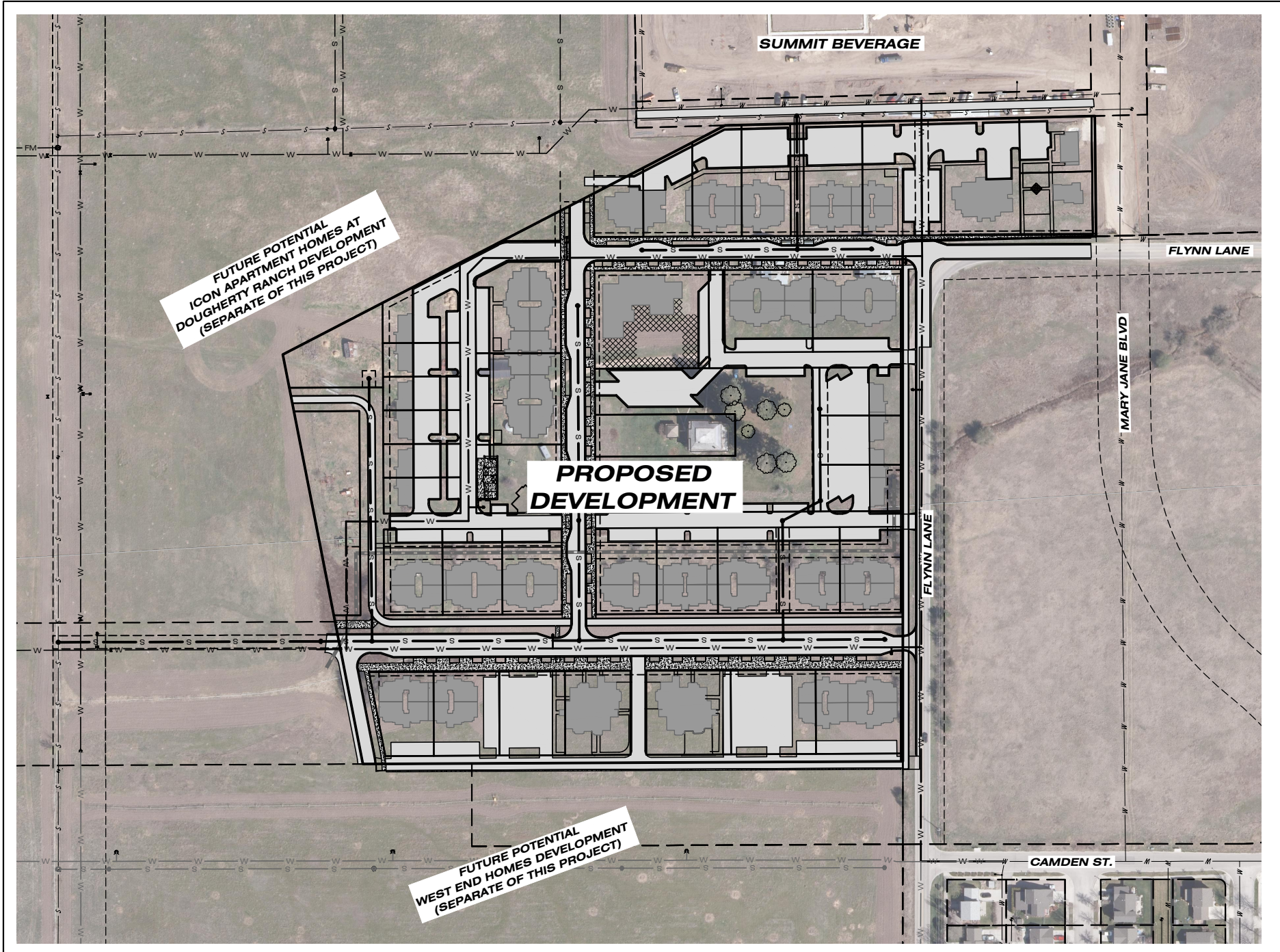


UTILITY CONSTRUCTION PLANS

LOCATED WEST OF FLYNN LANE

LOCATED IN SECTION 7, T.13N., R.19W., P.M.M., MISSOULA COUNTY, MONTANA.



PRELIMINARY / STAGE 2 PLANS:

GENERAL NOTE: FINISHED GRADE AS SHOWN ON THESE PLANS IS EXTREMELY PRELIMINARY (PRIMARILY SHOWN IN PROFILES) AND MAY APPEAR INCOMPLETE SINCE PRELIMINARY SITE GRADING OUTSIDE OF FORMAL ROADS HAS NOT OCCURRED YET. PRELIMINARY OR FINAL GRADING FOR ALLEYS, TRAIL STREET, ETC. HAS NOT OCCURRED YET AND IS SUBJECT TO CHANGE.

SEWER NOTE: MINIMUM BURY OF 4' WILL BE MAINTAINED. IF SEWER MAIN BURY IS LESS THAN 5' TO TOP OF PIPE, BLUEBOARD INSULATION WILL BE REQUIRED, BUT IS NOT CURRENTLY SHOWN AT THIS TIME AS GRADING (FINISHED GRADE) IS STILL CONSIDERED PRELIMINARY. THE APPROXIMATE 5' BURY ELEVATION FROM THE PRELIMINARY FINISHED GRADE IS SHOWN ON THE SEWER MAIN PROFILES TO HELP VISUALIZE AND IS BASED ON PRELIMINARY FINISHED GRADING ONLY.

SERVICES NOTE: WATER AND/OR SEWER SERVICES SHOWN ARE EXTREMELY PRELIMINARY AND SCHEMATIC TO HELP DEPICT WHICH MAIN THAT EACH BUILDING, STRUCTURE, PROPERTY, ETC. IS TENTATIVELY PLANNED TO BE SERVED FROM AND TO SHOW THAT EVERYTHING CAN BE ADEQUATELY SERVED.



CALL UTILITY NOTIFICATION
CENTER OF MONTANA
1-800-424-5555

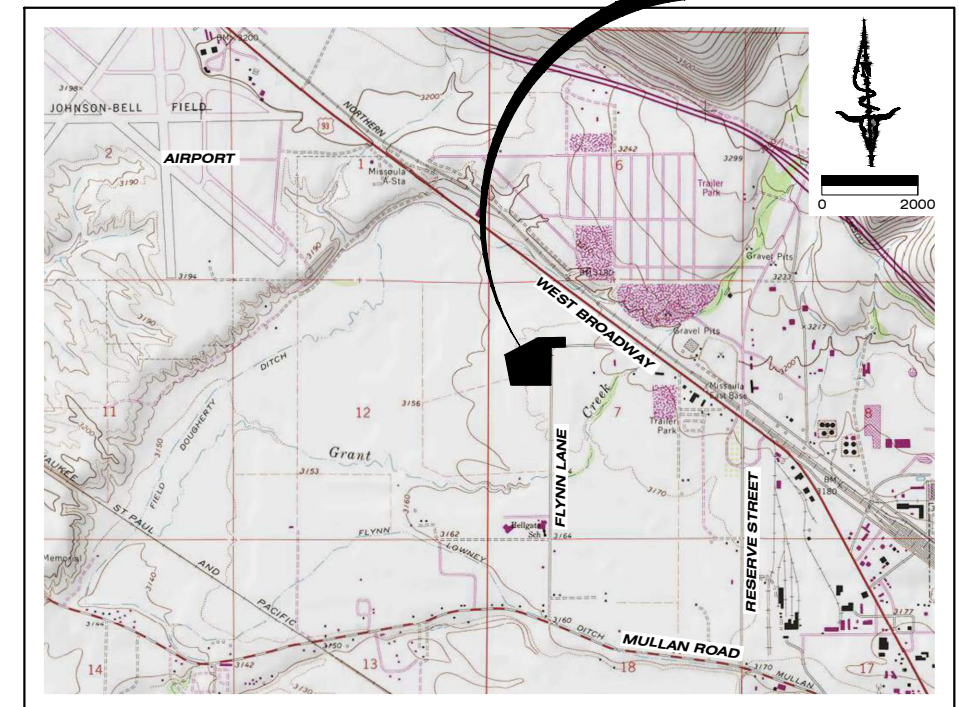
CALL FOR THE MARKING OF
UNDERGROUND UTILITIES
2 BUSINESS DAYS BEFORE
YOU DIG, GRADE, OR EXCAVATE



SHEET INDEX

DESCRIPTION	SHEET NO.
LEGENDS AND NOTES	SHEET 2 OF 18
INDEX SHEET - SEWER	SHEET 3 OF 18
INDEX SHEET - WATER	SHEET 4 OF 18
PLAN & PROFILE SHEETS - SEWER	SHEET 5-10 OF 18
PLAN & PROFILE SHEETS - WATER	SHEET 11-18 OF 18
DETAIL SHEETS	SHEET D1-D3 OF D3

VICINITY MAP



MISSOULA, MISSOULA COUNTY

PROJECT STATUS

THESE PLANS REQUIRE, AT A MINIMUM, APPROVAL FROM THE AGENCIES LISTED BELOW. THEREFORE, THE OWNER & CONTRACTOR ARE ADVISED THAT BIDS & CONTRACTS SHOULD NOT BE FINALIZED UNTIL INDICATED BELOW.

AGENCIES REVIEW STATUS:	REFERENCE #	APPROVAL DATE
MONTANA DEPT. OF ENV. QUALITY	EQ#: XX-XXXX	
CITY OF MISSOULA DEV. SERVICES	XXXX-XXX	

PLAN SET IS READY FOR CONSTRUCTION YES NO

AS-BUILT DATE:
PROJECT HAS BEEN CONSTRUCTED IN GENERAL CONFORMANCE WITH THE ABOVE APPROVALS, STATED SPECIFICATIONS, AND SHOWN HERE IN, UNLESS OTHERWISE SPECIFIED.

PROJECT NOTES:

CITY OF MISSOULA CHECKLIST DATA

LINEAR FOOTAGE OF SEWER GRAVITY MAINS ESTIMATED FOR CONSTRUCTION	
LINEAR FOOTAGE OF SEWER FORCE MAINS ESTIMATED FOR CONSTRUCTION	
NUMBER OF PROPOSED SEWER STUBS TO BE CONSTRUCTED	
LINEAR FOOTAGE OF WATER MAINS ESTIMATED FOR CONSTRUCTION	
NUMBER OF PROPOSED WATER STUBS TO BE CONSTRUCTED	

MISSOULA CITY PUBLIC WORKS STANDARDS & SPECIFICATIONS (MCPWSS) EDITION DEC. 2021

LEGEND

NOTE: ALL FEATURES SHOWN IN LEGEND MIGHT NOT BE PRESENT ON PLANS
ALL FEATURES SHOWN ON PLANS MIGHT NOT BE PRESENT IN LEGEND

EXISTING table with symbols and descriptions for property boundaries, easements, water/sewer lines, storm drains, overhead utilities, buried power, gas lines, telephone, TV, fiber optic, road centerline, fence, ditch, swale, irrigation, stream, contours, asphalt, gravel, manholes, cleanouts, soil profile, percolation test, groundwater monitoring, septic tank, drainfield, well, hydrant, water meter, water valve, water blow-off, storm drain manhole, culvert, curb inlet, catch basin, sump, utility manhole, telephone junction box, power vault, television junction box, electrical transformer, power meter, gas meter, power pole, guy wire, light pole, sign, mailbox, deciduous tree, coniferous tree, bush/shrub.

PROPOSED table with symbols and descriptions for property lines, easements, water/sewer lines, storm drains, overhead utilities, buried power, gas lines, telephone, TV, fiber optic, road centerline, fence, ditch, swale, irrigation, stream, contours, asphalt, gravel, manholes, cleanouts, septic tank, drainfield, well, hydrant, water meter, water valve, reducer, thrust block, water blow-off, storm drain manhole, culvert, curb inlet, catch basin, sump, utility manhole, light pole, sign, mailbox, deciduous tree, coniferous tree, bush/shrub.

SYMBOLS

SYMBOLS table with symbols and descriptions for detail section, detail callout, keyed note callout, spot elevation callout, slope grade, and flow direction.

ABBREVIATIONS

ABBREVIATIONS table with abbreviations and full names for existing and proposed features like elevation, edge of asphalt, finished grade, flowline, invert, linear foot, maximum manhole, minimum, proposed, point of curvature, point of tangent, similar station, top back of curb, top of concrete, and typical.

GENERAL CONDITIONS OF CONSTRUCTION:

- 1. The Standard General Conditions of the Contract prepared by the Engineers Joint Contract Documents Committee (Copyright 2007), as included in Montana Public Works Standard Specifications, are herein referred to as the General Conditions within these Drawings. Copies of the General Conditions will be provided to Contractor upon written request to Engineer.
2. Wherever used in these Drawings, the terms, whether printed with initial capital letters or not, as listed in the Standard General Conditions of the Construction Contract (General Conditions), Article 1 - Definitions and Terminology, prepared by the Engineers Joint Contract Documents Committee (Copyright 2007) will have the meanings indicated, which are applicable to both the singular and plural thereof, except as follows:
a. The Contract Documents shall mean the Drawings as shown in these plans and any applicable referenced standards, specifications, or laws.
b. The Contract Price shall mean the moneys payable by Owner to Contractor for completion of the Work in accordance with the Agreement.
c. The Contract Times shall mean the number of days or the dates stated in the Agreement to complete the Work so that it is ready for final payment. If no such dates are established, the Contract Time shall be 120 days to complete the Work.
d. Effective Date of the Agreement shall have the meaning as listed in the General Conditions, Article 1. If no such Agreement exists, the Effective Date of the Agreement shall be the day the Contractor proceeds with the Work.
3. By proceeding with the Work as shown on these Drawings, the Contractor makes the following representations:
a. Contractor has examined and carefully studied the Drawings and other related data.
b. Contractor is familiar with and is satisfied as to all federal, state and local laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
c. 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, performance or furnishing of the Work.
d. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Drawings with respect to Underground Facilities at or contiguous to the site.
e. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing 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 Drawings to be employed by the Contractor, and safety precautions and programs incident thereto.
f. Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work.
g. Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Drawings and the written resolution thereof by Engineer is acceptable to Contractor.
h. The Drawings are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
4. In resolving disputes resulting from conflicts, errors or discrepancies, the order of precedence shall be as follows, as applicable to this project: Written agreement between owner and contractor, specifications, Drawings. Within the Specifications, the order of precedence is as follows, as applicable to this project: Addenda/Change Orders, Contractor's Bid, Special Provisions, Instructions to Bidders, Supplemental General Conditions, Notice Inviting Bids, General Conditions, Technical Specifications, Referenced Standard Specifications. With reference to the Drawings, the order of precedence is as follows, as applicable to this project: Figures govern over scaled dimensions, Detail drawings govern over general drawings, Addenda/Change Order drawings govern over contract drawings, contract drawings govern over standard drawings, contract drawings govern over shop drawings.
5. If Contractor believes that any subsurface or physical condition at or contiguous to the Site that
a. is uncovered or revealed either is of such a nature as to require a change in the Drawings; or
b. differs materially from that shown or indicated in the Drawings; or
c. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided in the drawings;
then Contractor shall promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.
6. Section 2.06 of the General Conditions is hereby incorporated into these Drawings.
7. Section 3.03.A.2 of the General Conditions is hereby incorporated into these Drawings.
8. Section 3.05 of the General Conditions is hereby incorporated into these Drawings.
9. Section 3.06 of the General Conditions is hereby incorporated into these Drawings.
10. Section 4.05 of the General Conditions is hereby incorporated into these Drawings.
11. Section 6.01, 6.02.A, and 6.03 of the General Conditions are hereby incorporated into these Drawings.
12. Substitutes and "Or-Equals" items are subject to the provisions of the General Conditions, Section 6.05.
13. Section 6.13 of the General Conditions is hereby incorporated into these Drawings, except that Section 6.13.D shall be replaced with the following sentence.
Contractor's duties and responsibility for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer and Owner, as applicable to the Work, have accepted that the work is complete.
14. Section 6.11, 6.14, 6.15, 6.16, 6.18, 6.19, 6.20, and 6.21 of the General Conditions are hereby incorporated into these Drawings.
15. Article 9 - Engineer's Status During Construction of the General Conditions is hereby incorporated into these Drawings, except as follows:
a. Delete the last sentence of Section 9.05.A.
b. Delete Section 9.06, 9.07, 9.08.B, 9.08.C, and 9.09.D.
16. Section 10.02 of the General Conditions is hereby incorporated into these Drawings.
17. Article 13 - Tests and Inspections, Correction, Removal or Acceptance of Defective Work of the General Conditions is hereby incorporated into these Drawings.

STANDARD SPECIAL PROVISIONS:

- 1. The Contractor shall be responsible for all permits, licenses and fees required for completion of this project unless specifically noted otherwise.
2. The Contractor shall provide the Owner with a 24 hour phone number of a party responsible and capable of immediate local response to emergency maintenance for the duration of the Work. Contractor shall provide the name of the responsible party and phone number in writing prior to proceeding with the Work.
3. Unless noted otherwise, the contractor shall be responsible for any necessary traffic control on and off-site including obtaining any applicable permits.
4. Material stockpiled along the project route shall be done so in a manner that does not affect public safety and is in a neat and orderly fashion.
5. The Contractor shall be responsible for disposing of all waste and excess materials such as, but not limited to: vegetation, trees, brush, asphalt, concrete, sub-grade soils, etc., offsite in accordance with local, state and federal laws. The Owner reserves the right to request certain waste materials to be stockpiled at a location on-site.
6. The contractor will be responsible to adhere to the MDEQ or EPA approved Storm Water Pollution Prevention Plan (SWPPP), if applicable to the project. The contractor is responsible for repairing any damage made to BMPs identified in the SWPPP. The approved Storm Water Pollution Prevention Plan will be provided by Owner to Contractor upon written request. If a SWPPP has not been prepared for the project, but is required by regulation, the Contractor is responsible for preparing and submitting a Notice of Intent and SWPPP.
7. The Contractor will be required to make every effort to immediately restore the construction area once the construction task is completed. All seeding shall be completed in accordance with MPWSS 02910. This includes such required activities as finish grading, spreading of topsoil, restoring irrigation, replacing traffic and street signs, etc. The contractor will have 48 hours to begin restoration once the construction task in the immediate area is complete. Once restoration is begun, it must be completed without interruption to the extent possible.
8. After all work on this project is completed and before final acceptance of the project, the entire project shall be neatly finished to the lines, grades, and cross sections shown on the plans and as hereinafter specified.
a. Drainage facilities, such as inlets, catch basins, storm pipe, culverts, and curb and gutter shall be cleaned of all debris, gravel, silts or other foreign material.
b. The Contractor shall remove and dispose of all construction stakes.
c. All areas disturbed by the construction shall be shaped to present a uniform appearance blending into the contour of adjacent properties. All surface replacement and landscaping shall be completed.
d. Except as otherwise permitted, all excess excavated materials shall be disposed of away from the site of the work.
e. Broken concrete and other debris resulting from pavement or sidewalk removal, excavated rock in excess of the amount permitted, and other waste and debris encountered in excavated work, and other similar waste materials shall be disposed of away from the site.
There will be no separate measurement or payment for cleanup, and all costs for such work shall be included in the Contract Price.
9. No on-site burning of waste materials will be allowed.
10. If a street has not been surfaced and cleaned, the Contractor shall be responsible for dust control and maintenance of the street. Also, if detours are made on a gravel road, the Contractor is responsible for dust control and maintenance on the detours. See "Air Quality" below also.
11. Daily street sweeping shall be completed on both ends of each street during construction. Unpaved detours or any other fugitive dust emission sources from construction and demolition shall be watered and/or chemically stabilized so emissions are less than 20% opacity.

UTILITY NOTES:

- 1. The Contractor shall notify appropriate personnel for utility locations and notice of construction commencement at least two business days prior to proceeding with the Work. Before Contractor proceeds with the Work, a common locate service (One Call) is available at 1-800-424-5555. All Underground Facilities may not be located by the One Call service including but not limited to such Underground Facilities as irrigation systems, public and private water and sewer systems, etc.
2. The Contractor shall support and protect all exposed utilities in conformance with the utility owner's standards.
3. The information and data shown or indicated in the Drawings with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise noted:
a. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
b. The cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
i. Reviewing and checking all such information and data.
ii. Locating all Underground Facilities shown or indicated in the Drawings.
iii. Coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and
iv. The safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
c. At least 2 business days before beginning any excavation, the Contractor shall, according to MCA 69-4-501, notify all owners of underground facilities and coordinate the Work with the owners of such underground facilities. The information shown or indicated in the Drawings with respect to existing underground facilities is based on information and data obtained from the owners of the facilities without field exploration, and as such, Owner and Engineer are not responsible for the accuracy or completeness of such information or data.

SUBMITTALS, QUALITY CONTROL & ASSURANCE, INSPECTIONS, AND TESTING

- 1. Contractor is responsible to comply with the Contractor Quality Control and Owner Quality Assurance, Section 01400 MPWSS.
2. Contractor shall complete trench excavation and backfill in accordance with Section 02221 MPWSS.
3. The Contractor shall coordinate with Engineer to obtain samples of trench backfill material to be used on-site.
4. Contractor will be responsible for coordination with a material testing company of the Engineer's selection to complete compaction testing of trench backfill. Coordination includes updating appropriate personnel of the material testing company every day as to progress of work so adequate testing can be completed.
5. As-Builts: The Contractor will be required to prepare a set of detailed as-built drawings to be presented to the Engineer at the completion of the project. The as-built drawings shall be updated daily and reviewed weekly by the Project Engineer. As-built drawings shall include, but not limited to location/depths of wet utility (water, sewer, storm, etc.) mains and services, all other utilities, culverts, drainage structures, etc.
6. Service Ditch Cards: Contractor will be responsible for completing service ditch cards for all services (water, sewer, storm, etc.). Information on the ditch cards must be provided as directed by Engineer including lot number or building address served; as-built service connection location on the main relative to stationing on the Drawings; Contractor who made tap; date tap was made; distance from main to curb stop/fittings/appurtenances/etc.; size of tap on main; size and material of service; size and material of main that was connected to; depth of main at tap; location and type of bends along service line; location and depth of cleanouts; depth of service at curb stop. Engineer will provide Contractor with example ditch cards upon written request, but shall conform to public entity's template(s). One ditch card shall be completed for each service.
7. Sewer Main Testing: Sanitary sewer testing shall be completed in the presence of the Engineer. The contractor is responsible for coordinating with the Engineer to be present for sewer testing. Sanitary sewer testing shall include:
a. leakage test using water or air test,
b. deflection test,
c. vacuum test of manholes,
d. television inspection, and
e. lamp test.
8. Sewer TV Testing: Television inspection shall be performed in accordance with MPWSS Section 02730. A device of known dimensions shall be drug along the bottom of the sewer pipe in front of the camera to provide a continuous visual reference of the depth of water ponds in the sewer pipe. The device shall be drug no more than four feet in front of the camera
9. Sewer Manholes Testing: Test manholes in accordance with ASTM C1244-93. Test method for concrete sewer manholes by the negative air pressure (vacuum) test. Vacuum test shall be completed by pulling a vacuum of 10" Hg (4.9 psi) and measuring the time it takes to drop to 9" Hg (4.4 psi). Test shall be completed on concrete surface and not on iron ring. The minimum acceptable time for an 8' or less deep manhole shall be 20 seconds. Five seconds shall be added to the minimum acceptable time for every two feet in depth beyond 8'.
10. Water Main Testing: Water testing shall be completed in the presence of the Engineer. The Contractor is responsible for coordinating with the Engineer to be present for water testing. Testing, cleaning, and disinfection of water mains, valves, and fittings shall be completed in accordance with MPWSS Section 02660, Part 3.4. Water testing procedure shall be as follows:
f. Chlorination
g. Flushing to reduce Chlorine residual to 0.5 ppm or less, or as otherwise approved by the engineer
h. Bacteriological Test
i. Hydrostatic and leakage testing
11. All infrastructure specifications and testing requirements shall be per Missoula City Public Works Standards & Specifications.

SEWER CONSTRUCTION NOTES:

- 1. All Work shall be in accordance with the Montana Public Works Standard Specifications (MPWSS) (Sixth Edition, dated April 2010) and Missoula City Public Works Standards & Specifications (MCPWSS) (edition labeled on cover sheet of plans). Sanitary Sewer Work shall conform to Section 02730 and any referenced specifications.
2. Invert elevations are provided from center of manhole, unless noted otherwise.
3. Manhole stations are provided from center of manhole, unless noted otherwise.
4. Sewer services shall be constructed and inspected per International Plumbing Code, City of Missoula, Missoula City-County Environmental Health Department, and Montana Department of Environmental Quality (MDEQ) regulations and standards.

WATER CONSTRUCTION NOTES

- 1. All Work shall be in accordance with the Montana Public Works Standard Specifications (MPWSS) (Sixth Edition, dated April 2010) and Missoula City Public Works Standards & Specifications (MCPWSS) (edition labeled on cover sheet of plans). Water Work shall conform to MCPWSS Chapter 4 (Section 02600) and any referenced specifications.
2. Stations are provided from center of bend, tee, or connection, unless noted otherwise.
3. Water services shall be constructed and inspected per Uniform Plumbing Code, City of Missoula Public Works, and Missoula Water.
4. Water services (new or swaps/replacements) shall only be completed after water main has been installed, completed, tested and certified by Missoula Water, City of Missoula, and the Engineer of Record.

CONSTRUCTION STAKING

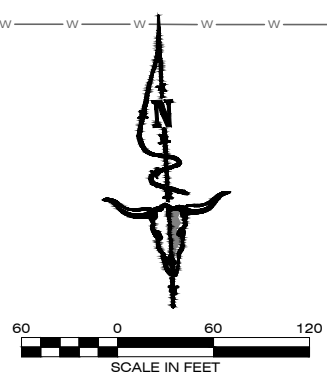
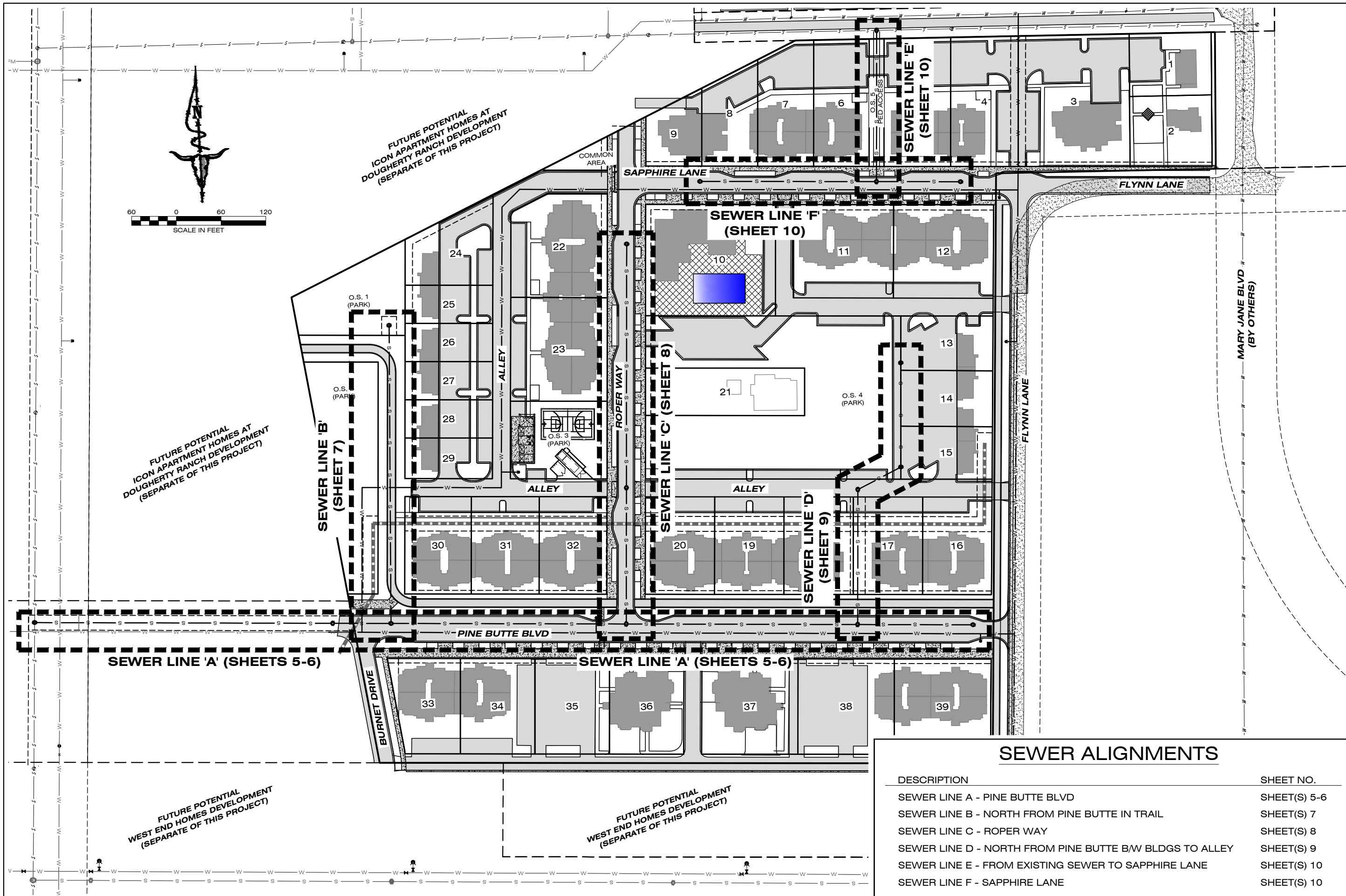
- 1. The owner may provide construction staking one time, depending on the project. It is the Contractor's responsibility to discuss and verify with Engineer if staking is provided by the owner. If not provided, it is the Contractor's responsibility for construction staking. If staking is provided by owner one time, additional staking will be the responsibility of the contractor for scheduling and payment.
2. Contractor is responsible to coordinate and request staking at least five (5) business days in advance, unless otherwise agreed upon in writing by Engineer.
3. Staking will be provided as follows:
a. Water: Bends, Tees/Connections, and Hydrants: Center of structure and maximum of two offset stakes.
b. Sewer: Manholes and structures: Center of structure and maximum of two offset stakes.
c. Water & Sewer Main: Hub offset set at minimum 25' stations. Offset distance and side of trench as requested by Contractor in writing to engineer.
4. Cut sheets will be provided to the contractor with elevation from hub to top of pipe elevation.
5. Engineer does not consider staking to be complete and ready for use until cut sheets have been delivered to Contractor.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

- 1. SWPPP Administrator shall turn in SWPPP reports generated from the beginning of construction to date that As-Builts are turned into Engineer. Engineer in turn submits SWPPP reports to City Engineering as part of As-Built documentation.
2. SWPPP Administrator is required to renew City SWPPP permit annually unless the site has been stabilized. SWPPP Administrator will submit any remaining SWPPP reports to City Engineering when filing for Notice of Termination.

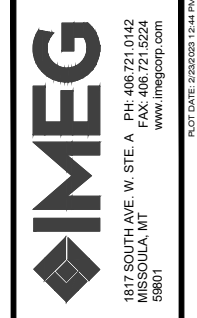
Vertical sidebar containing project information: PROJECT NAME (SAPPHIRE PLACE), PROJECT NO. (21001343), SHEET (2 OF 18), LOCATION (3285 FLYNN LANE, PARCEL 2A OF COG 6689, SECTION 7, T13N, R19W, P.1M.M., MISSOULA COUNTY, MONTANA), PREPARED FOR (CATHCART PROPERTIES INC.), and company logo (IMEG) with contact info (1817 SOUTH AVE. W. STE. A, PH: 406.721.0142, FAX: 406.721.5224, MISSOULA, MT 59801, www.imegcorp.com).

STAGE 2



SEWER ALIGNMENTS

DESCRIPTION	SHEET NO.
SEWER LINE A - PINE BUTTE BLVD	SHEET(S) 5-6
SEWER LINE B - NORTH FROM PINE BUTTE IN TRAIL	SHEET(S) 7
SEWER LINE C - ROPER WAY	SHEET(S) 8
SEWER LINE D - NORTH FROM PINE BUTTE B/W BLDGS TO ALLEY	SHEET(S) 9
SEWER LINE E - FROM EXISTING SEWER TO SAPPHIRE LANE	SHEET(S) 10
SEWER LINE F - SAPPHIRE LANE	SHEET(S) 10



DATE	
DESIGNED:	AJM
DRAFTED:	AJM
CHECKED:	AJM
DATE:	FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE SUBDIVISION
 SHEET TITLE: UTILITY CONSTRUCTION PLANS INDEX SHEET - SEWER

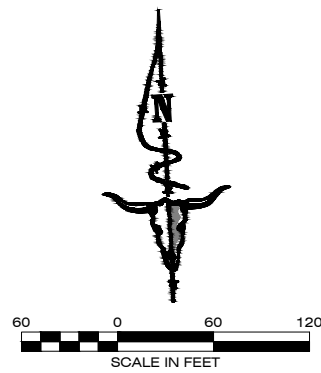
PROJECT NO.	21001343
SHEET:	3 OF 18

STAGE 2

DRAWING LOCATION: G:\2023\21001343\SUBDIVISION\343.DWG DATE: 2/23/23 12:44 PM

WATER ALIGNMENTS

DESCRIPTION	SHEET NO.
WATER LINE G - FLYNN LANE	SHEET(S) 11-12
WATER LINE H - PINE BUTTE BLVD	SHEET(S) 13-14
WATER LINE I - EXISTING TO SAPPHIRE LANE TO PINE BUTTE	SHEET(S) 15-18



FUTURE POTENTIAL
ICON APARTMENT HOMES AT
DOUGHERTY RANCH DEVELOPMENT
(SEPARATE OF THIS PROJECT)

FUTURE POTENTIAL
ICON APARTMENT HOMES AT
DOUGHERTY RANCH DEVELOPMENT
(SEPARATE OF THIS PROJECT)

FUTURE POTENTIAL
WEST END HOMES DEVELOPMENT
(SEPARATE OF THIS PROJECT)

WATER LINE 'I'
(SHEETS 15-18)

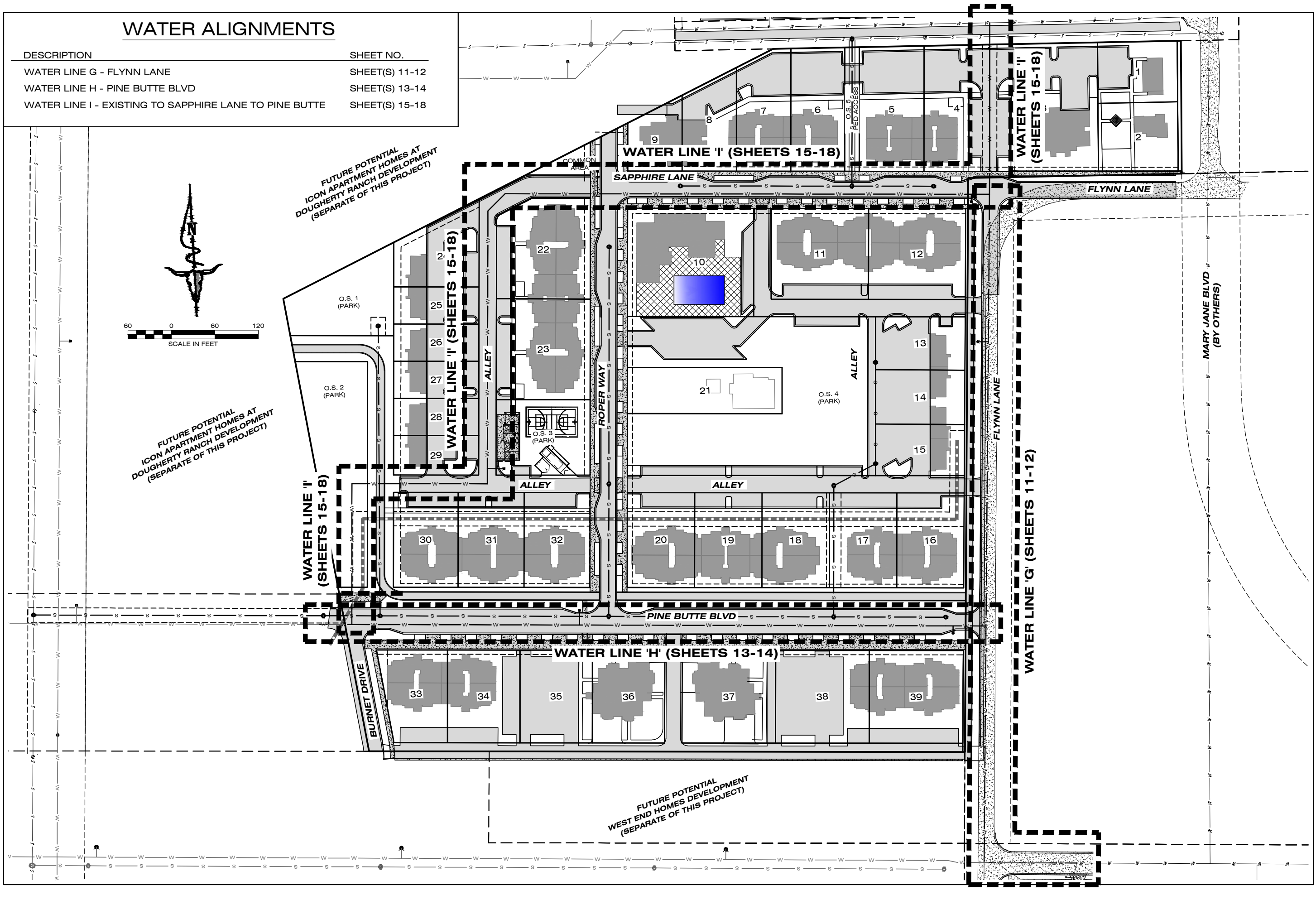
WATER LINE 'I'
(SHEETS 15-18)

WATER LINE 'I' (SHEETS 15-18)

WATER LINE 'I'
(SHEETS 15-18)

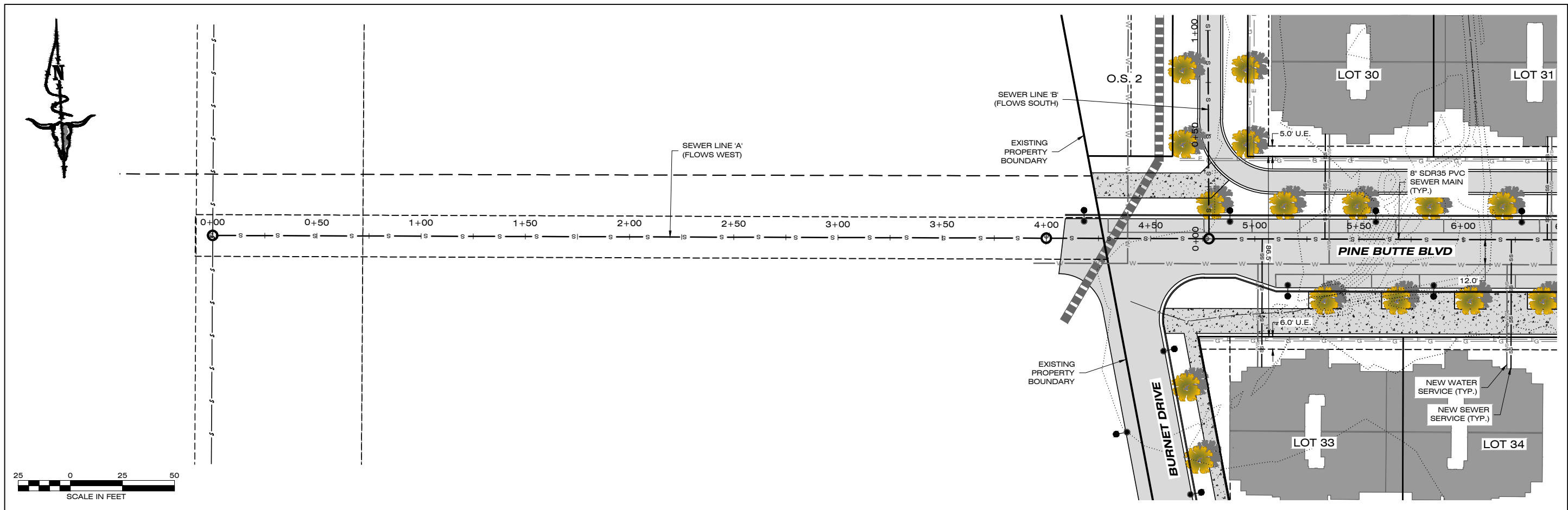
WATER LINE 'G' (SHEETS 11-12)

WATER LINE 'H' (SHEETS 13-14)

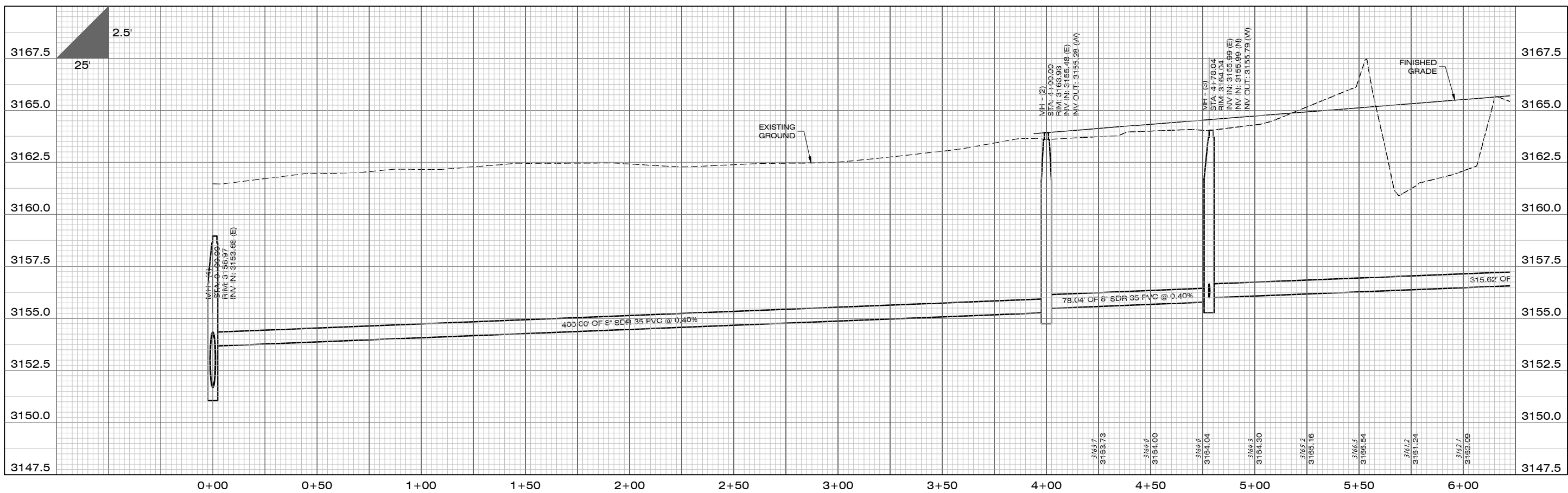


IMEG		1817 SOUTH AVE. W. STE. A PH: 406.721.0142 MISSOULA, MT FAX: 406.721.5224 www.imegcorp.com 59801	
DATE		REVISIONS	
DESIGNED: A/JM		DRAFTED: A/JM	
CHECKED: A/JM		DATE: FEB. 2023	
LOCATION: 3285 FLYNN LANE PARCEL 2A OF COS 6689 SECTION 7, T13N, R19W, P.M.M. MISSOULA COUNTY, MONTANA		PREPARED FOR: CATHCART PROPERTIES INC.	
PROJECT NAME		PROJECT NO.	
SAPPHIRE PLACE		21001343	
UTILITY CONSTRUCTION PLANS		SHEET	
INDEX SHEET - WATER		4 OF 18	
STAGE 2			

DRAWING LOCATION: G:\2023\21001343\21001343.DWG; DRAWING TITLE: UTILITY CONSTRUCTION PLANS; SHEET: 4 OF 18; PROJECT: 21001343



PLAN VIEW



PROFILE VIEW

DATE	
REVISIONS	

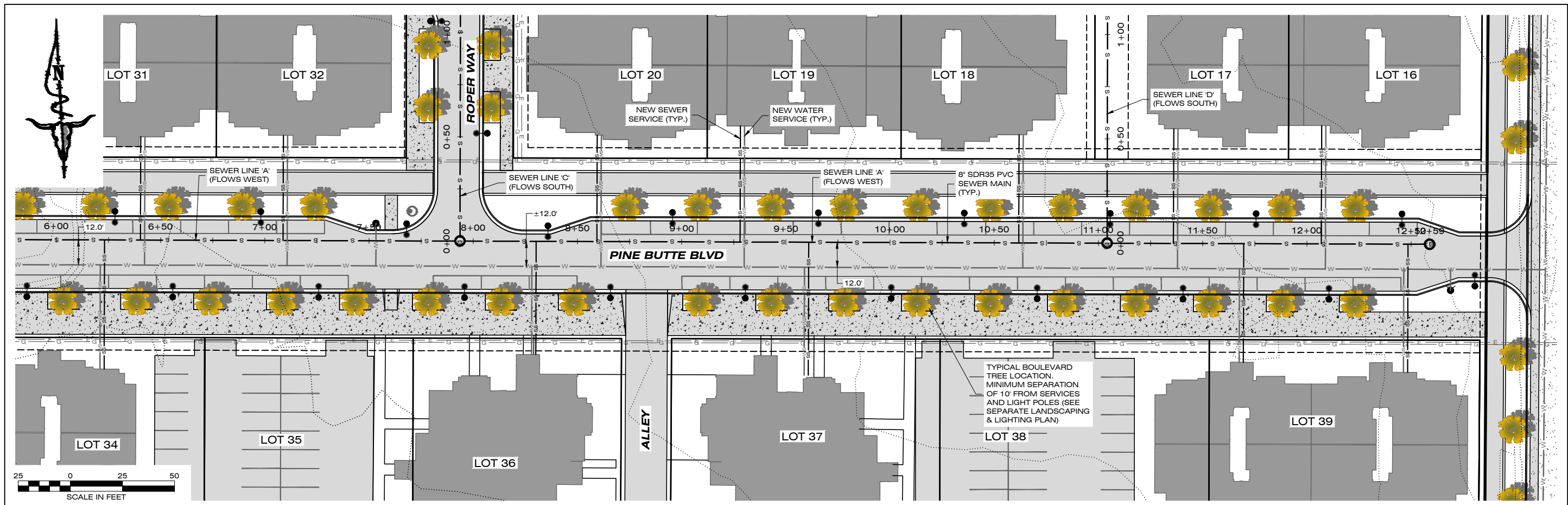
DESIGNED: A/JM
 DRAFTED: A/JM
 CHECKED: A/JM
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

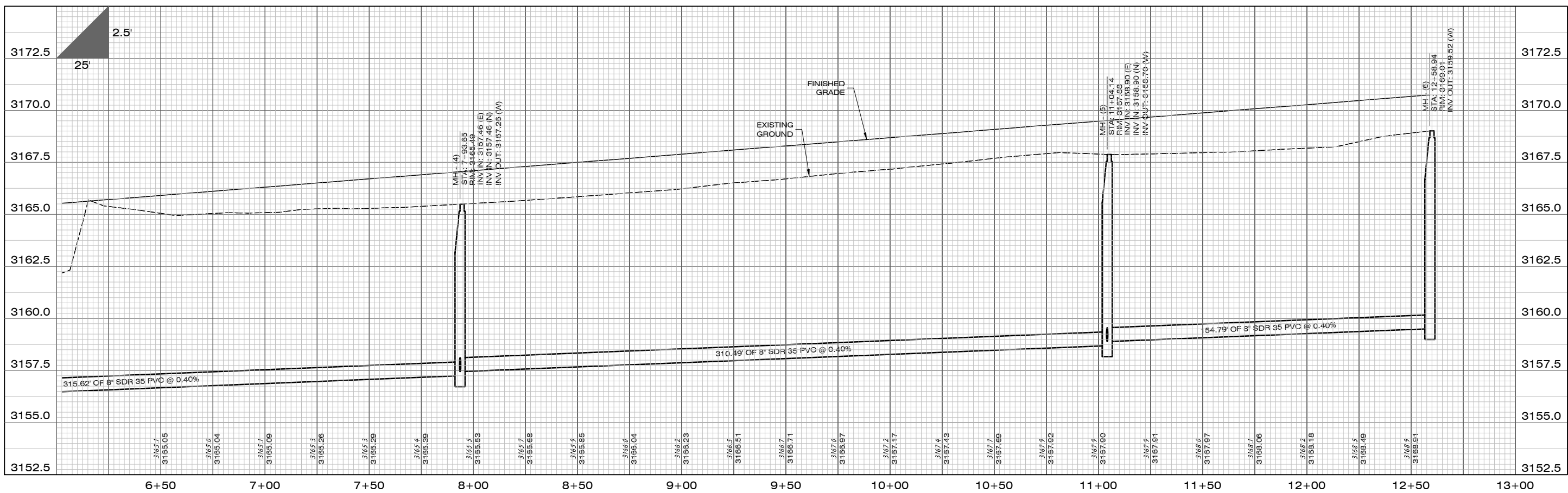
PROJECT NAME: SAPPHIRE PLACE
 PROJECT NO.: 21001343
 SHEET: 5 OF 18
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 SEWER PLAN AND PROFILE SHEET

STAGE 2

DRAWING LOCATION: G:\2023\21001343\SEWER\CONSTRUCTION\PLAN_SHEETS\21001343.DWG DATE: 2/23/2023 12:48 PM



PLAN VIEW



PROFILE VIEW

DATE	
REVISIONS	

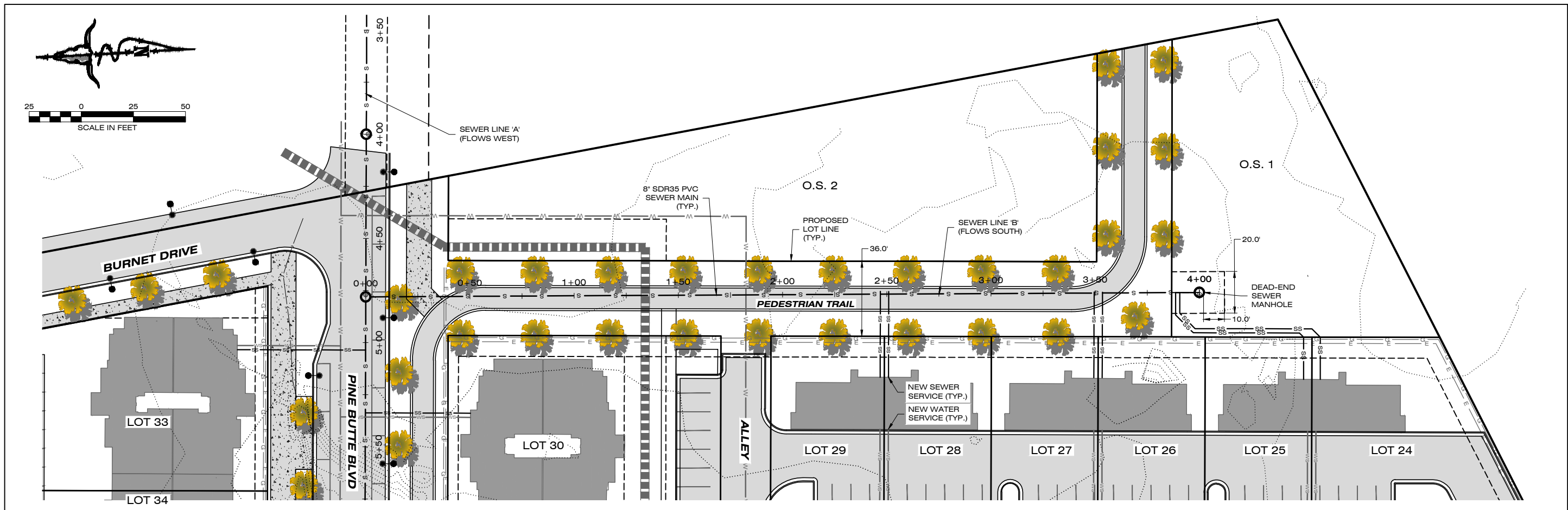
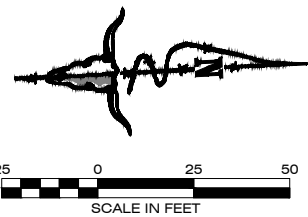
DESIGNED: A/M
 DRAFTED: A/M
 CHECKED: A/M
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

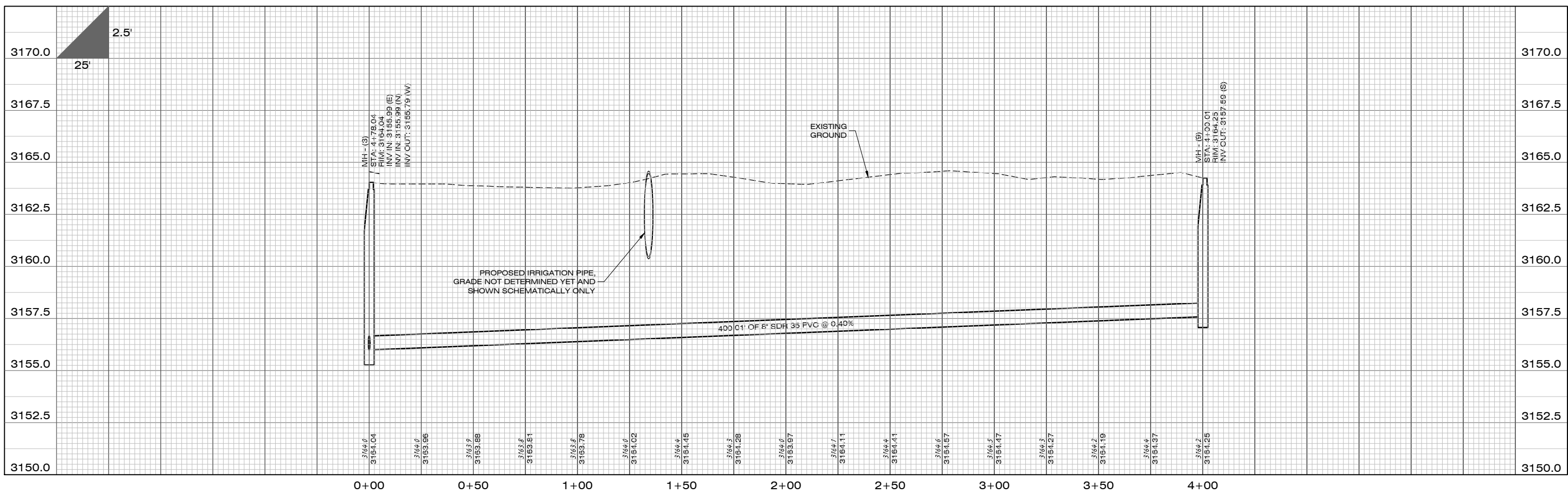
PROJECT NAME: SAPPHIRE PLACE
 PROJECT NO: 21001343
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 SHEET: 6 OF 18
 SHEET NO: 6 OF 18

STAGE 2

DRAWING LOCATION: G:\2023\21001343\DRAWINGS\AUTOCAD\PLAN SET\UTILITY (SEWER)\WATER\WATER-21001343.DWG



PLAN VIEW



PROFILE VIEW

1817 SOUTH AVE. W. STE. A PH. 406.721.0142
 MISSOULA, MT FAX. 406.721.5224
 www.imegcorp.com 59801

REVISIONS
 DATE

DESIGNED: A/M
 DRAFTED: A/M
 CHECKED: A/M
 DATE: FEB. 2023

LOCATION:
 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA

PREPARED FOR:
 CATHCART PROPERTIES INC.

PROJECT NAME:
 SAPPHIRE PLACE

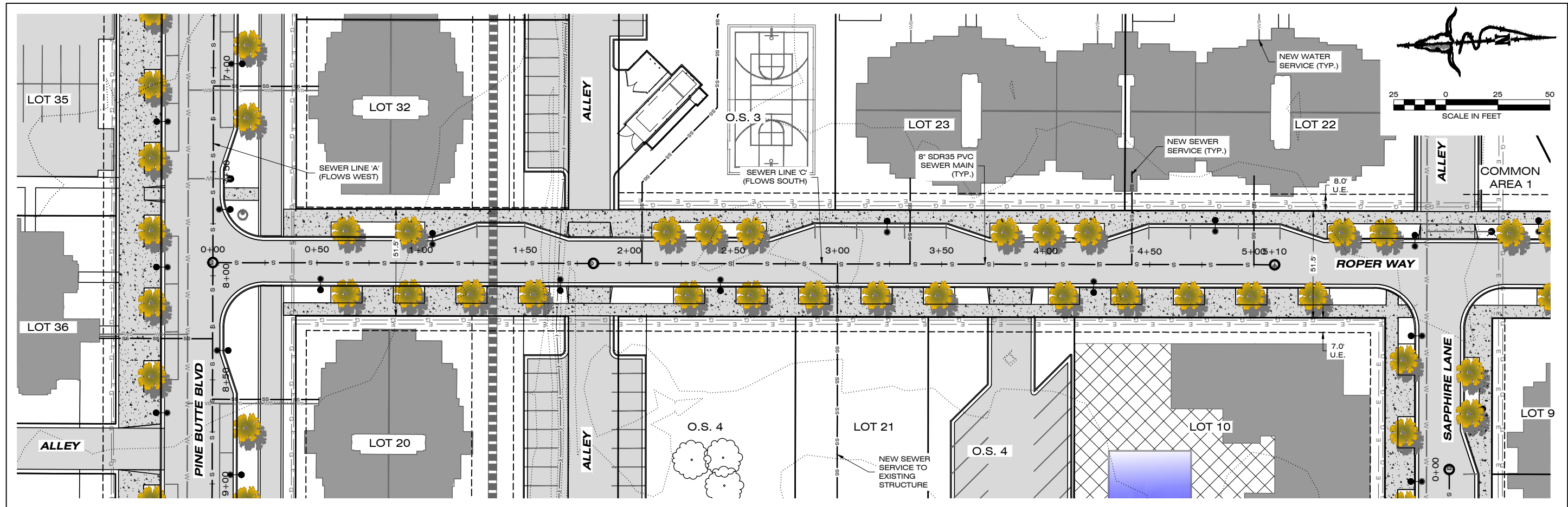
UTILITY CONSTRUCTION PLANS
 SEWER PLAN AND PROFILE SHEET

PROJECT NO.
 21001343

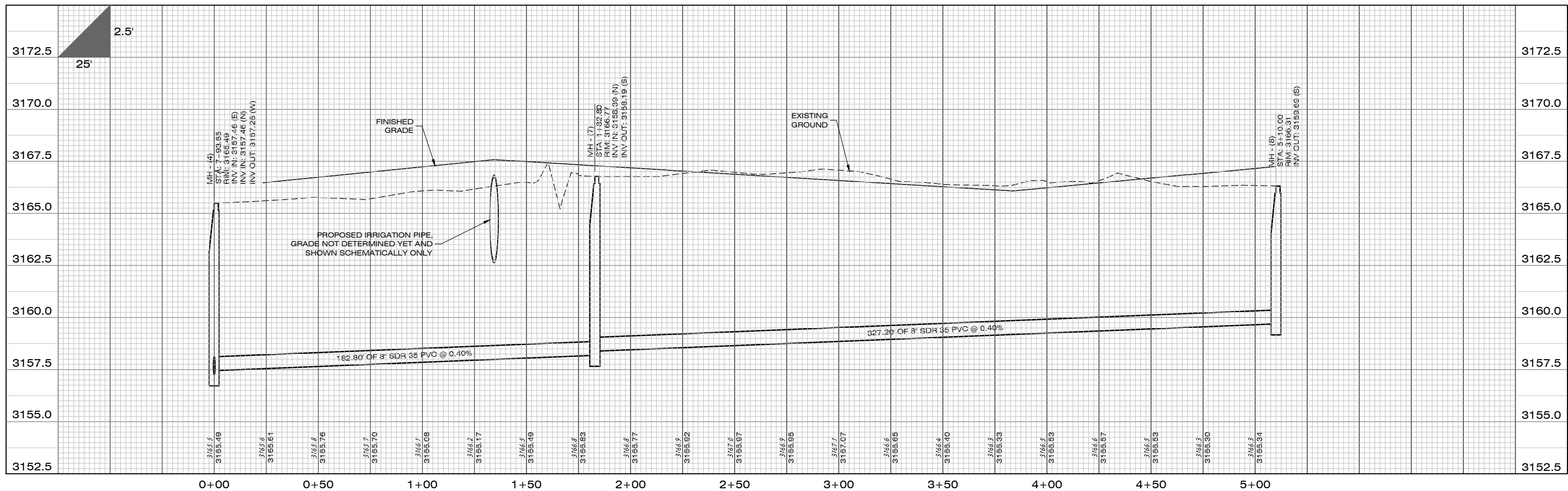
SHEET:
 7 OF 18

STAGE 2

DRAWING LOCATION: G:\2023\21001343\SUBMISSION\DWG\DRAWINGS\AUTOCAD\PLAN SET\UTILITY (SEWER)\WATER\WATER-21001343.DWG



PLAN VIEW



PROFILE VIEW

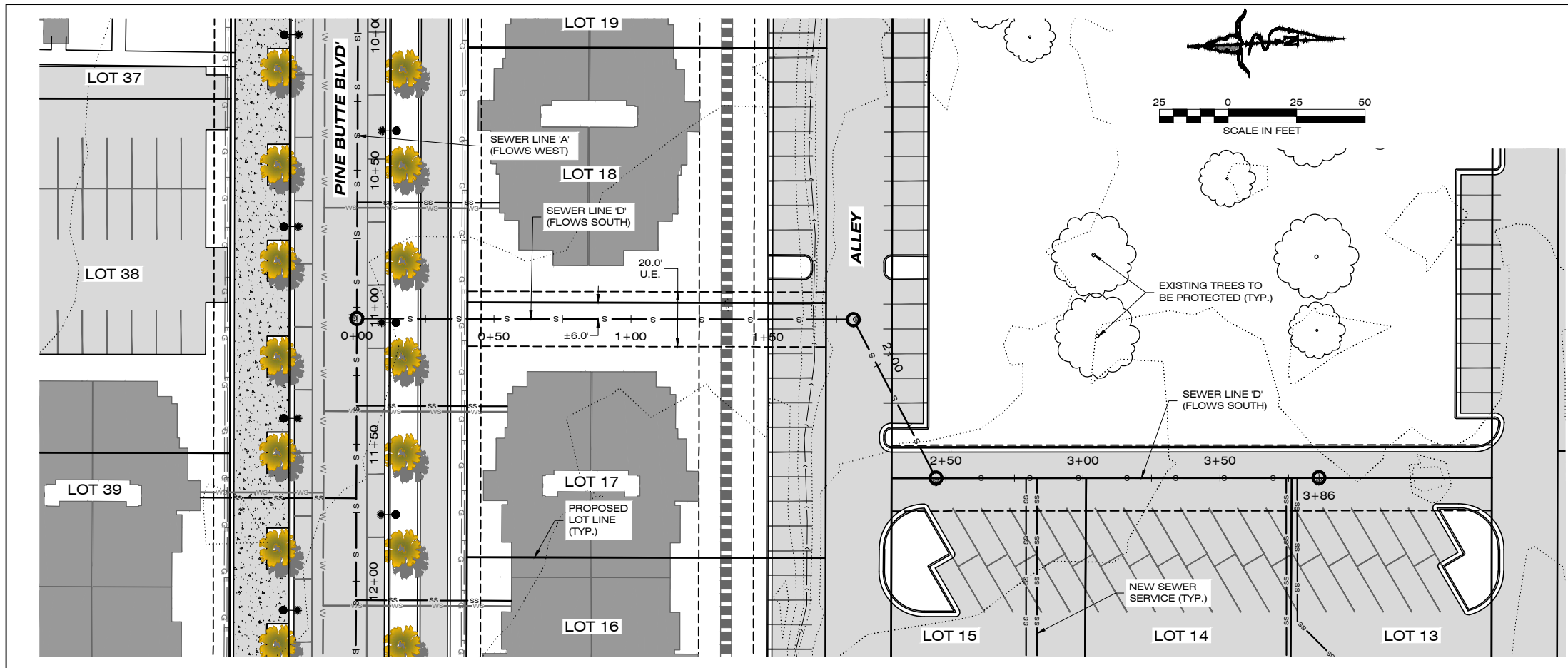
DATE	
REVISIONS	
DESIGNED:	AJM
DRAFTED:	AJM
CHECKED:	AJM
DATE:	FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

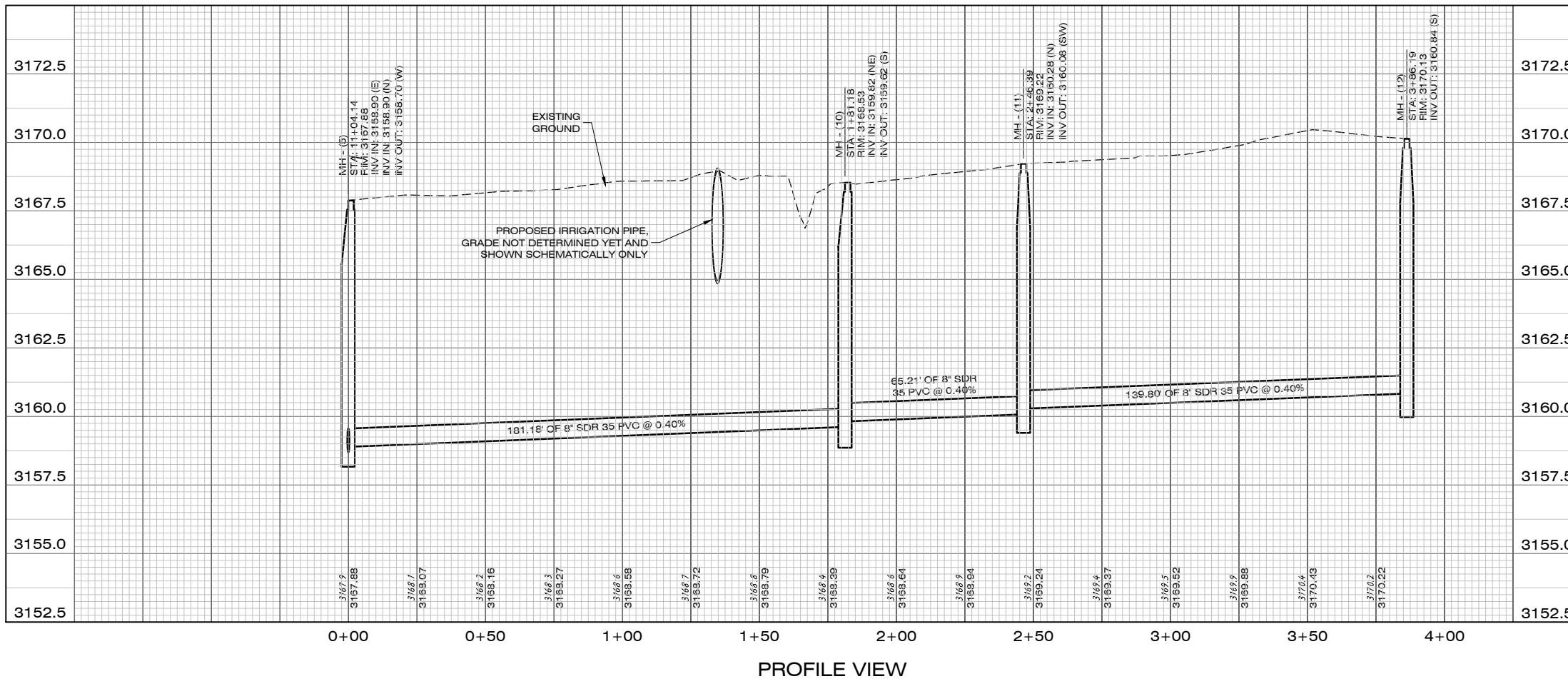
PROJECT NAME: SAPPHIRE PLACE
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 SEWER PLAN AND PROFILE SHEET

PROJECT NO. 21001343
 SHEET: 8 OF 18

STAGE 2

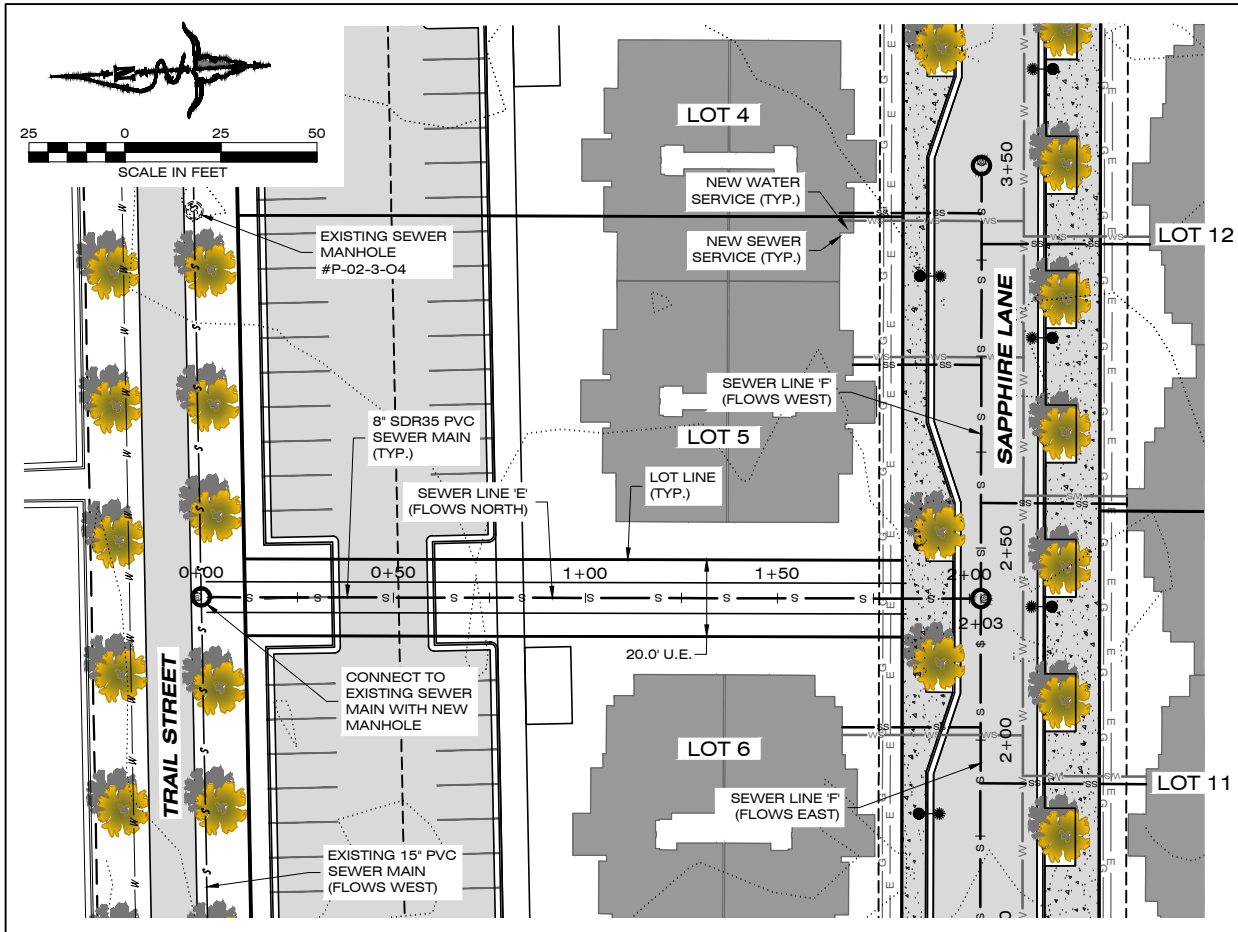


PLAN VIEW

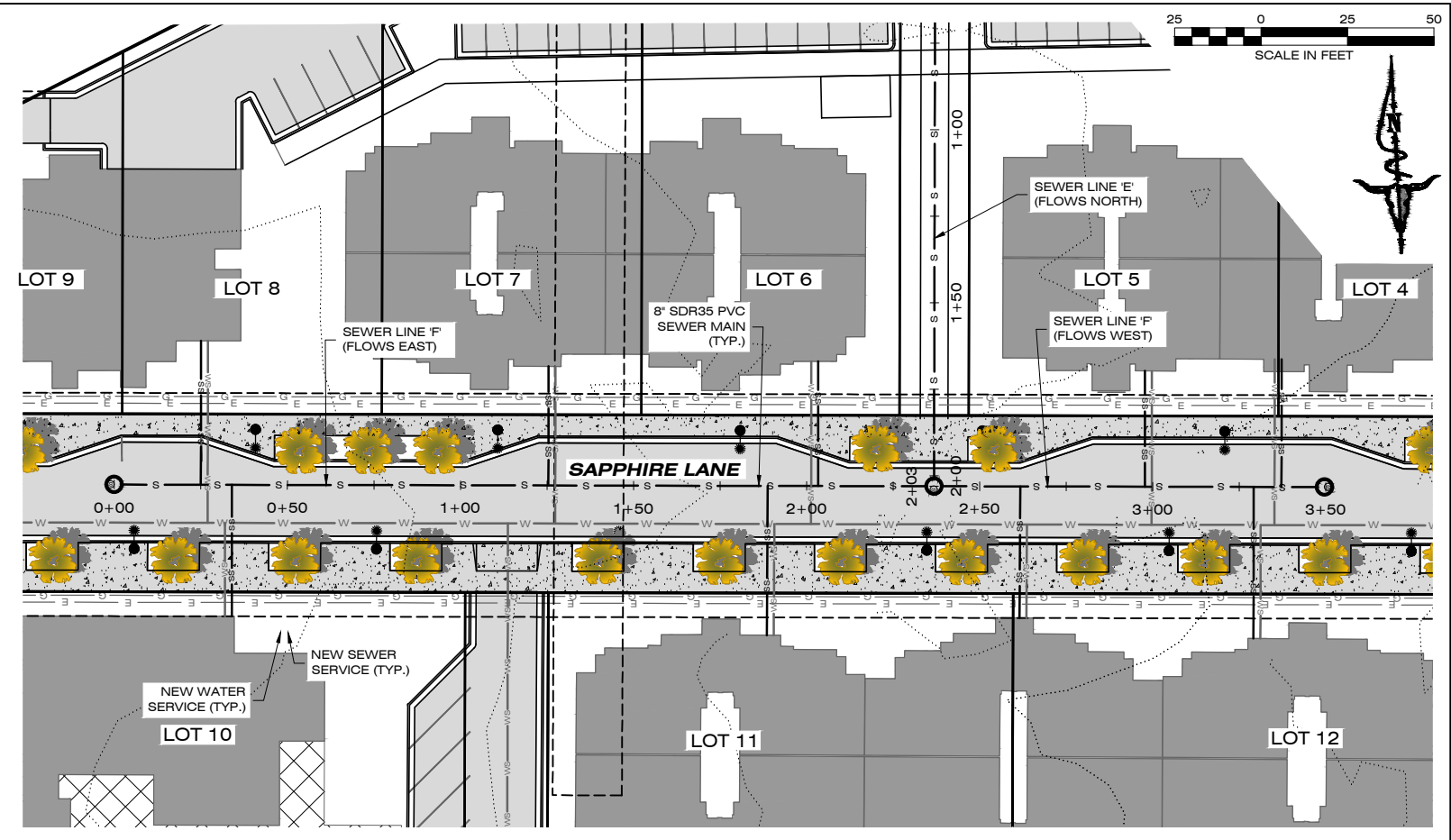


PROFILE VIEW

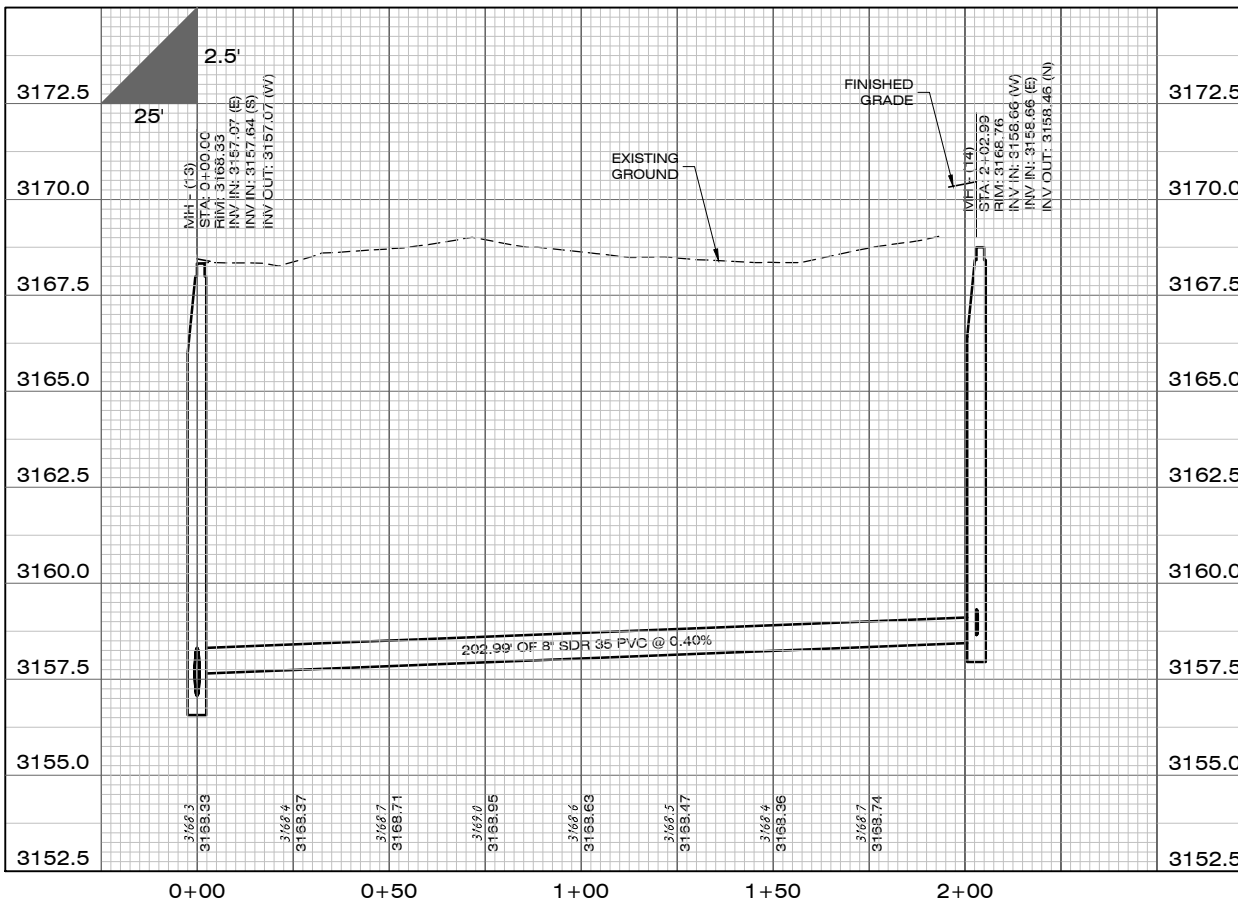
DRAWING LOCATION: G:\2021\21001343\DESIGN\CONVLS_DRAFTING\DRAWINGS\AUTOCAD\PLAN_SEWERS\UTILITY_SEWER\WATER\WATER-21001343.DWG



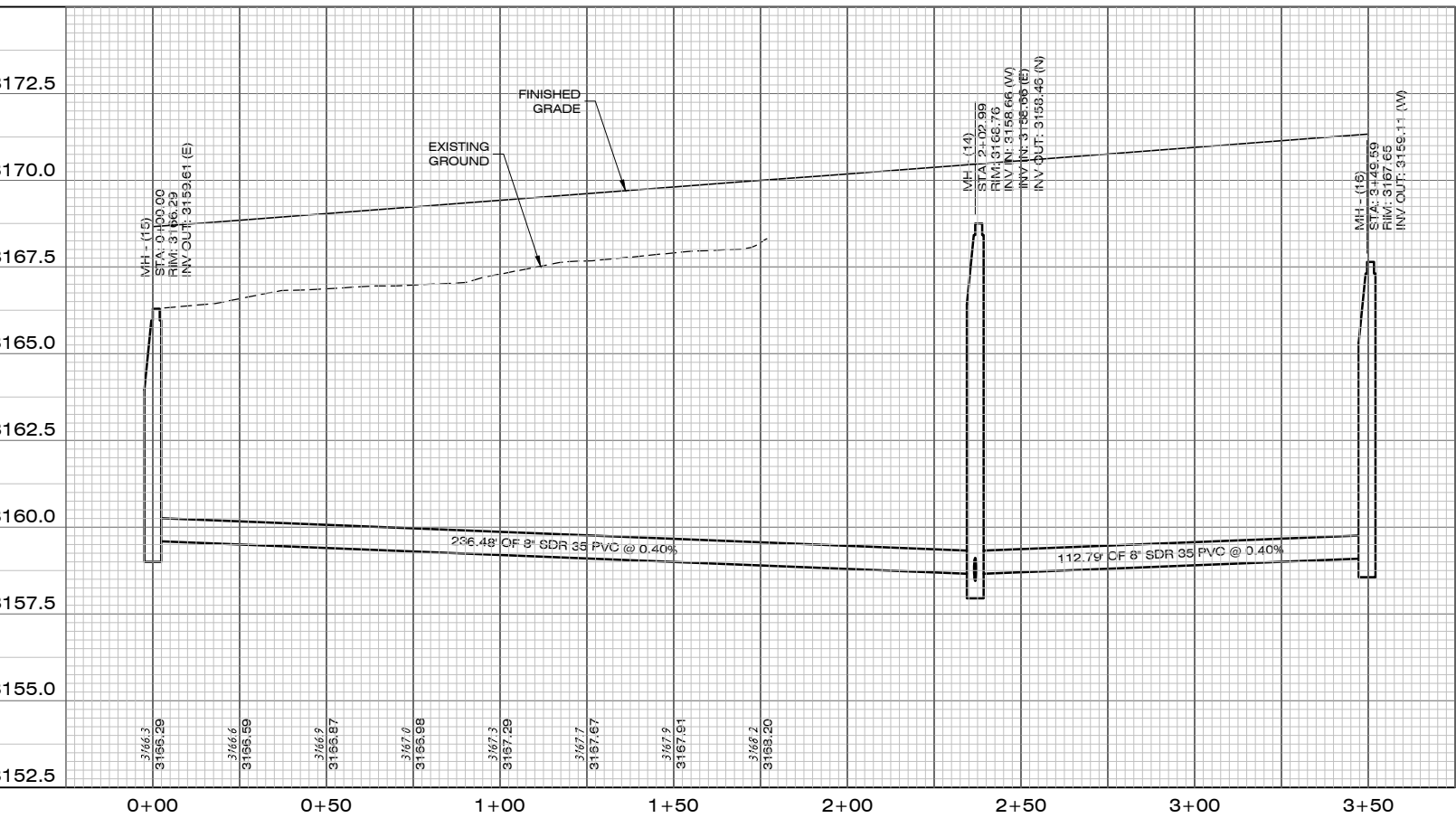
PLAN VIEW



PLAN VIEW

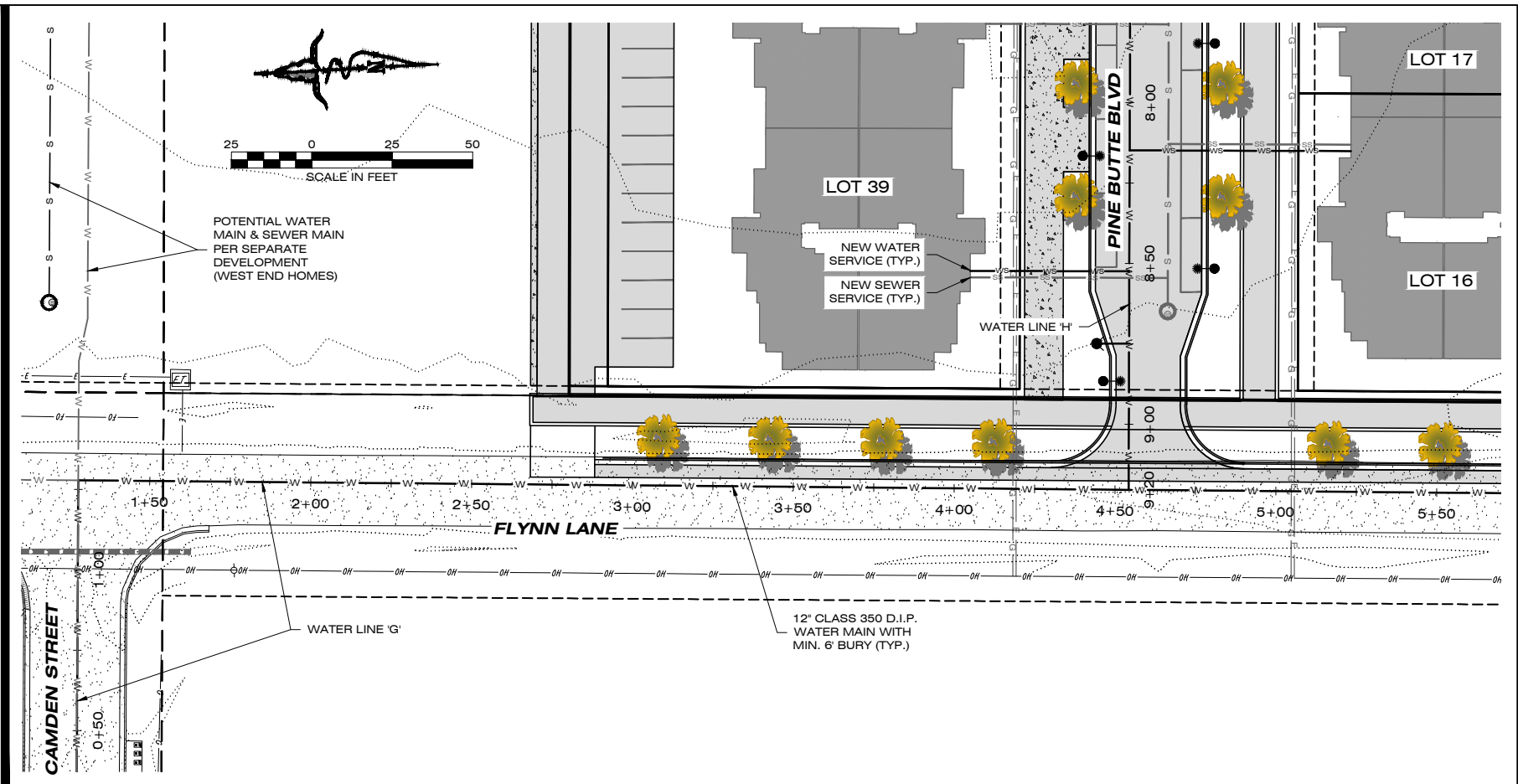
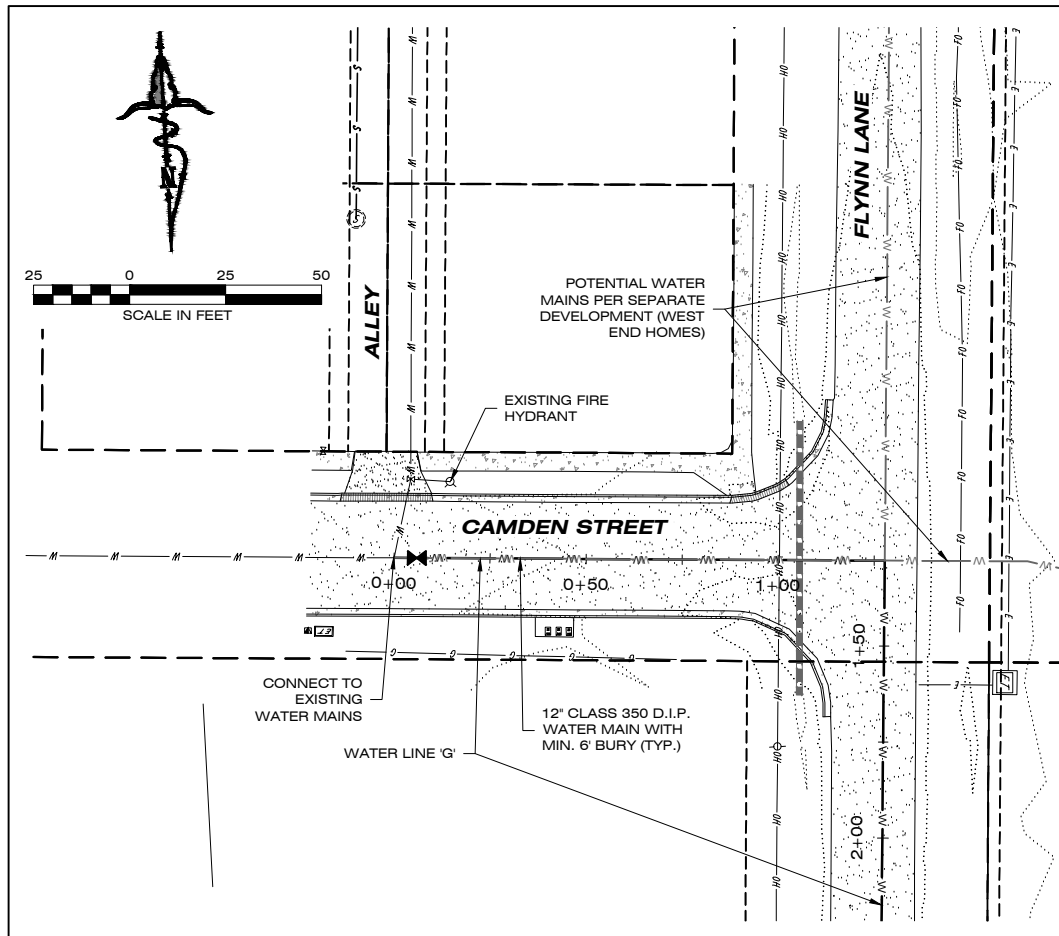


PROFILE VIEW

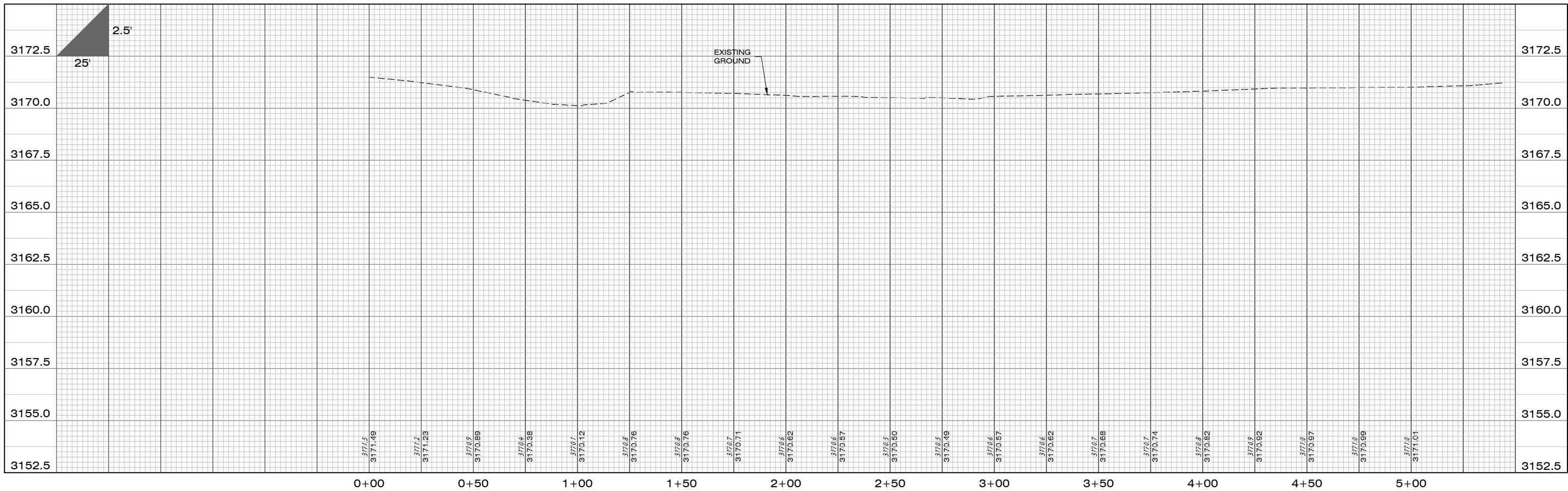


PROFILE VIEW

DRAWING LOCATION: G:\2023\21001343\SDR35\PLAN\SEWER\PLAN\SEWER.WATER\PLAN_SEWER.WATER\WATER-21001343.DWG



PLAN VIEW



PROFILE VIEW

DATE	
REVISIONS	

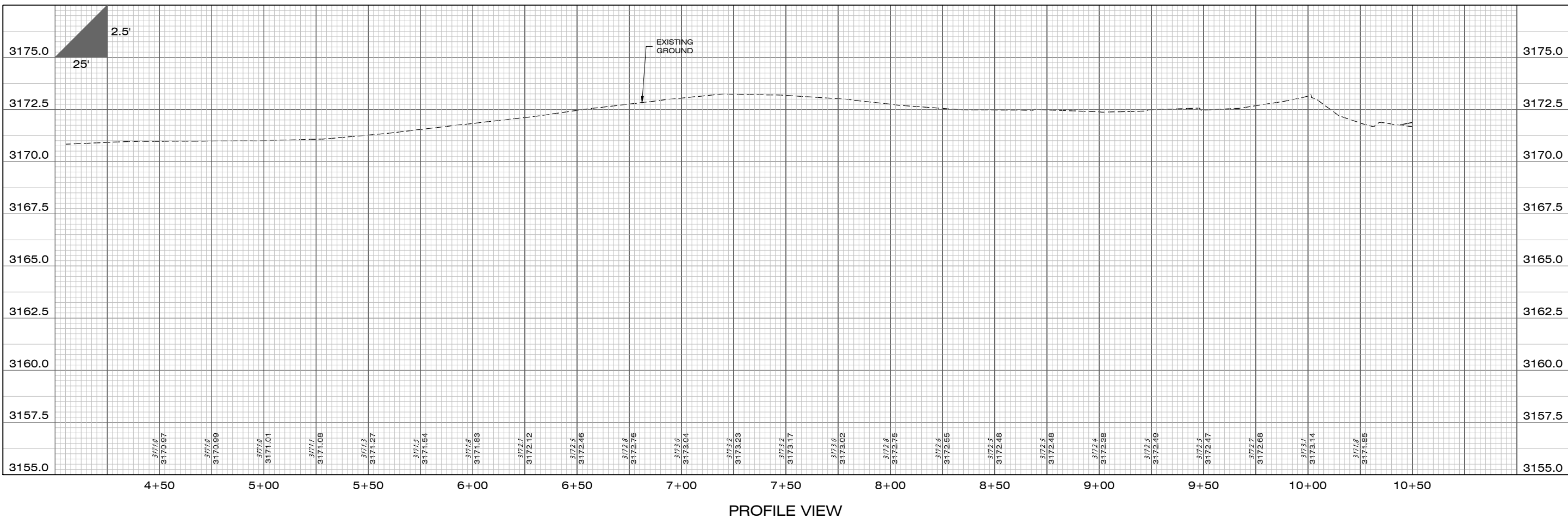
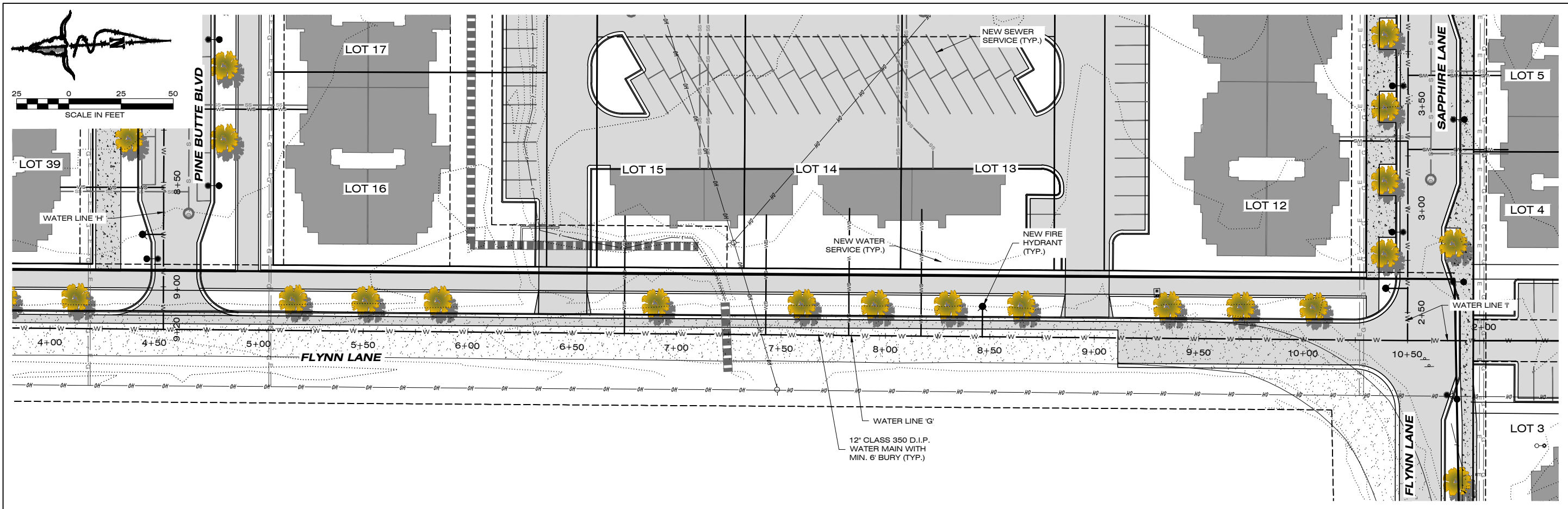
DESIGNED: A/M
 DRAFTED: A/M
 CHECKED: A/M
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

PROJECT NO. 21001343
 SHEET: 11 OF 18

STAGE 2



DATE	
REVISIONS	

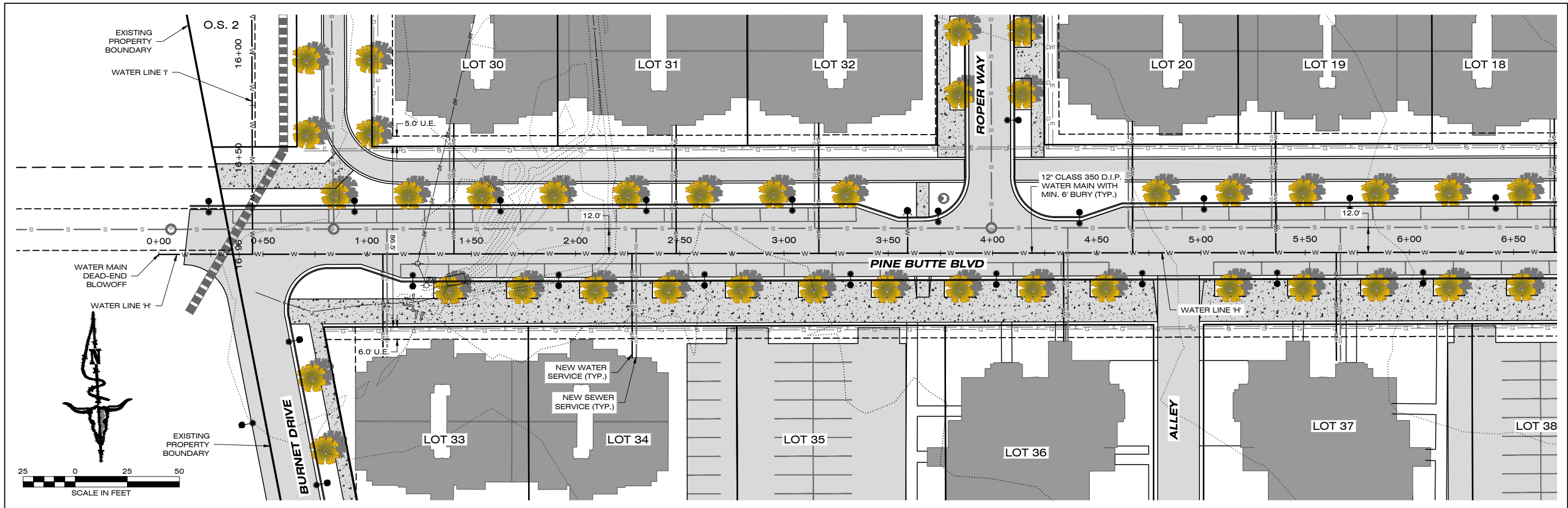
DESIGNED: A/M
 DRAFTED: A/M
 CHECKED: A/M
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

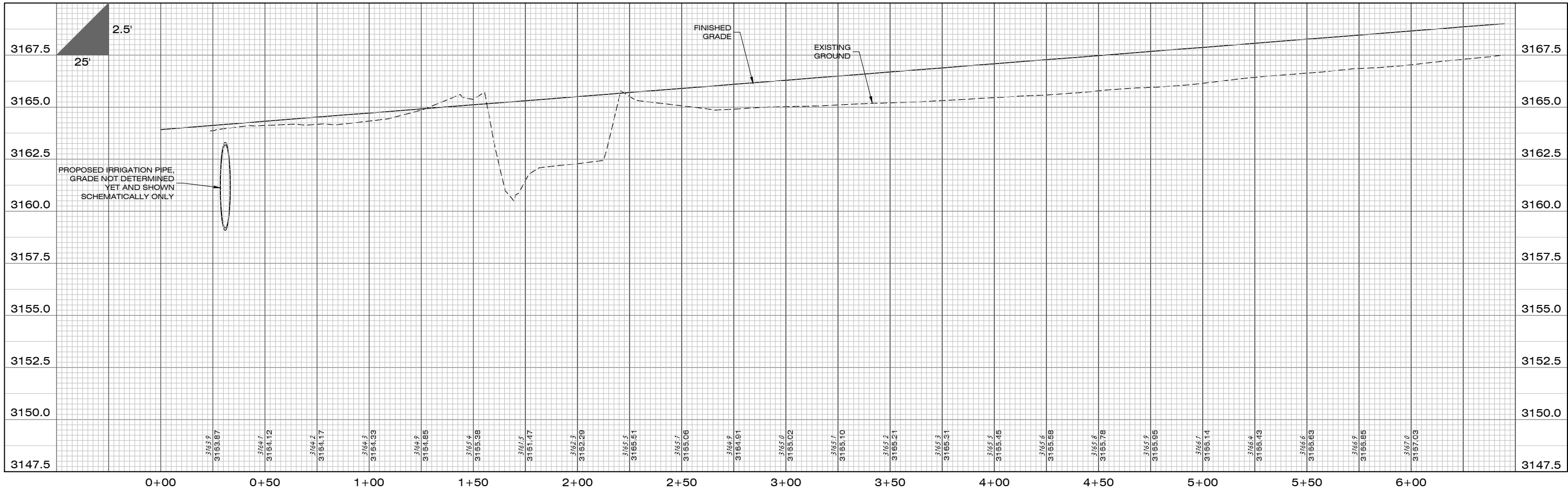
PROJECT NAME: SAPPHIRE PLACE
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

PROJECT NO. 21001343
 SHEET: 12 OF 18

STAGE 2



PLAN VIEW



PROFILE VIEW

DATE	
REVISIONS	

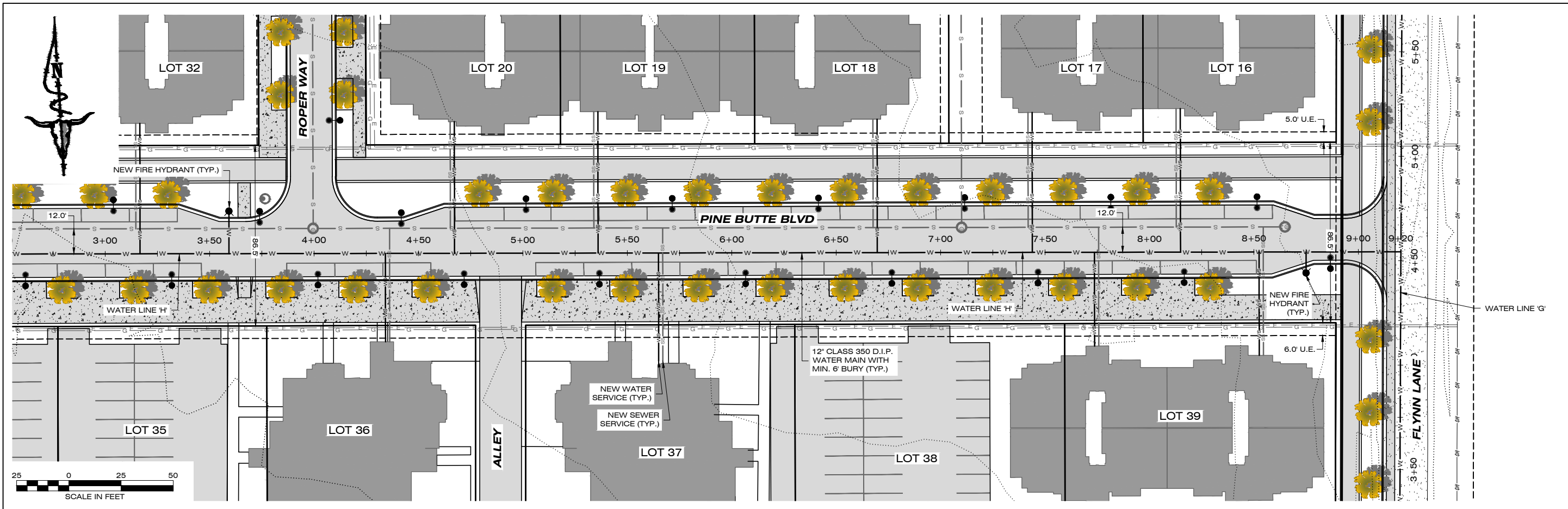
DESIGNED:	AJM
DRAFTED:	AJM
CHECKED:	AJM
DATE:	FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

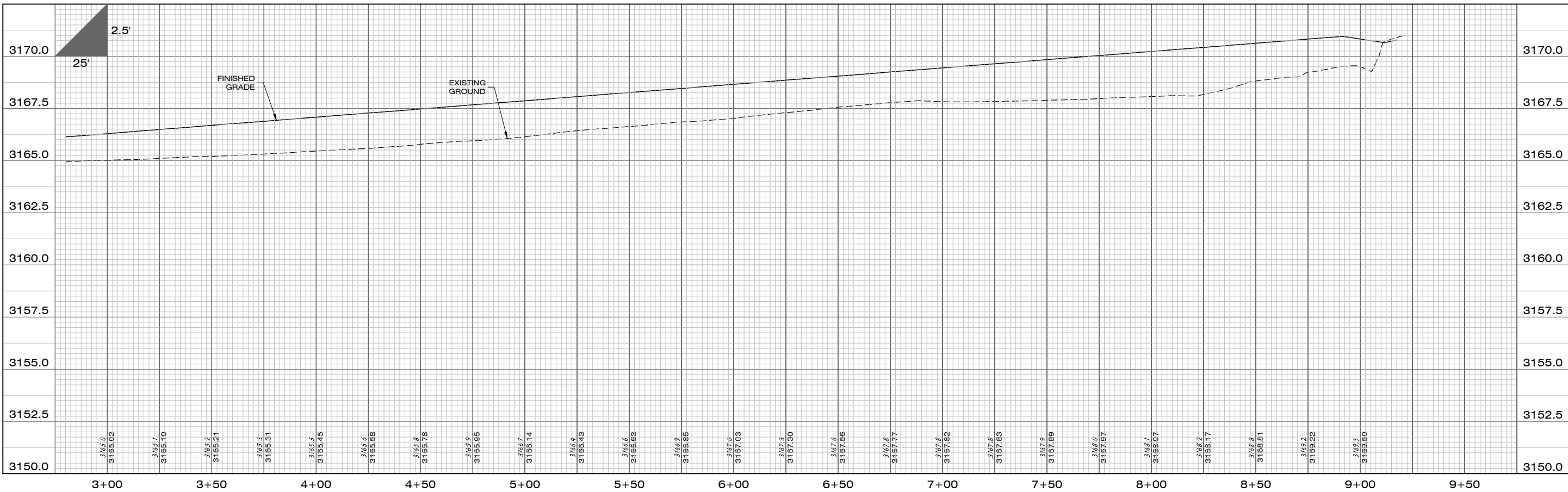
PROJECT NAME: SAPPHIRE PLACE
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

PROJECT NO. 21001343
 SHEET: 13 OF 18

STAGE 2



PLAN VIEW



PROFILE VIEW

DATE

REVISIONS

DESIGNED: A/JM
 DRAFTED: A/JM
 CHECKED: A/JM
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE

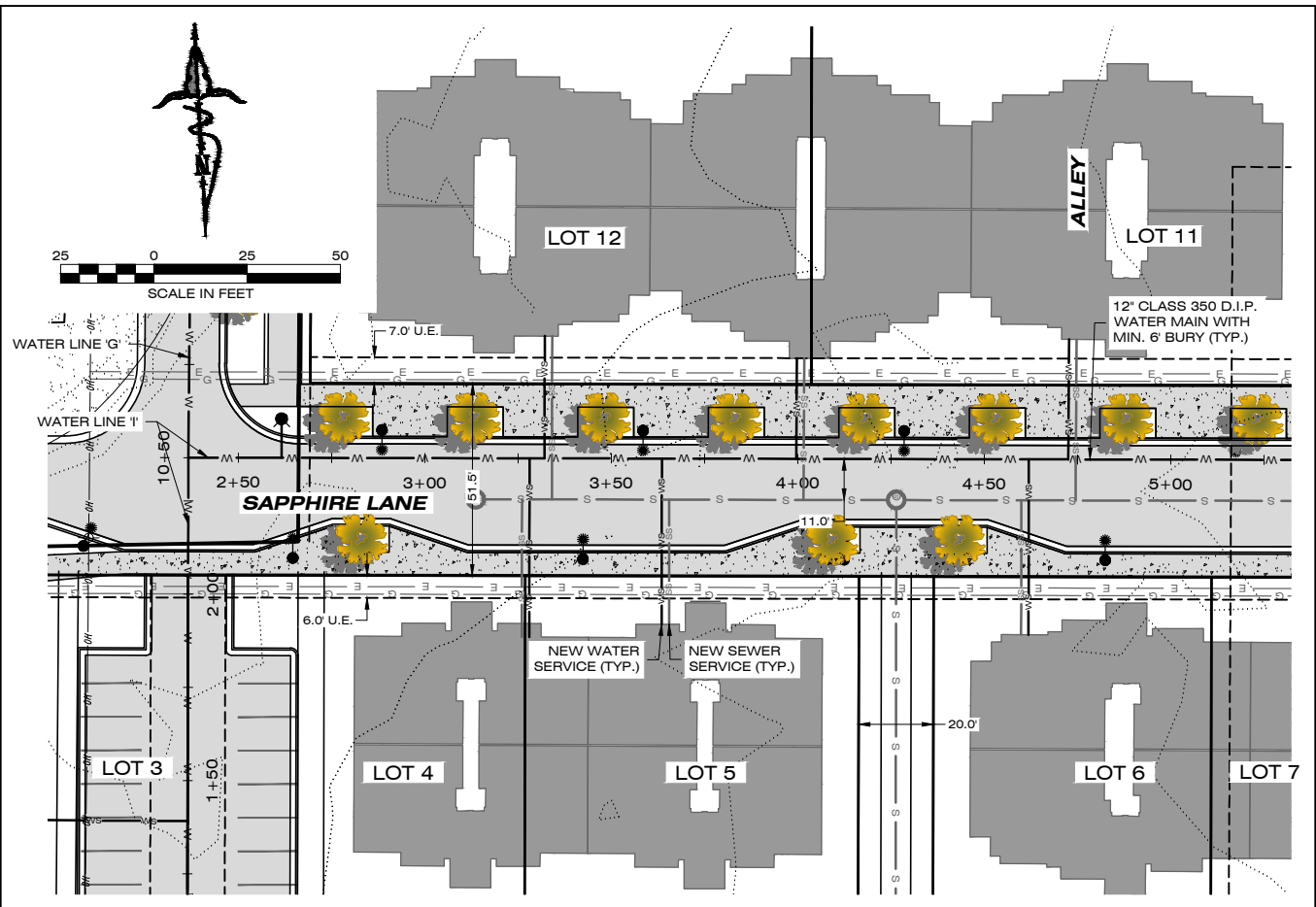
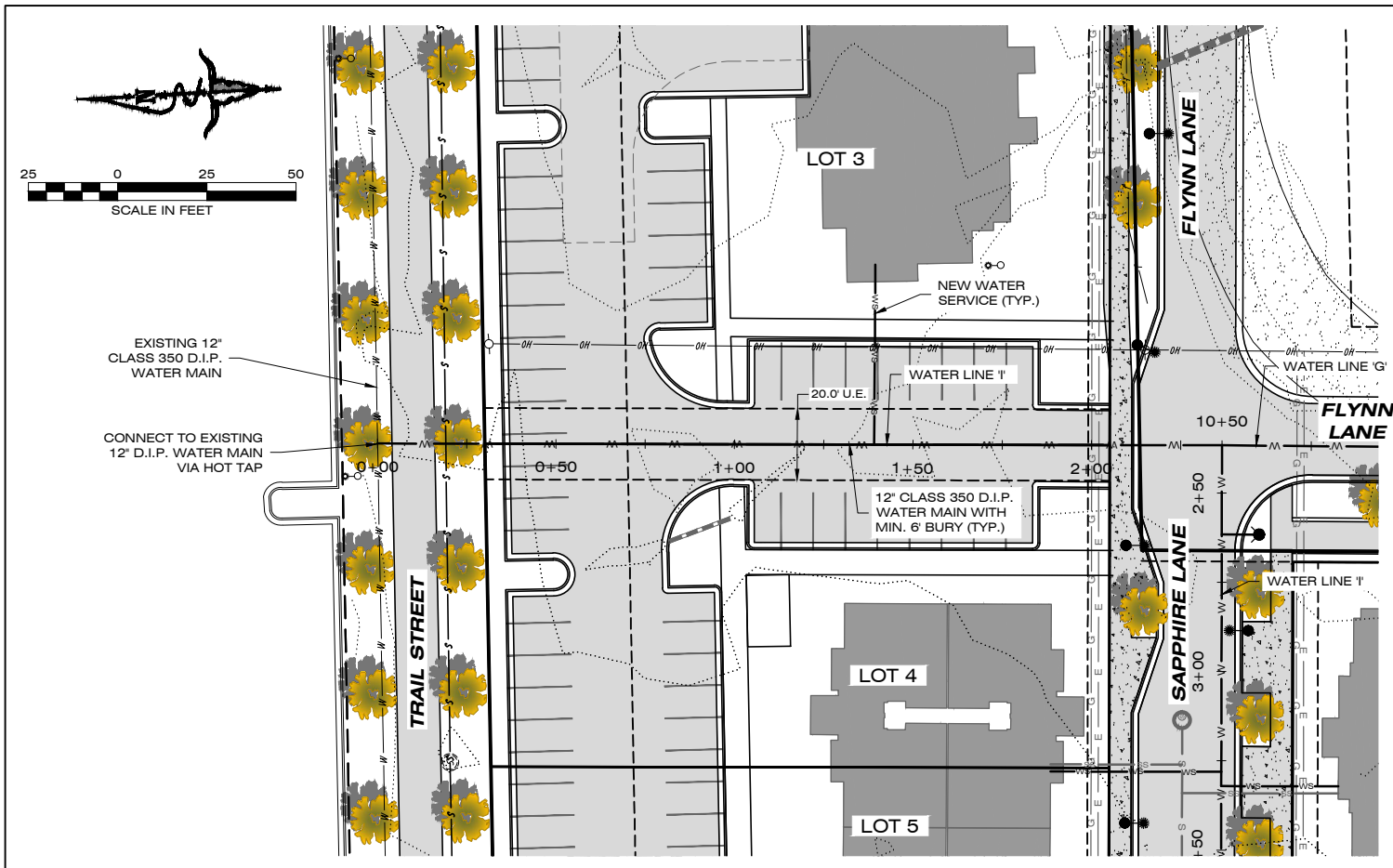
PROJECT NO. 21001343

SHEET: 14 OF 18

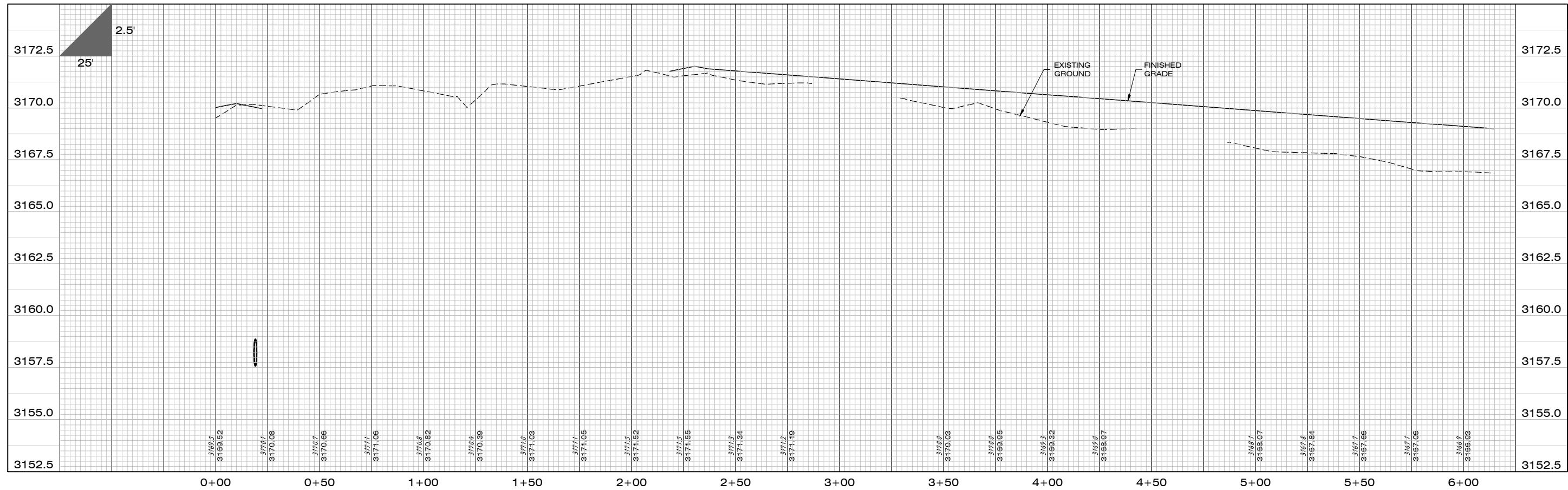
UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

STAGE 2

DWG LOCATION: G:\2023\21001343\SAPPHIRE\CONSTRUCTION\DWG\21001343-14.DWG (BEVERLY.WATERS) DATE: 2/14/2023 12:47 PM



PLAN VIEW



PROFILE VIEW

DATE	
REVISIONS	

DESIGNED: A/JM
 DRAFTED: A/JM
 CHECKED: A/JM
 DATE: FEB. 2023

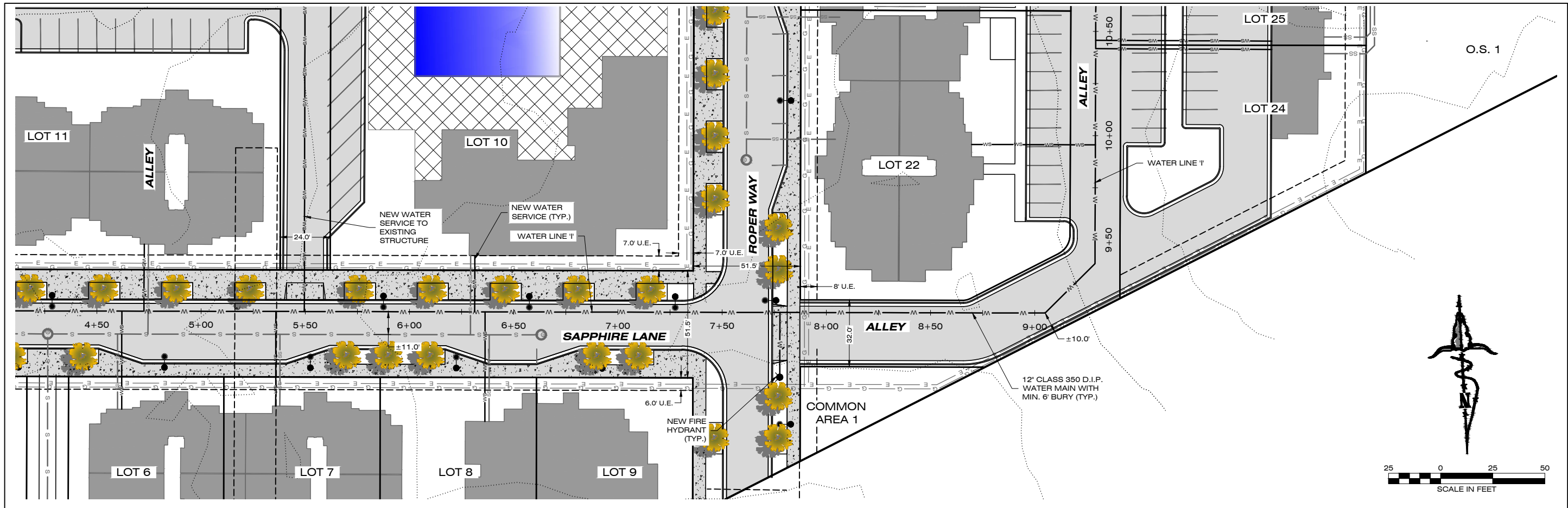
LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

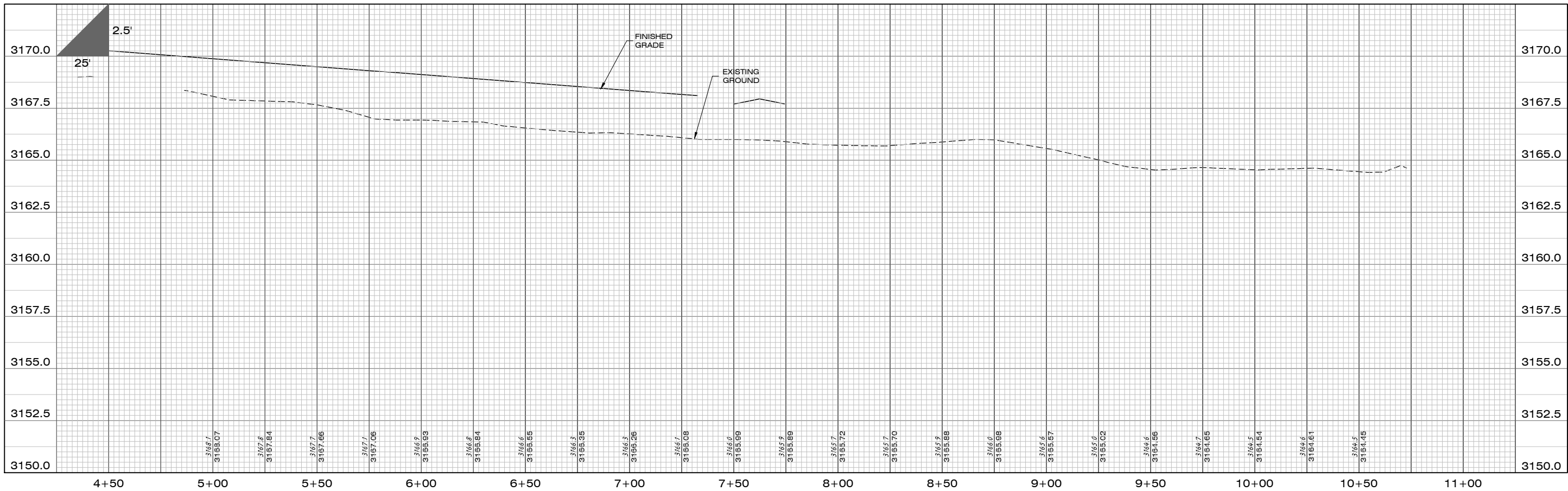
PROJECT NO. 21001343
 SHEET: 15 OF 18

STAGE 2

DRWG LOCATION: G:\2021\343\SAPPHIRE\CONVLS\DRW\PLNS\DRAWINGS\AUTO\CAD\PLAN\RE\UTILITY\UTL\WATER\WATER\WTR-21001343.DWG



PLAN VIEW



PROFILE VIEW

DATE

REVISIONS

DESIGNED: A/JM
 DRAFTED: A/JM
 CHECKED: A/JM
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

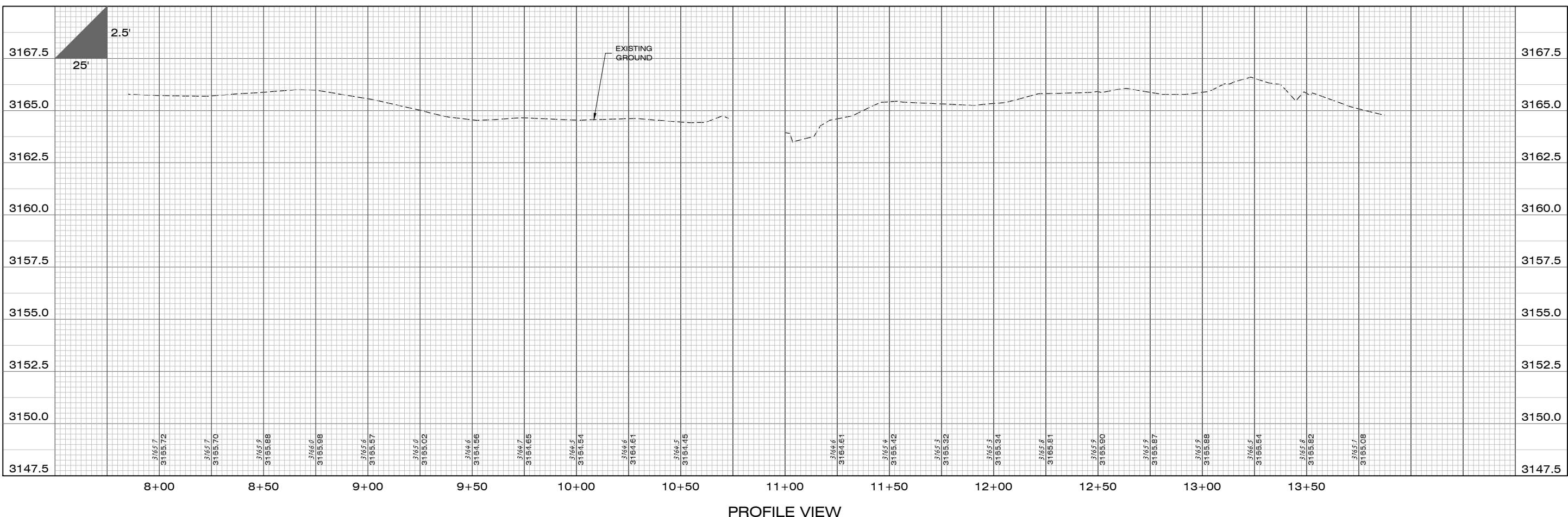
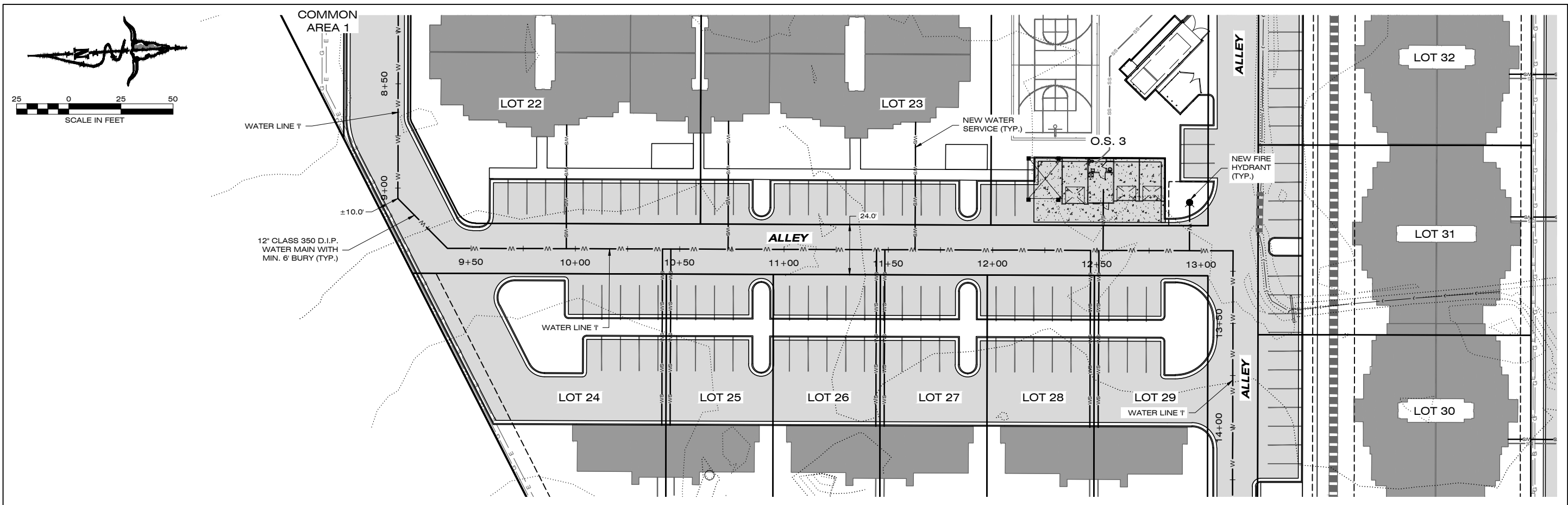
PROJECT NAME
SAPPHIRE PLACE

PROJECT NO.
21001343

SHEET:
16 OF 18
 SHEET TITLE:
**UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET**

STAGE 2

DWG LOCATION: G:\2023\21001343\DRAWINGS\AUTOCAD\PLAN SET\UTILITY (BEVER WATER)\WATER-21001343.DWG



IMEG
 1817 SOUTH AVE. W. STE. A PH. 406.721.0142
 MISSOULA, MT FAX. 406.721.5224
 www.imegcorp.com 59801

LOT DATE: 2/28/2023 12:48 PM

DATE: _____

REVISIONS: _____

DESIGNED: A/JM
 DRAFTED: A/JM
 CHECKED: A/JM
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE

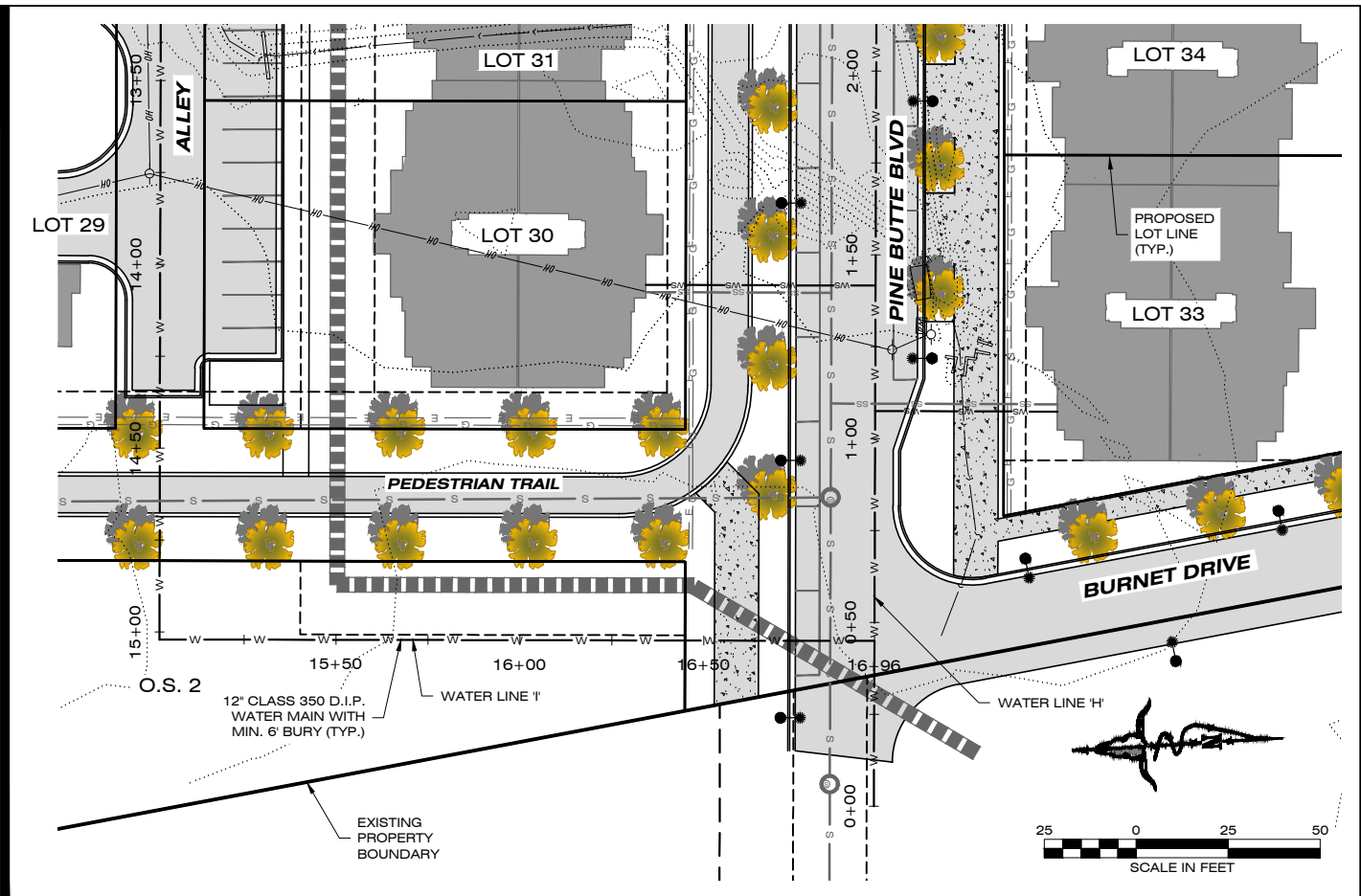
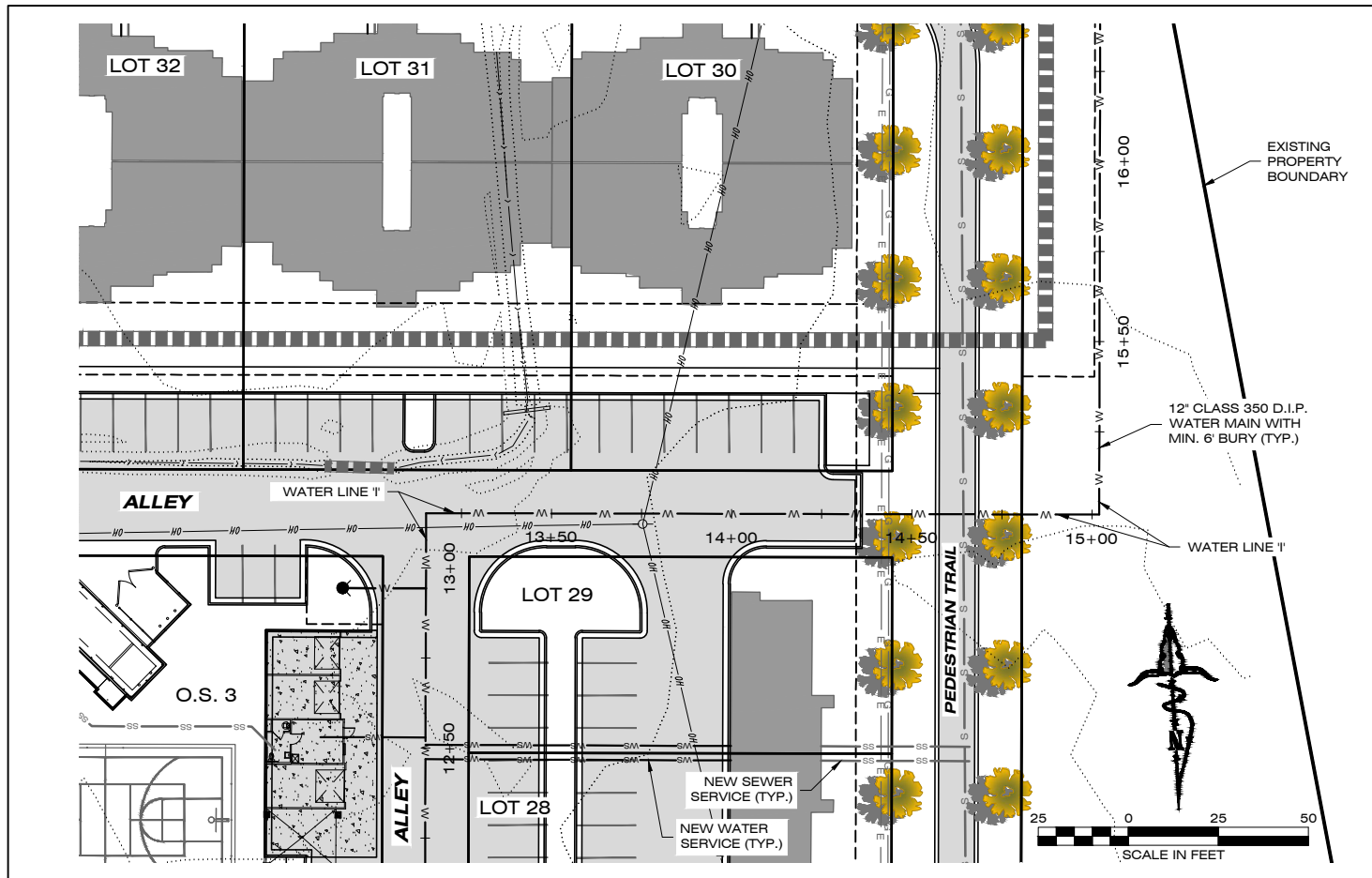
PROJECT NO. 21001343

SHEET: 17 OF 18

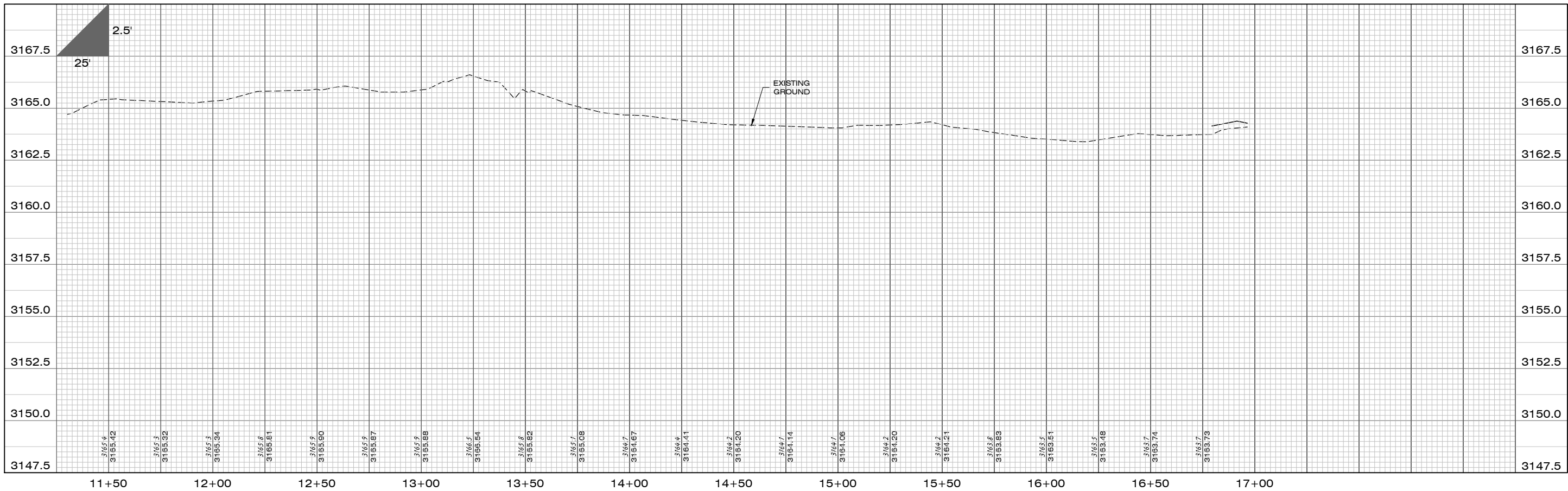
SHEET TITLE: UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

STAGE 2

DATE: 03/02/23 09:45:00 (DRAWING) DATE: 03/02/23 09:45:00 (DRAWING) DATE: 03/02/23 09:45:00 (DRAWING)



PLAN VIEW



PROFILE VIEW

DATE	
REVISIONS	

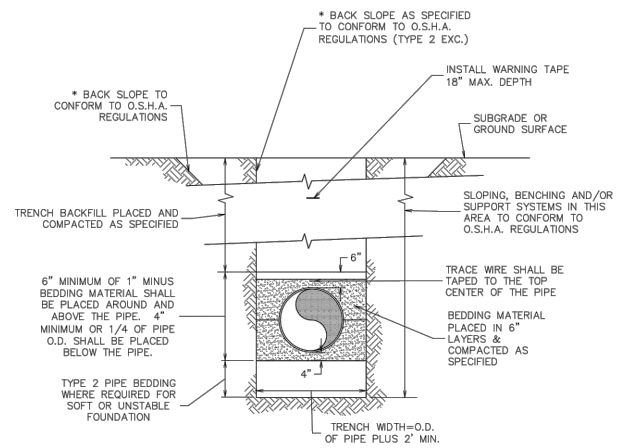
DESIGNED: A/M
 DRAFTED: A/M
 CHECKED: A/M
 DATE: FEB. 2023

LOCATION: 3285 FLYNN LANE
 PARCEL 2A OF COS 6689
 SECTION 7, T13N, R19W, P.M.M.
 MISSOULA COUNTY, MONTANA
 PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE
 PROJECT NO.: 21001343
 SHEET: 18 OF 18
 SHEET TITLE: UTILITY CONSTRUCTION PLANS
 WATER PLAN AND PROFILE SHEET

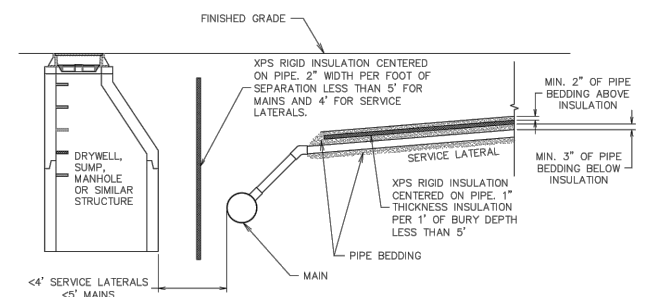
STAGE 2

DWG LOCATION: G:\2023\21001343\SAPPHIRE\PLANS\DRAWINGS\AUTOCAD\PLAN\BETWTRAIL\BETWTRAIL\WATER\WATER\WATER-1801343.DWG



* SEE O.S.H.A. CONSTRUCTION STANDARDS FOR EXCAVATIONS, SECTION 1926, SUBPART P.

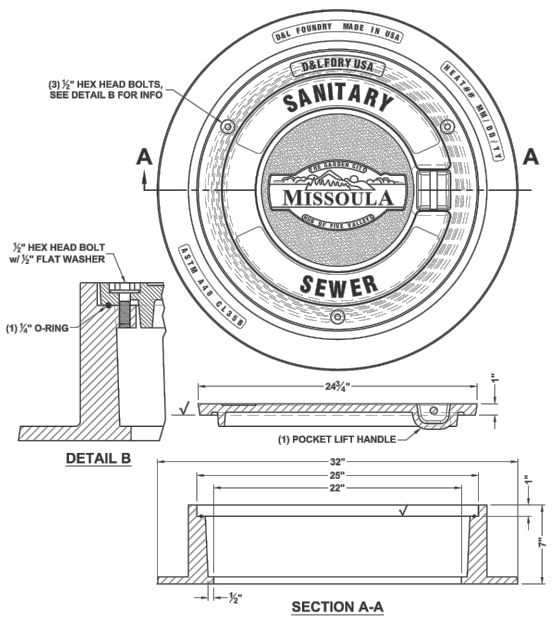
NOTE:
CASING PIPE (IF ANY) INSTALLED BY TRENCH CONSTRUCTION METHODS SHALL BE BEDDED AS SHOWN IN THIS DETAIL.



GENERAL NOTES:

- INSULATION IS REQUIRED WHEN A SANITARY SEWER PIPE IS LESS THAN 4 FEET FOR A SERVICE LATERAL AND LESS THAN 5 FEET FOR A SEWER MAIN, FROM FINISHED GRADE, A DRYWELL SUMP, IRRIGATION PIPE OR ANY STRUCTURE THAT HAS THE POTENTIAL TO TRANSFER COLD OR PROMOTE FREEZING.
- PROVIDE ONE-INCH OF INSULATION THICKNESS, EQUIVALENT TO AN R-VALUE OF 5, PER FOOT OF MISSING COVER OR VOID SPACE LESS THAN FIVE FEET. PROVIDE TWO-INCHES OF INSULATION THICKNESS, EQUIVALENT TO AN R-VALUE OF 10, PER FOOT OF HORIZONTAL SEPARATION LESS THAN 5- FEET FOR MAINS AND 4- FEET FOR SERVICE LATERALS.
- USE A HIGH DENSITY, RIGID INSULATION WITH 35 PSI OR GREATER RATING.

EJCO 3777Z1/AGS, D&L A-1171 LOCKABLE OR APPROVED EQUIVALENT



GENERAL NOTES:

- D&L FOUNDRY A-1171 BOLT DOWN, WATER TIGHT LIDS ARE REQUIRED FOR ALL CITY-OWNED AND PRIVATELY-OWNED MANHOLES. PRIVATELY OWNED MANHOLES SHALL BE TEXTURED SLIP RESISTANT LID WITHOUT CITY LOGO AND LABELED WITH THE WORDS "SANITARY SEWER".
- PROVIDE LIDS AND RINGS THAT MEET AASHTO 306 HS20 LOADING RATING OR HIGHER.
- COMPOSITE TAPERED GRADE RINGS SHALL BE USED TO MATCH FRAME & GRATE TO THE CURB LINE CROSS SLOPE AND RUNNING SLOPE OR STREET CROSS SLOPE AND RUNNING SLOPE, WHERE NOT IN CONCRETE.
- A 4-INCH MANHOLE RING MAY BE USED IN LIEU OF A 7-INCH RING ONLY WITH PRIOR APPROVAL FROM CITY ENGINEERING.

December 2021

Typical Utility Trench Detail

Approved By
Utilities Engineer
Logan McInnis, PE

Adopted: 09/28/2020

Revised: 09/28/2020

STD - 401

December 2021

Sanitary Sewer Service and Main Insulation Requirements

Approved By
Project Manager -
Ross Mollenhauer, PE

Adopted: 09/28/2020

Revised: 07/23/2021

STD - 500

December 2021

Sanitary Sewer Lid

Approved By
Project Manager -
Ross Mollenhauer, PE

Adopted: 09/28/2020

Revised: 10/22/2021

STD - 510

December 2021

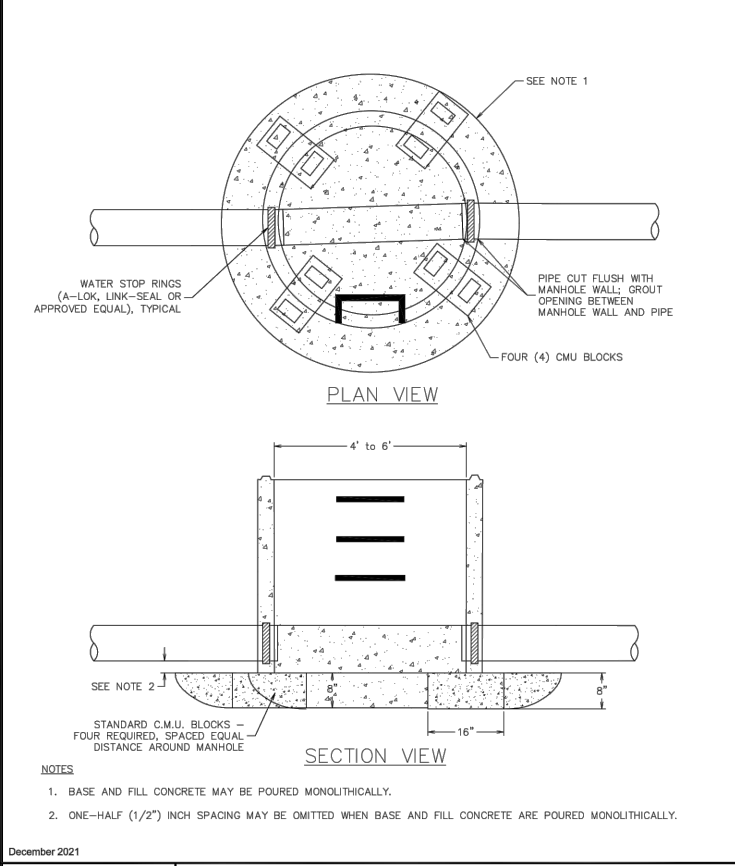
Sanitary Sewer Manhole (Sheet 1 of 3)

Approved By
City Engineer for Utilities
Ross Mollenhauer, PE

Adopted: 09/28/2020

Revised: 03/25/2021

STD - 512-1



December 2021

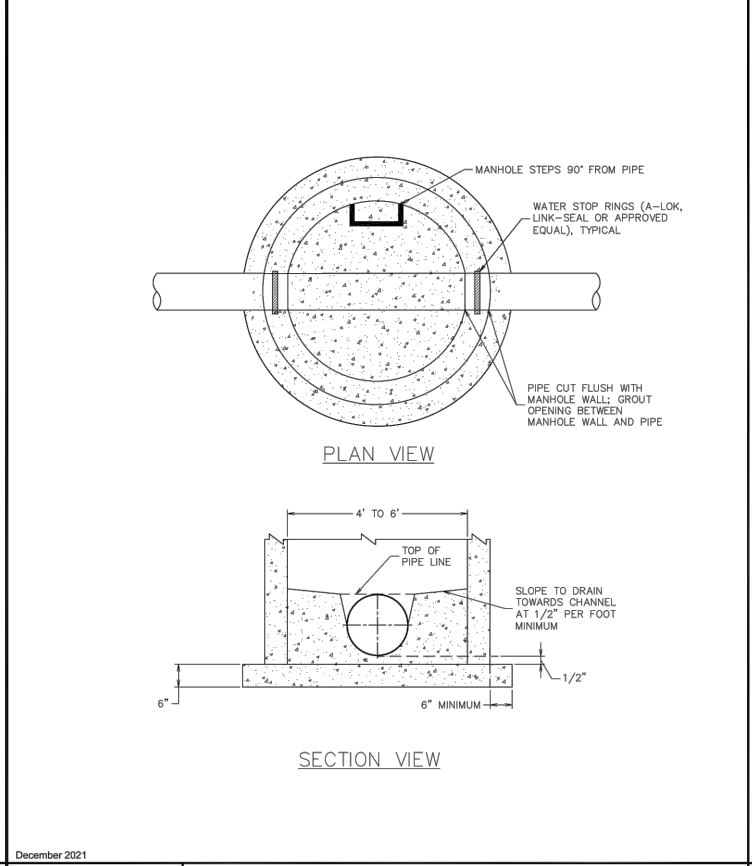
Sanitary Sewer Manhole - Dog House Base (Sheet 2 of 3)

Approved By
City Engineer for Utilities
Ross Mollenhauer, PE

Adopted: 09/28/2020

Revised: 03/25/2021

STD - 512-2



December 2021

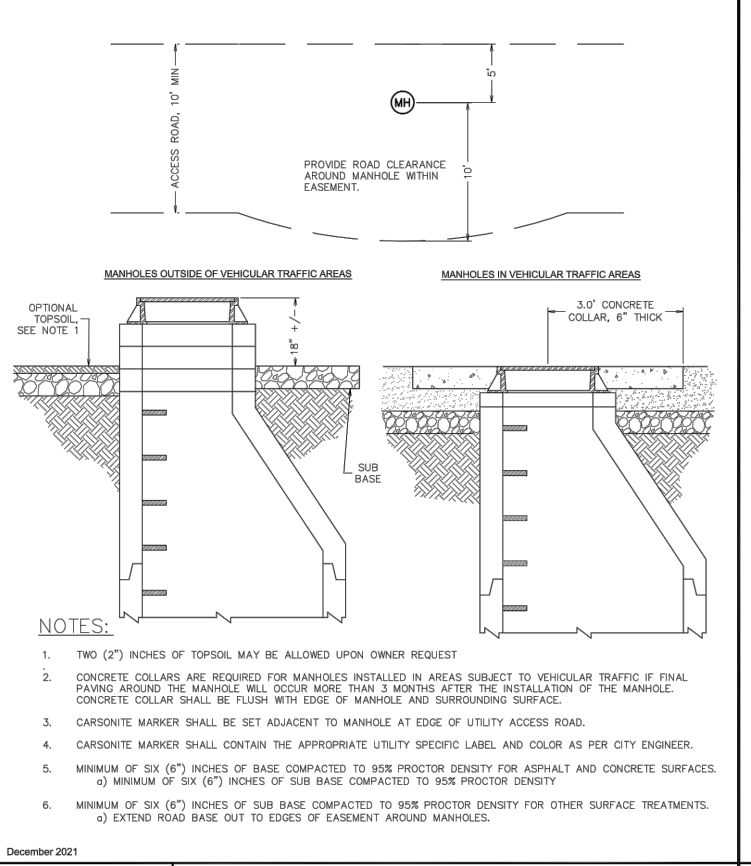
Sanitary Sewer Manhole - Precast Base (Sheet 3 of 3)

Approved By
City Engineer for Utilities
Ross Mollenhauer, PE

Adopted: 09/28/2020

Revised: 03/25/2021

STD - 512-3



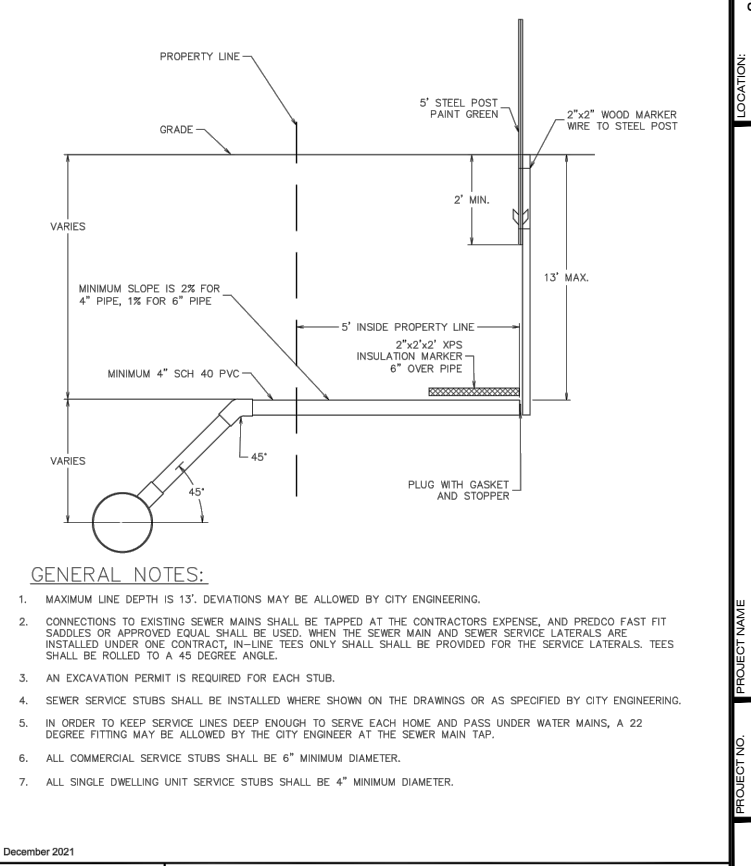
December 2021

Utility Access Road

Approved By
Project Manager -
Ross Mollenhauer, PE

Revised: 09/28/20

STD - 514



December 2021

Standard Sewer Service Stub

Approved By
Project Manager -
Ross Mollenhauer, PE

Revised: 09/28/2020

STD - 520



DATE: _____

REVISIONS:

DESIGNED: *AJM*

DRAFTED: *AJM*

CHECKED: *AJM*

DATE: *FEB. 2023*

LOCATION:
3285 FLYNN LANE
PARCEL 2A OF COS 6689
SECTION 7, T13N, R19W, P.M.M.
MISSOULA COUNTY, MONTANA

PREPARED FOR:
CATHCART PROPERTIES INC.

PROJECT NAME:
SAPPHIRE PLACE

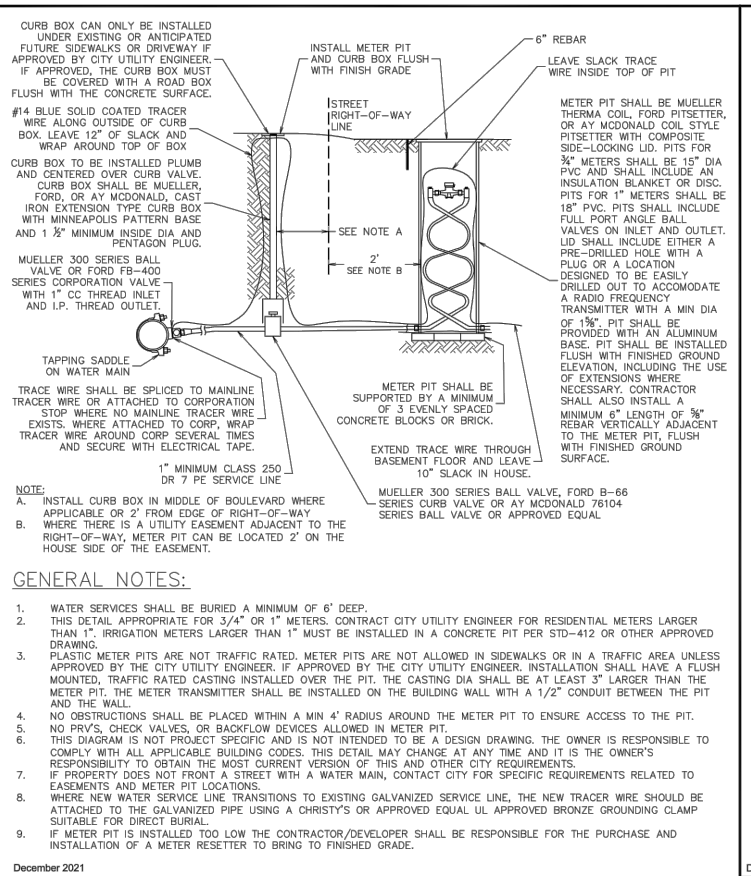
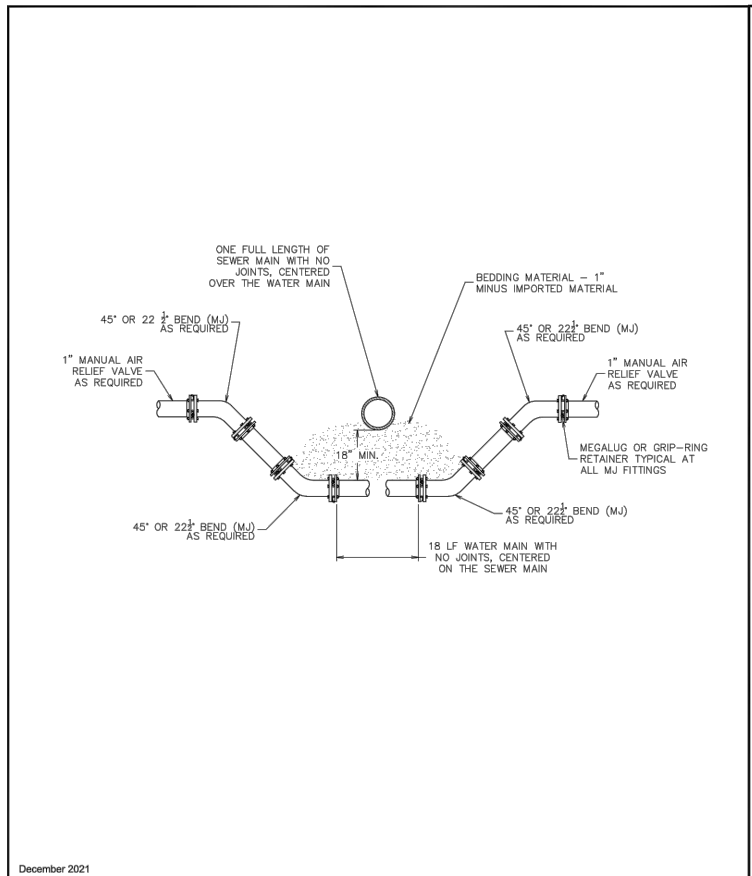
PROJECT NO:
21001343

SHEET TITLE:
UTILITY CONSTRUCTION PLANS
DETAIL SHEET

SHEET:
D1 OF D3

STAGE 2

DATE PLOTTED: 03/02/2023 09:45:00 AM
DRAWING: S:\PROJECTS\21001343\21001343.DWG
PLOT DATE: 2/23/2023 12:48 PM



December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 02/04/2021

STD - 402

December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 03/25/2021

STD - 404A

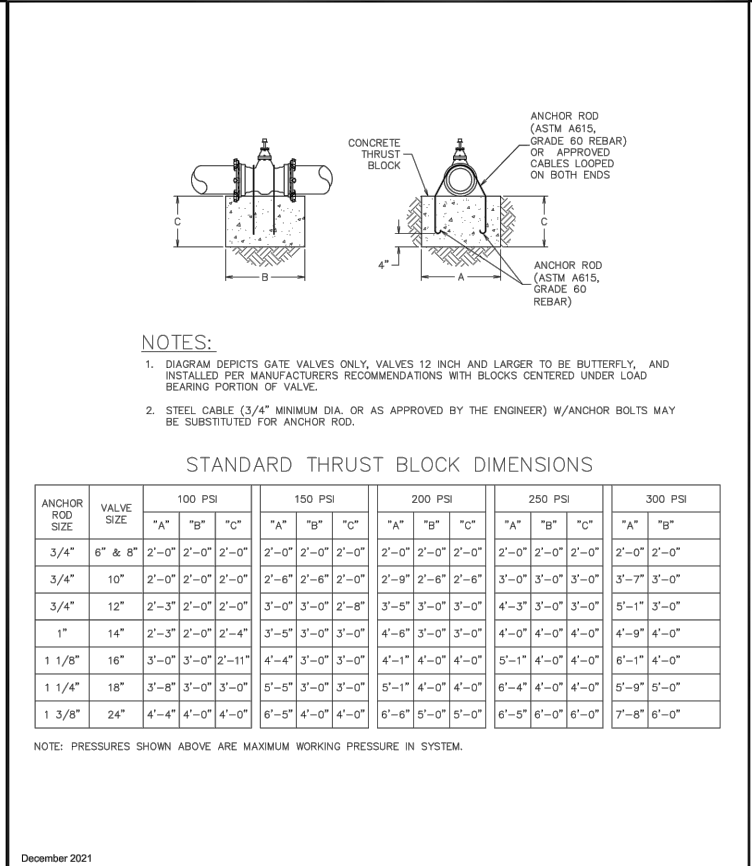
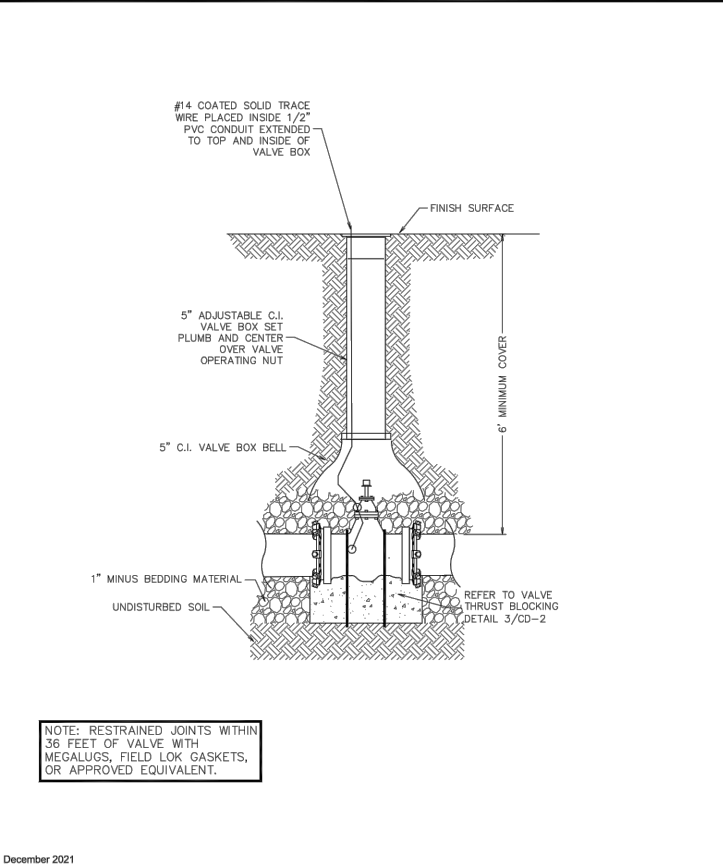
December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 03/25/2021

STD - 404B



December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 02/04/2021

STD - 405

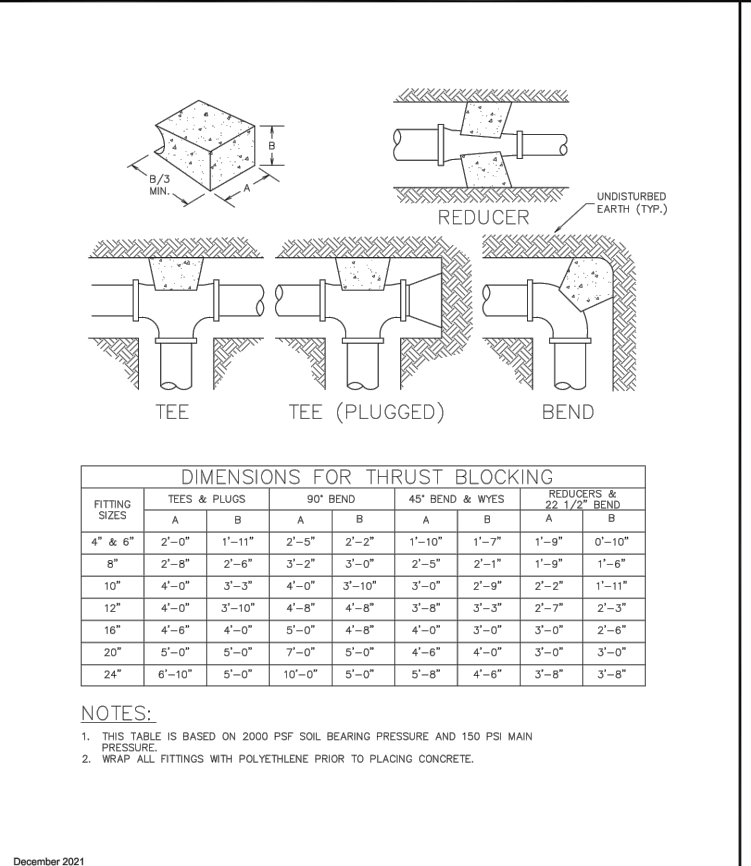
December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 02/04/2021

STD - 406



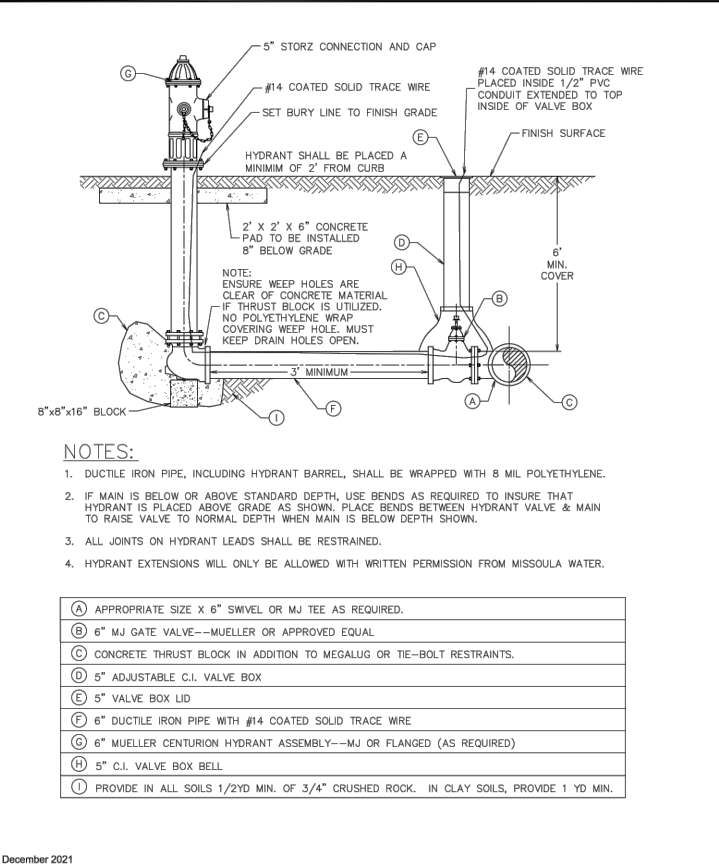
December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 09/28/2020

STD - 407



December 2021

Missoula Engineering Division

Approved By
Logan McInnis, PE

Adopted: 09/28/2020
Revised: 12/17/2020

STD - 408

IMEG
1817 SOUTH AVE. W. STE. A PH: 406.721.0142
MISSOULA, MT FAX: 406.721.5224
www.imegcorp.com 59801

DATE: _____

REVISIONS: _____

DESIGNED: *AJM*

DRAFTED: *AJM*

CHECKED: *AJM*

DATE: *FEB. 2023*

LOCATION: 3285 FLYNN LANE
PARCEL 2A OF COS 6689
SECTION 7, T13N, R19W, P.M.M.
MISSOULA COUNTY, MONTANA

PREPARED FOR: CATHCART PROPERTIES INC.

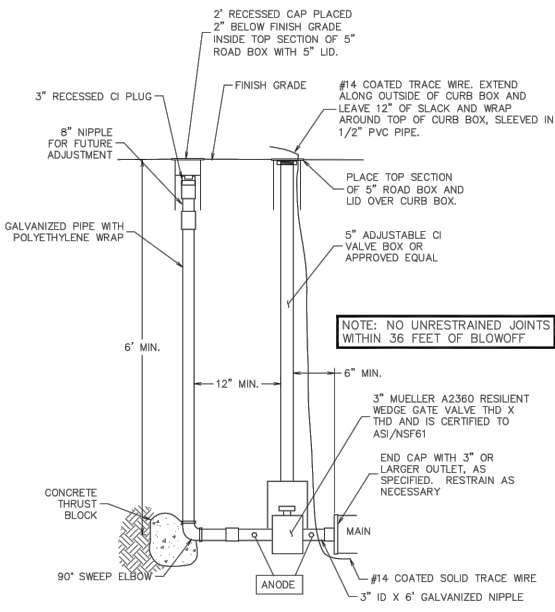
PROJECT NAME: SAPPHIRE PLACE

PROJECT NO: 21001343

SHEET TITLE: UTILITY CONSTRUCTION PLANS
DETAIL SHEET

SHEET NO: D2 OF D3

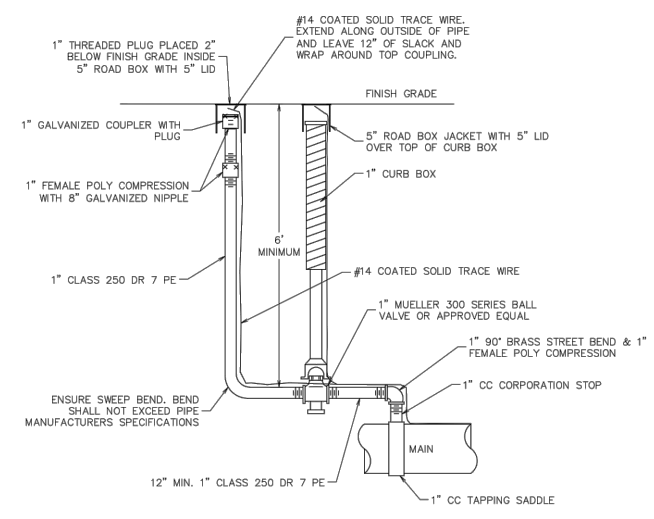
STAGE 2



December 2021

Typical Blow-Off Assembly

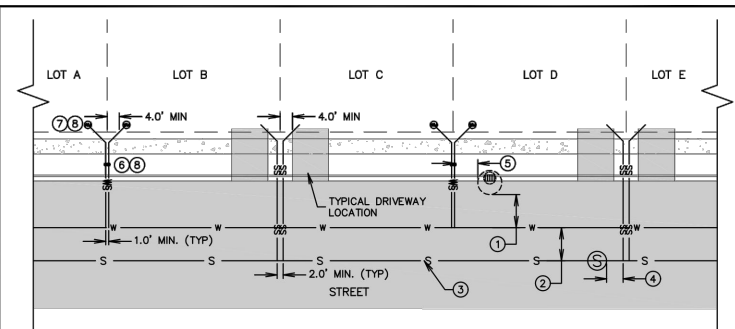
Engineering Division	Approved By Logan McInnis, PE	Adopted: 09/28/2020 Revised: 02/04/2021	STD - 409
----------------------	----------------------------------	--	------------------



December 2021

Manual Air Relief Detail

Engineering Division	Approved By Logan McInnis, PE	Revised: 09/28/2020	STD - 410
----------------------	----------------------------------	---------------------	------------------



December 2021

Typical Service Line Location Detail

GENERAL NOTES:

- WET UTILITY MAIN ALIGNMENTS SHOULD PARALLEL THE STREET RIGHT-OF-WAY TO MAXIMIZE RIGHT-OF-WAY AVAILABLE FOR FUTURE UTILITIES. ADDITIONAL SANITARY SEWER AND STORM WATER MANHOLES WILL LIKELY BE REQUIRED ON CURVES.
- WET UTILITY SERVICE LINES SHALL BE PERPENDICULAR TO THE MAIN.
- WET UTILITY MAINS AND SERVICE LINES SHALL NOT BE LOCATED IN BIOSWALES
- STREET TREES SHALL NOT BE INSTALLED WITHIN 10 FEET OF WET UTILITY MAINS, AS MEASURED FROM CENTER OF TREE TO CENTER OF PIPE.
- AS AN ALTERNATIVE TO THE WATER AND SEWER SERVICE LAYOUT SHOWN, WATER AND SEWER SERVICE LINES CAN BE INSTALLED IN THE SAME TRENCH AS A WAY TO PRESERVE MORE ROOM FOR STREET TREES. WATER AND SEWER SERVICES SHALL BE SEPARATED BY 1.0' MINIMUM.

LEGEND-PROPOSED

- W WATER MAIN
- WS WATER SERVICE
- S SANITARY SEWER MAIN
- SS SANITARY SEWER SERVICE
- PROPERTY LINE
- CURB BOX
- METER PIT
- ⊙ SANITARY SEWER MANHOLE
- ⊕ DRY WELL

KEYED NOTES:

- NO WATER MAIN SHALL BE WITHIN 5 FEET OF THE NEAREST POINT OF ANY SANITARY OR STORM MANHOLE OR DRY WELL. THE DISTANCE TO A DRY WELL SHALL BE MEASURED TO THE EDGE OF THE STRUCTURE. WATER MAINS CLOSER THAN 10 FEET FROM A DRY WELL WILL REQUIRE A DEVIATION FROM DEQ. NO SEWER MAIN SHALL BE WITHIN 5 FEET OF THE NEAREST POINT OF ANY STORM MANHOLE, CATCH BASIN OR DRY WELL. THE DISTANCE TO A DRY WELL SHALL BE MEASURED TO THE EDGE OF THE STRUCTURE.
- WATER AND SEWER MAINS SHALL BE SEPARATED BY A MINIMUM OF 10 FEET AS MEASURED FROM EDGE OF PIPE TO EDGE OF PIPE.
- MANHOLES SHOULD BE LOCATED IN THE CENTERLINE OF THE ROAD OR THE CENTER OF THE DRIVE LANE.
- SEWER SERVICE LINES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM EDGE OF MANHOLE.
- WATER SERVICE LINES SHALL BE LOCATED A MINIMUM OF 7 FEET FROM EDGE OF DRY WELL CONCRETE STRUCTURE.
- CURB BOXES SHALL BE LOCATED IN THE CENTER OF THE BOULEVARD WHERE APPLICABLE OR 2 FEET FROM EDGE OF RIGHT-OF-WAY.
- METER PITS SHALL BE LOCATED 2 TO 5 FEET ON THE PROPERTY SIDE OF THE RIGHT-OF-WAY LINE OR AS SHOWN IN DETAIL STD-404A.
- CURB BOXES AND METER PITS SHALL NOT BE INSTALLED WITHIN SIDEWALKS OR TRAFFIC AREAS WITHOUT PRIOR APPROVAL BY CITY UTILITY ENGINEER.

December 2021

Typical Service Line Location Detail

Engineering Division	Approved By Logan McInnis, PE	Adopted: 03/09/2021	STD - 416
----------------------	----------------------------------	---------------------	------------------

DATE	
REVISIONS	

DESIGNED:	AJM
DRAFTED:	AJM
CHECKED:	AJM
DATE:	FEB 2023

LOCATION: 3285 FLYNN LANE
PARCEL 2A OF COS 6689
SECTION 7, T13N, R19W, P.M.M.
MISSOULA COUNTY, MONTANA

PREPARED FOR: CATHCART PROPERTIES INC.

PROJECT NAME: SAPPHIRE PLACE

PROJECT NO.: 21001343

SHEET TITLE: UTILITY CONSTRUCTION PLANS
DETAIL SHEET

SHEET: D3 OF D3

STAGE 2

DWG LOCATION: G:\2021\21001343\DESIGN\DWG3_DRAFTING\DRAWINGS\AUTOCAD\PLAN_BETWUTILITY\BETWUTILITY\MTR-21001343.DWG