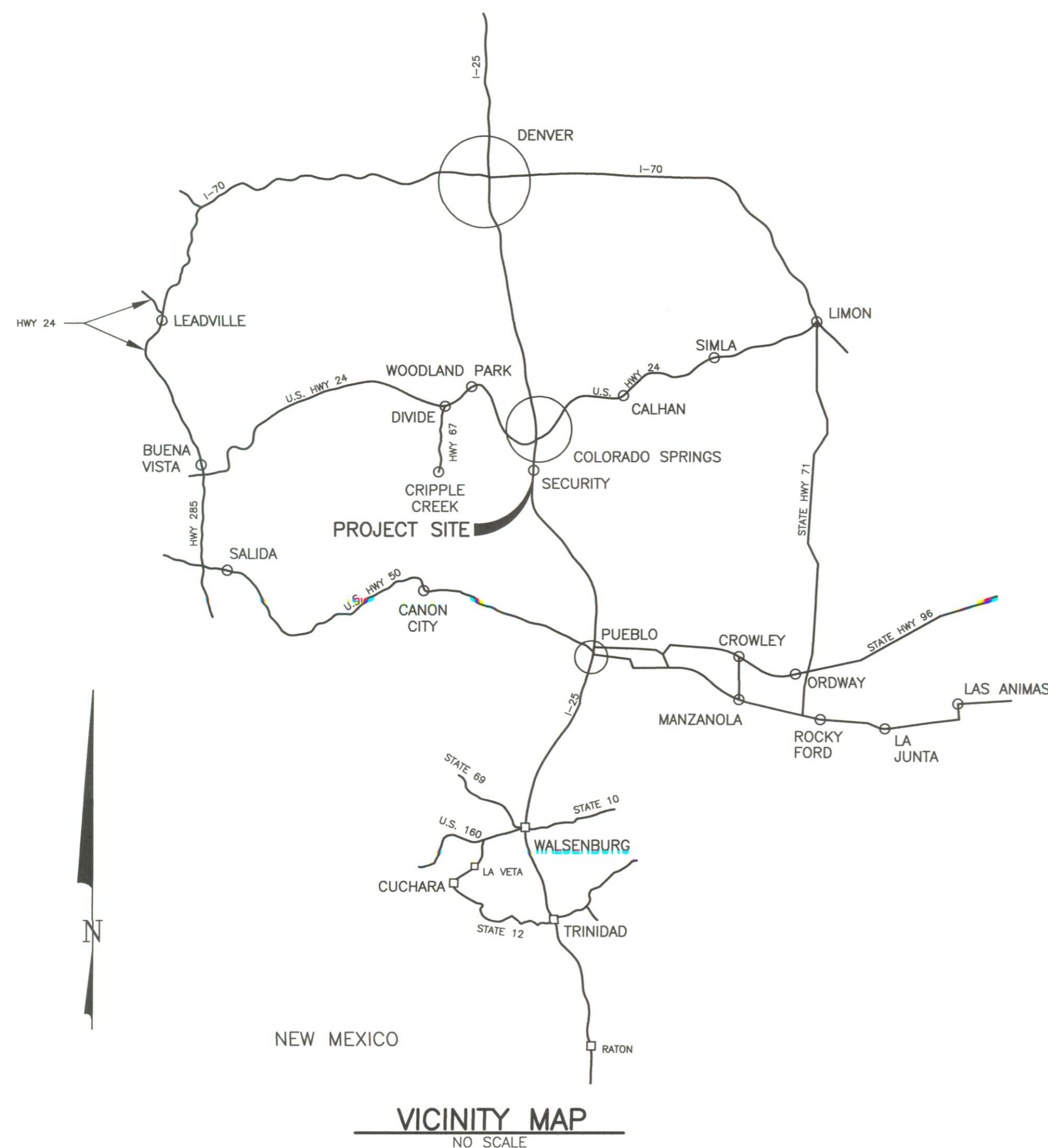


WATER SYSTEM IMPROVEMENTS 2019

FOR SECURITY WATER DISTRICT

JUNE 2019



DRAWING INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET, VICINITY MAPS, DRAWING INDEX AND APPROVAL
2	GENERAL NOTES AND LEGEND
3	SHEET INDEX, CONTROL AND COORDINATE DATA
4	NORMAN DRIVE STA. 0+00 TO STA. 5+34.60, PLAN, PROFILE AND DETAILS
5	MAIN STREET AND ROSEMONT DRIVE - SEGMENT 2 PLAN, PROFILE AND DETAILS
6	ROSEMONT DRIVE - SEGMENT 1, STA. 0+00 TO STA. 5+14, ADDITIVE ALTERNATE NO. 1 STA. 5+14 TO STA. 8+40
7	ROSEMONT DRIVE - SEGMENT 1 ADDITIVE ALTERNATE NO. 1, STA. 8+40 TO STA. 12+73 ADDITIVE ALTERNATE NO. 2 STA. 12+73 TO STA. 15+71
8	MORNINGSIDE DRIVE, CYPRESS DRIVE ADDITIVE ALTERNATE NO. 1 AND DETAILS

APPROVED FOR BIDDING AND CONSTRUCTION

EL PASO COUNTY, COLORADO
DEPARTMENT OF TRANSPORTATION

BY: *Jennifer Irvine* DATE: 7/10/19
for JENNIFER IRVINE, P.E.
 MANAGER COUNTY ENGINEER

THIS PLAN APPROVED. IN THE EVENT OF ROAD IMPROVEMENTS, ANY NECESSARY UTILITY ADJUSTMENTS OF THIS UTILITY WILL BE AT THE OWNER'S EXPENSE.

*Vertical separation for all utilities must meet Federal & State Regulations.

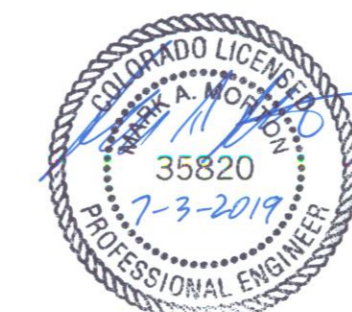
GMS, INC.
CONSULTING ENGINEERS

BY: *Kal A. Heald* DATE: 7-3-19

SECURITY WATER DISTRICT
ROY E. HEALD, DISTRICT MANAGER

BY: *Roy E. Heald* DATE: 7-3-19

GMS, INC.
 611 NORTH WEBER, SUITE 300
 COLORADO SPRINGS, COLORADO 80903



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AA51 19-2
 SHEET 1 OF 8
 GMS FILE No. 2902
PLOT CONFIGURATION: GMS-STANDARD(NO SCREEN)
 CAD FILENAME: G:\SECURITY\2019\234\002\2019022902.dwg

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GENERAL NOTES
NOTES GIVEN HEREUNDER APPLY TO THE ENTIRE PROJECT AND DRAWINGS

GENERAL

1. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE SECURITY WATER DISTRICT REGULATIONS AND SPECIFICATIONS.
2. ALL MATERIALS AND APPURTENANCES MUST BE MADE IN THE UNITED STATES (US).
3. NEW MATERIAL SHALL BE USED FOR ALL CONSTRUCTION UNLESS OTHERWISE NOTED ON THE DRAWINGS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
5. THE SURFACE FEATURES AND GROUND SURFACE ELEVATION SHOWN ON THE DRAWINGS WERE OBTAINED THROUGH A FIELD SURVEY IN MARCH, 2019. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING GROUND CONFIGURATIONS AND INFORM HIMSELF OF THE CONDITIONS TO BE ENCOUNTERED DURING CONSTRUCTION.
6. PRIOR TO PROJECT COMPLETION, CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY PROPERTY BOUNDARY MONUMENT DISTURBED OR REMOVED BY CONSTRUCTION OPERATIONS. THIS WORK SHALL BE PERFORMED BY A LAND SURVEYOR LICENSED IN THE STATE OF COLORADO.
7. SHOP DRAWING SUBMITTALS SHALL BE MADE FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.
8. NO TREES SHALL BE REMOVED WITHOUT PRIOR ACKNOWLEDGEMENT OF THE OWNER AND/OR ENGINEER.
9. THE CONTRACTOR SHALL LIMIT HIS CONSTRUCTION ACTIVITY TO EXISTING RIGHTS-OF-WAY OR EASEMENTS AS NOTED ON THE DRAWINGS UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR SHALL PREPARE A SEQUENCE OF CONSTRUCTION FOR REVIEW WITH THE ENGINEER AND OWNER PRIOR TO INITIATION OF WORK. GENERALLY SEQUENCING SHALL BE UNDERTAKEN TO MINIMIZE DISRUPTIONS TO THE EXISTING SYSTEM AND ACCOMMODATE LOGICAL PROGRESSION OF THE WORK. REFER TO SECTION 01010 OF THE PROJECT MANUAL, PARAGRAPH 1.4, FOR SPECIFIC SEQUENCING REQUIREMENTS.
11. ANY SIGNS, DELINEATOR POSTS AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION AT NO ADDITIONAL COST TO THE OWNER.
12. IN THE EVENT THE CONTRACTOR REMOVES EXISTING FENCING, THE FENCING SHALL BE REINSTALLED IN A CONDITION AS GOOD AS OR BETTER THAN ORIGINALLY FOUND AT NO ADDITIONAL COST TO THE OWNER.
13. THE CONTRACTOR SHALL RESTORE DRAINAGE CONFIGURATIONS ALTERED AS A RESULT OF THE CONSTRUCTION ACTIVITY UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
14. IN CASE OF CONFLICT BETWEEN THE REQUIREMENTS OF THE DRAWINGS AND THE SPECIFICATIONS, THE REQUIREMENTS INDICATED ON THE DRAWINGS SHALL GOVERN. IN CASE OF CONFLICT BETWEEN THE DRAWINGS, FIGURE DIMENSIONS SHALL GOVERN OVER SCALE DIMENSIONS AND DETAILED DRAWINGS SHALL GOVERN OVER GENERAL DRAWINGS OR SCHEMATICS.

UTILITIES

15. THE LOCATIONS OF UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM UTILITY COMPANY/DEPARTMENT RECORDS AND PERSONNEL. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THE DRAWINGS WHICH PRESENTLY EXIST IN THE AREAS OF CONSTRUCTION. THE ENGINEER AND/OR OWNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL CONTACT ALL UTILITY AGENCIES PRIOR TO COMMENCING CONSTRUCTION FOR PURPOSES OF LOCATING EXISTING UTILITIES ON THE PROJECT SITE.

THE FOLLOWING PERSONNEL MAY BE CONTACTED FOR UTILITY INFORMATION AND LOCATIONS:

- a. SECURITY WATER DISTRICT 719-392-3475
- b. SECURITY SANITATION DISTRICT 719-392-7844
- c. COLORADO SPRINGS UTILITIES ELECTRIC & GAS 719-448-4800
- d. QWEST - TELEPHONE UTILITY 719-492-8165
- e. LEVEL III - FIBER OPTIC COMMUNICATIONS 1-800-441-0223
- f. MCI - FIBER OPTIC SYSTEM 1-800-336-9193
- g. SPRINT 1-800-336-9193
- h. QWEST-FIBER OPTIC SYSTEM 1-800-336-9193
- i. UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) 811

16. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR THE PROTECTION OF CONFLICTING UTILITIES AND DRAINAGE STRUCTURES. UTILITIES OR OTHER OBSTRUCTIONS REQUIRING RELOCATION OR UTILITIES OR OTHER FACILITIES DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE RELOCATED AND/OR REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER UNLESS OTHERWISE PROVIDED FOR IN THE BID FORM AND CONTRACT DOCUMENTS.

17. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE. IN CASES WHERE FAILURE OF A POLE IS POSSIBLE, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY FOR ASSISTANCE TO TEMPORARILY BRACE OR SUPPORT THE POLE AS REQUIRED.

18. NO EXCAVATED MATERIAL SHALL BE PLACED UNDER OVERHEAD ELECTRIC CONDUCTORS OR AROUND POLES OR TEMPORARILY STORED UNDER LINES WITHOUT FIRST CONSULTING WITH THE ELECTRIC UTILITY TO DETERMINE IF ADEQUATE CLEARANCES WILL BE RETAINED. NO PERSON, TOOL OR EQUIPMENT SHALL OPERATE CLOSER THAN 10 FEET TO ANY PORTION OF ANY ENERGIZED LINE WITHOUT FIRST COMPLYING WITH THE PROVISIONS OF COLORADO REVISED STATUTES 1973, SECTION 1, TITLE 9, ARTICLE 2.5, 102 AND 103.

19. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION UNLESS OTHER ARRANGEMENTS, ACCEPTABLE TO THE OWNER, ARE MADE BETWEEN THE CONTRACTOR, THE RESPECTIVE UTILITY DEPARTMENT AND THE PROPERTY OWNER(S).

20. EXISTING SANITARY SEWER MAINS MUST REMAIN IN SERVICE AT ALL TIMES. SUBMIT TO ENGINEER AND OWNER FOR REVIEW A DETAILED EMERGENCY RESPONSE PLAN IN THE EVENT CONSTRUCTION WORK INTERFERES WITH THE CONTINUED OPERATION OF THE ADJACENT WASTEWATER PIPELINES.

21. ALL EXISTING PIPES WHICH ARE ABANDONED IN-PLACE SHALL BE CAPPED WITH NEW MECHANICAL JOINT GASKETED FITTINGS AND RESTRAINED WITH MJ RESTRAINT FITTINGS.

PIPELINE

22. THE ELEVATIONS OF EXISTING PIPELINES HAVE BEEN TAKEN FROM INFORMATION PROVIDED BY THE OWNER AND FIELD SURVEY WHERE INDICATED. THE CONTRACTOR SHALL EXCAVATE EXISTING PIPELINES IN THE AREA OF CONSTRUCTION TO DETERMINE AND/OR CONFIRM EXISTING CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

23. PROVIDE A MINIMUM OF TWO WEEKS' NOTICE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES IN AREAS AROUND THE EXISTING FIBER OPTIC CONDUITS. OWNERS OF THE FIBER OPTIC CONDUITS WILL PROVIDE ON-SITE CONSTRUCTION MONITORING THROUGHOUT CONSTRUCTION ACTIVITIES IN THE PROXIMITY OF THEIR EXISTING FACILITIES. SUPPORT CONDUIT ACROSS WIDTH OF EXCAVATION DURING ALL CONSTRUCTION ACTIVITIES.

24. ALL WATER MAINS INSTALLED WITHIN THE SECURITY WATER DISTRICT SHALL BE DUCTILE IRON PIPE (DIP) IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS.

25. REUSE OF ANY MATERIALS OR REJECTION OF ANY NEW MATERIALS SHALL BE AT THE SOLE DISCRETION OF THE SECURITY WATER DISTRICT INSPECTOR. THE SECURITY WATER DISTRICT'S DECISION SHALL BE FINAL.

26. DO NOT DROP PIPE AND FITTINGS WHEN OFF-LOADING. DO NOT STORE PIPE AND ASSOCIATED MATERIALS DIRECTLY ON THE GROUND.

27. ALL WATER MAINS AND APPURTENANCES DELIVERED TO THE SITE FOR INSTALLATION SHALL BE KEPT CLEAN. THE ENDS OF PIPES AND FITTINGS SHALL BE COVERED UNDER PROTECTIVE COVERINGS AT THE TIME OF DELIVERY TO PROTECT THE INNER SURFACES FROM COMING INTO CONTACT WITH MOISTURE, DIRT, DUST, DEBRIS AND ANIMALS AND SHALL REMAIN PROTECTED UNTIL INSTALLATION IS COMPLETE.

28. DEFLECTIONS AT PIPE JOINTS SHALL BE LIMITED TO A MAXIMUM OF 4 DEGREES.

29. IN AREAS TO RECEIVE HMA, THE CONTRACTOR SHALL SET ALL VALVE BOXES 0"-1/4" BELOW FINAL PAVEMENT SURFACE ELEVATION. DROP-IN RISERS SHALL NOT BE USED. IN UN-SURFACED AREAS OUTSIDE OF VEHICLE TRAVEL ROUTES/ROADS, VALVE BOXES SHALL BE SET IN COMPACTED BACKFILL 2-INCHES ABOVE FINISHED GRADE.

30. THE CONTRACTOR SHALL RESTORE ALL DRIVEWAYS IMPACTED BY CONSTRUCTION ACTIVITY. GRAVEL DRIVEWAYS, TO THE EXTENT CONSTRUCTION ACTIVITY WILL IMPACT THEM, SHALL HAVE THE GRAVEL STRIPPED, STOCKPILED AND REINSTALLED. SURFACING REMOVAL AND REPLACEMENT SHALL BE AN INCIDENTAL PART OF THE PIPELINE WORK.

31. GATE VALVE INSTALLATIONS ON THE NEW MAIN SHALL BE LAID OUT SUCH THAT THE GATE VALVES ARE TYPICALLY LOCATED THREE (3) FEET FROM ADJACENT TEES OR OTHER FITTINGS UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

32. FIRE HYDRANTS AND OTHER PIPELINE APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION STANDARDS CONTAINED IN THE PROJECT MANUAL OR AS SHOWN ON THE DRAWINGS.

33. PIPELINES SHALL GENERALLY BE LAID OUT IN STRAIGHT ALIGNMENTS BETWEEN POINTS OF INTERSECTION AS SHOWN ON THE DRAWINGS.

34. ALL 6-INCH PIPING REQUIRED FOR THE FIRE HYDRANT ASSEMBLIES WILL BE PAID FOR AT THE 6-INCH PIPELINE UNIT PRICE ESTABLISHED IN THE BID FORM. THE 6-INCH GATE VALVE INCLUDED IN THE FIRE HYDRANT ASSEMBLY INSTALLATION WILL ALSO BE PAID FOR AT THE UNIT PRICE FOR 6-INCH GATE VALVES ESTABLISHED ON THE BID FORM.

35. MINIMUM COVER ON ALL WATER PIPELINES INSTALLED UNDER THIS PROJECT IS OUTLINED IN THE PROJECT MANUAL.

36. ALL FITTINGS INSTALLED ON THE WATER LINE SHALL HAVE THRUST BLOCKS AND/OR MECHANICAL JOINT (MJ) RESTRAINTS AS DETAILED IN THE CONSTRUCTION STANDARD.

37. PIPE FITTINGS LOCATED 5 FEET OR LESS APART SHALL BE TIED TOGETHER WITH A MINIMUM OF FOUR 3/4-INCH DIAMETER ALL-THREAD RODS UNLESS OTHERWISE DETAILED OR NOTED ON THE PLANS.

38. COORDINATION BY THE CONTRACTOR WITH THE ENGINEER AND OWNER FOR CONNECTIONS TO EXISTING UTILITIES IS REQUIRED TO INSURE A MINIMUM OF DISRUPTION TO EXISTING SERVICE. OFF-HOUR CONSTRUCTION WORK MAY BE REQUIRED AT SOME LOCATIONS.

39. REMOVAL AND DISPOSAL OF EXISTING WATER PIPELINE MATERIALS AND APPURTENANCES REQUIRED TO ACCOMPLISH THE SPECIFIED SCOPE OF WORK SHALL BE INCIDENTAL TO THE NEW PIPELINE CONSTRUCTION BID ITEMS. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.

40. ANY EXISTING PIPELINE MATERIALS FROM THE EXISTING WATER SYSTEM TO BE REMOVED BY THE CONTRACTOR SHALL BE DEPOSED OF AS NOTED ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER. THIS WORK IS INCIDENTAL TO THE NEW PIPELINE CONSTRUCTION.

41. ALL PIPELINE WORK IS TO BE UNDERTAKING UTILIZING CLASS B BEDDING. REFER TO THE PROJECT SPECIFICATIONS AND THE CONSTRUCTION STANDARDS OF THE PROJECT MANUAL FOR PIPELINE EMBEDMENT.

42. IN SOME OF THE PROPOSED AREAS OF CONSTRUCTION EXISTING UNDERGROUND TELEPHONE AND OTHER COMMUNICATIONS CABLES ARE LOCATED IN CLOSE PROXIMITY TO THE WATER PIPELINES. THE CONTRACTOR MAY, IF NECESSARY, TEMPORARILY DISPLACE THE CABLES DURING CONSTRUCTION AND REINSTALL THEM IN ACCORDANCE WITH THE APPROPRIATE TELEPHONE OR CABLE COMPANY'S GUIDELINES. COORDINATION WITH BOTH THE TELEPHONE COMPANY AND OTHER COMMUNICATION COMPANIES IS REQUIRED.

43. THE PIPELINE INSTALLATION SHALL GENERALLY BE ACCOMPLISHED BY PUSHING SPIGOT ENDS INTO BELL ENDS OF THE PIPE.

44. ALL PIPE, FITTINGS, RODS AND APPURTENANCES SHALL BE WRAPPED IN POLYETHYLENE. SEE CONSTRUCTION STANDARDS.

45. ALL WATER MAINS ARE SUBJECT TO PRESSURE TESTING IN ACCORDANCE WITH THE SECURITY WATER DISTRICT REGULATIONS AND SPECIFICATIONS. PRIOR TO FINAL ACCEPTANCE BY THE SECURITY WATER DISTRICT, ALL WATER MAINS MUST BE PRESSURE TESTED, DISINFECTED, AND AN ACCEPTABLE BACTERIOLOGICAL TEST RECEIVED AND PROVIDED TO THE SECURITY WATER DISTRICT FOR ACCEPTANCE.

46. ALL PIPELINES SHALL BE "AS BUILT" SURVEYED AND "AS BUILT" DRAWINGS SUBMITTED TO THE SECURITY WATER DISTRICT FOR REVIEW AND ACCEPTANCE. PAPER OR "HARD COPY" DRAWINGS AND ELECTRONIC AUTOCAD FILES ARE REQUIRED. REFER TO THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS FOR THE REQUIRED ELECTRONIC FILE FORMAT, HORIZONTAL COORDINATE SYSTEM AND VERTICAL DATUM.

47. THE CONTRACTOR SHALL PROCURE AND FAMILIARIZE HIMSELF WITH THE SECURITY WATER DISTRICT REGULATIONS AND SPECIFICATIONS, THE SECURITY WATER DISTRICT DESIGN CRITERIA AND SECURITY WATER DISTRICT POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION.

EARTHWORK

48. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEGAL DISPOSAL OF ANY EXCESS SOIL, DEBRIS AND WASTE MATERIAL OFF OF THE PROJECT SITE. THIS INCLUDES ALL WASTE CONCRETE AND OTHER MATERIAL IN THE AREA OF THE WELLS AND STRUCTURES.

49. ANY SOIL MATERIAL BELOW SUBGRADE ELEVATION WHICH IS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS. REFER TO THE PROJECT MANUAL.

50. THE CONTRACTOR SHALL PROVIDE REVEGETATION IN AREAS AS DESIGNATED ON THE PLANS AND AS INDICATED BY THE ENGINEER. PAYMENT WILL BE MADE UP TO THE MAXIMUM LIMITATIONS SET FORTH IN THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR SEEDING DISRUPTED AREAS OUTSIDE OF THE SPECIFIED LIMIT OF WORK AS A RESULT OF THE CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER.

51. ALL EXISTING DRAINAGE STRUCTURES SHALL REMAIN IN PLACE UNLESS OTHERWISE INDICATED ON THE PLANS. ANY STRUCTURES DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

52. COMPACTION OF FILL MATERIAL SHALL BE IN COMPLIANCE WITH THE PROJECT MANUAL. IN THOSE AREAS WHERE UTILITY ON-WORK PERMITS ARE ISSUED BY AN OUTSIDE AUTHORITY, COMPLY WITH THE MORE STRINGENT SPECIFICATION.

53. THE CONTRACTOR SHALL STRIP, STOCKPILE AND REINSTALL TOPSOIL IN THE AREAS OF CONSTRUCTION WHERE VEGETATION EXISTS. CARE SHALL BE TAKEN TO STRIP TOPSOIL TO ITS ENTIRE DEPTH. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE APPROPRIATE PIPELINE UNIT PRICE.

SURFACING REMOVAL AND REPLACEMENT

54. HOT MIX ASPHALT (HMA) REPLACEMENT IS REQUIRED AS INDICATED ON THE DRAWINGS. THE EXISTING HMA REMOVAL AND REPLACEMENT WILL BE INCLUDED AS AN INCIDENTAL PART OF THE AFFECTED PIPELINE WORK AND WILL GENERALLY BE RESTRICTED TO THE LIMITS SHOWN ON THE DRAWINGS.

BENCHMARK AND CONTROL

55. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING ON THIS PROJECT. THE PLANS REFERENCE A PROJECT COORDINATE SYSTEM AND CENTER LINE CONTROL TO A CONTROL LINE AND CONTROL LINE COORDINATES. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR INTERPRETATION AND ASSISTANCE IN STAKING OF THE PROJECT FOR CONSTRUCTION.

56. THE ELEVATION DATUM USED FOR THIS PROJECT IS BASED ON NGVD 1988. THERE ARE TEMPORARY BENCHMARKS AT CONTROL POINTS USED ON THIS PROJECT AND ARE INDICATED ON THE DRAWINGS.

TRAFFIC CONTROL

57. A PORTION OF THE PROJECT LIES WITHIN THE RIGHTS-OF-WAY OF EXISTING HIGHWAYS, STREETS OR AVENUES. TRAFFIC CONTROL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE REQUIREMENTS OF EL PASO COUNTY.

58. THE CONTRACTOR SHALL CONTACT THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS REPRESENTATIVE 48 HOURS PRIOR TO CONSTRUCTION IN COUNTY ROAD RIGHTS-OF-WAY.

59. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE PROVISIONS OF THE SPECIFICATIONS AND THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS. APPROVAL OF THE TRAFFIC CONTROL PLAN FOR ALL WORK CONTAINED WITHIN THE COUNTY ROAD RIGHT-OF-WAY SHALL BE OBTAINED PRIOR TO THE INITIATION OF ANY CONSTRUCTION WITHIN EL PASO COUNTY RIGHTS-OF-WAY.

60. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE EL PASO COUNTY UTILITY CUT PERMIT. THE CONTRACTOR SHALL PROVIDE TO AND OBTAIN APPROVAL FROM EL PASO COUNTY FOR HIS SIGNING PLAN FOR ALL WORK CONTAINED WITHIN THE COUNTY ROAD RIGHT-OF-WAY PRIOR TO THE INITIATION OF ANY CONSTRUCTION.

61. IN THOSE AREAS WHERE CONSTRUCTION ACTIVITIES MAY CONFLICT WITH TRAFFIC, GENERAL TRAFFIC CONTROL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. COORDINATION WITH EL PASO COUNTY IS REQUIRED IN THE EVENT THAT ANY STREETS ARE DESIRED TO BE TEMPORARILY CLOSED. PROVISIONS SHALL BE MADE TO ACCOMMODATE LOCAL ACCESS IN THE EVENT OF STREET AND/OR ALLEY CLOSURES. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

62. PAVING REQUIREMENTS: ALL PAVEMENT REPLACEMENT SHALL BE A MINIMUM OF 4" OF COMPACTED AGGREGATE BASE COURSE WITH 4" OF HOT MIX ASPHALT IN ACCORDANCE WITH THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL. IF THE EXISTING PAVEMENT SECTION IS THICKER THAN 4", EL PASO COUNTY WILL REQUIRE THE EXISTING ASPHALT DEPTH BE MATCHED.

LEGEND OF LINES AND SYMBOLS

	WROUGHT IRON FENCE		FIRE HYDRANT
	WOOD FENCE		WATER VALVE BOX
	PICKET FENCE		WATER CURB STOP
	CHAIN LINK FENCE		WATER METER PIT
	POST & RAIL FENCE		SPRINKLER SYSTEM CONTROL VALVE
	POST AND CABLE OR CHAIN		WATER MANHOLE
	WIRE MESH FENCE		GAS VALVE
	WIRE STRAND FENCE		GAS METER
	BARBED WIRE FENCE		GAS STUB OUT
	SANITARY SEWER LINE		UTILITY POLE
	SANITARY SEWER SERVICE LINE		UTILITY POLE w/ LIGHT
	STORM SEWER LINE		METAL LIGHT POLE
	OVERHEAD ELECTRIC LINE		ELECTRIC MANHOLE
	UNDERGROUND ELECTRIC LINE		GUY WIRE ANCHOR
	OVERHEAD TELEPHONE LINE		POLE
	UNDERGROUND TELEPHONE LINE		SOIL BORING
	OVERHEAD TELEVISION LINE		SIGN
	UNDERGROUND TELEVISION LINE		MAIL BOX
	WATER LINE		DECIDUOUS TREE
	WATER SERVICE LINE		CONIFEROUS TREE
	GAS LINE		DECIDUOUS BUSH
	GAS SERVICE LINE		CONIFEROUS BUSH
	SECTION LINE		BOULDER
	RIGHT-OF-WAY LINE		CONTROL POINT
	PROPERTY LINE		PROPERTY CORNER
	EASEMENT LINE		SANITARY SEWER MANHOLE
	INTERMEDIATE CONTOUR LINE		SANITARY SEWER CLEAN-OUT
	INDEX CONTOUR LINE WITH ELEVATION LABEL		
	DITCH FLOWLINE		
	CURB AND GUTTER		
	CONCRETE FLATWORK		
	ASPHALT SURFACING		
	GRAVEL ROADWAY/DRIVEWAY		

PROPOSE LEGEND OF LINES AND SYMBOLS

	8"	WATER MAIN w/SIZE
		WATER MAIN w/THRUST BLOCK
	*	COUPLING
	◆	FIRE HYDRANT
	⊞	WATER VALVE w/RISER BOX

SUBSURFACE UTILITY ENGINEERING (SUE) CERTIFICATION

Utilities are depicted on these plans in accordance with their achieved "Quality Levels" as defined in the American Society of Civil Engineer's document ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data".

Reliance upon this data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation. It is important that the Contractor investigate and understands the scope of work between the Owner and the Engineer regarding the scope and limits of the utility investigations leading to these utility depictions.

Underground utilities are shown on these drawings utilizing utility company records and/or locations marked on the ground by utility company personnel under 811 ticket numbers A914101822 and A914101881 with a call-in date of June 5, 2019. Underground water, gas, telephone, storm sewer and sanitary sewer lines are the only underground utilities located in the area of construction and are shown using surveyed information from utility locations marked on the ground. Achieved Quality Level = B.

Existing water mains and fire hydrant lateral depths are shown on the Drawings and were obtained using measure downs to valves and calculating top of pipe elevations. Achieved Quality Level = B.

Sanitary sewer main crossing locations are shown on the drawings using the manholes horizontal and vertical surveyed information. Sanitary sewer pipe vertical information is shown using invert elevations at manholes on either side of the crossings and calculated using straight grades between manholes to determine its elevation at the utility crossing. Achieved Quality Level = B.

Prior to initiating construction, all utility crossings will be potholed by the Contractor at the crossing locations to achieve Quality Level A. At a minimum fifteen potholes are required for the base bid, two potholes for Additive Alternate No. 1 and four potholes for Additive Alternate No. 2 at the following locations:

Norman Drive, Main Street and Rosemont Drive— Sheets 4 through 6 (Base Bid)

1. Sta. 0+39, Gas Main (Sheet 4)
2. Sta. 0+61, 8" Sanitary Sewer Main (Sheet 4)
3. Sta. 0+73, 10" Water (Sheet 4)
4. Sta. 2+99, 6" Water Main (Sheet 4)
5. Sta. 3+09, 8" Sanitary Sewer Main (Sheet 4)
6. Sta. 3+20, 8" Sanitary Sewer Main (Sheet 4)
7. Sta. 5+14, Gas Main (Sheet 4)
8. Sta. 5+32, 6" Water Main (Sheet 4)
9. Sta. 0+28, 8" Sanitary Sewer Main (Sheet 5, Detail 1)
10. Sta. 0+32, 6" Water Main (Sheet 5, Detail 1)
11. Sta. 0+35, Gas Main (Sheet 5, Detail 1)
12. Sta. 0+04, Gas Main (Sheet 5, Detail 2)
13. Sta. 0+14, 8" Sanitary Sewer Main (Sheet 5, Detail 2)
14. Sta. 0+20, 6" Water Main (Sheet 5, Detail 2)
15. Sta. 4+38, 6" Water Main (Sheet 6)

Additive Alternate No. 1

16. Sta. 5+14, 4" Water Main (Sheet 6)
17. Sta. 0+02, 6" Water Main (Sheet 8, Detail 2)

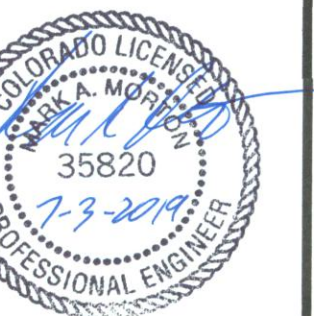
Additive Alternate No. 2

18. Sta. 15+15, 4" Water Main (Sheet 7)
19. Sta. 15+44, Gas Main (Sheet 7)
20. Sta. 15+52, 8" Sanitary Sewer Main (Sheet 7)
21. Sta. 15+62, 6" Water Main (Sheet 7)

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

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NO.	DATE	DESCRIPTION

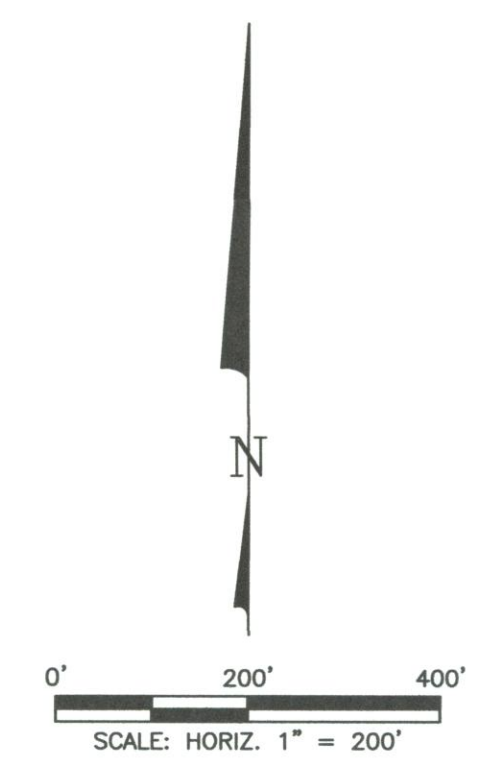
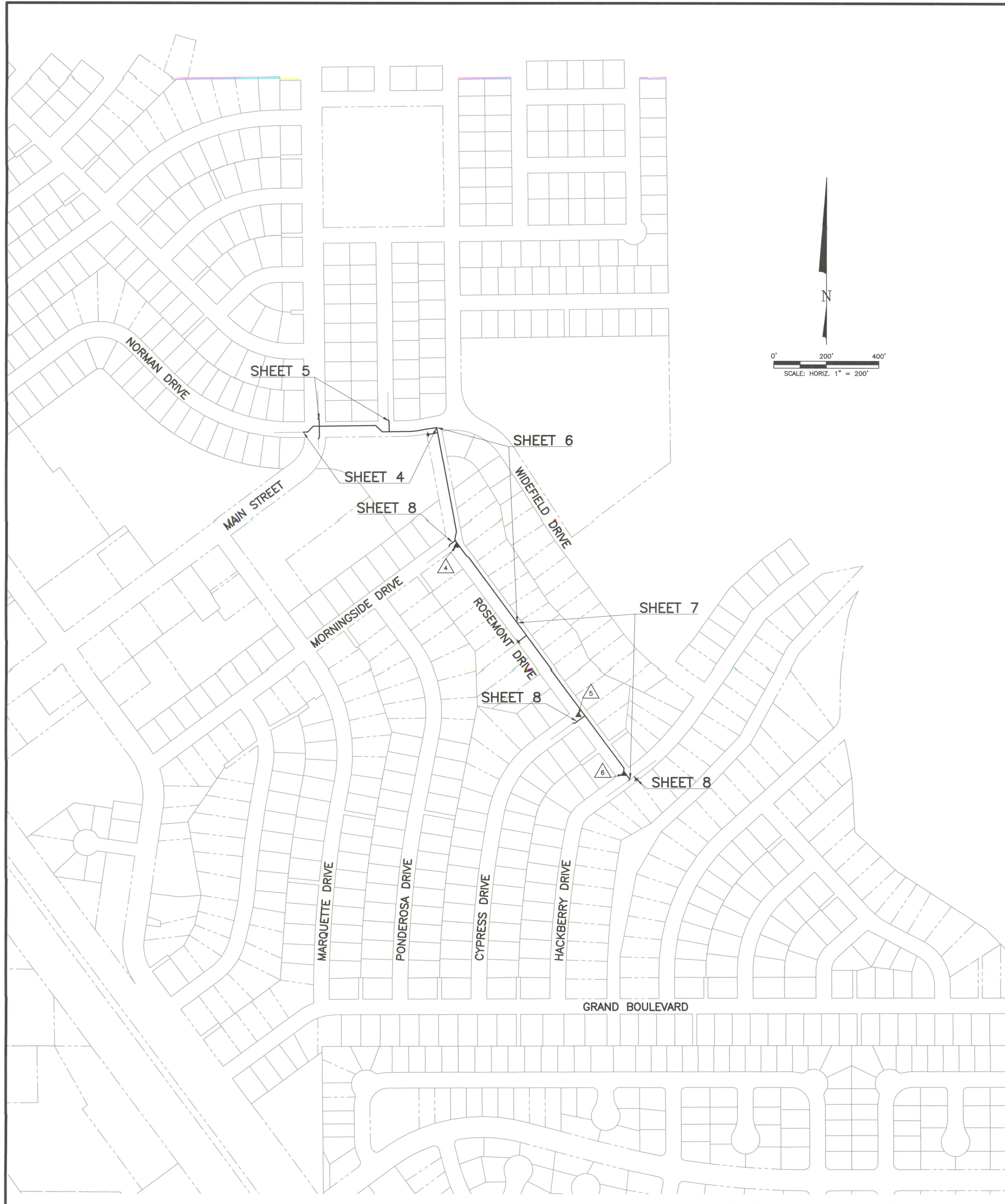


GENERAL NOTES AND LEGEND
WATER SYSTEM IMPROVEMENTS 2019
SECURITY WATER DISTRICT

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

DRAWN	MAL
DESIGNED	MAL
CHECKED	KLW
DATE	JUNE 2019
PROJECT NO.	82052.234
GMS FILE NO.	2902

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4 - CONTROL COORDINATE LIST				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
4	336453.83	218657.82	5758.16	PK NAIL
5	335813.01	219122.67	5767.62	PK NAIL
6	335588.41	219296.02	5759.44	PK NAIL

100 - COORDINATE LIST			
PT. NO.	NORTHING	EASTING	DESCRIPTION
100	336880.24	218067.40	6" MJ COUPLING
101	336881.31	218090.65	6" MJ 45° HORIZ. BEND
102	336903.05	218111.77	6" MJ 45° HORIZ. BEND
103	336853.00	218131.63	10" MJ COUPLING
104	336856.00	218131.58	10" MJ 45° HORIZ. BEND
105	336860.06	218135.52	10" MJ 45° HORIZ. BEND
106	336927.20	218134.54	10" MJ 45° HORIZ. BEND
107	336931.14	218130.48	10" MJ 45° HORIZ. BEND
108	336934.13	218130.47	10" MJ COUPLING
109	336923.51	218400.47	6" MJ 45° HORIZ. BEND
110	336926.61	218397.26	6" MJ 45° HORIZ. BEND
111	336929.71	218397.23	6" MJ COUPLING
112	336906.53	218349.28	8" 45° HORIZ. BEND
113	336882.21	218374.20	8" 45° HORIZ. BEND
114	336883.48	218479.96	HORIZ. DEFLECTION
115	336885.12	218499.89	HORIZ. DEFLECTION
116	336888.14	218519.66	HORIZ. DEFLECTION
117	336892.19	218539.25	HORIZ. DEFLECTION
118	336898.67	218581.65	8" MJ 90° HORIZ. BEND
119	336508.18	218657.59	8" MJ 22.5° HORIZ. BEND
120	336475.87	218651.01	8" MJ 45° HORIZ. BEND
121	336413.28	218697.47	4" OR 8" MJ 22.5° HORIZ. BEND
122	336409.04	218704.56	8" MJ 22.5° HORIZ. BEND
123	335811.41	219147.72	8" mj tee
124	335610.46	219296.56	8" MJ 45° HORIZ. BEND
125	335600.42	219295.06	8" MJ 45° HORIZ. BEND
126	335567.39	219319.52	8" MJ 90° HORIZ. BEND
127	335562.37	219312.44	6" MJ COUPLER
128	336464.05	218648.58	6" MJ COUPLER
129	335782.18	219108.31	6" MJ 45° HORIZ. BEND
130	335783.00	219102.76	6" MJ 45° HORIZ. BEND
131	335781.22	219100.35	6" MJ COUPLER

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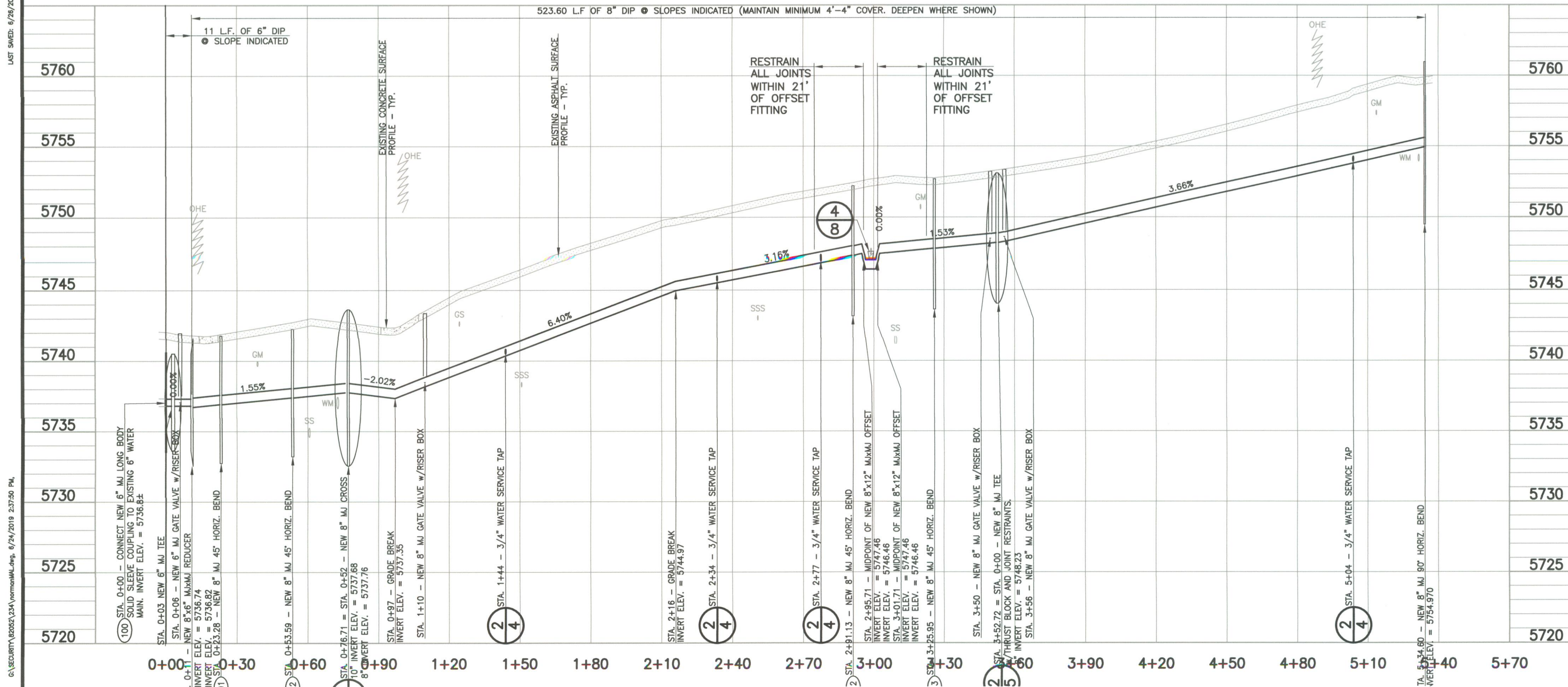


SHEET INDEX, CONTROL AND COORDINATE DATA
 WATER SYSTEM IMPROVEMENTS 2019
 SECURITY WATER DISTRICT

GMS, INC.
 CONSULTING ENGINEERS
 611 N. WEBER, SUITE 300
 COLORADO SPRINGS, COLORADO 80903

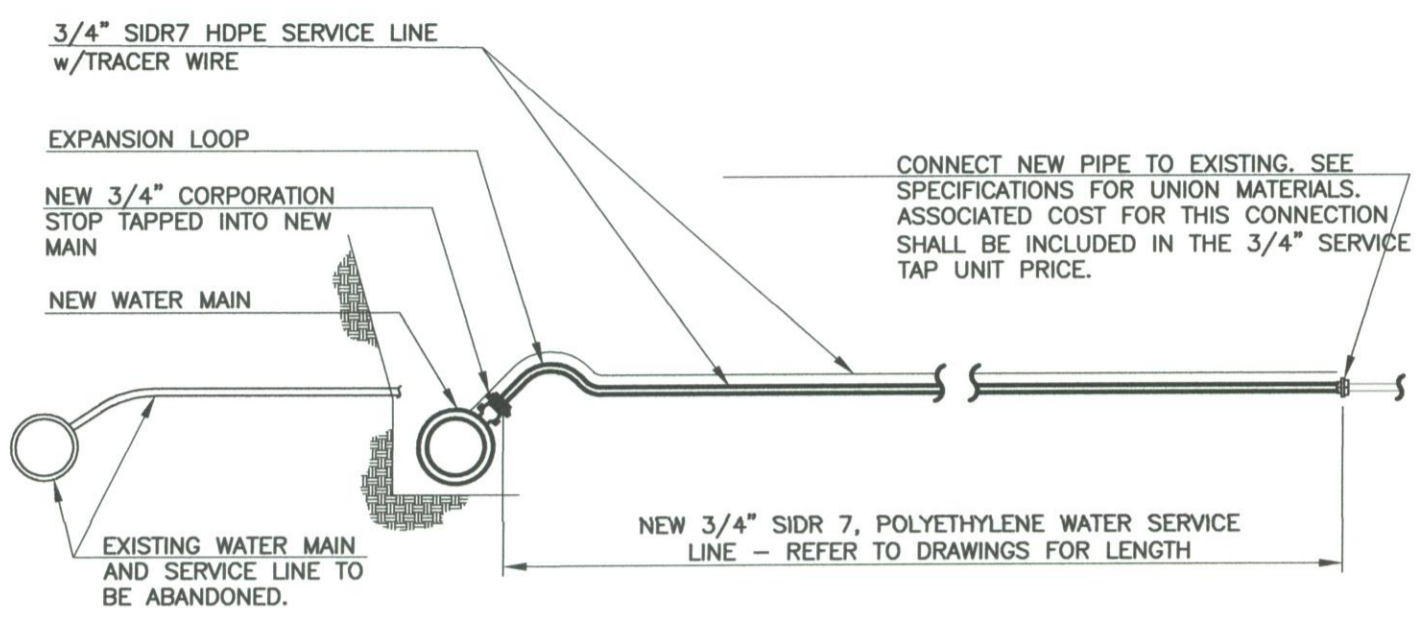
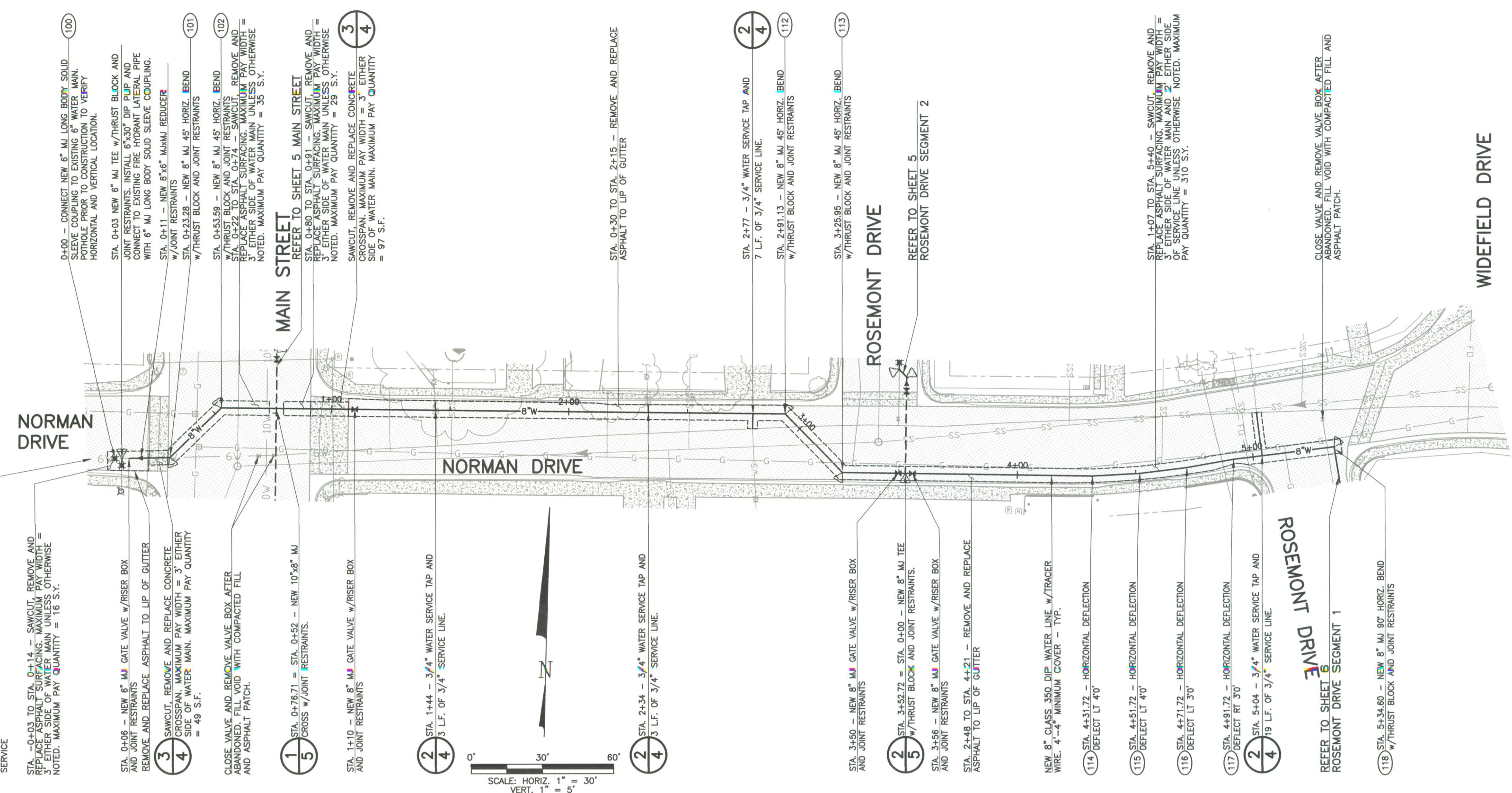
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PROJECT NO.	82052.234
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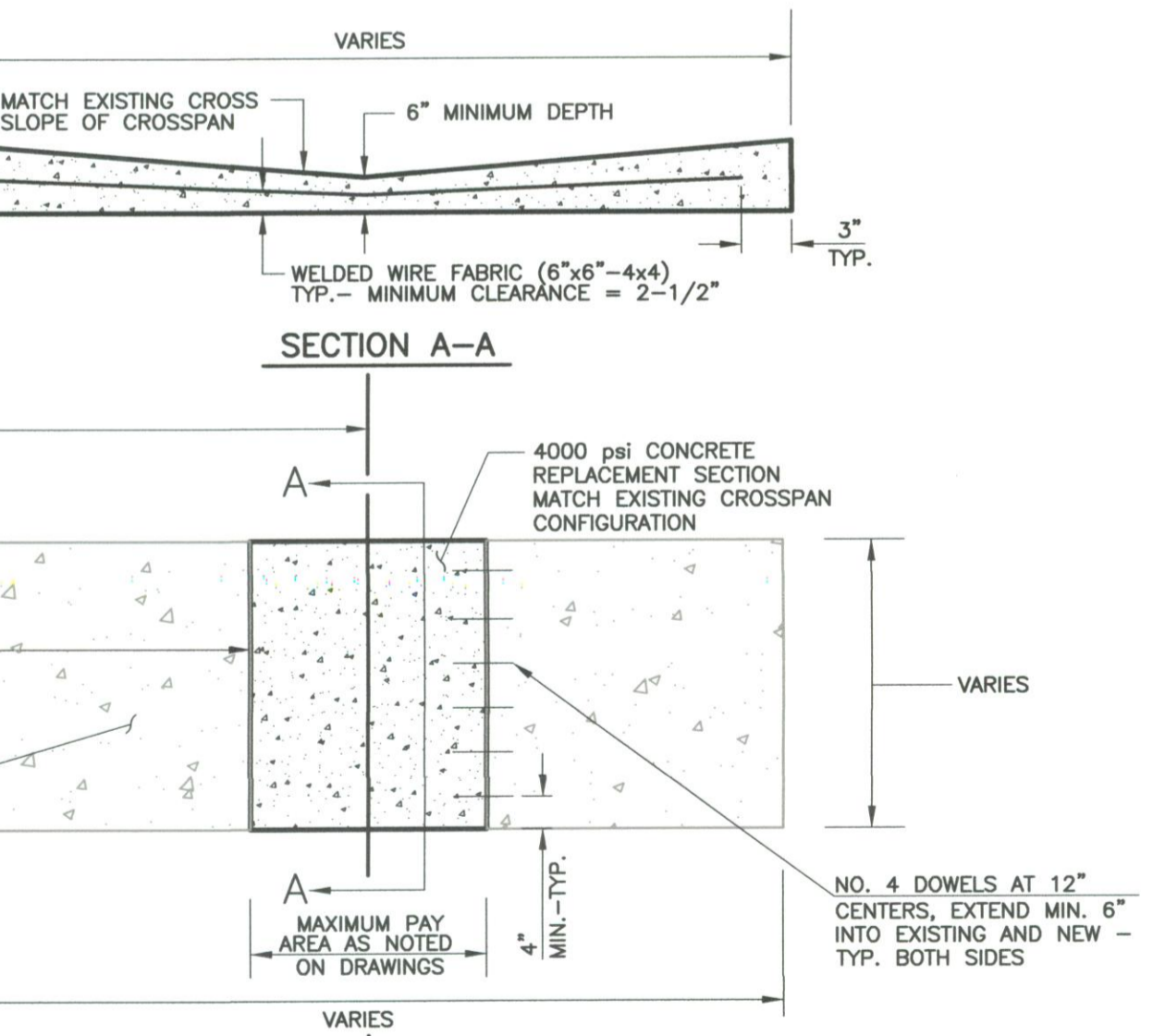


1 NORMAN DRIVE - SEGMENT 1
4 SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

NOTE:
 UTILITY CROSSINGS ARE SHOWN GRAPHICALLY IN PLAN VIEW AND ANNOTATED IN PROFILE VIEW.



2 NEW WATER SERVICE TAP AND CONNECTION DETAIL
4 SCALE: NONE



3 CONCRETE CROSSSPAN REPLACEMENT DETAIL
4 SCALE: NONE

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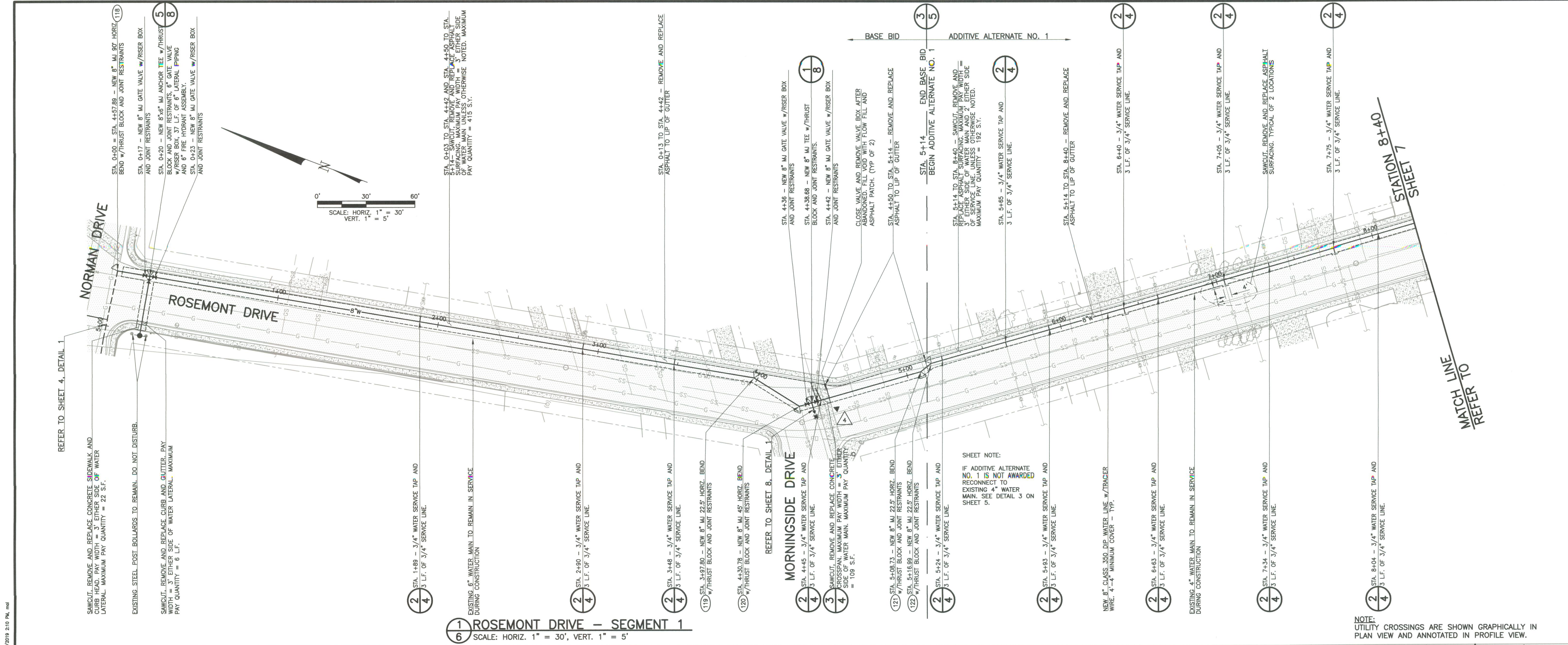
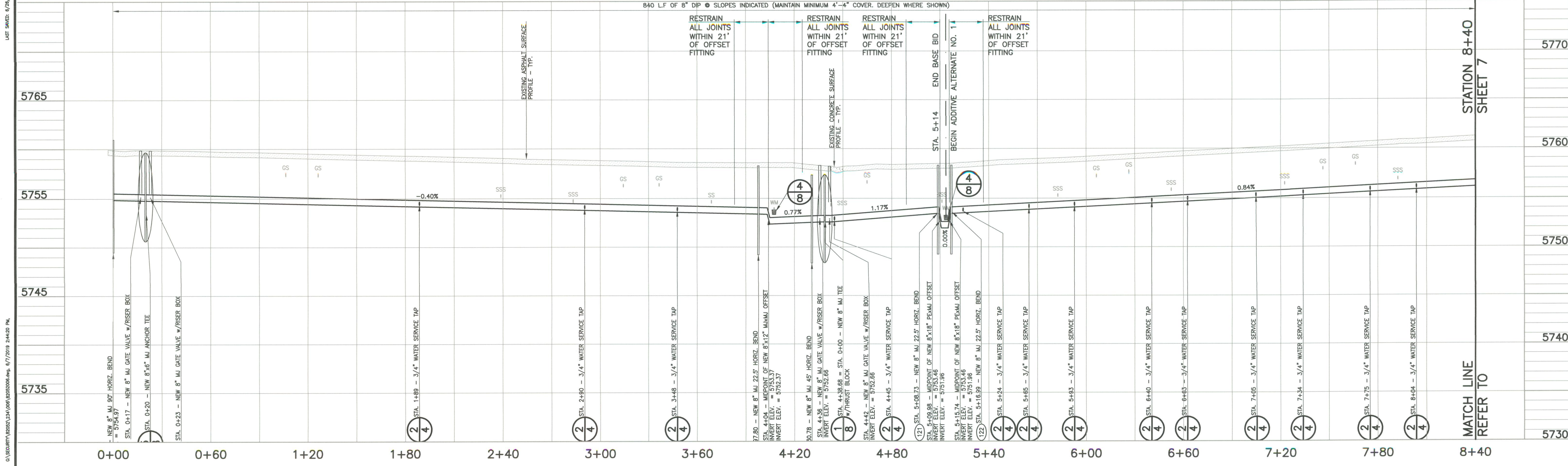


NORMAN DRIVE
 STA. 0+00 TO STA. 5+34.60
 PLAN, PROFILE AND DETAILS
 WATER SYSTEM IMPROVEMENTS 2019
 SECURITY WATER DISTRICT

GMS, INC.
 CONSULTING ENGINEERS
 611 N. WEBER, SUITE 300
 COLORADO SPRINGS, COLORADO 80903

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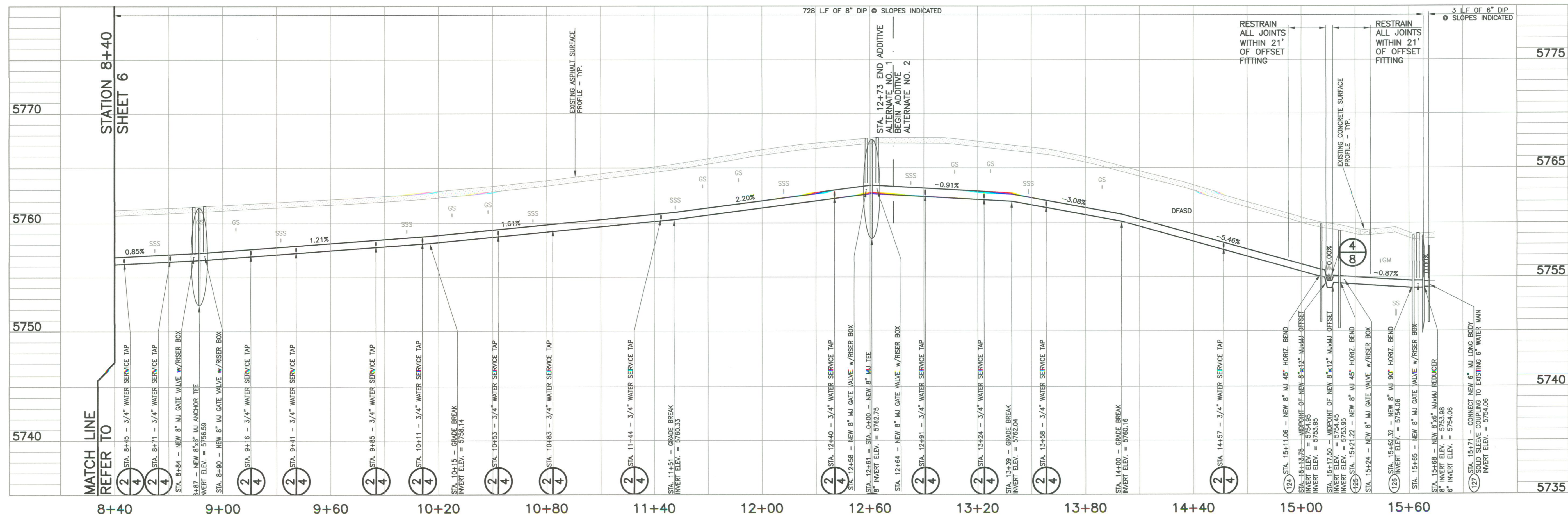
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1 ROSEMONT DRIVE - SEGMENT 1
SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

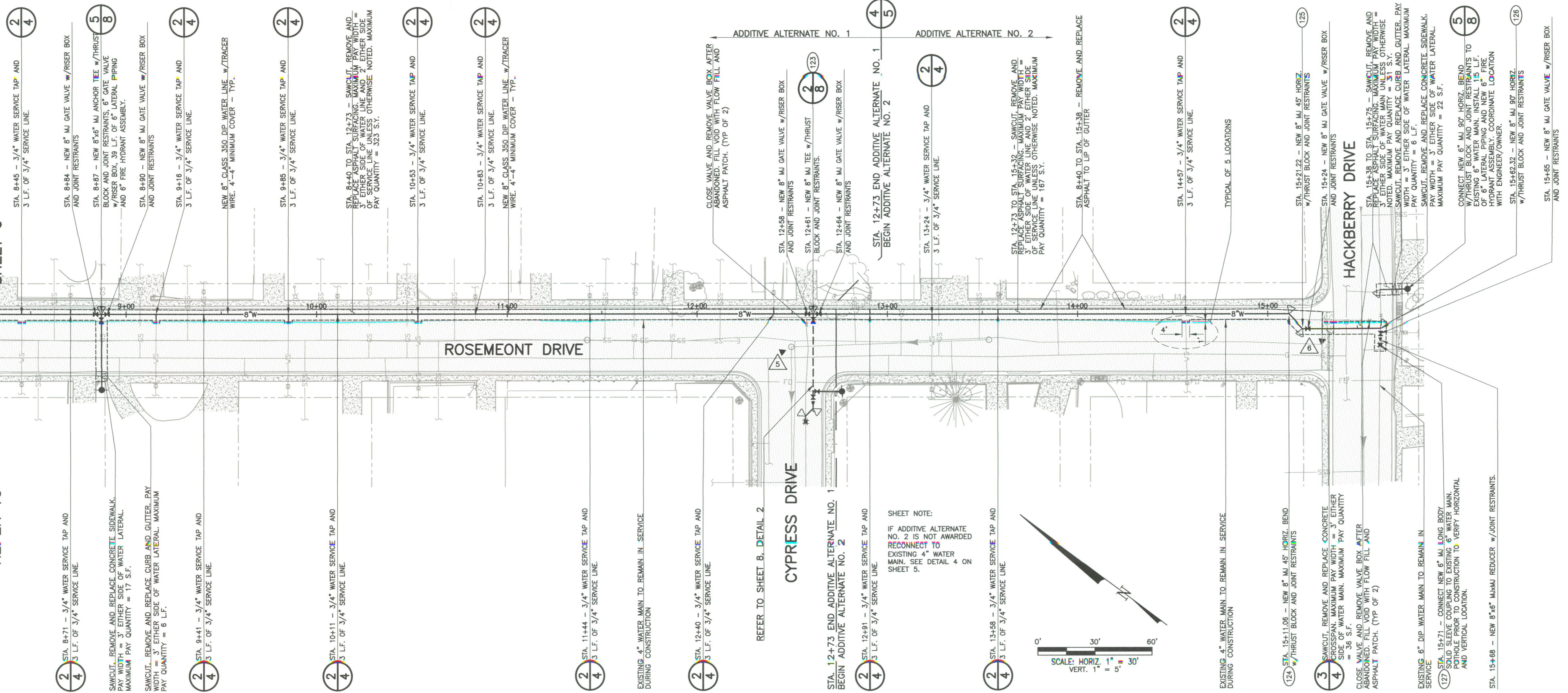
NOTE: UTILITY CROSSINGS ARE SHOWN GRAPHICALLY IN PLAN VIEW AND ANNOTATED IN PROFILE VIEW.

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<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION				<p>PROFESSIONAL ENGINEER 35820 7-3-2019</p>						
NO.	DATE	DESCRIPTION											
<p>ROSEMONT DRIVE - SEGMENT 1 STA. 0+00 TO STA. 5+14 ADDITIVE ALTERNATE NO. 1 STA. 5+14 TO STA. 8+40 WATER SYSTEM IMPROVEMENTS 2019 SECURITY WATER DISTRICT</p>													
<p>GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903</p>	<table border="1"> <tr> <td>DRAWN</td> <td>MAL</td> </tr> <tr> <td>DESIGNED</td> <td>MAL</td> </tr> <tr> <td>CHECKED</td> <td>KLW</td> </tr> <tr> <td>DATE</td> <td>JUNE 2019</td> </tr> <tr> <td>PROJECT NO.</td> <td>82052.234</td> </tr> <tr> <td>GMS FILE NO.</td> <td>2902</td> </tr> </table>	DRAWN	MAL	DESIGNED	MAL	CHECKED	KLW	DATE	JUNE 2019	PROJECT NO.	82052.234	GMS FILE NO.	2902
DRAWN	MAL												
DESIGNED	MAL												
CHECKED	KLW												
DATE	JUNE 2019												
PROJECT NO.	82052.234												
GMS FILE NO.	2902												
<p>SHEET 6 OF 8</p>													



STATION 8+40 SHEET 6

MATCH LINE REFER TO



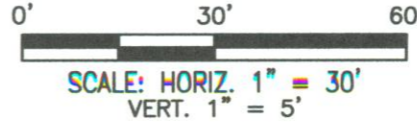
1 ROSEMONT DRIVE - SEGMENT 1

SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

SHEET NOTE:

- IF ADDITIVE ALTERNATE NO. 2 IS NOT AWARDED RECONNECT TO EXISTING 4" WATER MAIN. SEE DETAIL 4 ON SHEET 5.

NOTE: UTILITY CROSSINGS ARE SHOWN GRAPHICALLY IN PLAN VIEW AND ANNOTATED IN PROFILE VIEW.



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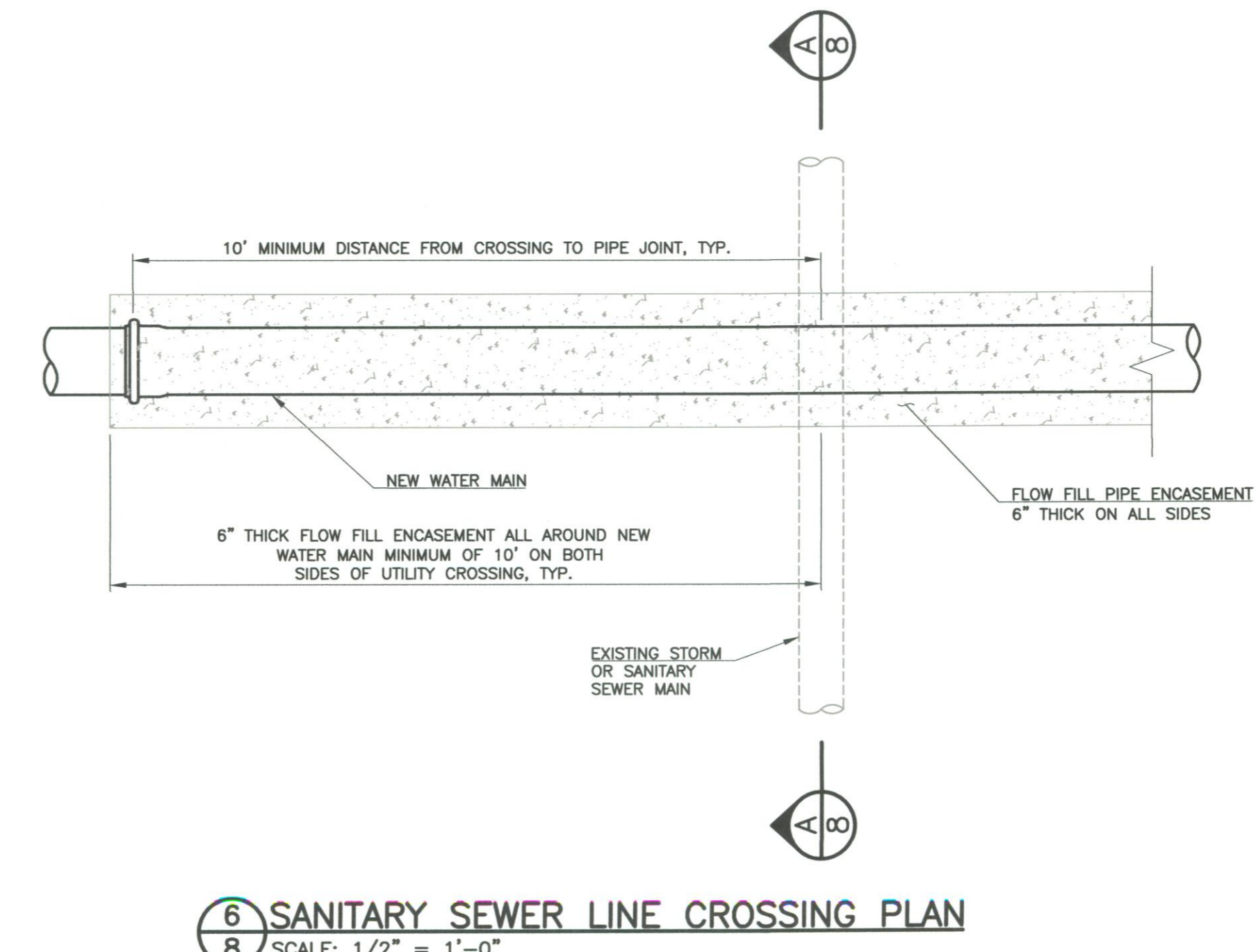
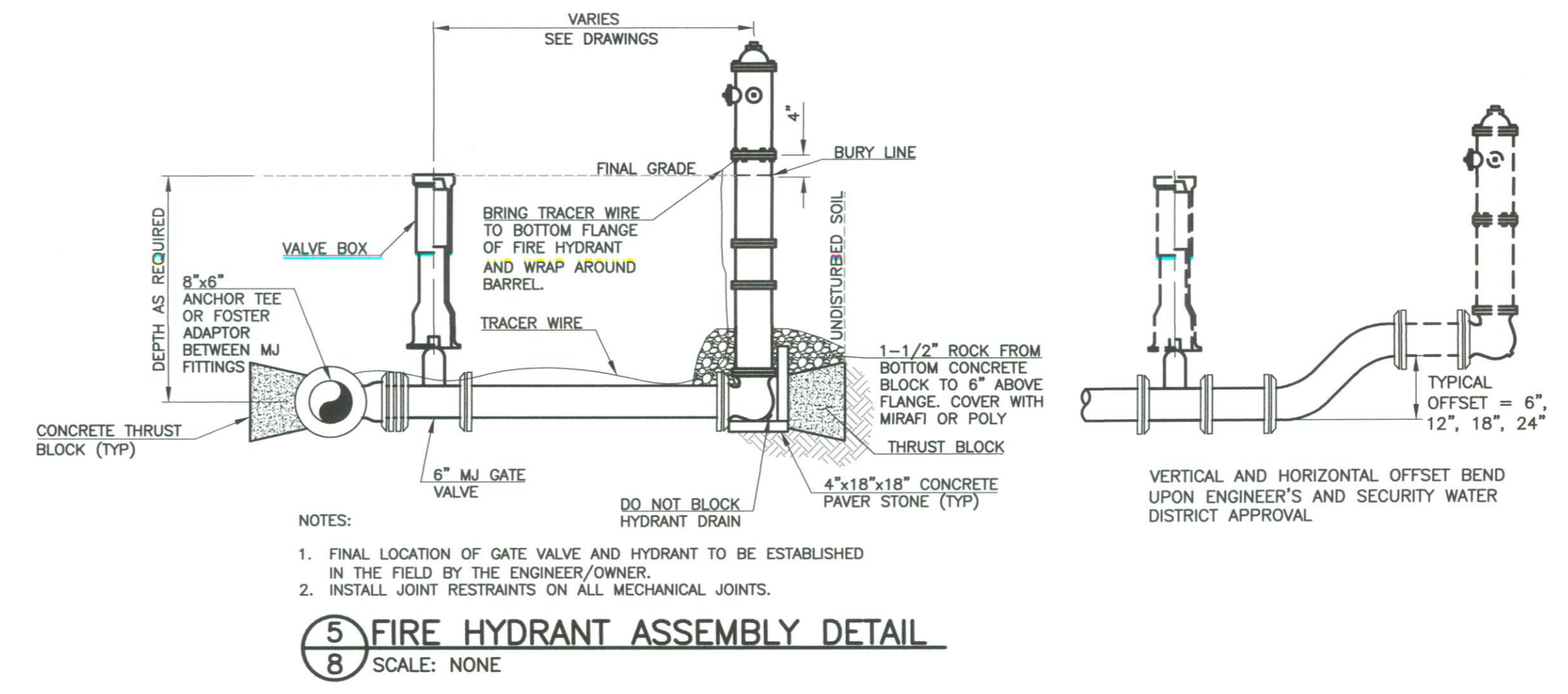
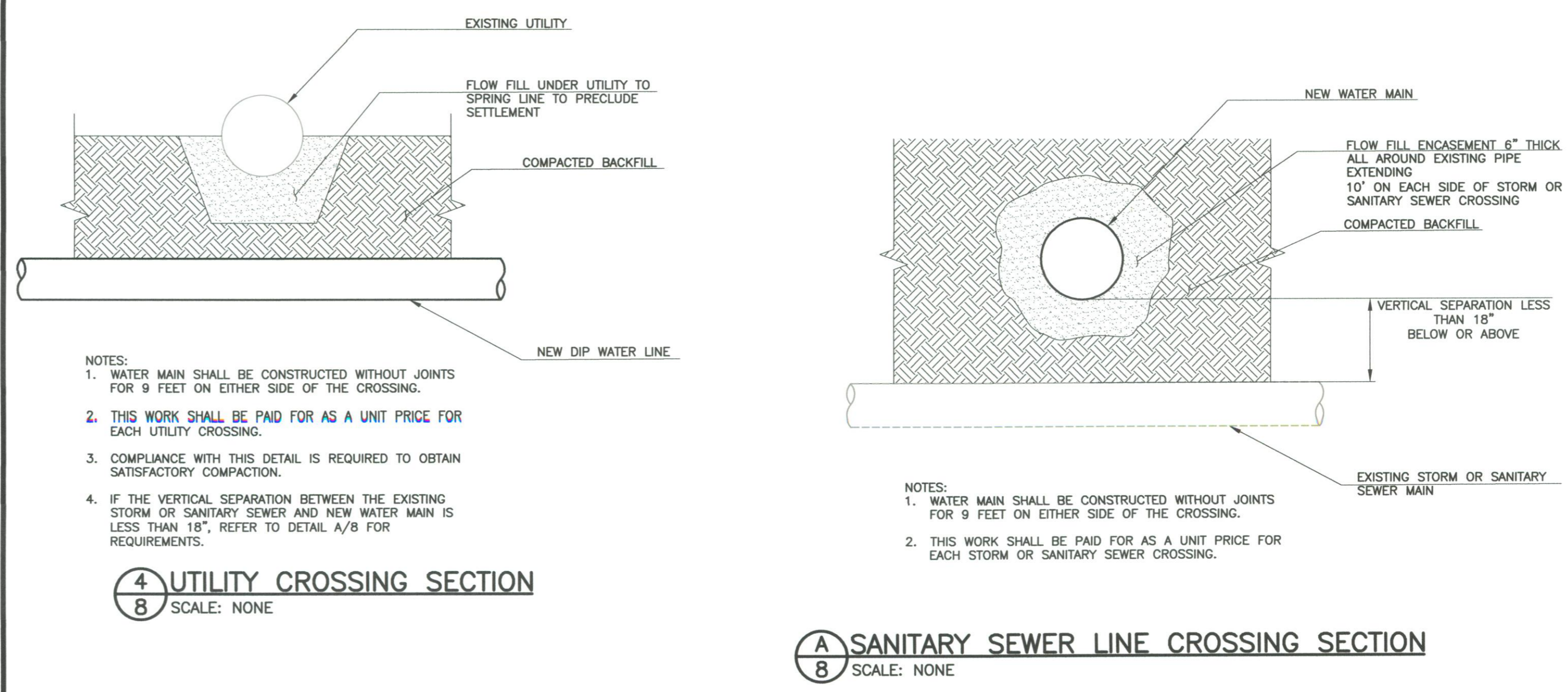
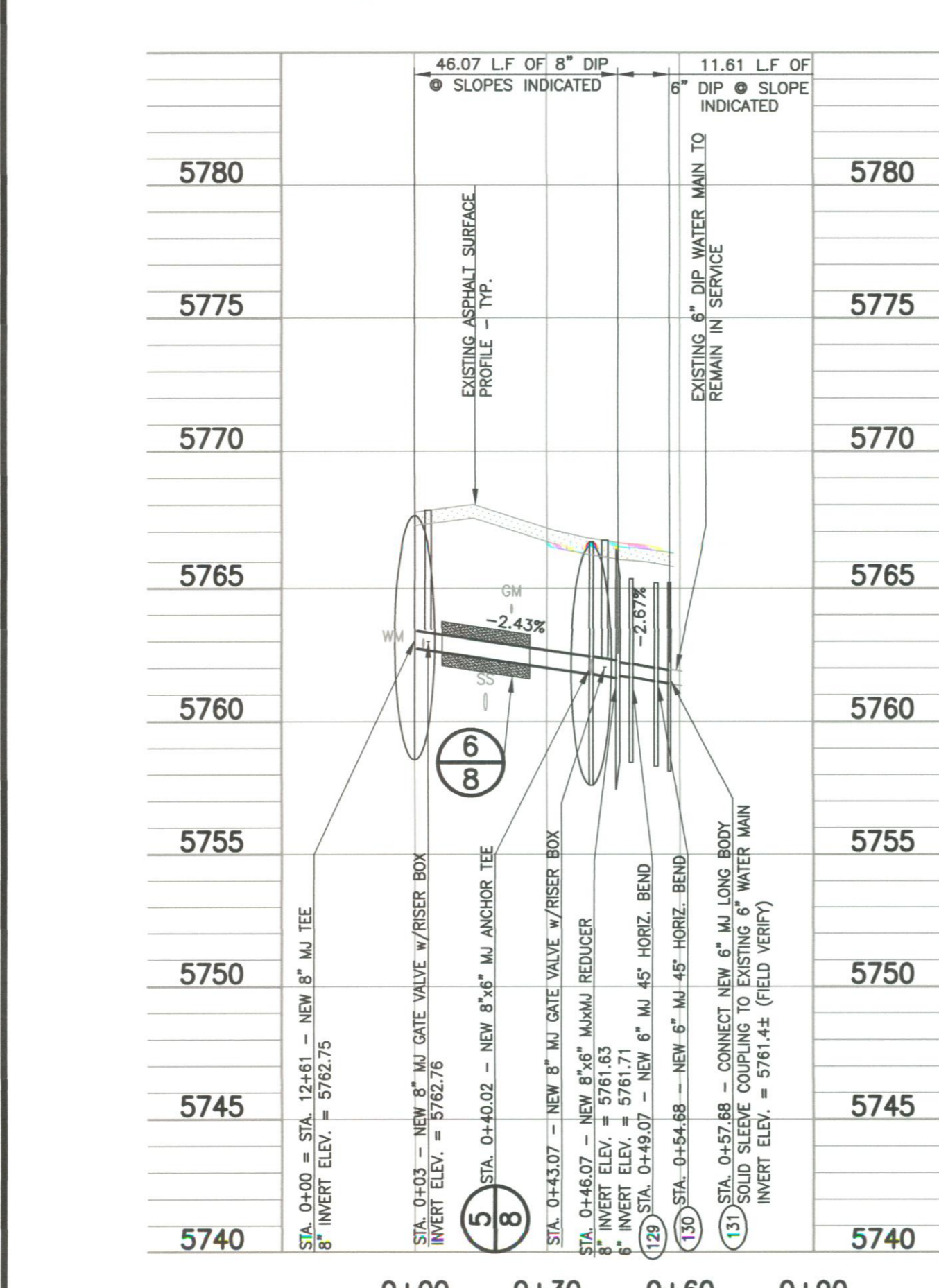
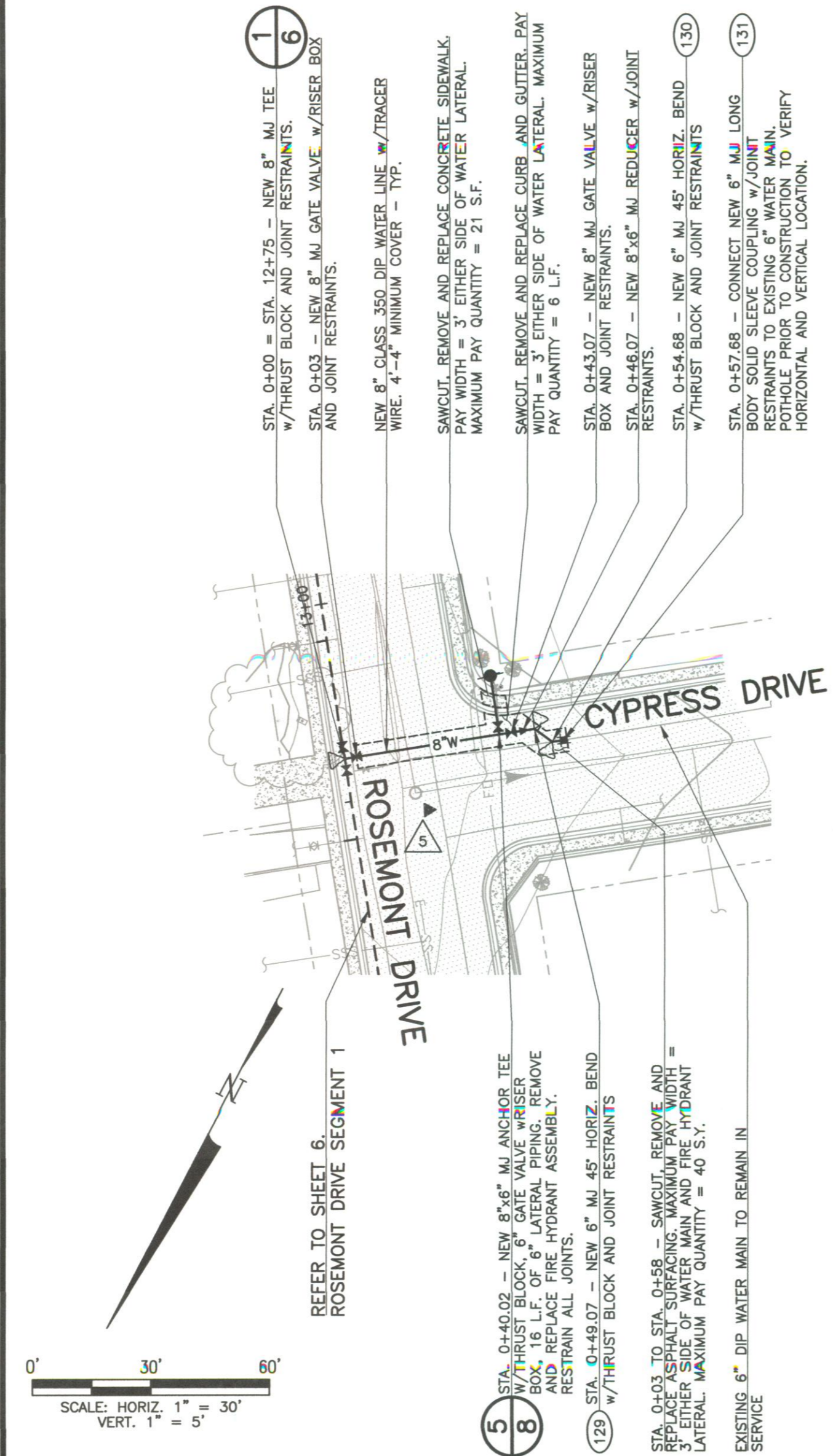
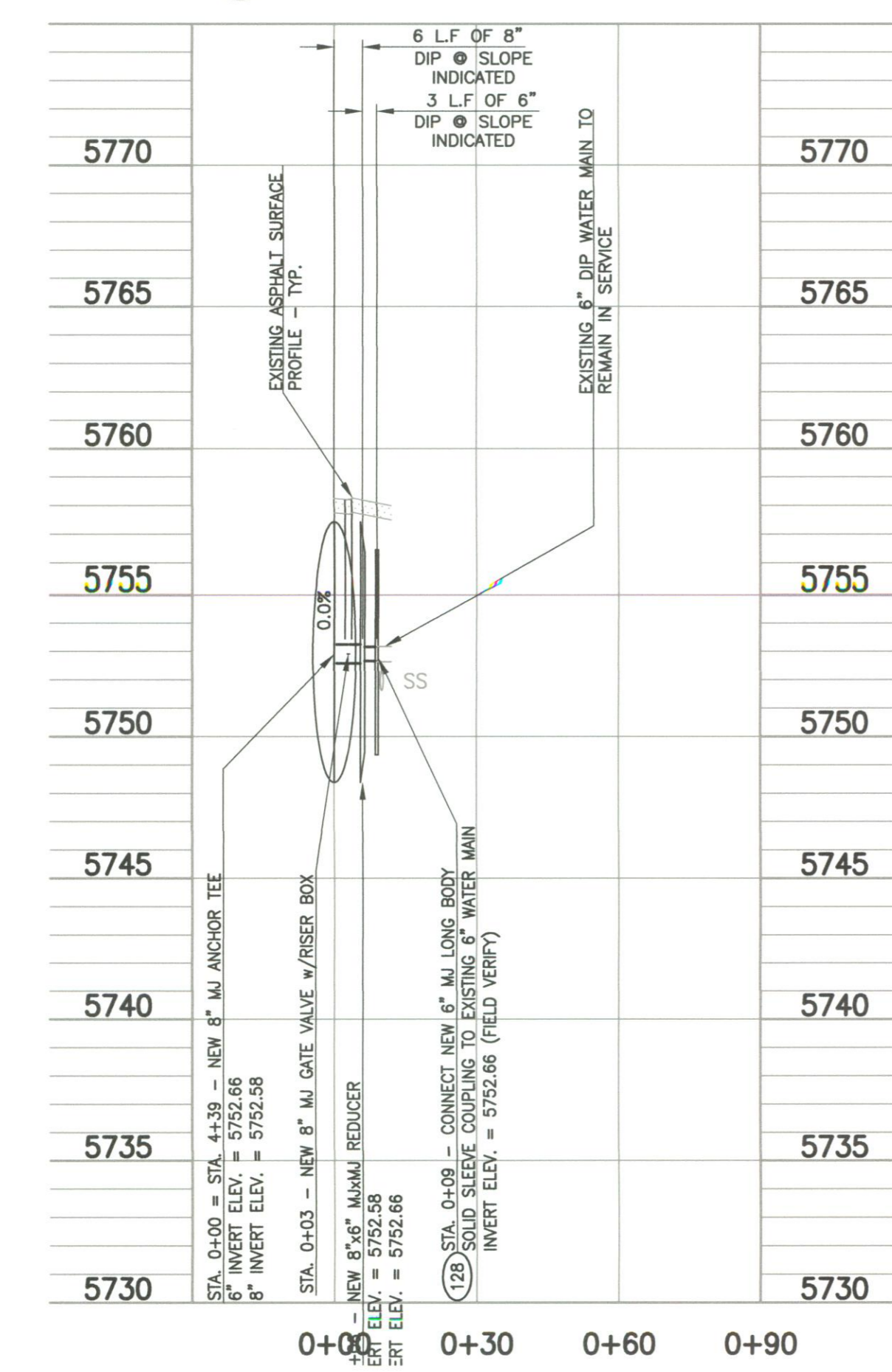
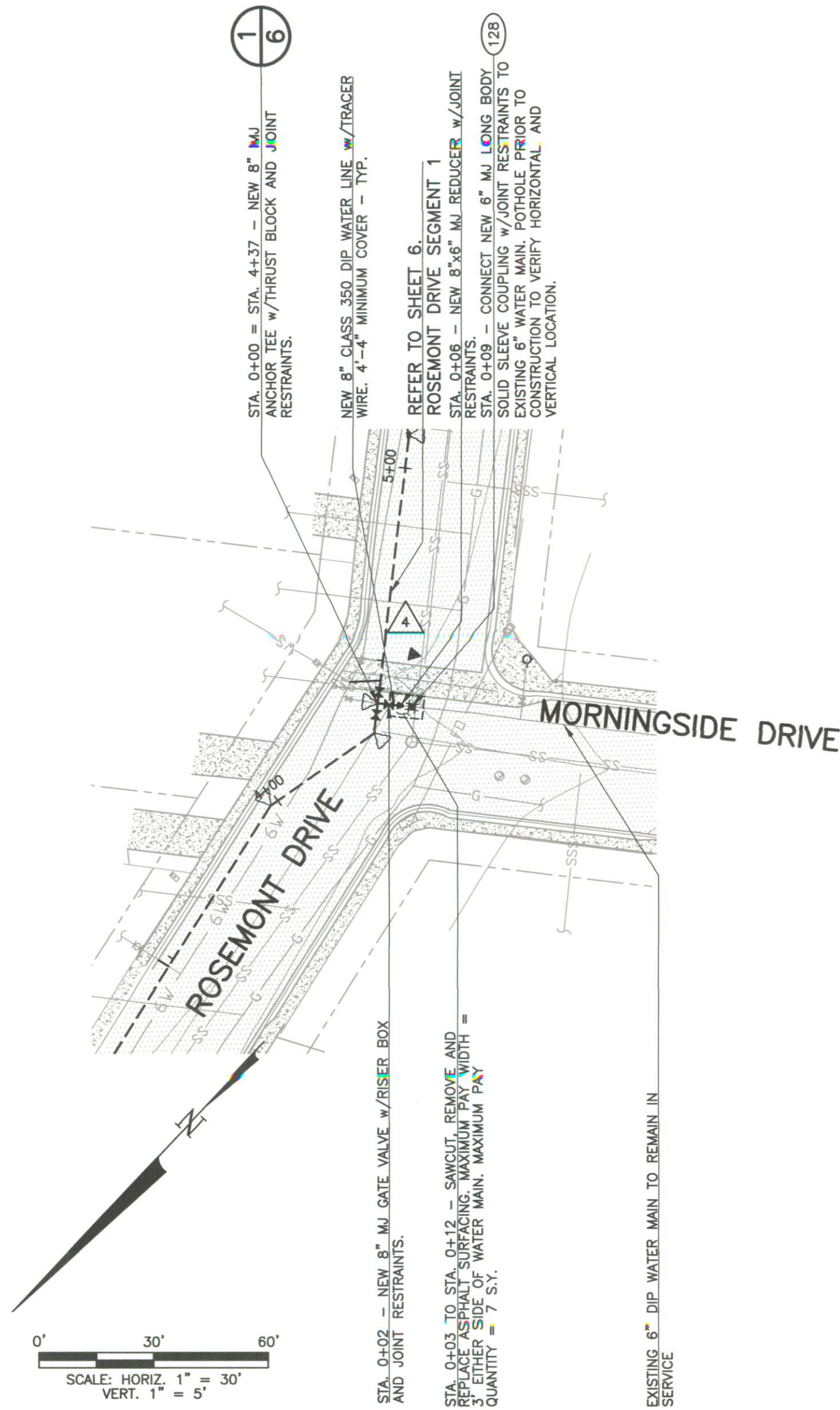
NO.	DATE	REVISIONS DESCRIPTION



ROSEMONT DRIVE - SEGMENT 1 ADDITIVE ALTERNATE NO. 1 STA. 8+40 TO STA. 12+73
ADDITIVE ALTERNATE NO. 2 STA. 12+73 TO STA. 15+71
 WATER SYSTEM IMPROVEMENTS 2019
 SECURITY WATER DISTRICT

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 CONSULTING ENGINEERS
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 COLORADO SPRINGS, COLORADO 80903

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NO.	DATE	DESCRIPTION



**MORNINGSID DRIVE, CYPRESS DRIVE
ADDITIVE ALTERNATE NO. 1
AND DETAILS**
WATER SYSTEM IMPROVEMENTS 2019
SECURITY WATER DISTRICT

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

DRAWN	MAL	DESIGNED	MAL	CHECKED	KLW	DATE	JUNE 2019	PROJECT NO.	82052.234	GMS FILE NO.	2902
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