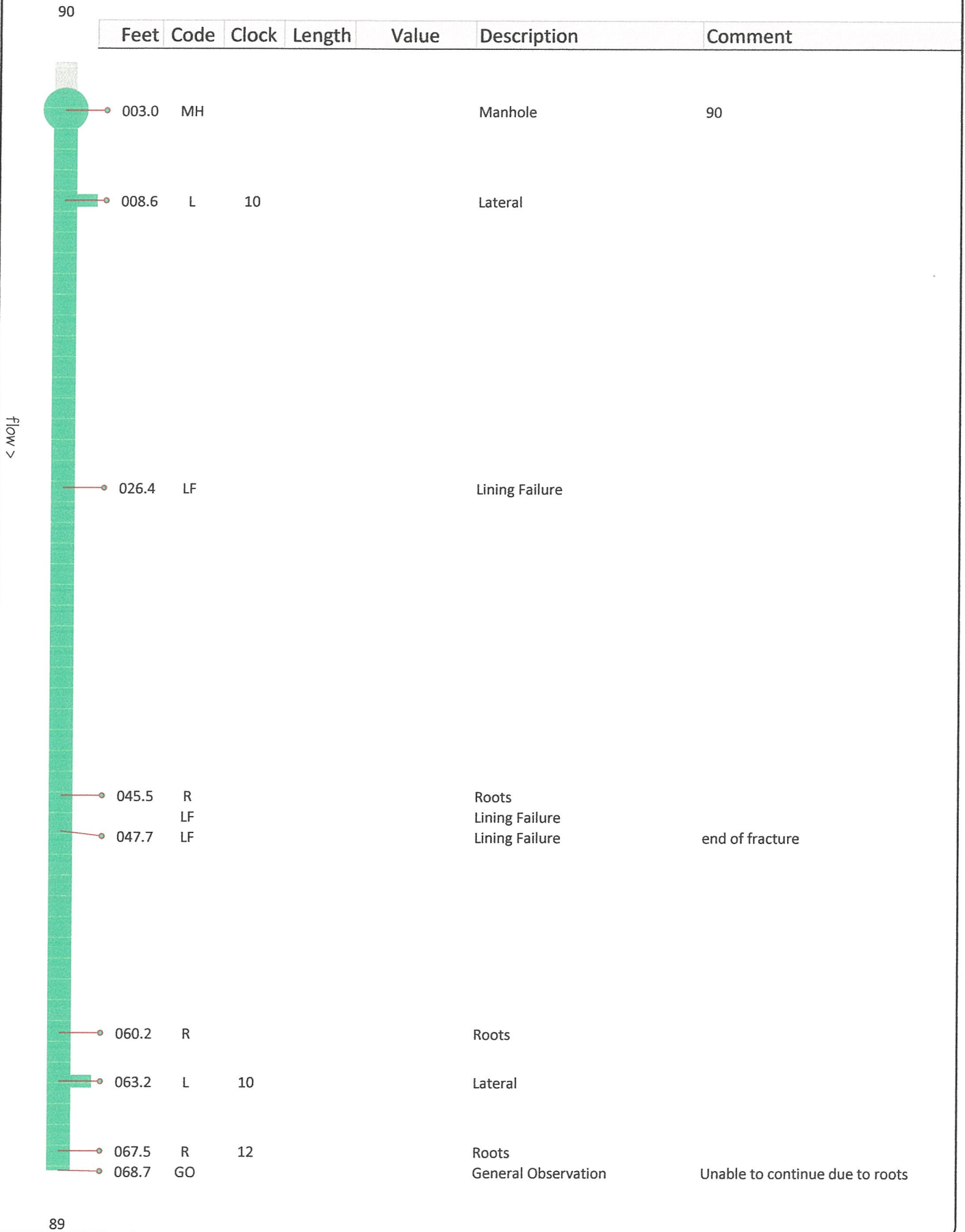
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

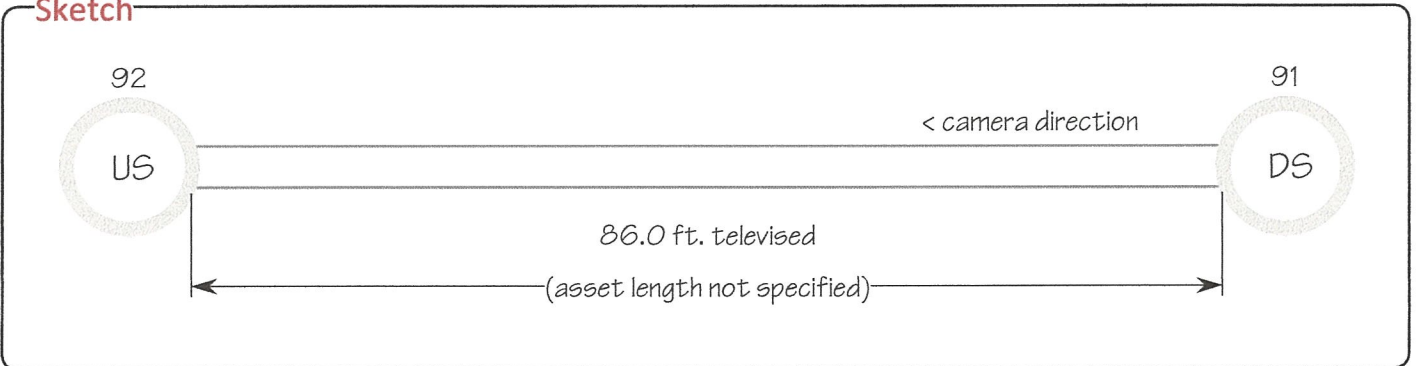
Purpose:

Pre-Cleaning:

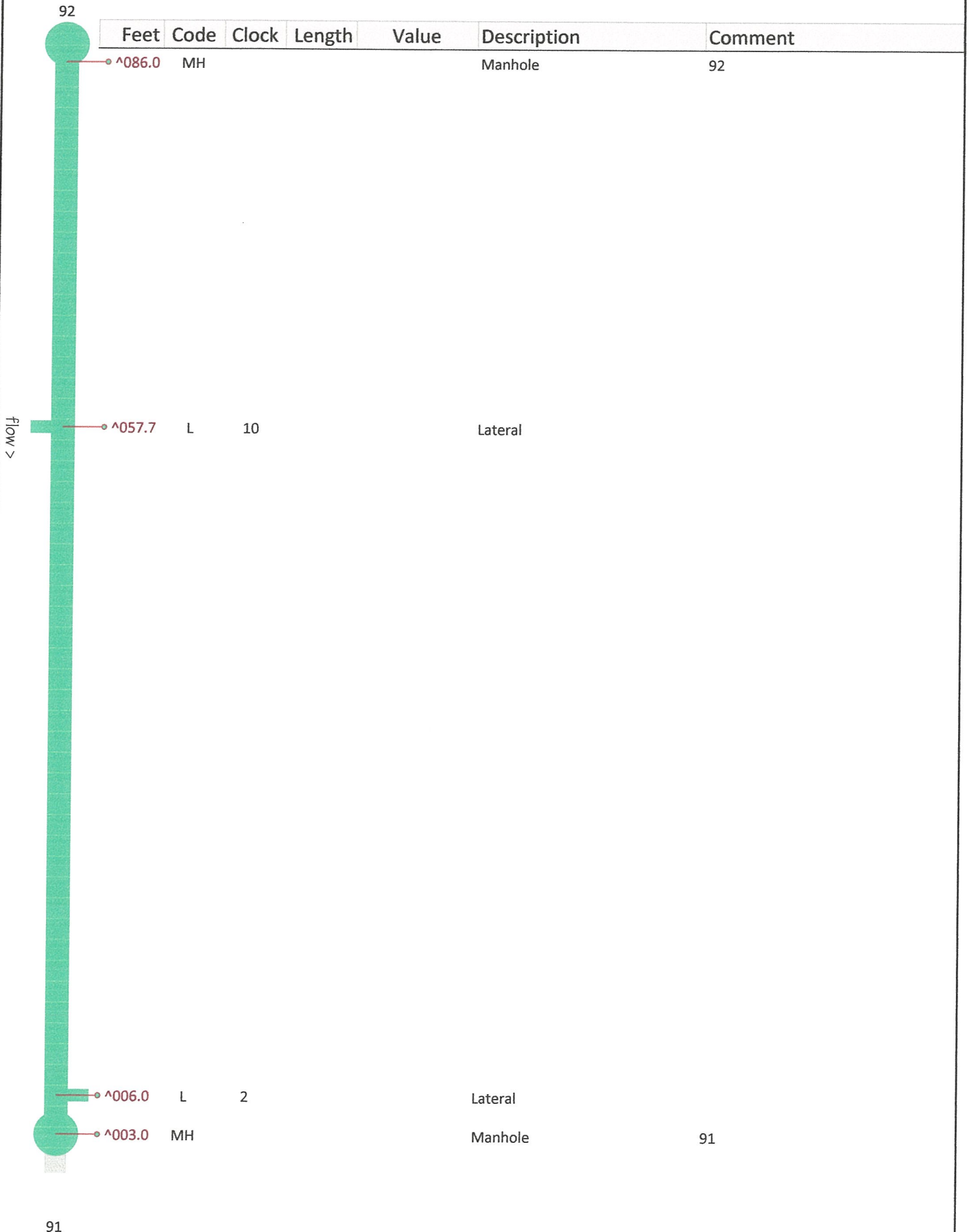
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

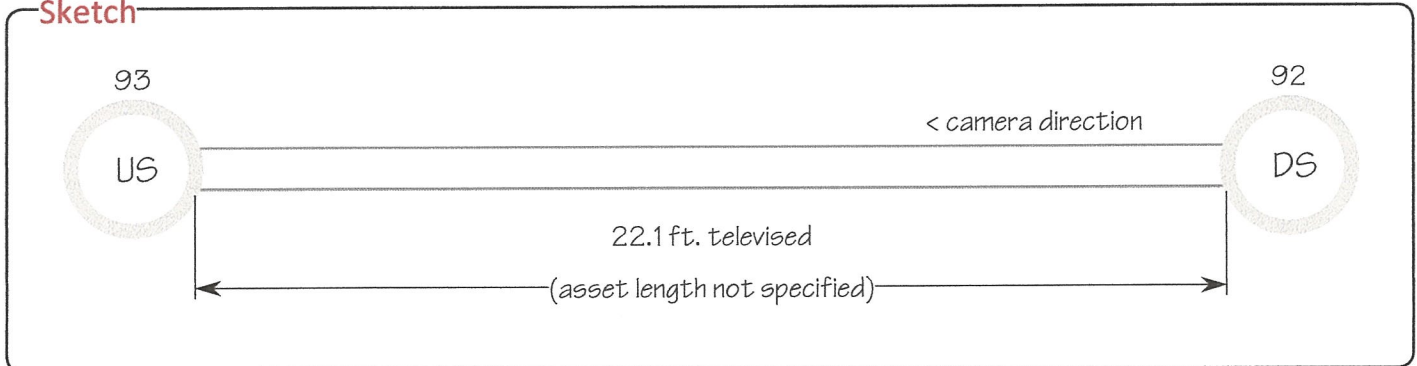
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

93

Feet	Code	Clock	Length	Value	Description	Comment
^022.1	GO				General Observation	Water level too high to continue

Flow >



^003.2 MH

Manhole

92

92

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

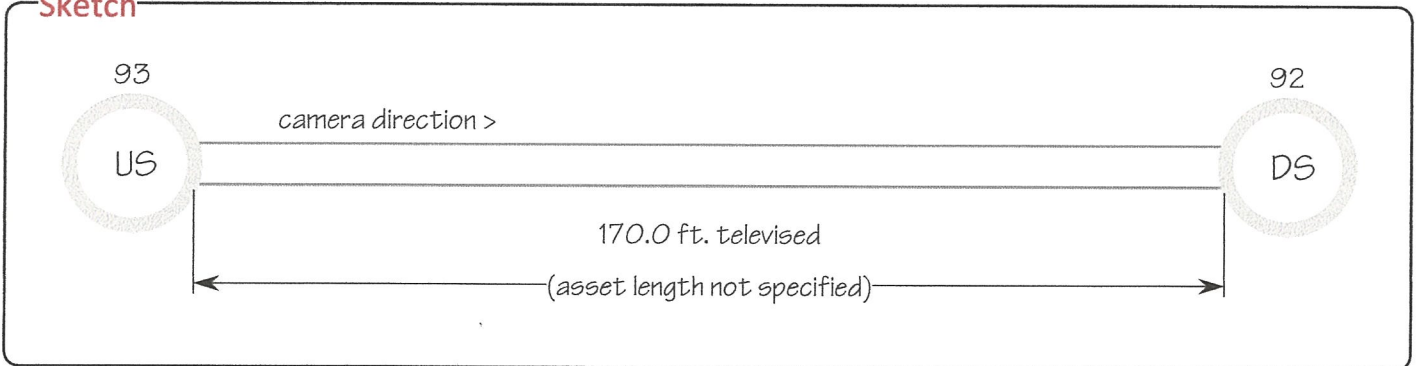
Purpose:

Pre-Cleaning:

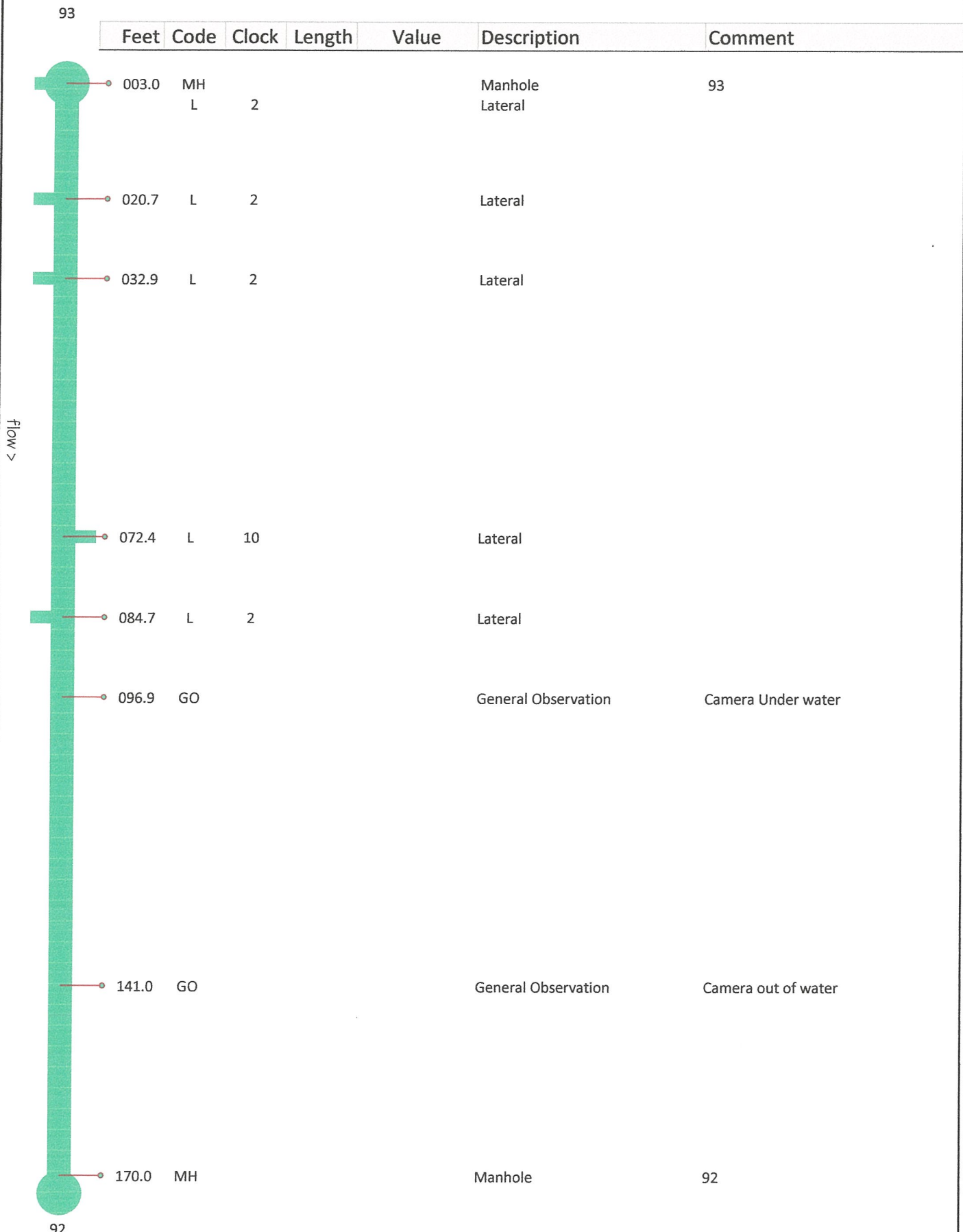
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

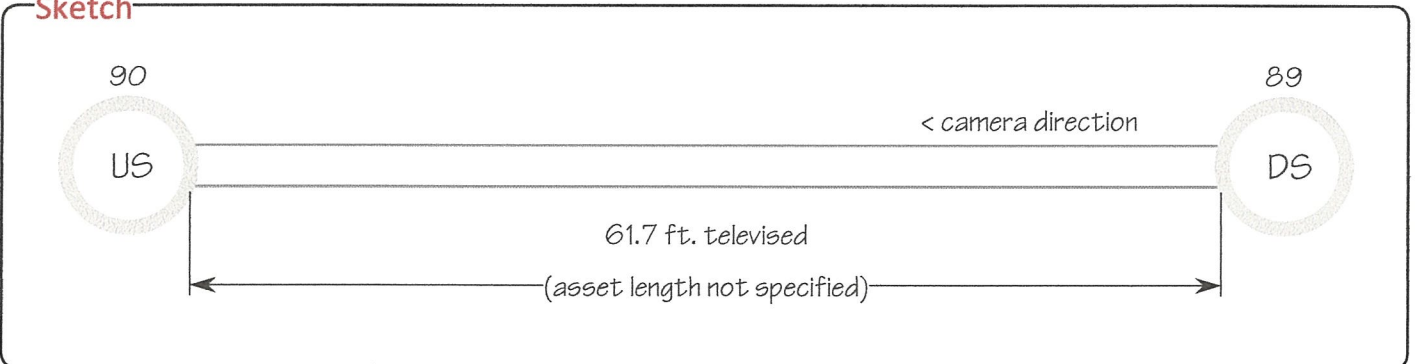
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

90

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

061.7	GO				General Observation	Can not continue due to roots
060.9	R				Roots	

053.5	R				Roots	
-------	---	--	--	--	-------	--

003.0	MH				Manhole	89
-------	----	--	--	--	---------	----



flow >

89

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

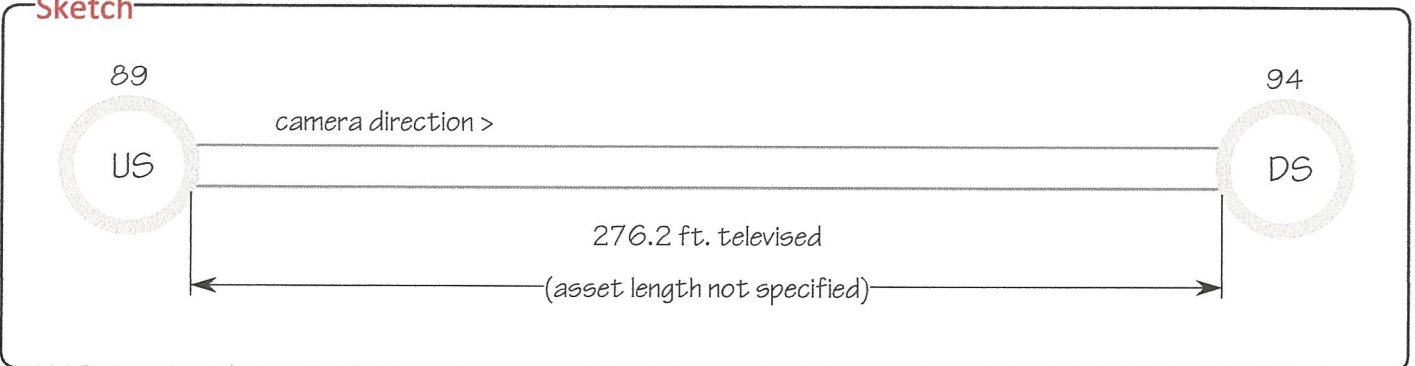
Purpose:

Pre-Cleaning:

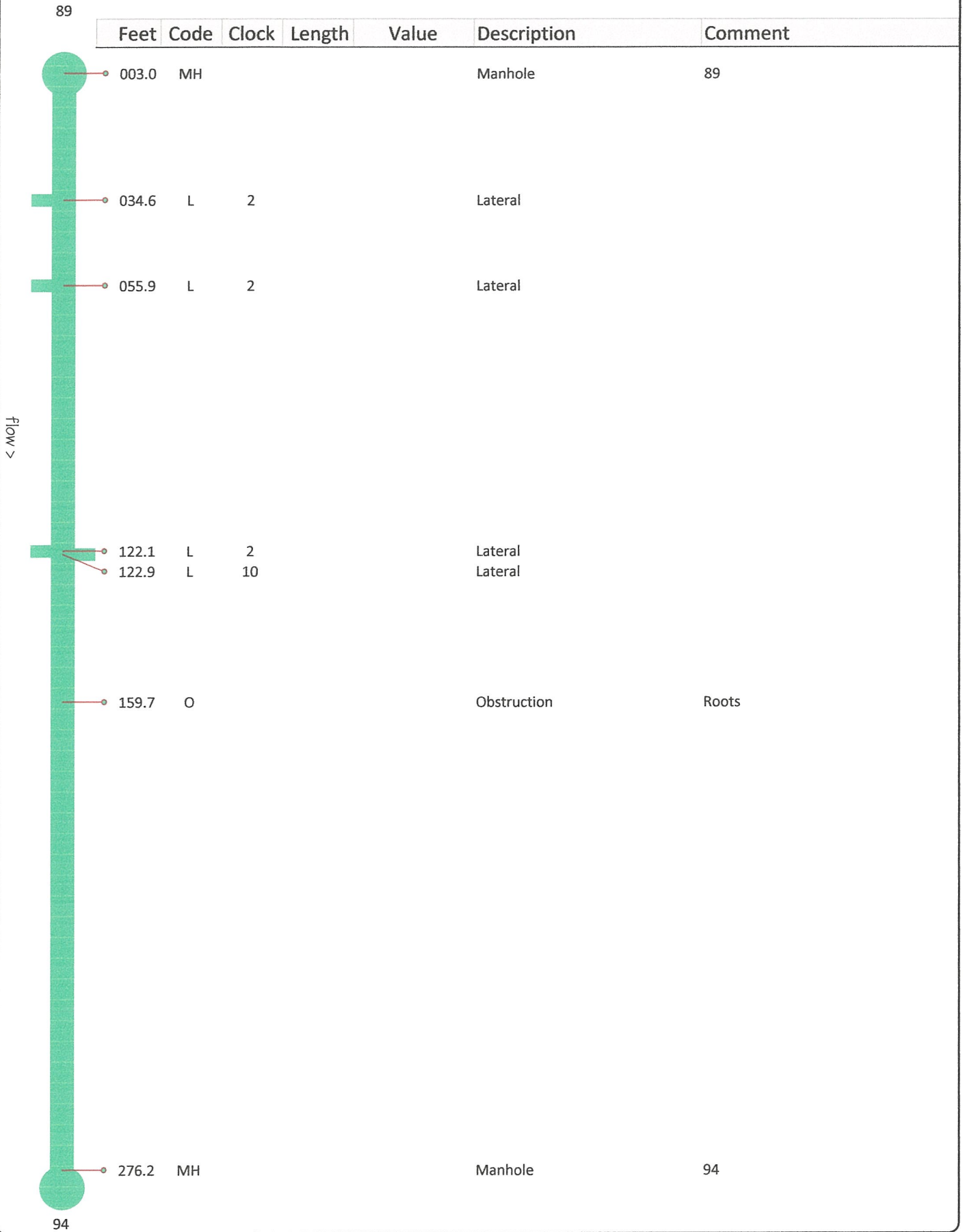
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

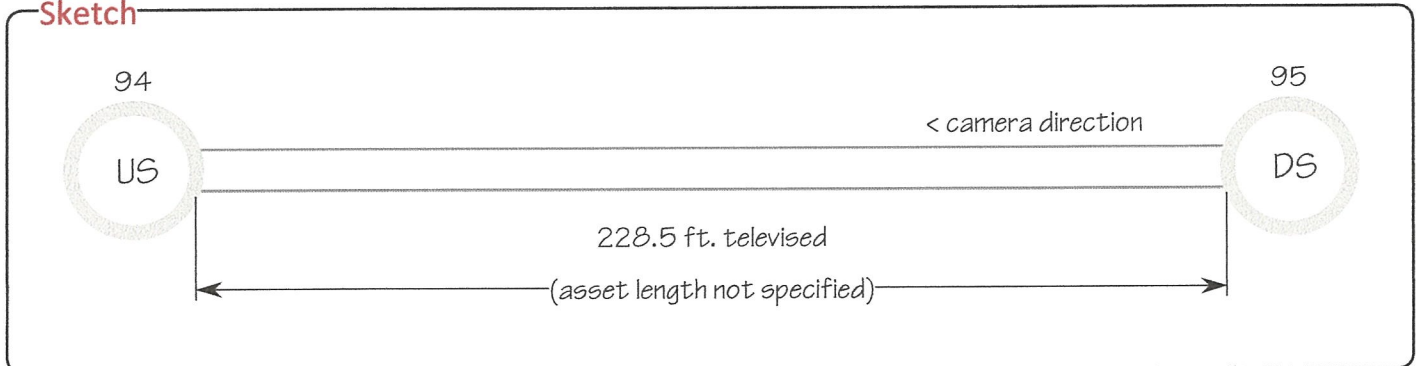
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

94

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

228.5	GO				General Observation	Unable to continue due to roots
227.1	R				Roots	

Flow >



95

002.9 MH

Manhole

95

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

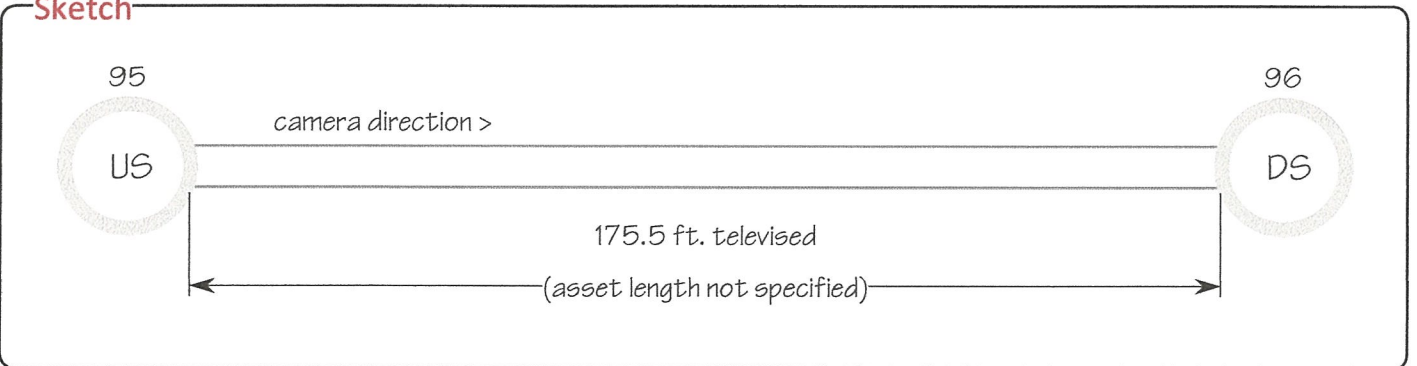
Purpose:

Pre-Cleaning:

Weather:

Location Details:

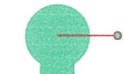
Sketch



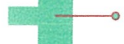
Schematic Top View

95

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	95
-------	----	--	--	--	---------	----



029.4	L	2			Lateral	
-------	---	---	--	--	---------	--



046.5	L	10			Lateral	
-------	---	----	--	--	---------	--



078.5	R				Roots	
-------	---	--	--	--	-------	--



175.5	MH				Manhole	96
-------	----	--	--	--	---------	----

96

Flow >

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

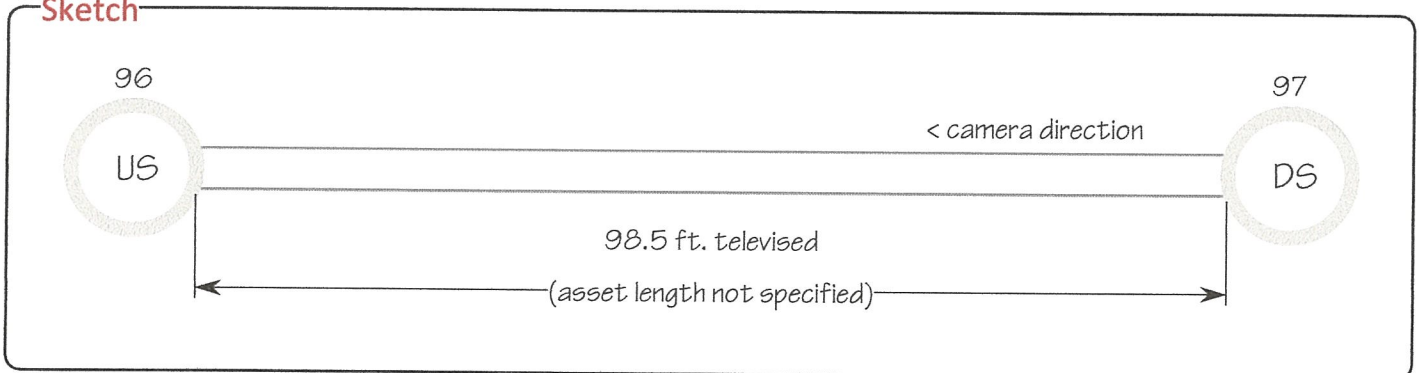
Purpose:

Pre-Cleaning:

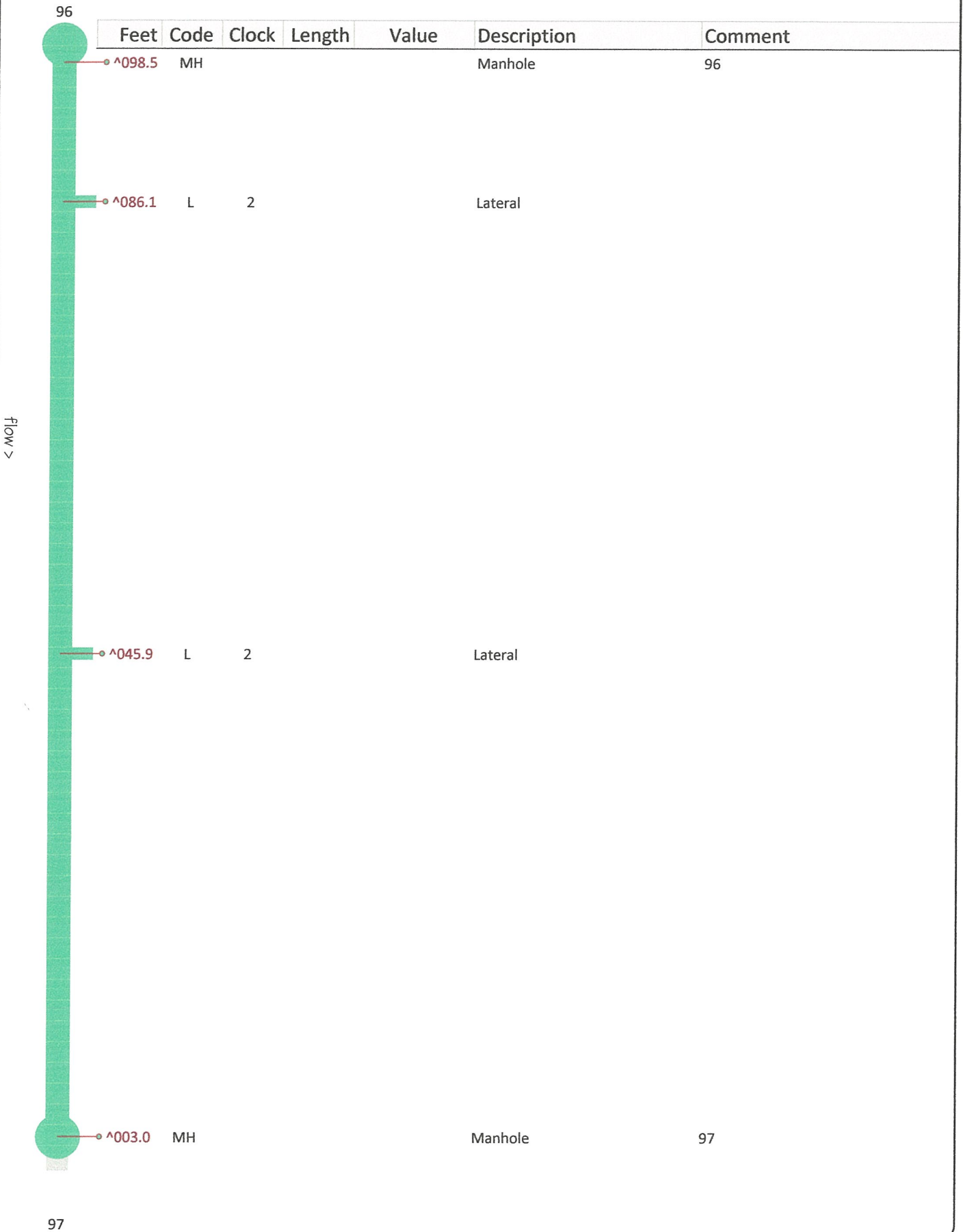
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

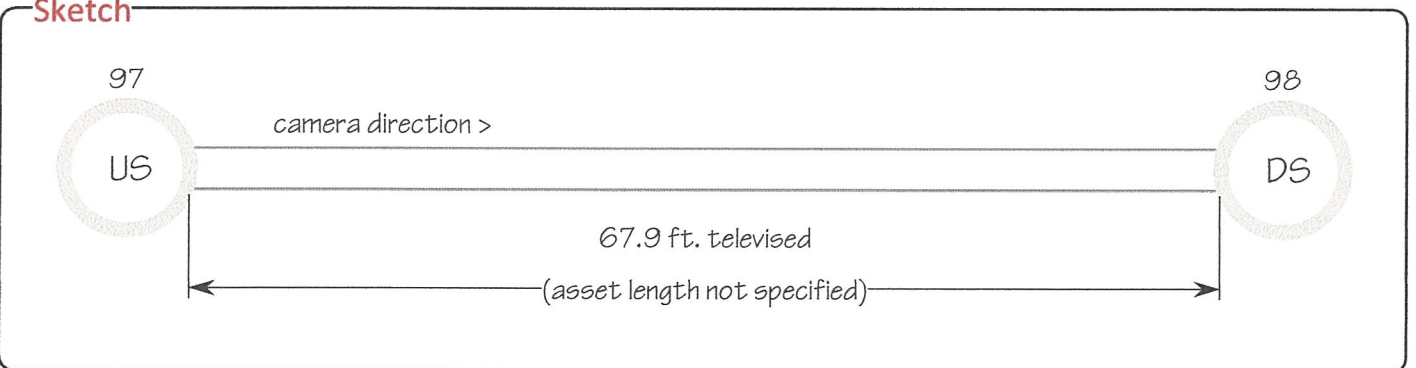
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

97

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

97



017.1 L 2

Lateral

flow >



044.6 L 2

Lateral



067.9 GO

General Observation

Can not continue due to debris in the line

98

Asset Information

Upstream MH:
 USMH Depth:
Downstream MH:
 DSMH Depth:
Pipe Size:
Material:
Street:
City:
System Owner:
Sewer Use:
Length:

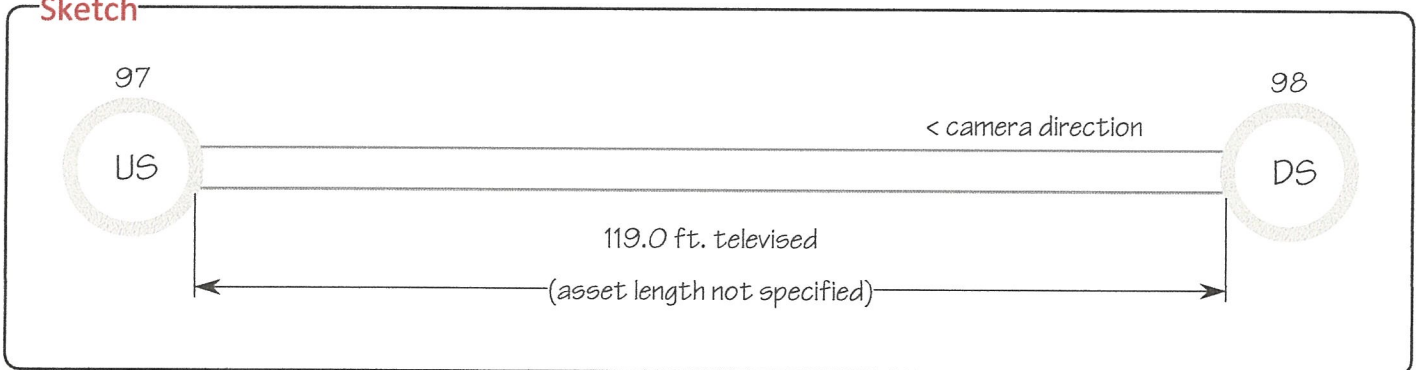
Project Information

Project:
Job:
Survey Customer:
Comments:

Inspection Information

Date:
Surveyed By:
Camera Direction:
Purpose:
Pre-Cleaning:
Weather:
Location Details:

Sketch



Schematic Top View

97

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

119.0	GO				General Observation	Unable to continue due to debris
-------	----	--	--	--	---------------------	----------------------------------

Flow >



24.2	L	2			Lateral	
------	---	---	--	--	---------	--

19.8	L	2			Lateral	
------	---	---	--	--	---------	--

003.0	MH				Manhole	98
-------	----	--	--	--	---------	----

98

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

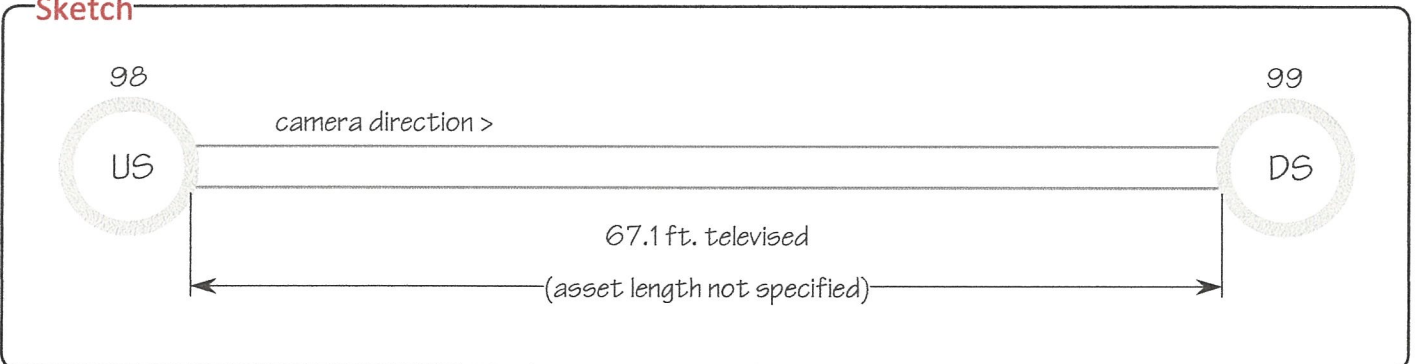
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

98

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0 MH

Manhole

98



Flow >



067.1 MH

Manhole

99

99

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

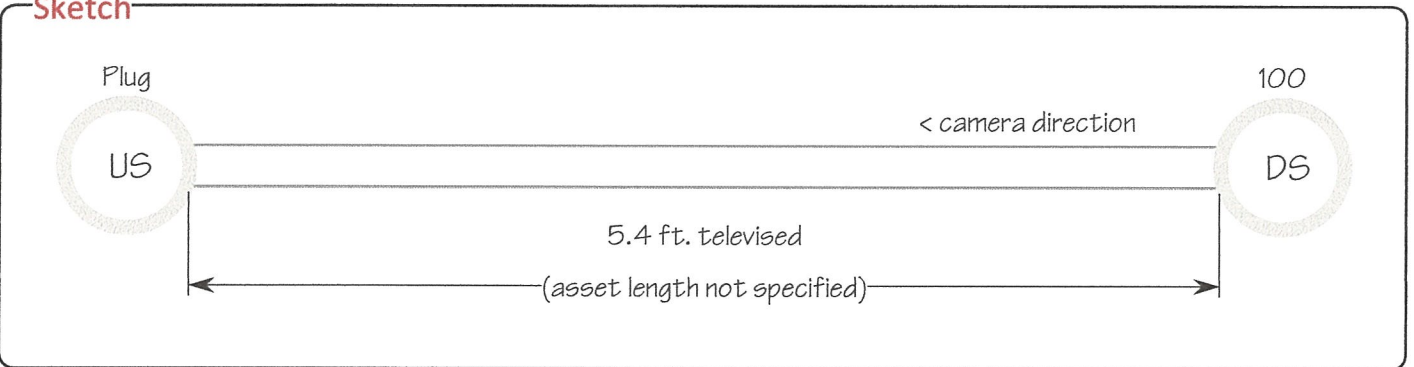
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

Plug

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

^005.4	GO				General Observation	Too high of a pitch to continue
--------	----	--	--	--	---------------------	---------------------------------



^003.0	MH				Manhole	100
--------	----	--	--	--	---------	-----

100

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

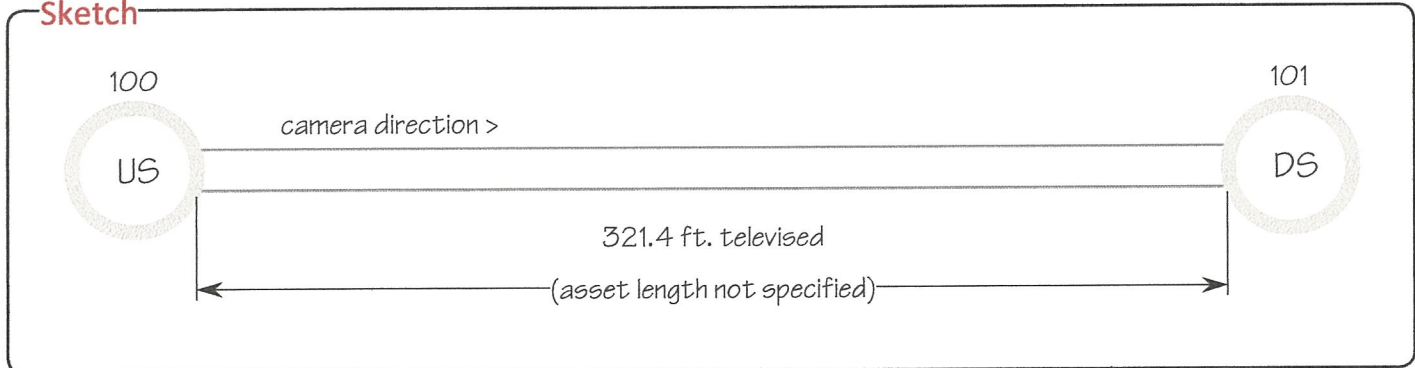
Purpose:

Pre-Cleaning:

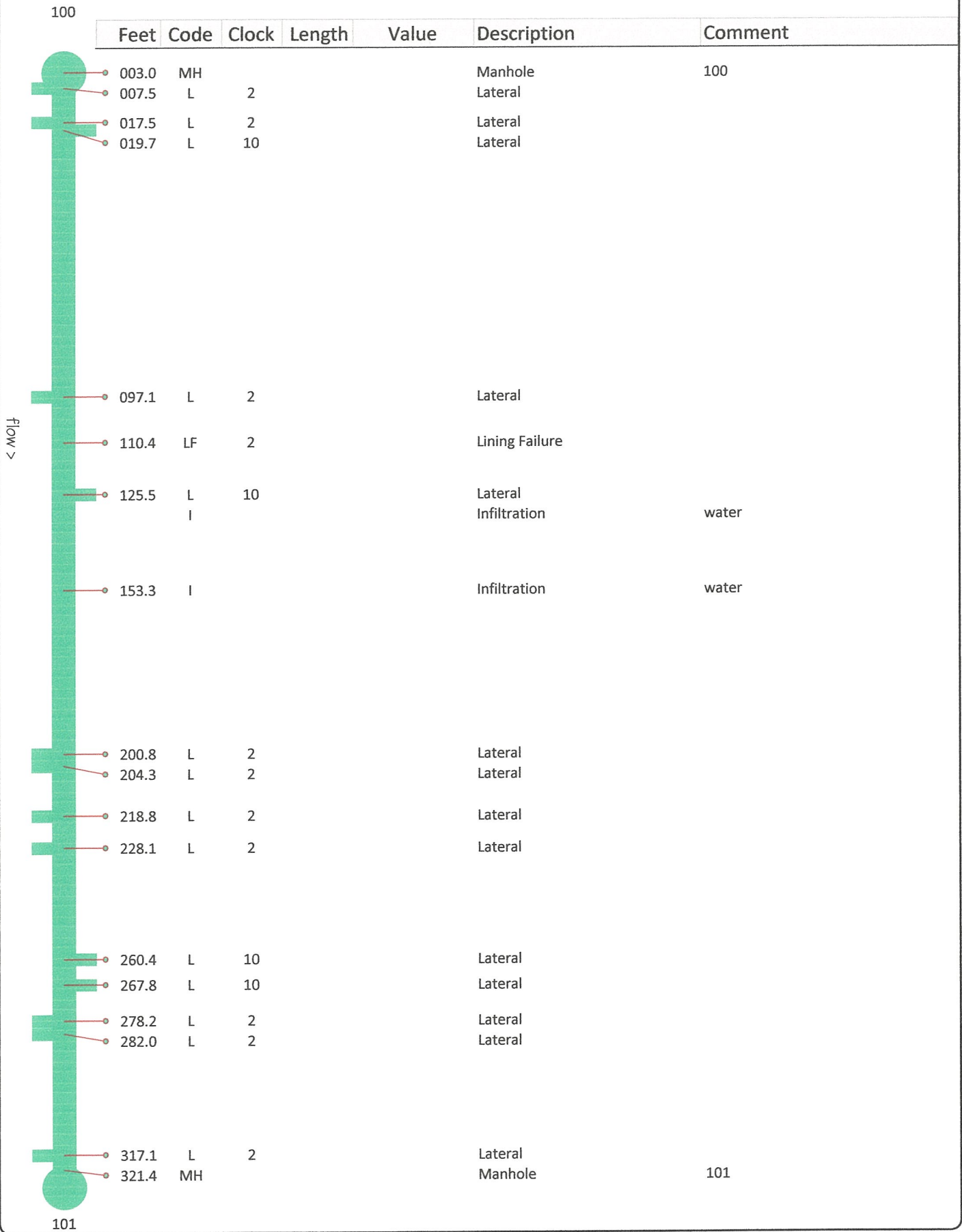
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

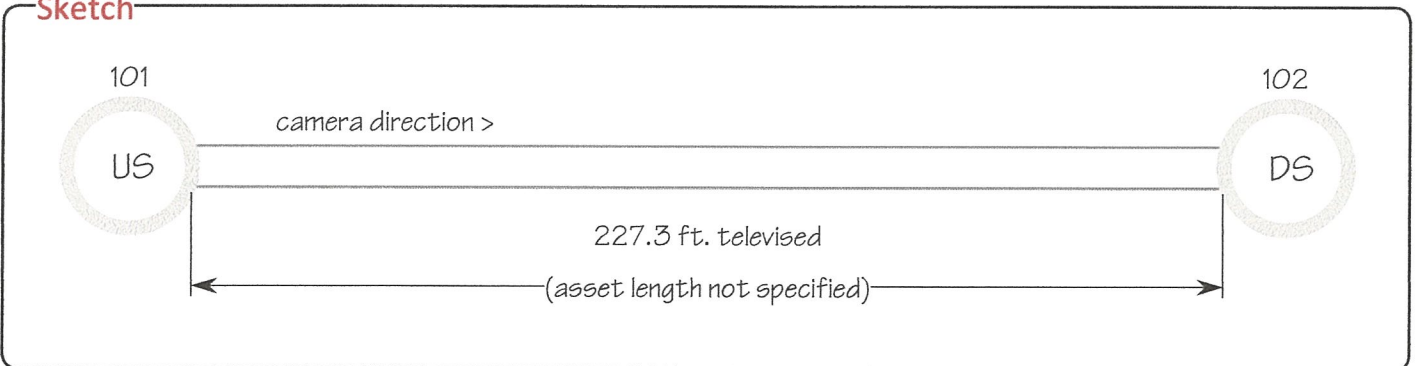
Purpose:

Pre-Cleaning:

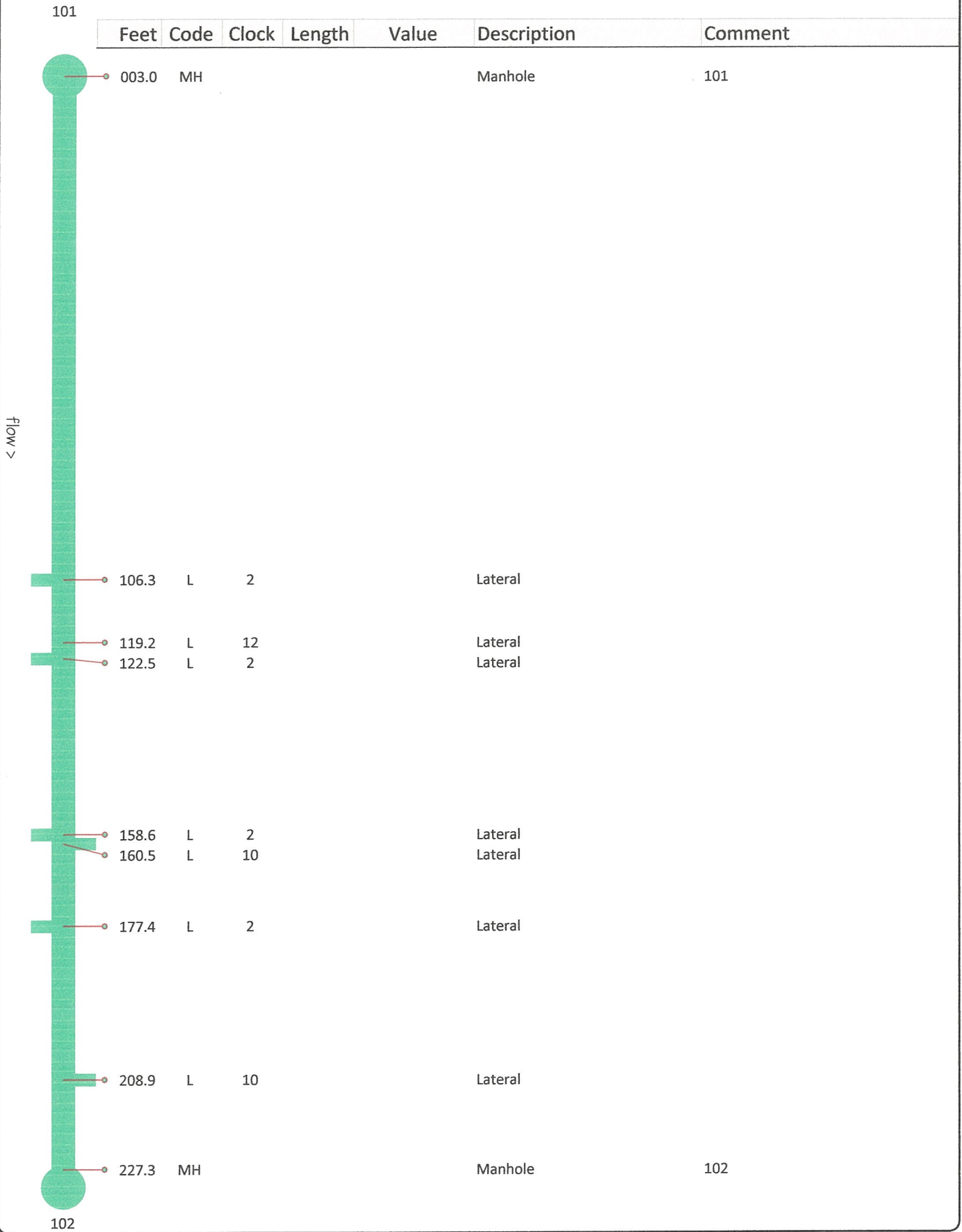
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

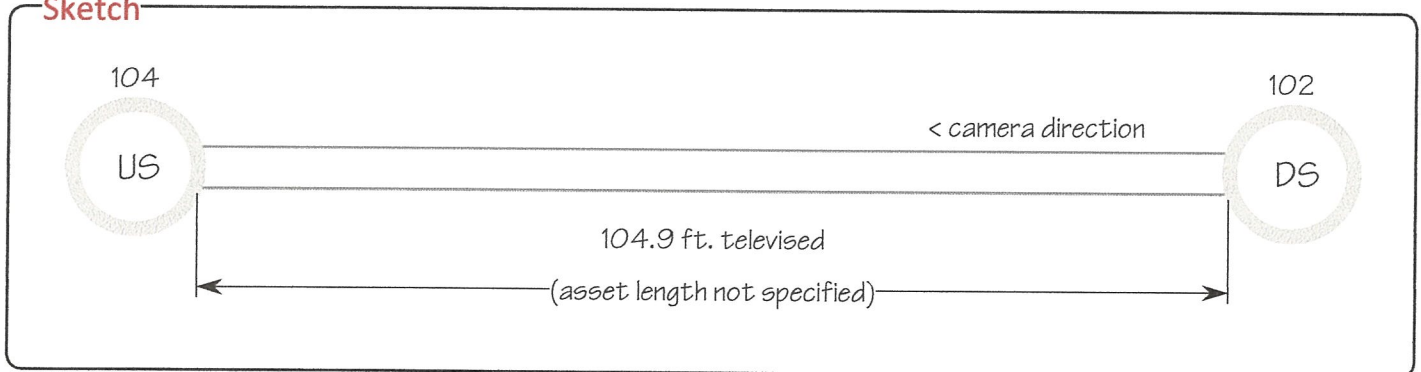
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch

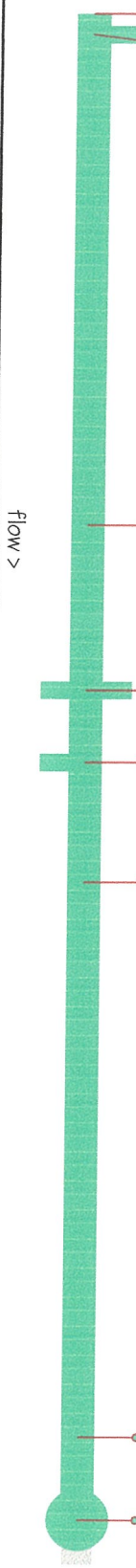


Schematic Top View

104

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

104.9	GO				General Observation	Unable to continue due to roots
103.5	L	2			Lateral	



070.3	I				Infiltration	
059.1	L	3			Lateral	
	L	9			Lateral	
054.2	L	10			Lateral	
046.1	I				Infiltration	
008.6	JO				Joint Offset	
003.0	MH				Manhole	102

102

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

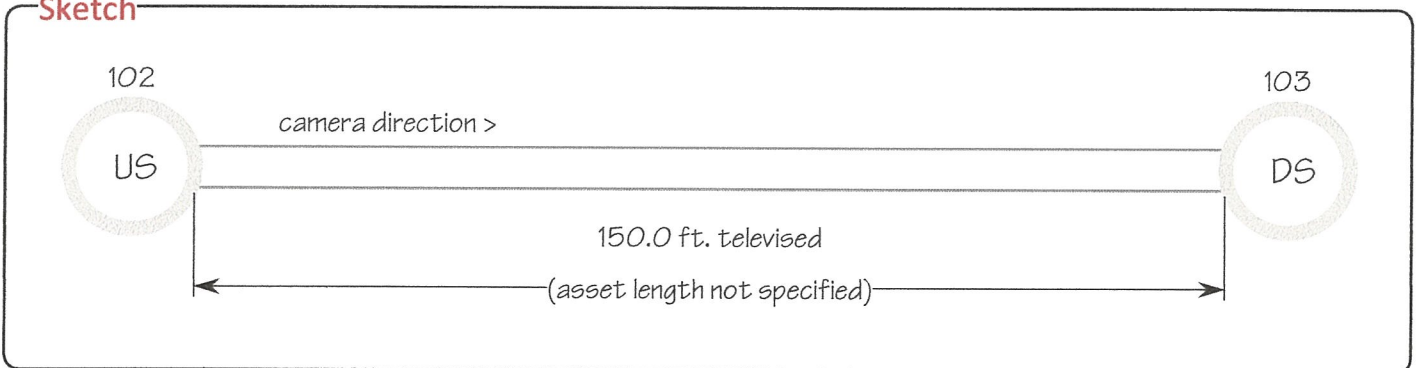
Purpose:

Pre-Cleaning:

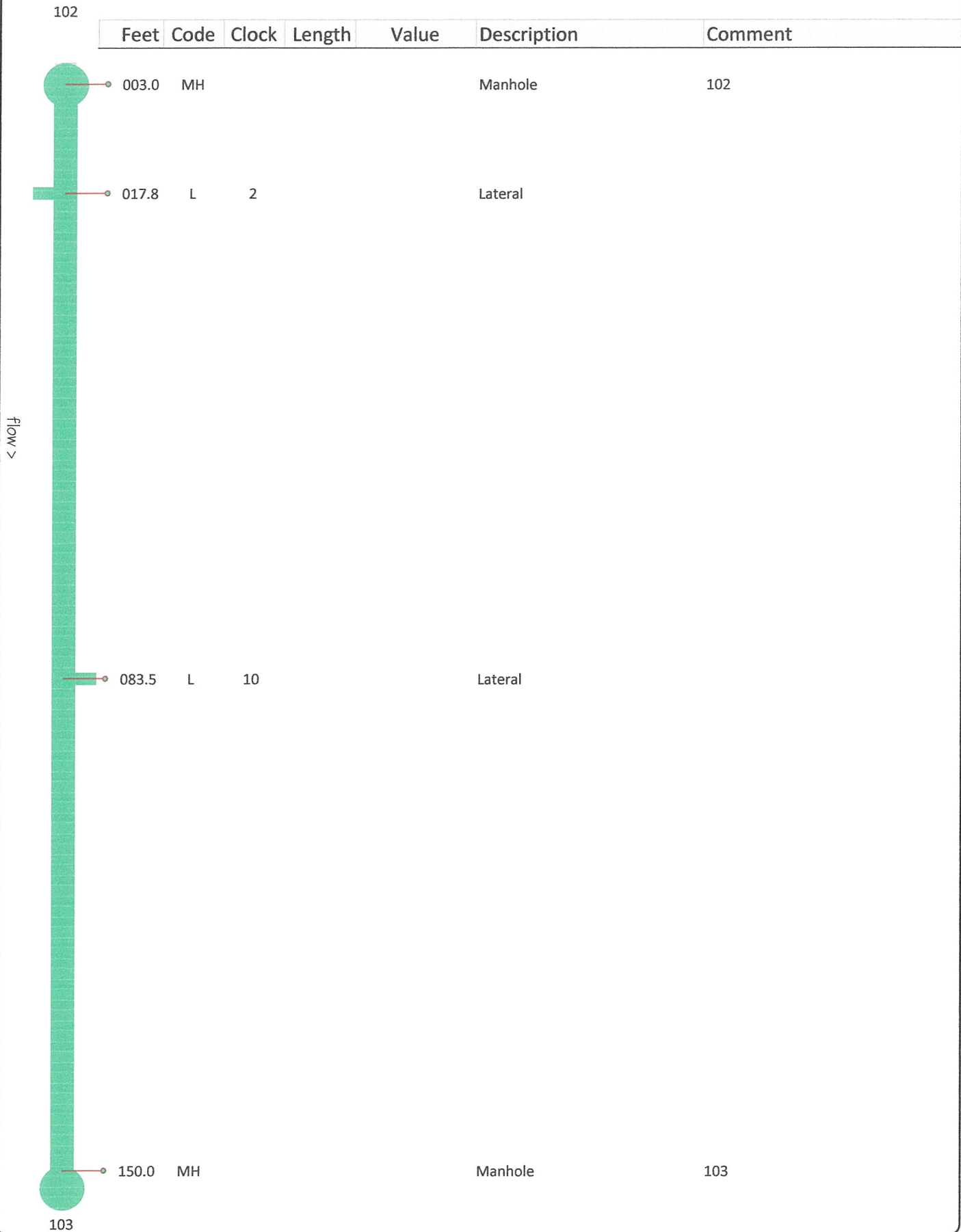
Weather:

Location Details:

Sketch



Schematic Top View



Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------

003.0	MH				Manhole	102
017.8	L		2		Lateral	
083.5	L		10		Lateral	
150.0	MH				Manhole	103

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

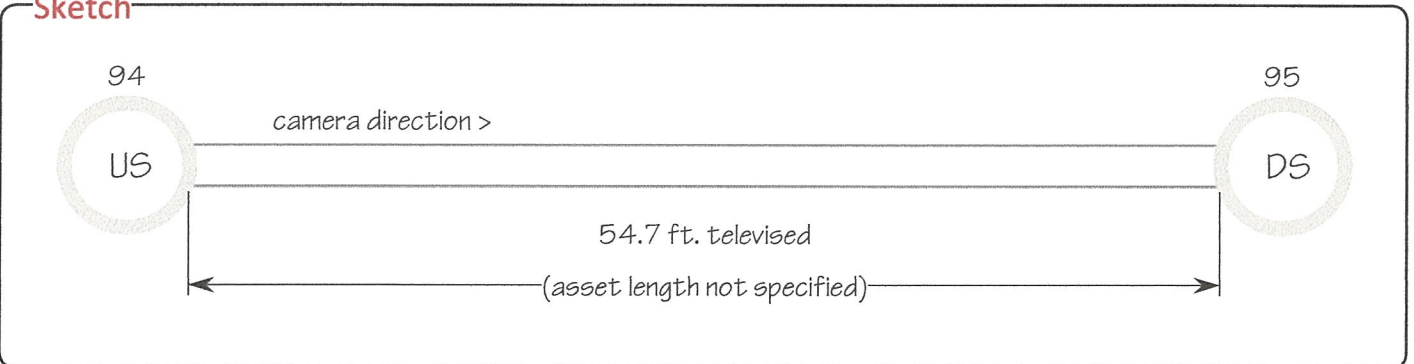
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

94

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.1 MH

Manhole

94

Flow >

054.7 R

Roots

unable to continue due to root

95

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

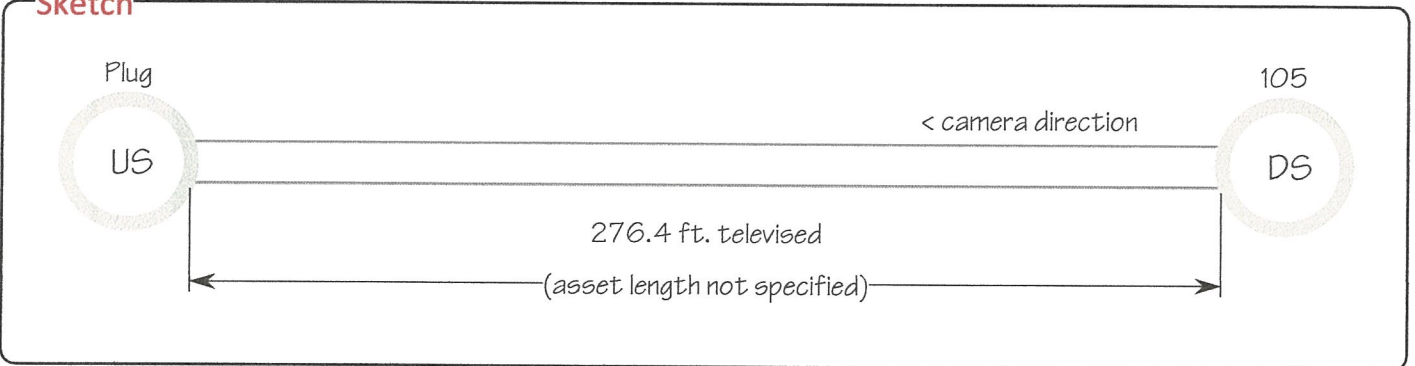
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

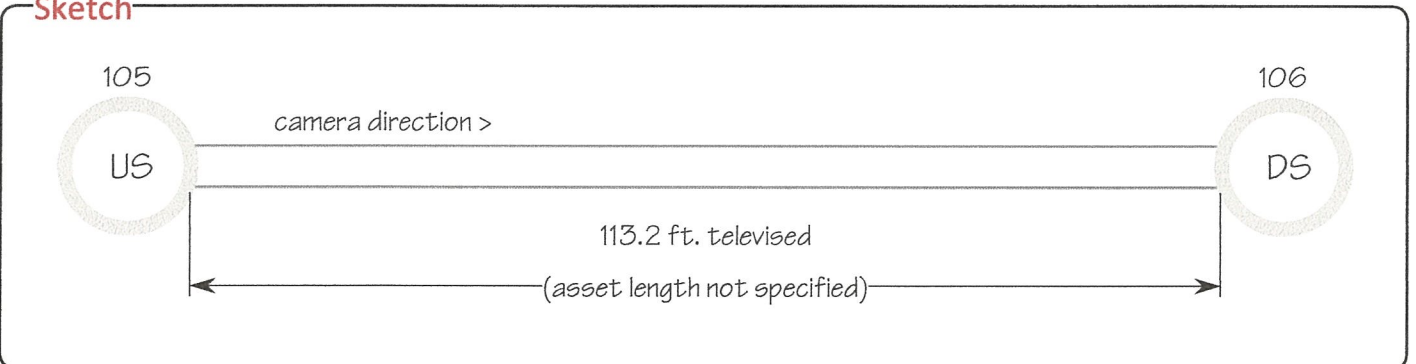
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

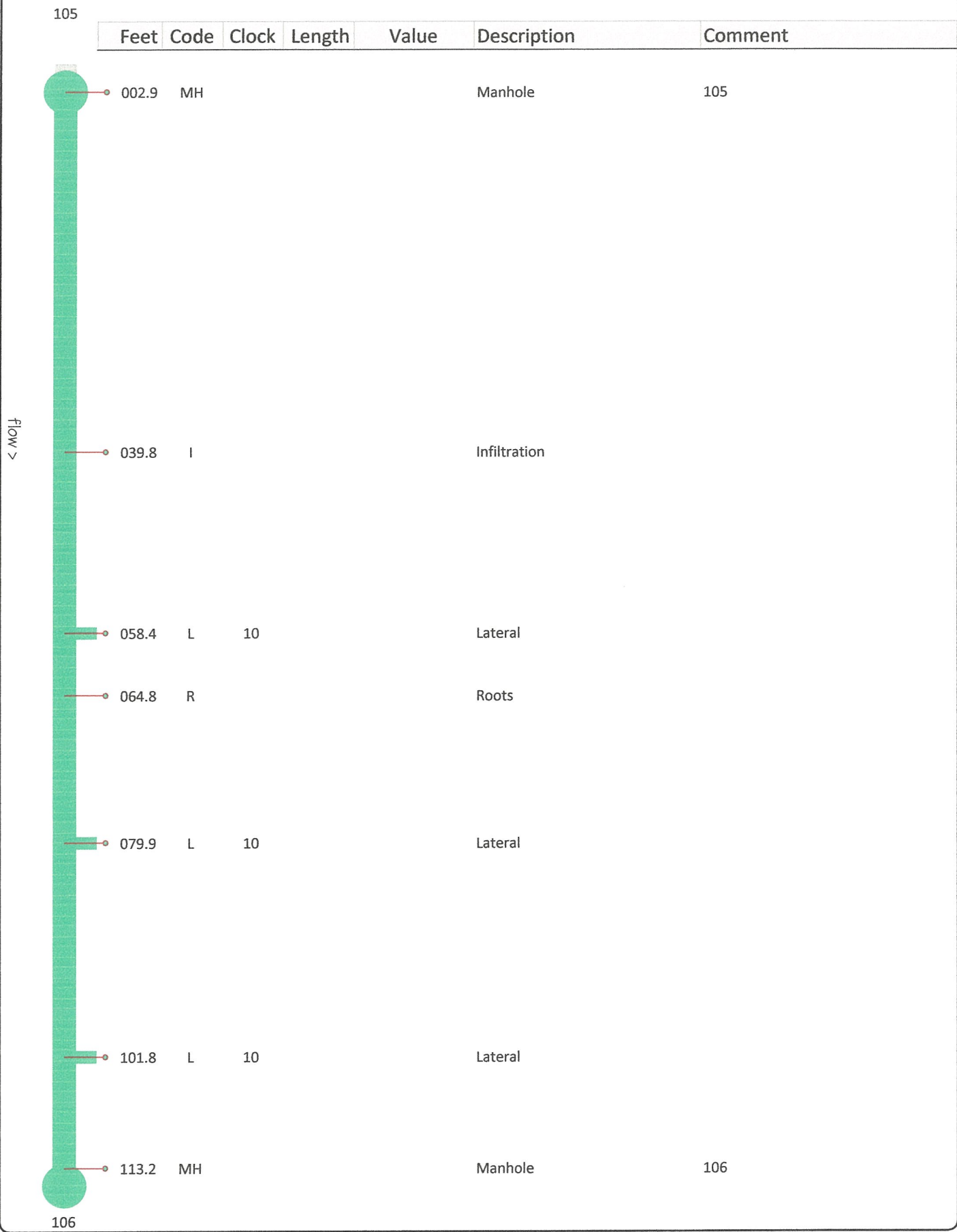


Exhibit C – Day 4

Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

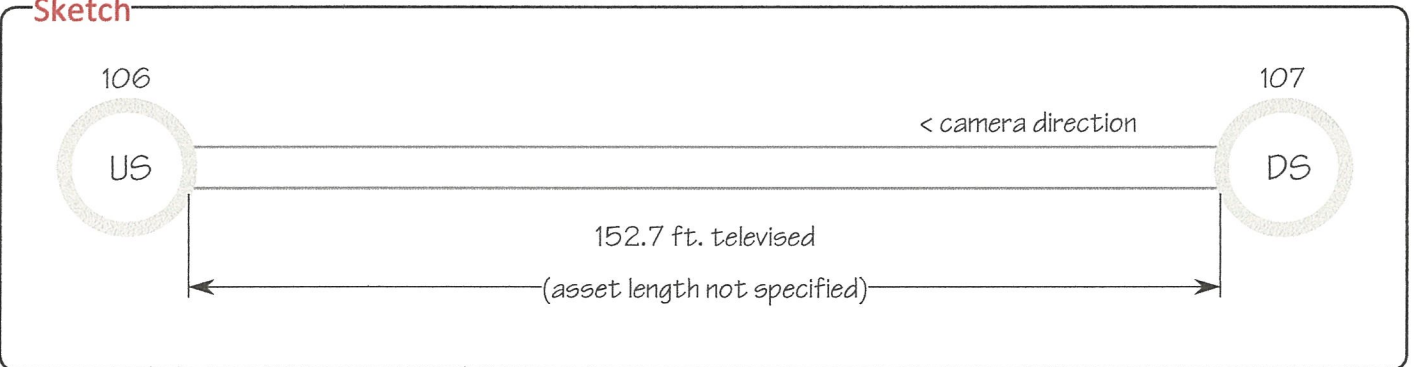
Purpose:

Pre-Cleaning:

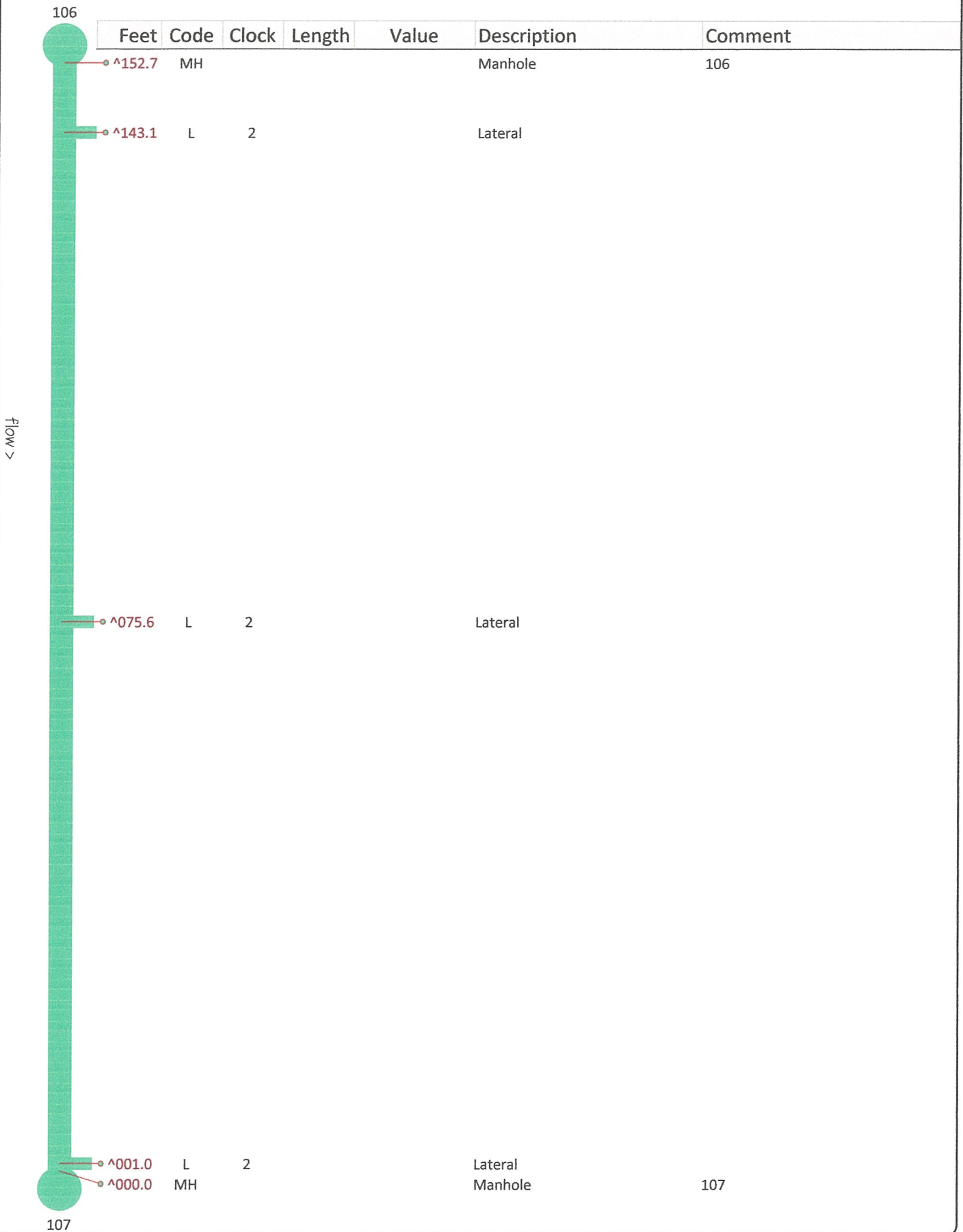
Weather:

Location Details:

Sketch



Schematic Top View



Asset Information

Upstream MH:

USMH Depth:

Downstream MH:

DSMH Depth:

Pipe Size:

Material:

Street:

City:

System Owner:

Sewer Use:

Length:

Project Information

Project:

Job:

Survey Customer:

Comments:

Inspection Information

Date:

Surveyed By:

Camera Direction:

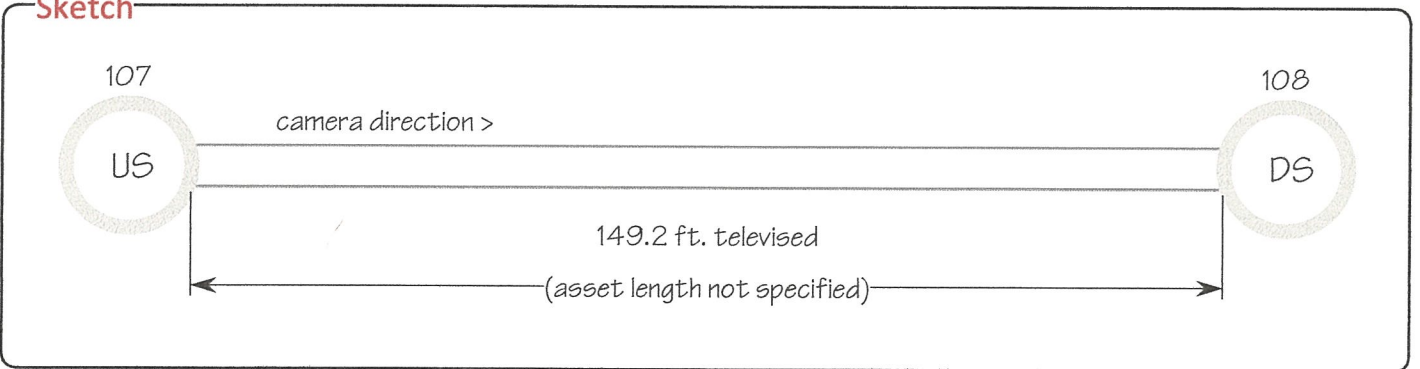
Purpose:

Pre-Cleaning:

Weather:

Location Details:

Sketch



Schematic Top View

107

Feet	Code	Clock	Length	Value	Description	Comment
------	------	-------	--------	-------	-------------	---------



003.0	MH				Manhole	107
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Flow >

045.2	L	10			Lateral	
-------	---	----	--	--	---------	--

107.9	L	10			Lateral	
-------	---	----	--	--	---------	--

149.2	GO				General Observation	Unable to continue due zero visibility
-------	----	--	--	--	---------------------	--

108