

2018 WATER SYSTEM IMPROVEMENTS

FOR THE DONALA WATER AND SANITATION DISTRICT

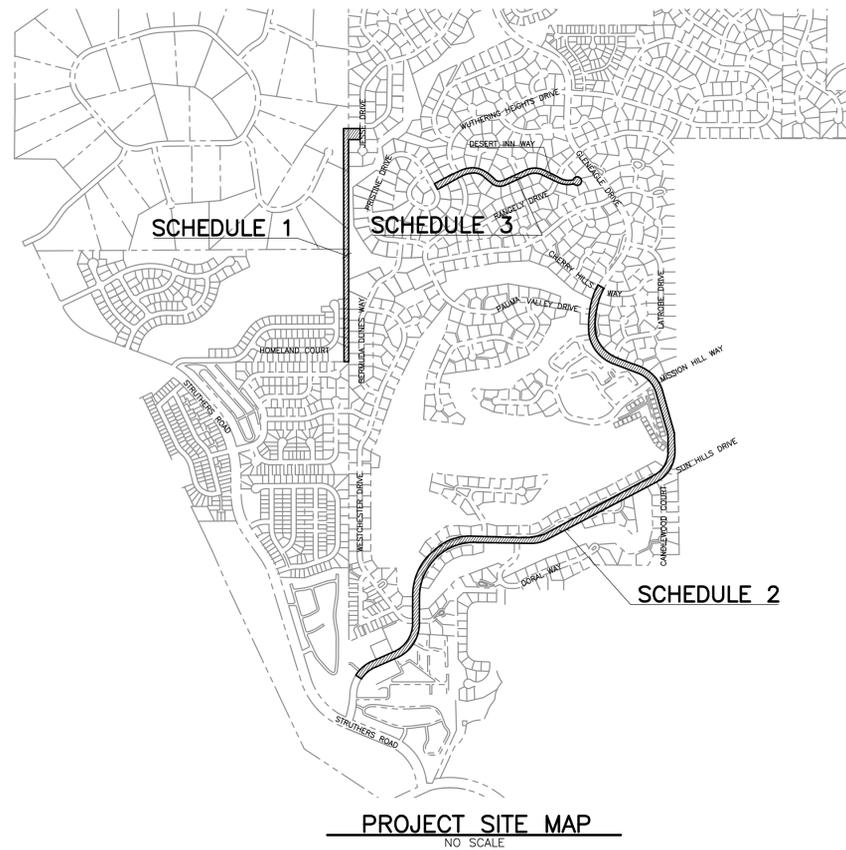
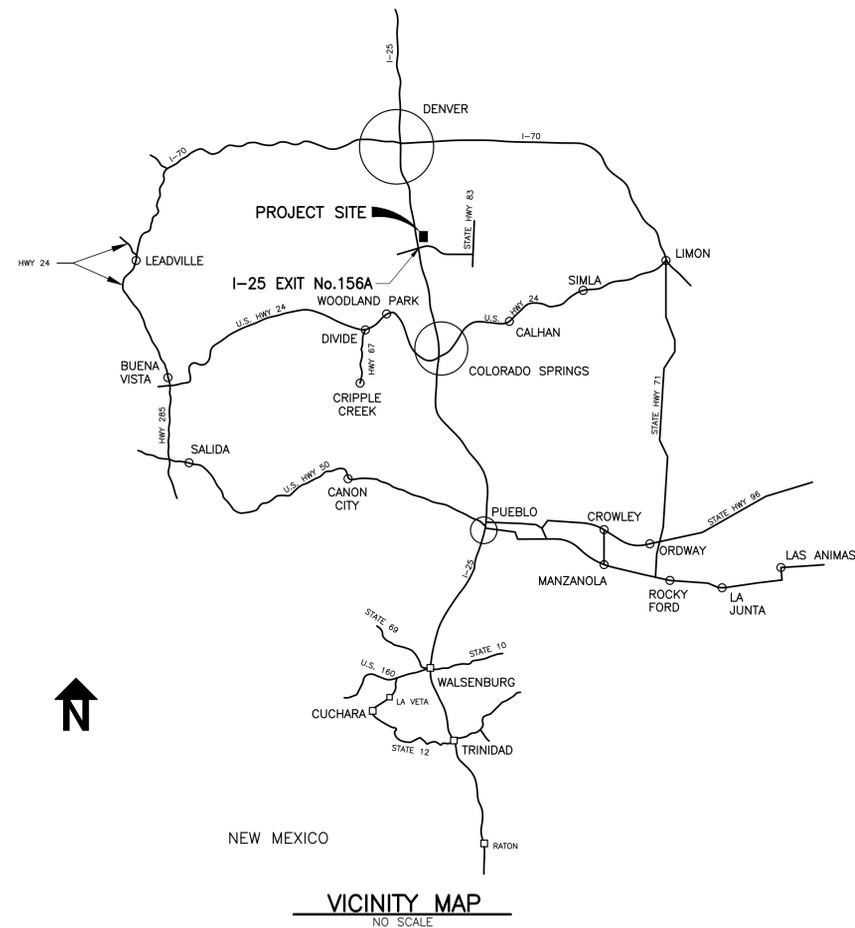
MAY 2018

SCHEDULE 1: WATER SYSTEM REPLACEMENT

SCHEDULE 2: GLENEAGLE DRIVE WATER SYSTEM REPLACEMENT

SCHEDULE 3: DESERT INN WAY WATER SERVICE LINE REPLACEMENT

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APPROVED FOR BIDDING AND CONSTRUCTION

THIS PLAN APPROVED FOR BIDDING AND CONSTRUCTION. IN THE EVENT OF ROAD IMPROVEMENTS, ADJUSTMENTS OF THIS UTILITY WILL BE AT THE OWNER'S EXPENSE. COUNTY PLAN REVIEW IS ONLY PROVIDED FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS, WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

BY: _____ DATE: _____
 JENNIFER E. IRVINE, P.E.,
 COUNTY ENGINEER / ECM ADMINISTRATOR

BY: _____ DATE: _____
 KIP PETERSEN, GENERAL MANAGER

BY: _____ DATE: _____
 GMS, INC.
 CONSULTING ENGINEERS

SHEET 1 OF 22
 GMS FILE No. 2851

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

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

GENERAL

1. 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. THE UTILITY NOTIFICATION CENTER OF COLORADO MAY BE CONTACTED AT 1-800-922-1987.

Water System: Donala Water and Sanitation District719-488-3603
Sanitary Sewer System:
Donala Water and Sanitation District ...719-488-3603
Gas: Black Hills Energy719-488-0739
Electric: Mountain View Electric Association719-495-2283
Telephone: Eastern Slope Rural Telephone719-743-2441
Fiber Optics: Enron Broadband Services1-800-267-7028
Forte of Colorado.....580-338-5411
Cable: Galaxy Cable Vision1-800-365-6988

2. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS FOR WATER DISTRIBUTION AND WASTEWATER COLLECTION AND THE PROJECT MANUAL.

3. THE SURFACE FEATURES SHOWN ON THE DRAWINGS WERE OBTAINED THROUGH FIELD SURVEYS CONDUCTED JANUARY 2018 THRU MAY 2018. THE CONTRACTOR SHALL REVIEW AND VERIFY EXISTING GROUND CONFIGURATIONS AND INFORM HIMSELF OF THE CONDITIONS TO BE ENCOUNTERED DURING CONSTRUCTION.

4. 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 AS AN INCIDENTAL PART OF THE PIPELINE CONSTRUCTION UNLESS OTHERWISE PROVIDED IN THE BID FORM.

5. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW WATER 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 COMPANY FOR ASSISTANCE TO TEMPORARILY BRACE OR SUPPORT THE POLE AS REQUIRED. IN THE CASE WHERE A GUY WIRE OR ITS ANCHOR IS IN DIRECT CONFLICT WITH THE WORK PROPOSED, THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY FOR THE REMOVAL AND REINSTALLATION OF THE CONFLICTING GUY WIRE OR ANCHOR AS REQUIRED.

6. 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 MAINTAINED. 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.

7. 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 WHERE APPROPRIATE, THE PRIVATE PROPERTY OWNER(S).

8. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

9. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING OF BOTH HORIZONTAL AND VERTICAL LAYOUT. THE DRAWINGS SHOW CONTROL POINTS THAT CAN BE USED IN THE LAYOUT OF THE PROJECT. ALL LAYOUT SHALL BE COORDINATED WITH THE ENGINEER AND IS SUBJECT TO REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. THE ENGINEER WILL ASSIST THE CONTRACTOR IN LOCATING EXISTING SURVEY CONTROL AS NECESSARY.

10. IN CASE OF CONFLICT BETWEEN THE REQUIREMENTS OF THE DRAWINGS AND/OR PROJECT MANUAL AND THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS FOR WATER DISTRIBUTION AND WASTEWATER COLLECTION, THE REQUIREMENTS INDICATED IN THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS 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.

EARTHWORK

11. IN THOSE AREAS WHERE PIPELINE TRENCHING ACTIVITIES OCCUR OUTSIDE OF EXISTING ASPHALT OR GRAVEL SURFACED STREETS, THE EXISTING TOPSOIL SHALL BE FULLY STRIPPED, STOCKPILED AND REINSTALLED UPON COMPLETION OF THE BACKFILL PROCEDURE. THIS WORK SHALL BE UNDERTAKEN AS AN INCIDENTAL TO THE PIPELINE INSTALLATION.

12. IN THOSE AREAS WHERE CONSTRUCTION ACTIVITY ALTERS EXISTING DRAINAGE CONFIGURATIONS, DRAINAGE PATTERNS SHALL BE RESTORED TO AS GOOD AS OR BETTER CONDITIONS THAN THOSE THAT EXISTED PRIOR TO THE CONSTRUCTION ACTIVITY. THIS WORK SHALL BE UNDERTAKEN AS AN INCIDENTAL PART OF THE PIPELINE INSTALLATION.

13. COMPACTION SHALL BE IN COMPLIANCE WITH THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS. IN THOSE AREAS WHERE PERMITS ARE ISSUED BY AN OUTSIDE AUTHORITY, COMPLY WITH THE MORE STRINGENT SPECIFICATION.

TRAFFIC CONTROL

14. A PORTION OF THE PIPELINE COMPONENTS OF THE PROJECT LIE WITHIN EL PASO COUNTY (EPC) ROAD RIGHTS-OF-WAY. TRAFFIC CONTROL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. WHERE APPROPRIATE, THE OWNER'S REGULATIONS AND/OR THE EPC DEPARTMENT OF PUBLIC WORKS (DPW) UTILITY PERMIT PROVISIONS SHALL BE TAKEN INTO ACCOUNT WITHIN THE TRAFFIC CONTROL PLANS.

15. THE CONTRACTOR IS REQUIRED TO OBTAIN A UTILITY CUT PERMIT FROM THE EPC DPW FOR THIS PROJECT.

16. THE CONTRACTOR SHALL CONTACT EPC DPW REPRESENTATIVES 48 HOURS PRIOR TO BEGINNING CONSTRUCTION IN COUNTY ROAD RIGHT-OF-WAY.

17. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE PROVISIONS OF THE SPECIFICATIONS AND THE EPC DPW UTILITY PERMIT WHERE APPLICABLE. 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 THE COUNTY ROAD RIGHT-OF-WAY.

18. COORDINATION WITH THE EPC DWP 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 A STREET AND/OR ALLEY CLOSURE. NOTIFICATION BY THE CONTRACTOR TO ALL EMERGENCY RESPONSE AGENCIES AND THE ACADEMY SCHOOL DISTRICT SHALL BE ACCOMPLISHED NO LESS THAN 7-CALENDAR DAYS BEFORE WORK IS ACCOMPLISHED IMPACTING ANY PUBLIC STREET OR ROAD.

STREET SURFACE RESTORATION

19. ALL STREET SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, CONSTRUCTION DRAWINGS AND THE EPC DPW ENGINEERING CRITERIA MANUAL.

20. THE MAXIMUM PAY AREA FOR PAVEMENT REMOVAL AND REPLACEMENT IS SHOWN ON THE CONSTRUCTION DRAWINGS. PAYMENT WILL BE MADE FOR ACTUAL QUANTITIES REMOVED AND REPLACED, NOT TO EXCEED THE SPECIFIED PAY AREA. ANY PAVEMENT REMOVED THAT EXCEEDS THE MAXIMUM PAY AREA SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AS AN INCIDENTAL PART OF PIPELINE CONSTRUCTION.

21. THE CONTRACTOR SHALL DILIGENTLY UNDERTAKE FINAL GRADING, CLEANUP AND ROAD RESTORATION WITHIN 50 FEET OF PIPELINE INSTALLATION. RESTORATION MUST PROGRESS WITH THE WORK.

25. BASED UPON EPC DPW RECORDS, THE ROAD SECTIONS THAT REQUIRE REMOVAL AND REPLACEMENT HAVE THE FOLLOWING ROAD SECTION THAT MUST BE MATCHED.

RESIDENTIAL STREETS OTHER THAN GLENEAGLE DRIVE:
4" ABC - 4" HOT MIX ASPHALT PAVING (2-LIFTS)
GLENEAGLE DRIVE:
4" ABC - 7" HOT MIX ASPHALT PAVING (3-LIFTS)

26. WORK IN THE PUBLIC RIGHT-OF-WAY INCLUDES STRIPPING, STOCKPILING AND REINSTALLATION OF EXISTING AGGREGATE BASE COURSE (ABC) TO FULL DEPTH. IN THE EVENT THE ABC IS CONTAMINATED OR NOT SUFFICIENTLY STRIPPED, THE CONTRACTOR SHALL PROVIDE MAKEUP ABC AS REQUIRED.

27. UPON COMPLETION OF INSTALLATION OF THE NEW WATER MAIN, THE CONTRACTOR SHALL REINSTALL THE SUBGRADE AND/OR ABC TO THE REQUIRED DEPTH. THE CONTRACTOR SHALL PERFORM A PROOFROLL PRIOR TO PAVING. THE CONTRACTOR SHALL THEN PLACE THE COMPACTED HOT MIX ASPHALT (HMA) IN LIFTS NOT TO EXCEED 2" IN DEPTH UNLESS OTHERWISE APPROVED. CLOSE COORDINATION WITH THE EPC DPW IS REQUIRED FOR ACCEPTANCE OF FINAL RESTORATION WORK.

GENERAL CONSTRUCTION NOTES

28. SHOP DRAWING SUBMITTALS SHALL BE MADE FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.

29. DEFLECTIONS AT PIPE JOINTS SHALL BE LIMITED TO THOSE DEFLECTIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS AND RECOMMENDED BY THE PIPE MANUFACTURER, WHICHEVER IS LESS.

30. IN AREAS TO RECEIVE HOT MIX ASPHALT (HMA) REPLACEMENT, THE CONTRACTOR SHALL SET ALL VALVE BOXES 1/4-INCH BELOW FINISH GRADE. IN ALL OFF-ROAD AREAS, THE CONTRACTOR SHALL SET THE VALVE BOXES FLUSH WITH FINISHED GRADE.

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

32. THE CONTRACTOR SHALL LIMIT THE CONSTRUCTION ACTIVITY TO EXISTING RIGHTS-OF-WAY AND CONSTRUCTION EASEMENTS AS NOTED ON THE CONSTRUCTION DRAWINGS.

33. THE CONTRACTOR SHALL EXCAVATE THE EXISTING UTILITY LINES WHERE CROSSINGS ARE SHOWN. AN OWNER'S REPRESENTATIVE WILL VERIFY THE EXISTING PIPELINE LOCATION AND MAKE ANY ADJUSTMENTS TO THE CONSTRUCTION DRAWINGS THAT MAY BE NECESSARY AS A RESULT OF FINAL LOCATION DETERMINATION. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR POTHOLES OR MINOR MODIFICATIONS TO THE ALIGNMENT. THIS EFFORT WILL BE CONSIDERED AN INCIDENTAL PART OF THE WORK.

34. PIPELINES SHALL BE LAID OUT IN STRAIGHT ALIGNMENTS BETWEEN POINTS OF INTERSECTION AS SHOWN ON THE CONSTRUCTION DRAWINGS. DEVIATIONS ARE SUBJECT TO THE ENGINEER'S PRIOR APPROVAL.

35. PIPE FITTINGS LOCATED 5 FEET OR LESS APART SHALL BE TIED TOGETHER WITH AT LEAST FOUR (4) 3/4-INCH ANCHOR RODS UNLESS OTHERWISE DETAILED OR NOTED ON THE PLANS. WHEN USED, JOINT RESTRAINTS SHALL BE INSTALLED ON PLAIN END PIPE ONLY. INSTALLATION ON PLAIN END FITTINGS IS NOT ACCEPTABLE.

36. 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.

37. REMOVAL AND DISPOSAL OF EXISTING 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.

38. ALL PIPELINE WORK IS TO BE UNDERTAKEN UTILIZING EMBEDMENT MATERIALS AS SPECIFIED IN THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS FOR WATER DISTRIBUTION AND WASTEWATER COLLECTION AND THE PROJECT MANUAL.

39. ANY SIGNS, DELINEATOR POSTS, MAIL BOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION AS AN INCIDENTAL PART OF THE PIPELINE WORK.

40. THE SEQUENCE OF THE INSTALLATION, DISINFECTING, PRESSURE TESTING AND BACTERIOLOGICAL TESTING ASSOCIATED WITH NEW WATER MAIN INSTALLATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS FOR WATER DISTRIBUTION AND WASTEWATER COLLECTION AND SHALL BE COORDINATED WITH THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

41. THE CONTRACTOR SHALL INSTALL NEW WATER MAIN SEGMENTS IN SUCH A MANNER THAT THEY CAN BE FILLED AND PRESSURE TESTED. UPON COMPLETION OF A SATISFACTORY PRESSURE TEST, THE CONTRACTOR SHALL DISINFECT THE NEW MAINS AND EXISTING MAINS, AS DETAILED. ONCE THE LINES HAVE BEEN FLUSHED AND A SATISFACTORY BACTERIOLOGICAL TEST RESULT IS ACCOMPLISHED, THE CONTRACTOR SHALL PLACE THE LINES INTO SERVICE UNDER THE DIRECTION OF THE DWSO.

42. ALL EXISTING DRAINAGE STRUCTURES SHALL REMAIN IN PLACE UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. ANY STRUCTURES DAMAGED OR REMOVED DURING CONSTRUCTION, SHALL BE REINSTALLED OR REPLACED AS AN INCIDENTAL PART OF THE PIPELINE CONSTRUCTION.

43. THE CONTRACTOR MAY PROPOSE ALTERNATIVES TO THE FITTING AND PIPING CONFIGURATION SHOWN FOR THE CONNECTION OF NEW FACILITIES TO EXISTING FACILITIES. SUCH MODIFICATIONS ARE SUBJECT TO THE ENGINEER'S REVIEW AND ACCEPTANCE.

44. THE CONTRACTOR SHALL LIMIT THE GENERAL AREA OF DISRUPTION FOR THE WATER MAIN INSTALLATIONS TO THE IMMEDIATE AREA OF THE ACTUAL INSTALLATION.

45. WITHIN THE COURSE OF CONSTRUCTION, ANY EXISTING WATER SYSTEM COMPONENTS REMOVED BY THE CONTRACTOR THAT ARE DEEMED SALVAGE BY THE ENGINEER/OWNER SHALL BE DELIVERED TO THE DWSO. ALL OTHER ITEMS NOT DEEMED AS SALVAGE SHALL BE EITHER ABANDONED IN PLACE OR DISPOSED OF OFF-SITE BY THE CONTRACTOR AS PART OF THE PIPELINE INSTALLATION SCOPE OF WORK.

46. EXISTING PROPERTY CORNERS AND SECTION MONUMENTATION SHALL NOT BE DISTURBED TO THE EXTENT POSSIBLE. ALL PROPERTY CORNER AND SECTION CORNER MONUMENTATION DISTURBED MUST BE REFERENCED AND REPLACED AT THE CONTRACTOR'S COST BY A SURVEYOR LICENSED IN THE STATE OF COLORADO.

47. ALL THRUST BLOCKS INSTALLED THROUGHOUT THIS PROJECT SHALL HAVE A BOND BREAKER BETWEEN THE PIPE AND/OR FITTING AND THE THRUST BLOCK.

48. ANY REVERSE ANCHORS, BLOW-OFF ASSEMBLIES, ETC., REQUIRED TO MAKE CONNECTIONS TO EXISTING LINES AND PROVIDE FOR PRESSURE TESTING AND OTHER CONSTRUCTION ACTIVITIES ARE INCIDENTAL TO THE PIPELINE CONSTRUCTION.

49. THE REMOVAL OF TREES SHALL BE DONE ONLY AS NECESSARY AND WITH THE DIRECTION OF THE OWNER AND/OR ENGINEER.

50. THE CONTRACTOR SHALL PROVIDE SEEDING IN AREAS AS DESIGNATED ON THE CONSTRUCTION DRAWINGS AND AS INDICATED BY THE ENGINEER. PAYMENT WILL BE MADE UP TO THE MAXIMUM LIMITATIONS SET FORTH IN THE CONSTRUCTION DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR SEEDING OF DISRUPTED AREAS OUTSIDE THE MAXIMUM PAY WIDTHS AS A RESULT OF HIS CONSTRUCTION ACTIVITIES AS AN INCIDENTAL PART OF THE WORK.

51. IF AN ITEM IS NOT DESIGNATED IN THE BID FORM AS A SEPARATE PAY ITEM, THE CONTRACTOR SHALL INCLUDE THE COST OF THE INCIDENTALS THAT DO NOT HAVE SEPARATE PAY ITEMS IN THE APPROPRIATE PIPELINE UNIT PRICE.

52. NEW MATERIALS SHALL BE USED FOR ALL IMPROVEMENTS UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS.

53. THE CONTRACTOR SHALL REVIEW HIS SEQUENCE OF CONSTRUCTION WITH THE ENGINEER AND THE DONALA WATER AND SANITATION DISTRICT PRIOR TO INITIATION OF THE WORK.

54. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AROUND THE WORK AREA TO MAINTAIN THE HEALTH AND SAFETY OF THE GENERAL PUBLIC THROUGHOUT CONSTRUCTION. OPEN TRENCHES ARE NOT ALLOWED WHEN THE CONTRACTOR IS NOT WORKING ON SITE OR DURING HOURS OF DARKNESS UNLESS APPROPRIATE BARRICAADING HAS BEEN PROVIDED.

55. THE CONTRACTOR IS ADVISED THAT ALL EXISTING CONDITIONS OUTSIDE THE AREA OF WORK SHALL BE PROTECTED. IF DAMAGE OCCURS DURING CONSTRUCTION, IT WILL BE REPLACED TO THE ORIGINAL EXISTING CONDITION AS AN INCIDENTAL PART OF THE WORK.

56. THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION CONFERENCE HOSTED BY THE DONALA WATER AND SANITATION DISTRICT OR HIS DESIGNATED REPRESENTATIVE NO LESS THAN ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION FOR CONSTRUCTION APPROVAL, TO OUTLINE METHODS OF CONSTRUCTION AND MATERIALS TO BE USED, AND LAYOUT OF THE PROJECT.

57. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN THOSE SHOWN ON THE CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE DONALA WATER AND SANITATION DISTRICT AND THE ENGINEER IMMEDIATELY SO APPROPRIATE ACTION CAN BE TAKEN.

58. ALL PIPELINE CONSTRUCTION SHALL BE AS-BUILT SURVEYED AND AS-BUILT DRAWINGS SUBMITTED BY THE CONTRACTOR TO THE DONALA WATER AND SANITATION DISTRICT FOR REVIEW AND ACCEPTANCE AT THE COMPLETION OF THE PROJECT.

59. THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE PRIVATE PROPERTIES WITH THE RESPECTIVE OWNERS.

60. THE CONTRACTOR MUST COORDINATE WITH THE DWSO AND IMPACTED PROPERTY OWNERS TO SCHEDULE CONNECTION OF THE NEW MAIN TO EXISTING MAIN.

61. CONNECTION OF THE WATER MAINS INCLUDES THE FILLING AND PRESSURE TESTING OF ALL NEW LINE SEGMENTS. ONCE PRESSURE TESTING HAS BEEN SATISFACTORILY COMPLETED, THE CONTRACTOR SHALL DISINFECT THE NEW MAIN. THE SCOPE OF THIS PROJECT INCLUDES THE DISINFECTING, FLUSHING, FILLING AND OBTAINING AN APPROVED BACTERIOLOGICAL TEST ON THE NEW WATER MAIN INSTALLED.

62. UPON COMPLETION OF CONSTRUCTION, REMOVE THE TOP SECTION OF THE ABANDONED VALVE RISER BOXES AND DISPOSE OF OFF-SITE. FILL RISER BOX VOID WITH FLOWABLE FILL. IF LOCATED IN PAVED SURFACE, PAVE PER ROAD REPLACEMENT REQUIREMENTS.

63. INSTALLATION OF THE NEW WATER MAIN REQUIRES THE CROSSING OF THE EXISTING WATER MAIN(S). THE CONTRACTOR CAN DETERMINE WHAT PROCEDURE WILL BE USED TO DISINFECT AND PRESSURE TEST SHORTER SEGMENTS OF LINES OR TEMPORARY REROUTE THE EXISTING MAIN UNTIL SUCH TIME THE NEW MAIN IS OPERATIONAL. PLEASE REFERENCE GENERAL NOTE 40. THIS CONSTRUCTION ACTIVITY IS INCIDENTAL TO THE PIPELINE CONSTRUCTION.

64. NEW WATER SERVICE LINES ARE TO BE INSTALLED USING DIRECTIONAL DRILLING METHODS OR PIPE PULLING (PIPE BURSTING) METHODS. EXISTING SERVICE LINE MATERIALS CONSIST OF 3/4" OR 1" COPPER PIPE. NEW SERVICE LINE MATERIAL WILL BE 1" DIAMETER SDR7 HDPE PIPE, UNLESS OTHERWISE NOTED. ALL SERVICE LINE MUST BE INSTALLED WITH A 45mil STAINLESS STEEL TRACER WIRE WITH BLUE INSULATED JACKET.

65. THE LOCATION OF THE EXISTING WATER LINES SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR MUST POTHOLE EXISTING UTILITIES PRIOR TO CONSTRUCTION TO CONFIRM HORIZONTAL AND VERTICAL LOCATIONS. IF MODIFICATIONS ARE REQUIRED DUE TO EXISTING LOCATIONS, COORDINATE THE MODIFICATIONS WITH THE OWNER AND ENGINEER. POTHOLES OF EXISTING UTILITIES SHALL BE INCIDENTAL TO CONSTRUCTION AND BE PART OF THE APPROPRIATE UNIT PRICE.

66. THE CONTRACTOR IS RESPONSIBLE TO FIELD CONFIRM SIZE, LOCATION AND MATERIAL ASSOCIATED WITH THE EXISTING WATER SYSTEMS PIPING WHERE CONNECTIONS ARE REQUIRED. APPROPRIATE FITTINGS AND TRANSITION GASKETS SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

67. AT SOME LOCATIONS WHERE CURBSTOPS ARE TO BE REPLACED, SURFACE RESTORATION MAY INCLUDE THE REMOVAL AND REINSTALLATION OF LANDSCAPING MATERIALS I.E. RAILROAD TIES, DECORATIVE ROCK, NATIVE GRASSES, SOD OR SIMILAR LANDSCAPING ITEMS. THESE ITEMS ARE TO BE REMOVED AND REINSTALLED WITHIN THE UNIT PRICE OF THE CURBSTOP AT NO ADDITIONAL COST TO THE OWNER.

68. ALL HORIZONTAL AND VERTICAL BENDS SHALL BE INSTALLED WITH MECHANICAL JOINT RESTRAINTS AND THRUST BLOCKS.

69. EXISTING WATER SERVICE LINES HAVE BEEN SHOWN ON THE DRAWINGS BASED ON FIELD LOCATIONS AND DISTRICT RECORDS AND ARE APPROXIMATE ONLY. THE CONTRACTOR MUST POTHOLE TO VERIFY ALL SERVICE LINE LOCATIONS AS THEY DEEM NECESSARY.

70. ALL NEW WATER SERVICE LINES MUST BE ONE CONTINUOUS SEGMENT OF HDPE PIPE WITH NO JOINTS OR SPLICES FROM THE CORPORATION STOP TO THE CURB STOP.

EXISTING FEATURES

	WROUGHT IRON FENCE		FIRE HYDRANT
	WOOD FENCE		WATER VALVE
	PICKET FENCE		WATER METER PIT
	CHAIN LINK FENCE		WATER WELL
	POST & RAIL FENCE		TELEVISION PEDESTAL
	POST AND CABLE OR CHAIN		ELECTRIC BOX
	WIRE MESH FENCE		UTILITY POLE
	BARBED WIRE FENCE		WOOD LIGHT/UTILITY POLE
	LANDSCAPE TIMBER AS CURB OR WALL		GUY WIRE ANCHOR
	OVERHEAD ELECTRIC LINE		YARD LIGHT
	UNDERGROUND ELECTRIC LINE		TELEPHONE PEDESTAL
	UNDERGROUND TELEPHONE LINE		SOIL BORING
	SANITARY SEWER LINE		STREET SIGN
	SANITARY SEWER SERVICE LINE		SEPTIC TANK
	WATER LINE		ASPHALT MILLINGS
	WATER SERVICE LINE		GRAVEL
	BUILDING		CONCRETE FLATWORK
	RIGHT-OF-WAY LINE		DECIDUOUS TREE
	CONTROL POINT		CONIFEROUS TREE
	PROPERTY CORNER		DECIDUOUS BUSH
	SANITARY SEWER MANHOLE		CONIFEROUS BUSH
	SANITARY SEWER CLEAN-OUT		

NEW FEATURES

	6" W	WATER MAIN
	WS	NEW WATER SERVICE LINE
		NEW FIRE HYDRANT ASSEMBLY
		NEW CURB STOP
		NEW WATER VALVE
		NEW PRESSURE REDUCING VALVE MANHOLE
		COMBINATION AIR/VACUUM VALVE MANHOLE

SCALE VERIFICATION

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

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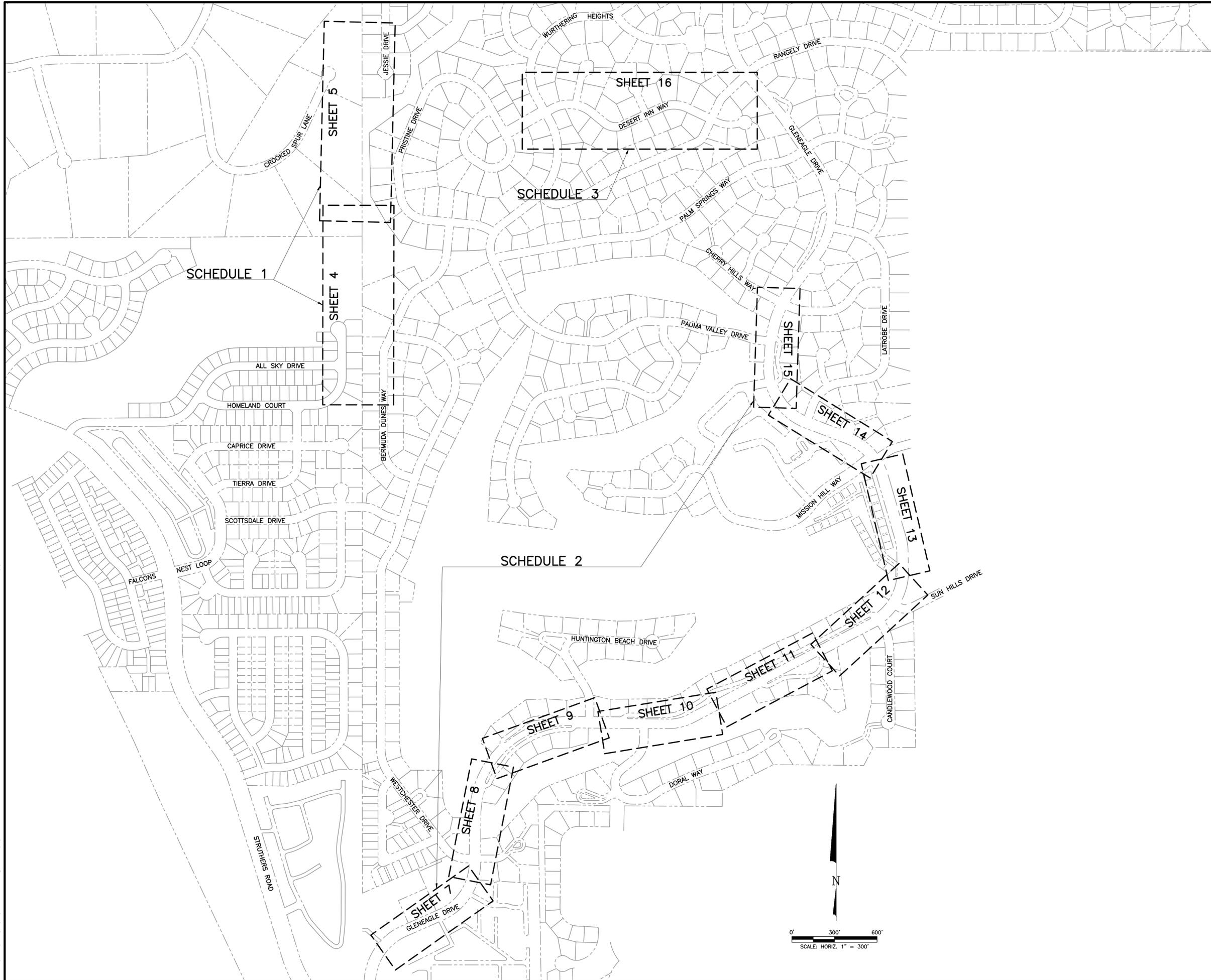
NO.	DATE	DESCRIPTION

GENERAL NOTES AND LEGEND
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

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

DRAWN	MAL	DESIGNED	MAL	CHECKED	DRF	DATE	MAY 2018	PROJECT NO.	17072-400	GMS FILE NO.	2851
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NO. 1	REVISIONS DESCRIPTION										
DATE	DESCRIPTION										
INDEX SHEET 2018 WATER SYSTEM IMPROVEMENTS DONALA WATER AND SANITATION DISTRICT											
GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 200 COLORADO SPRINGS, COLORADO 80903											
DRAWN	MAL	DESIGNED	MAL	CHECKED	DRF	DATE	MAY 2018	PROJECT NO.	17072-400	GMS FILE NO.	2851
SHEET 3 OF 22											

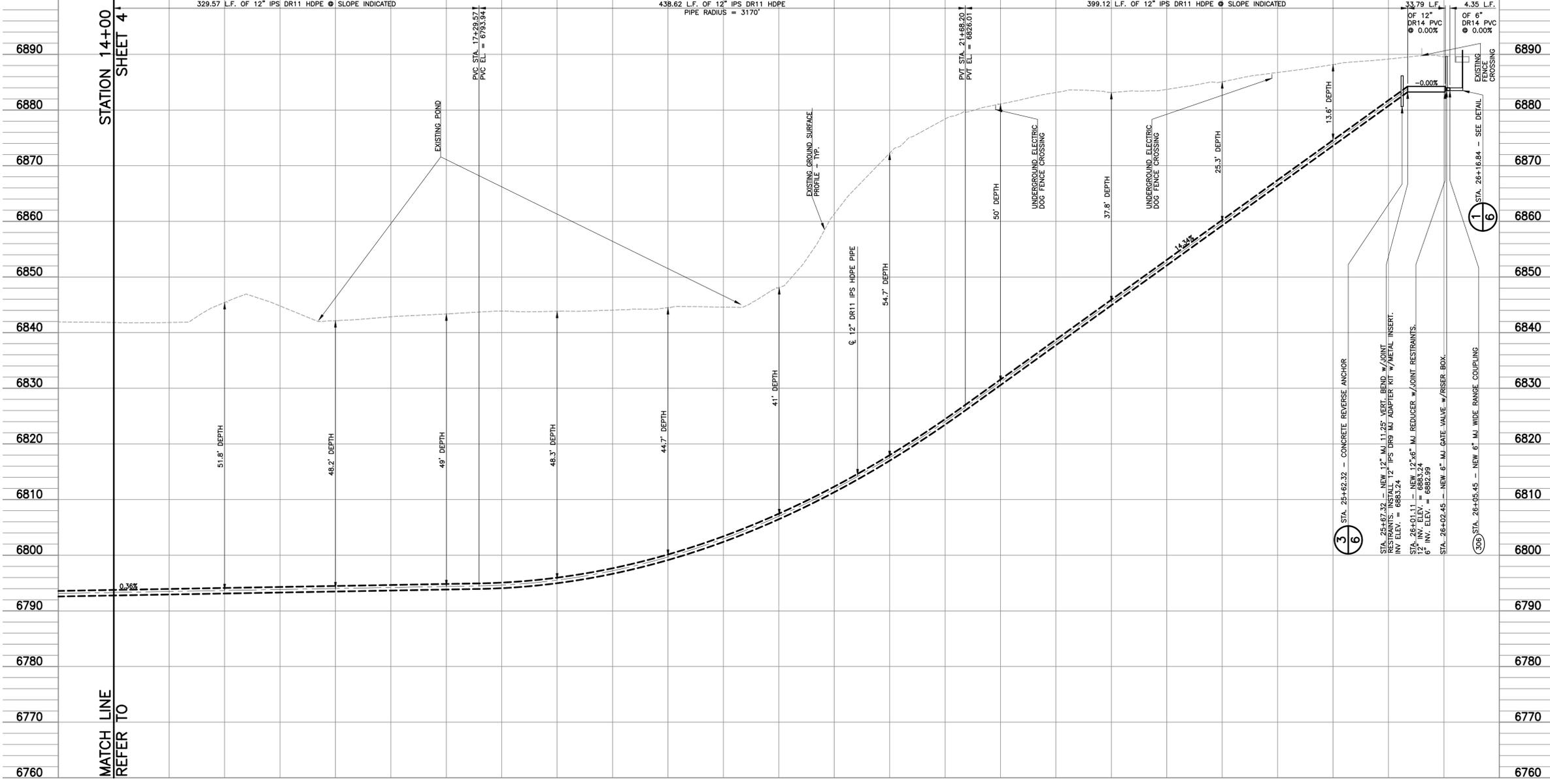
MATCH LINE
REFER TO

STATION 14+00
SHEET 4

STATION 14+00
SHEET 4

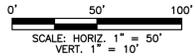
MATCH LINE
REFER TO

14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 26+50



CONTROL POINT TABLE				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
14	444242.62	191221.63	6890.03	NO. 4 REBAR

COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
303	444205.03	191234.68	12" MJ 45° HORIZ. BEND
304	444207.16	191236.79	12" MJ 45° HORIZ. BEND
305	444207.07	191244.38	12" MJ 11.25° HORIZ. BEND
306	444210.59	191268.67	6" WIDE RANGE COUPLING



CONSTRUCTION NOTES:
1. CONTRACTOR TO POTHOLE ALL CROSSING UTILITIES AS DEEMED NECESSARY.

JESSIE DRIVE

CROOKED SPUR LANE

TROY OLSON
14911 CROOKED SPUR LANE

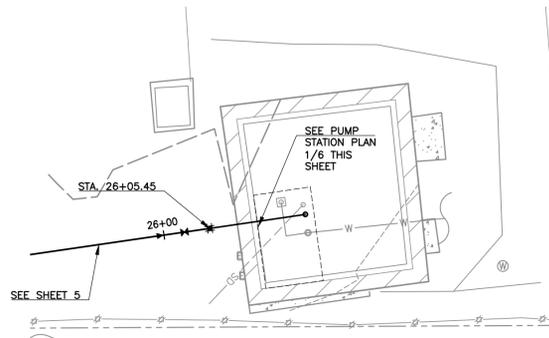
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NO.	REVISIONS
	DATE DESCRIPTION

SCHEDULE 1 - STA. 14+00 TO STA. 26+05.45
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

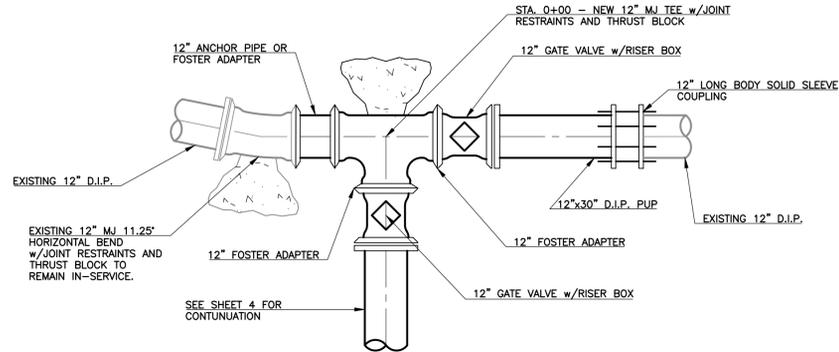
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

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CHECKED	DRF
DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851

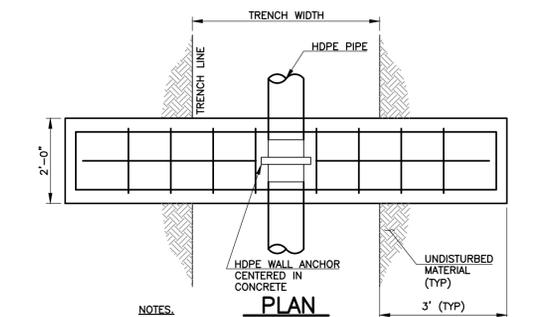
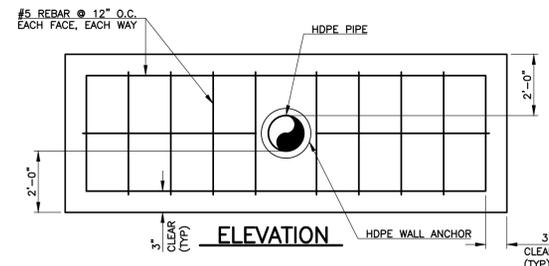
SHEET
5
OF
22



BOOSTER PUMP STATION NO. 3
SCALE: 1" = 10'

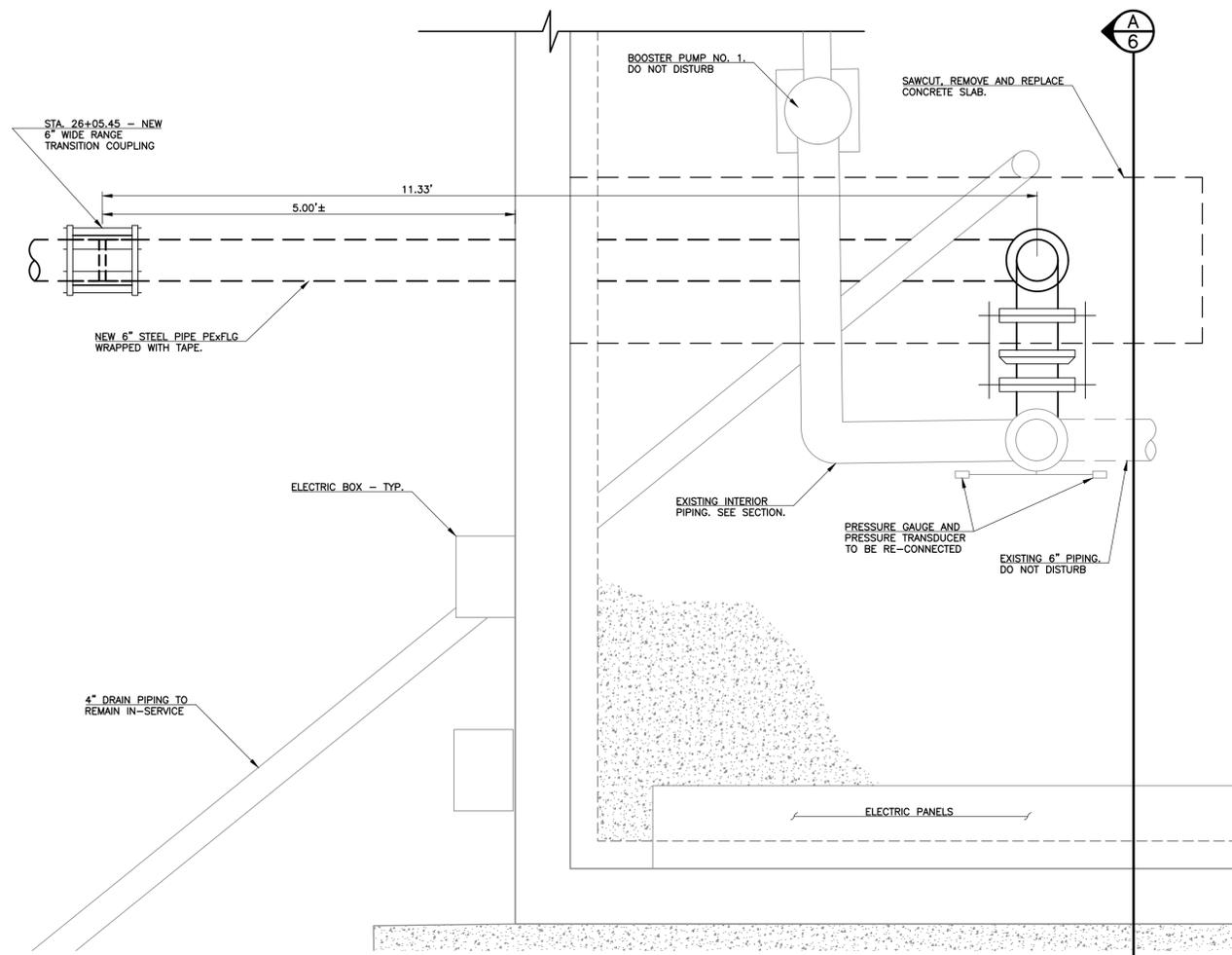


SCHEDULE 1 - STA. 0+00 CONNECTION
SCALE: NONE

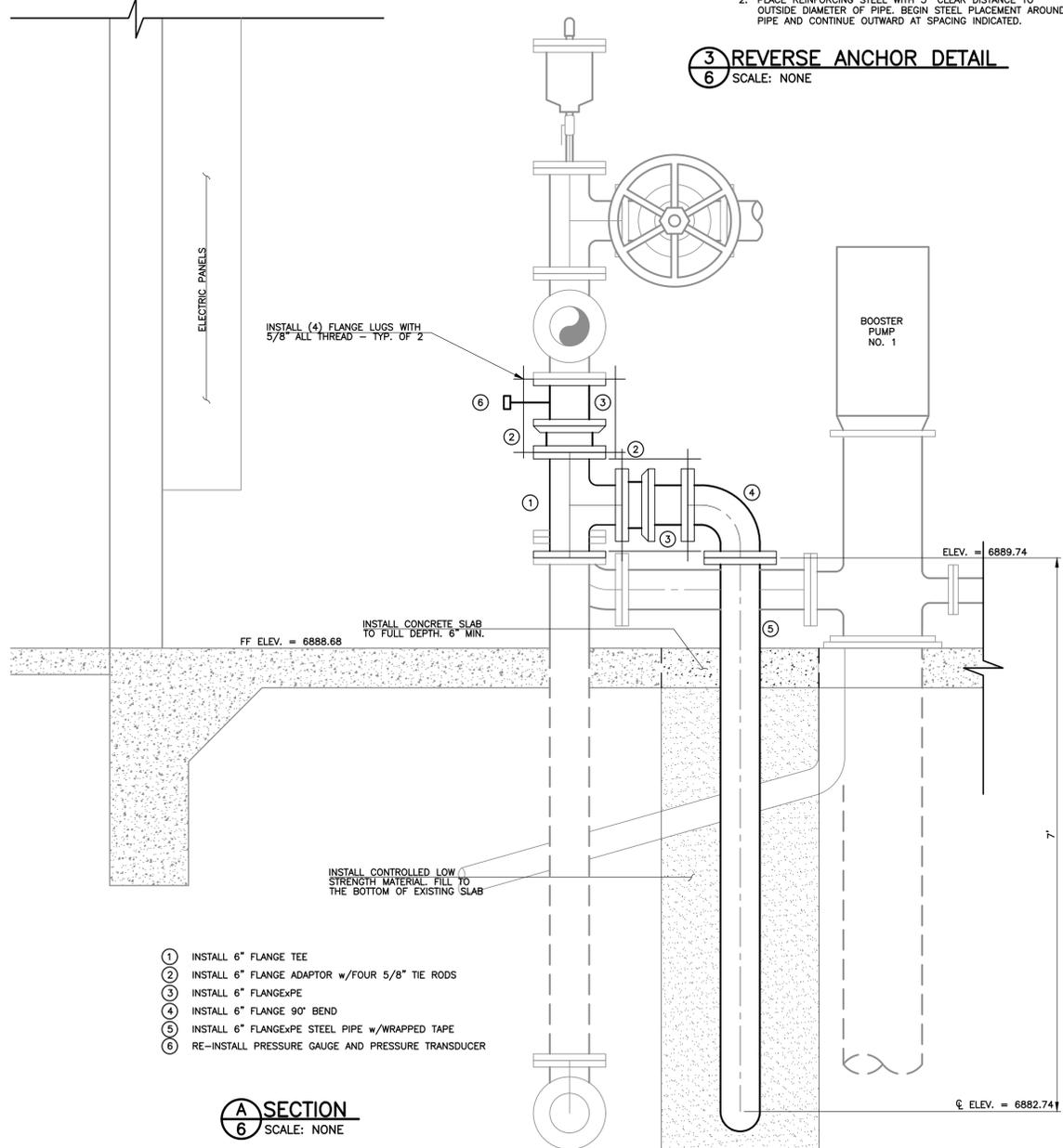


- NOTES:**
- FORM REVERSE ANCHOR WITH WOOD OR STEEL FORMS OR USE FACE OF EXCAVATION IF MATERIAL IS FIRM, STABLE AND TRUE TO PLANE.
 - PLACE REINFORCING STEEL WITH 3" CLEAR DISTANCE TO OUTSIDE DIAMETER OF PIPE. BEGIN STEEL PLACEMENT AROUND PIPE AND CONTINUE OUTWARD AT SPACING INDICATED.

REVERSE ANCHOR DETAIL
SCALE: NONE



PUMP STATION PLAN
SCALE: NONE



- INSTALL 6" FLANGE TEE
- INSTALL 6" FLANGE ADAPTOR w/FOUR 5/8" TIE RODS
- INSTALL 6" FLANGExPE
- INSTALL 6" FLANGE 90° BEND
- INSTALL 6" FLANGExPE STEEL PIPE w/WRAPPED TAPE
- RE-INSTALL PRESSURE GAUGE AND PRESSURE TRANSDUCER

SECTION A-A
SCALE: NONE

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NO.	DATE	DESCRIPTION

**SCHEDULE 1
DETAILS AND SECTIONS**
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

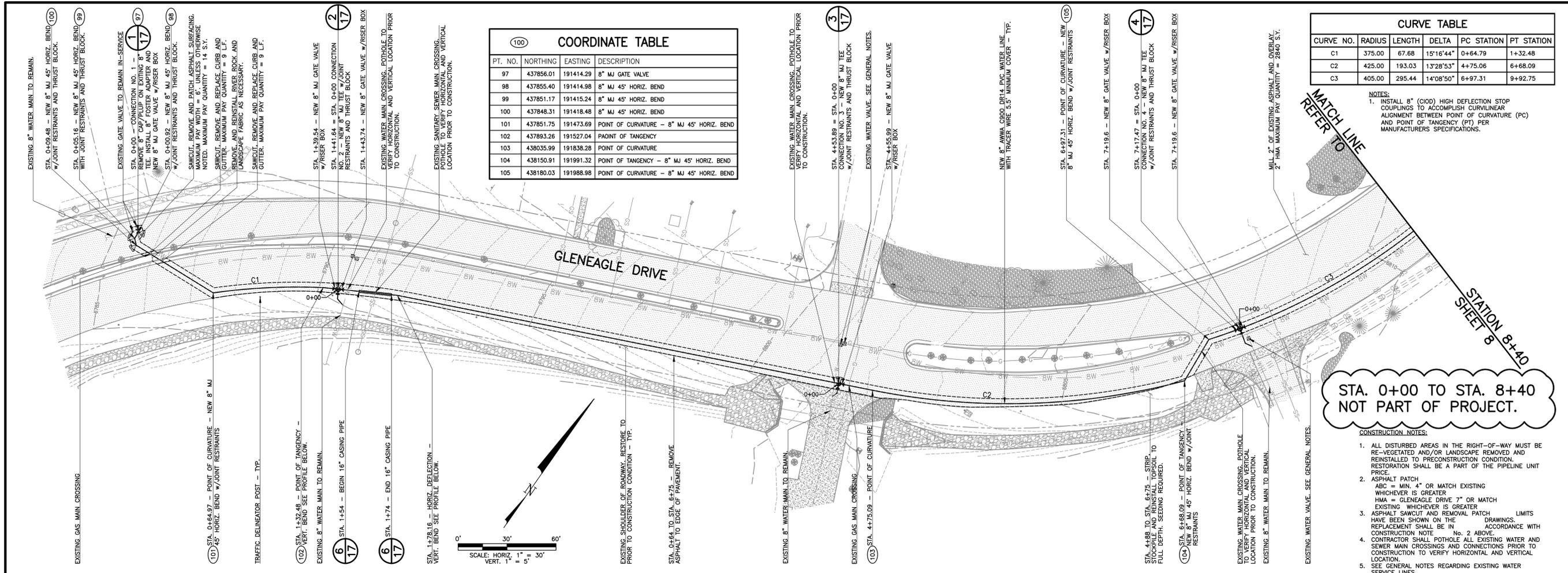
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COLORADO SPRINGS, COLORADO 80903

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DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851

SHEET
6
OF
22

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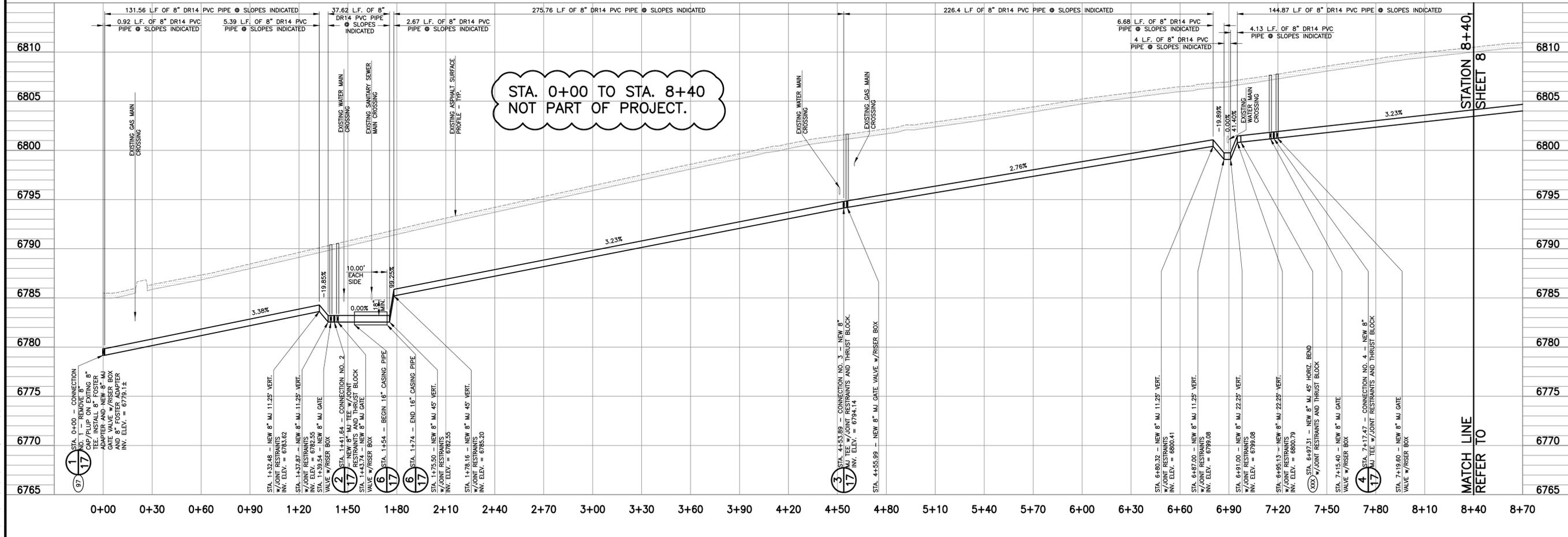


100 COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
97	437856.01	191414.29	8" MJ GATE VALVE
98	437855.40	191414.98	8" MJ 45° HORIZ. BEND
99	437851.17	191415.24	8" MJ 45° HORIZ. BEND
100	437848.31	191418.48	8" MJ 45° HORIZ. BEND
101	437851.75	191473.69	POINT OF CURVATURE - 8" MJ 45° HORIZ. BEND
102	437893.26	191527.04	POINT OF TANGENCY
103	438035.99	191838.28	POINT OF CURVATURE
104	438150.91	191991.32	POINT OF TANGENCY - 8" MJ 45° HORIZ. BEND
105	438180.03	191988.98	POINT OF CURVATURE - 8" MJ 45° HORIZ. BEND

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C1	375.00	67.68	15°16'44"	0+64.79	1+32.48
C2	425.00	193.03	13°28'53"	4+75.06	6+68.09
C3	405.00	295.44	14°08'50"	6+97.31	9+92.75

NOTES:
 1. INSTALL 8" (CID) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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STA. 0+00 TO STA. 8+40
 NOT PART OF PROJECT.

STA. 0+00 TO STA. 8+40
 NOT PART OF PROJECT.

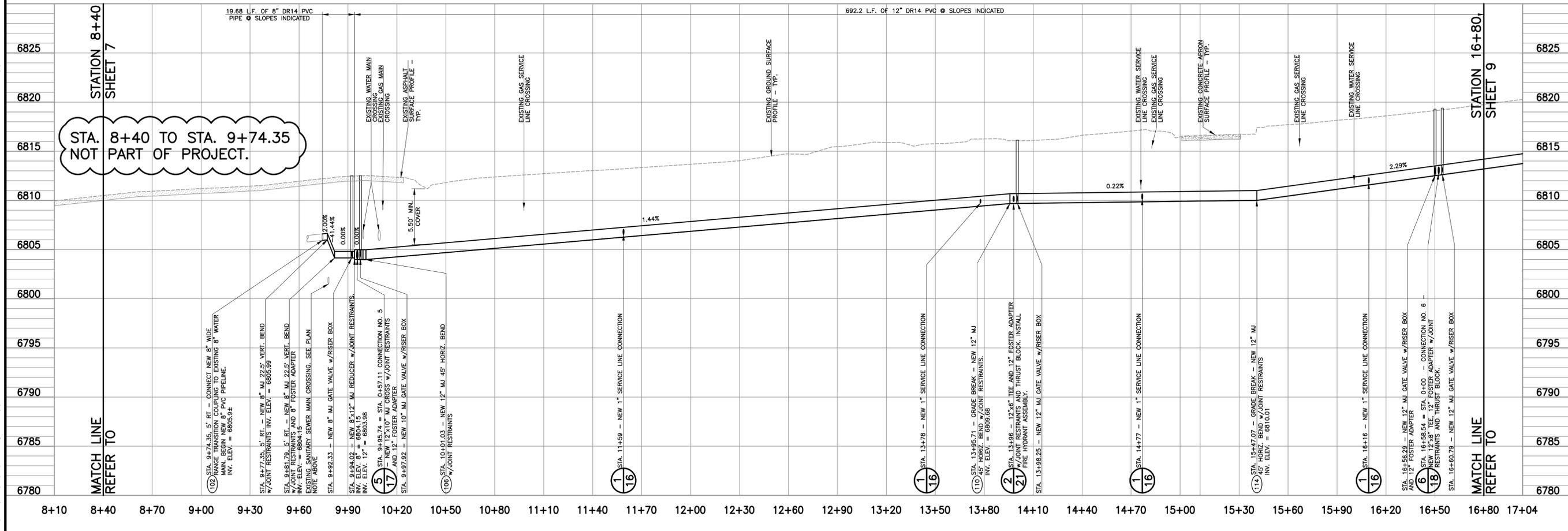
CONSTRUCTION NOTES:
 1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
 2. ASPHALT PATCH ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER. HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER.
 3. ASPHALT SAWCUT AND REMOVAL PATCH DRAWINGS. LIMITS HAVE BEEN SHOWN ON THE REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE No. 2 ABOVE.
 4. CONTRACTOR SHALL PATCH ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
 5. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

NO.	DATE	DESCRIPTION

SCHEDULE 2 - STA. 0+00 TO STA. 8+40
PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

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STA. 8+40 TO STA. 9+74.35 NOT PART OF PROJECT.

MATCH LINE REFER TO SHEET 7

MATCH LINE REFER TO SHEET 8

STATION 8+40

STATION 8+40

STATION 16+80

MATCH LINE REFER TO

MATCH LINE REFER TO

SHEET 7

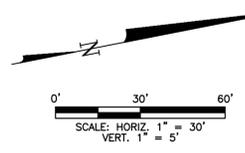
SHEET 8

WESTCHESTER DRIVE

GLENEAGLE DRIVE

PT. NO.	NORTHING	EASTING	DESCRIPTION
102	438439.22	192075.44	8" WIDE RANGE COUPLING
103	438448.50	192075.58	8" MJ 45° HORIZ. BEND
104	438454.01	192070.07	8" MJ 45° HORIZ. BEND
105	438457.42	192069.81	POINT OF TANGENCY
106	438465.70	192069.81	12" MJ 45° HORIZ. BEND
107	438494.06	192098.15	12" MJ 45° HORIZ. BEND
108	438754.40	192098.20	POINT OF CURVATURE
109	438840.33	192104.12	POINT OF TANGENCY - 12" MJ HORIZ. BEND
110	438846.48	192098.94	POINT OF CURVATURE - 12" MJ HORIZ. BEND
111	438951.51	192123.65	POINT OF TANGENCY - 12" HORIZ. BEND
112	438955.36	192131.26	POINT OF CURVATURE - 12" HORIZ. BEND
113	438991.18	192144.59	POINT OF TANGENCY - 12" MJ 45° HORIZ. BEND
114	438992.26	192147.19	POINT OF CURVATURE - 12" MJ 45° HORIZ. BEND

COORDINATE TABLE



CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C3	405.00	295.44	14°08'50"	6+97.31	9+92.75
C4	628.00	86.20	9°07'25"	13+01.46	13+87.66
C5	634.00	108.02	9°02'14"	13+95.71	15+03.73
C6	628.00	38.22	9°07'25"	15+06.03	15+44.25
C7	626.00	741.09	9°09'10"	15+47.07	22+88.16

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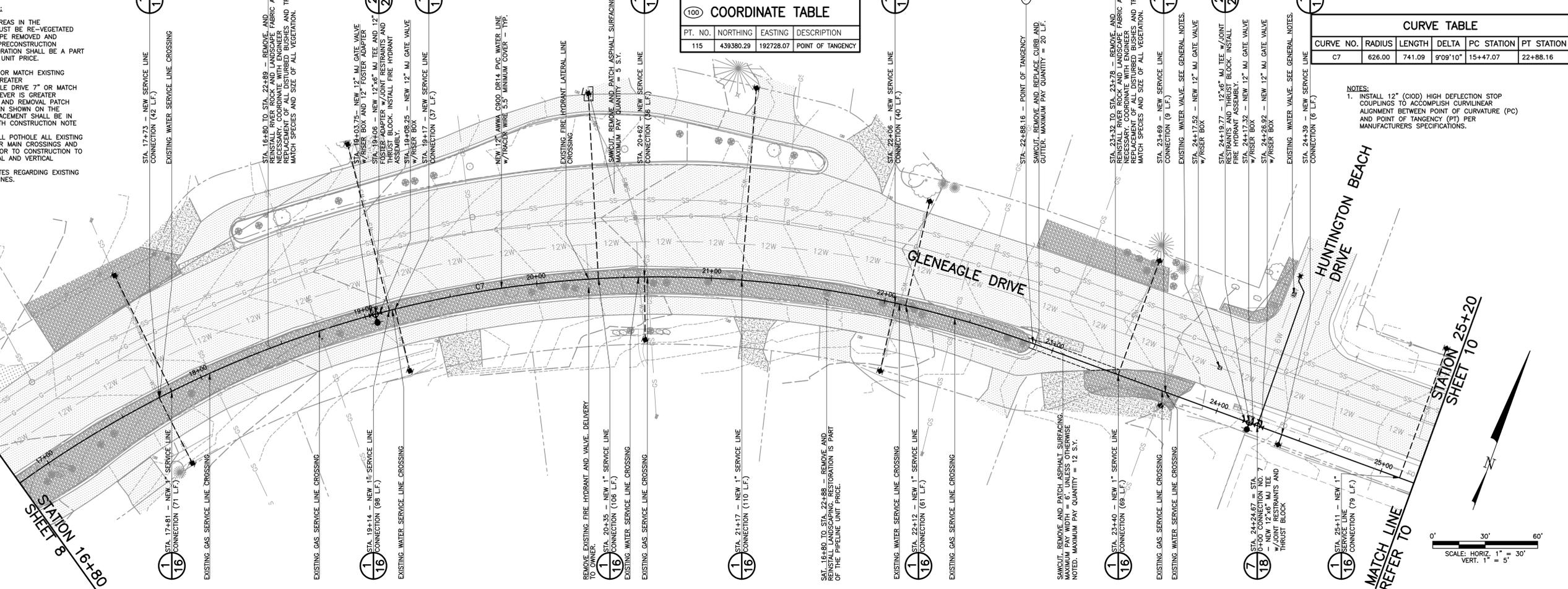
REVISIONS

SCHEDULE 2 - STA. 8+40 TO STA. 16+80
 PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

DRAWN	MAL
DESIGNED	MAL
CHECKED	DRF
DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851

- CONSTRUCTION NOTES:**
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 SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.



100 COORDINATE TABLE

PT. NO.	NORTHING	EASTING	DESCRIPTION
115	439380.29	192728.07	POINT OF TANGENCY

CURVE TABLE

CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C7	626.00	741.09	9°09'10"	15+47.07	22+88.16

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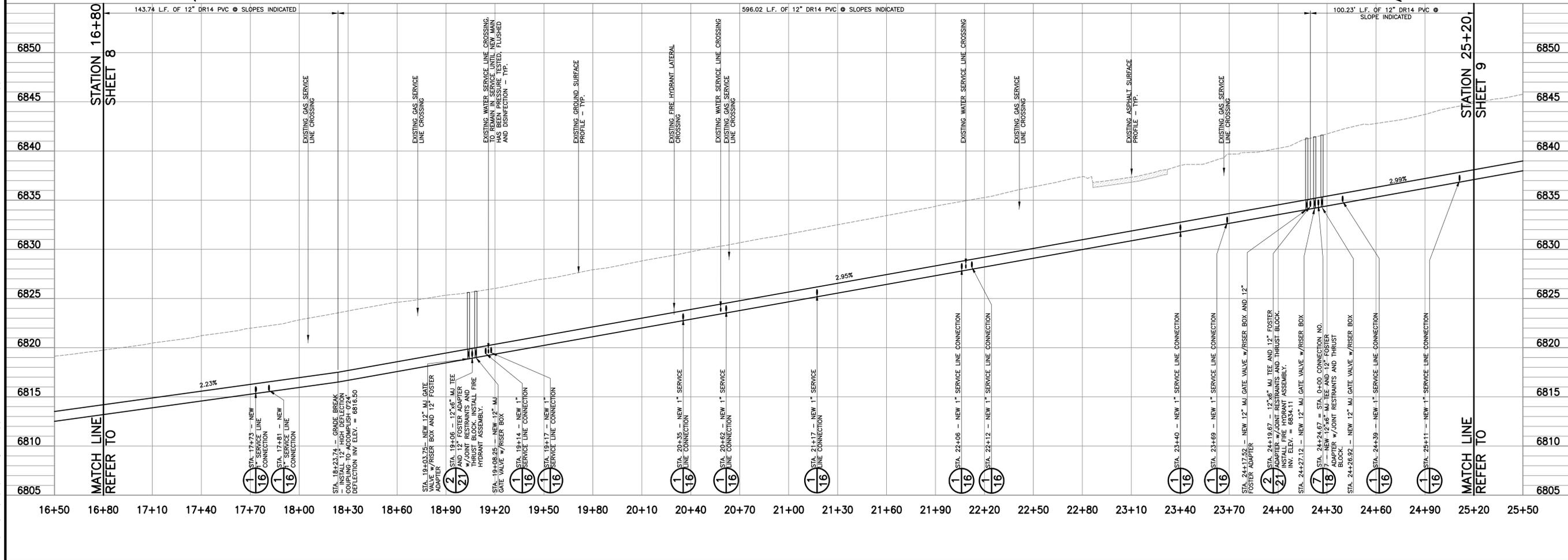
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**SCHEDULE 2 - STA. 16+80 TO STA. 25+20
 PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT**

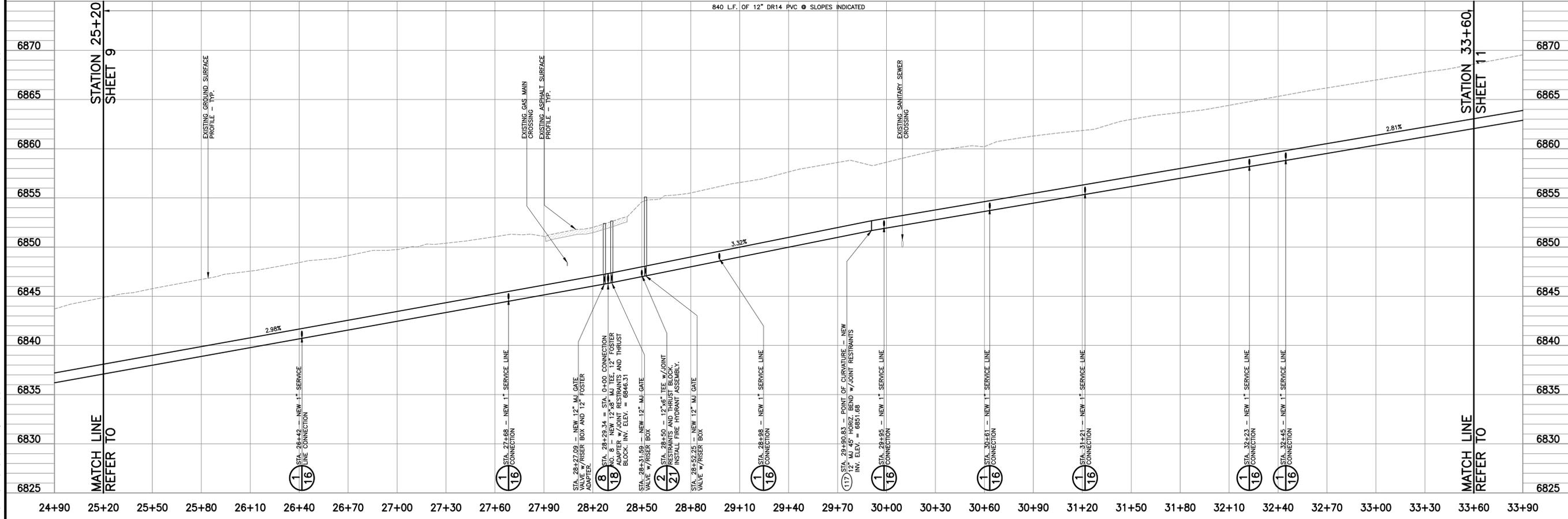
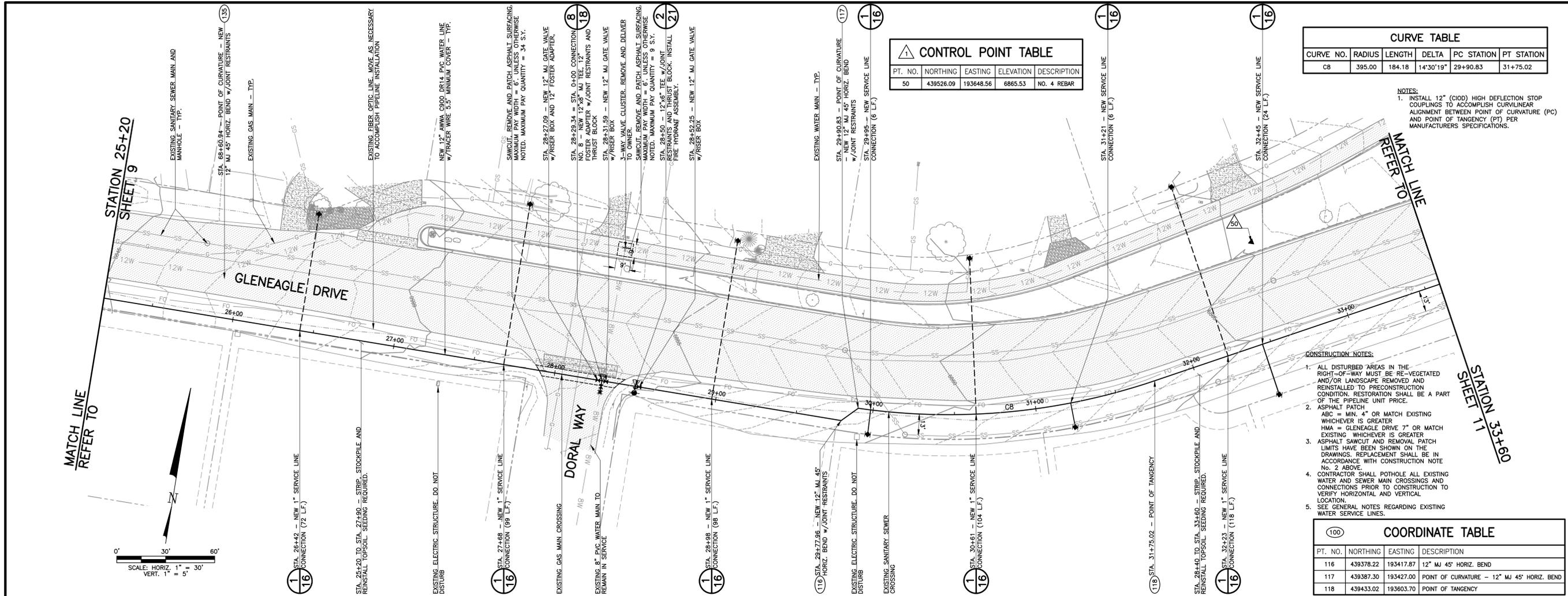
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DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851

SHEET **9** OF **22**



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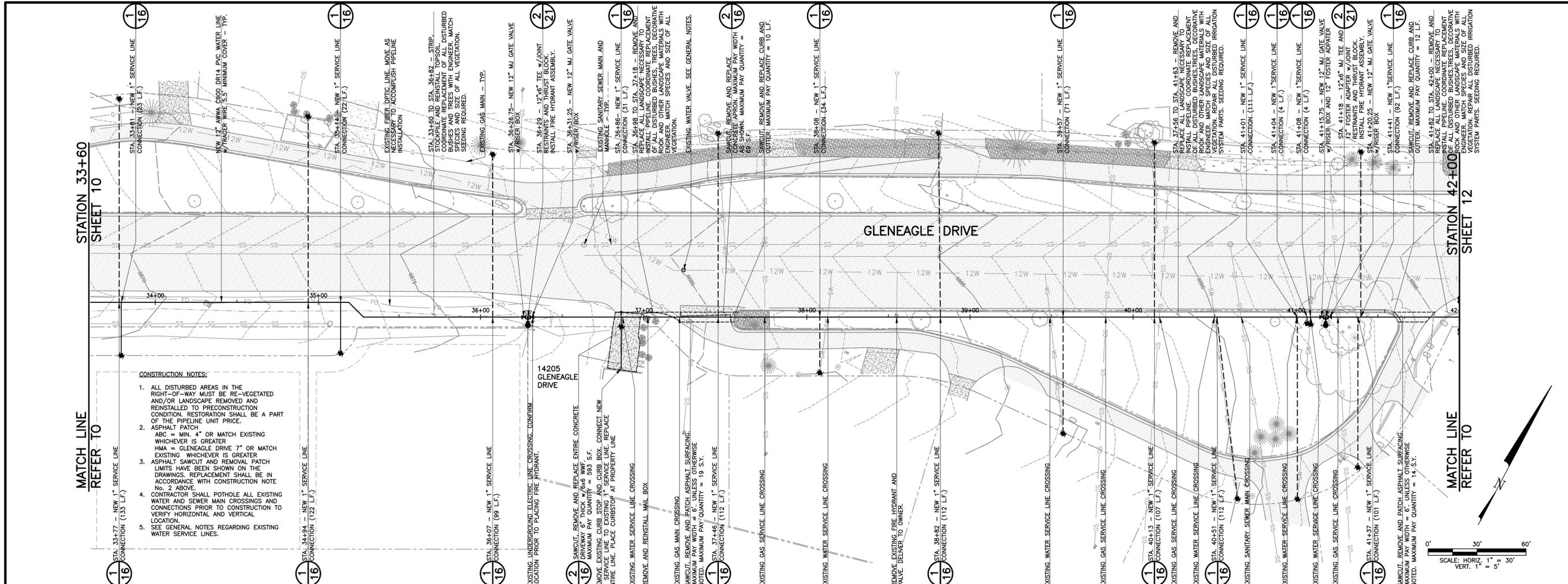
NO.	DATE	DESCRIPTION

**SCHEDULE 2 - STA. 25+20 TO STA. 33+60
 PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT**

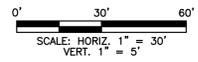
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SHEET **10** OF **22**



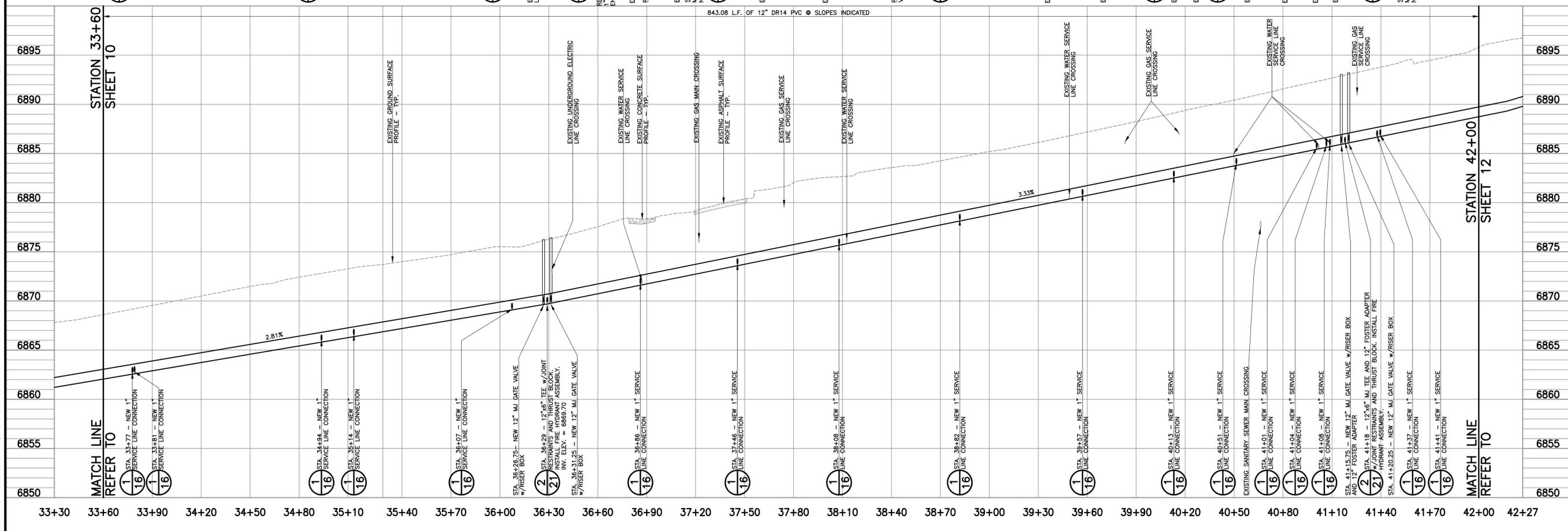
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 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.



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NO.	DATE	REVISIONS	DESCRIPTION

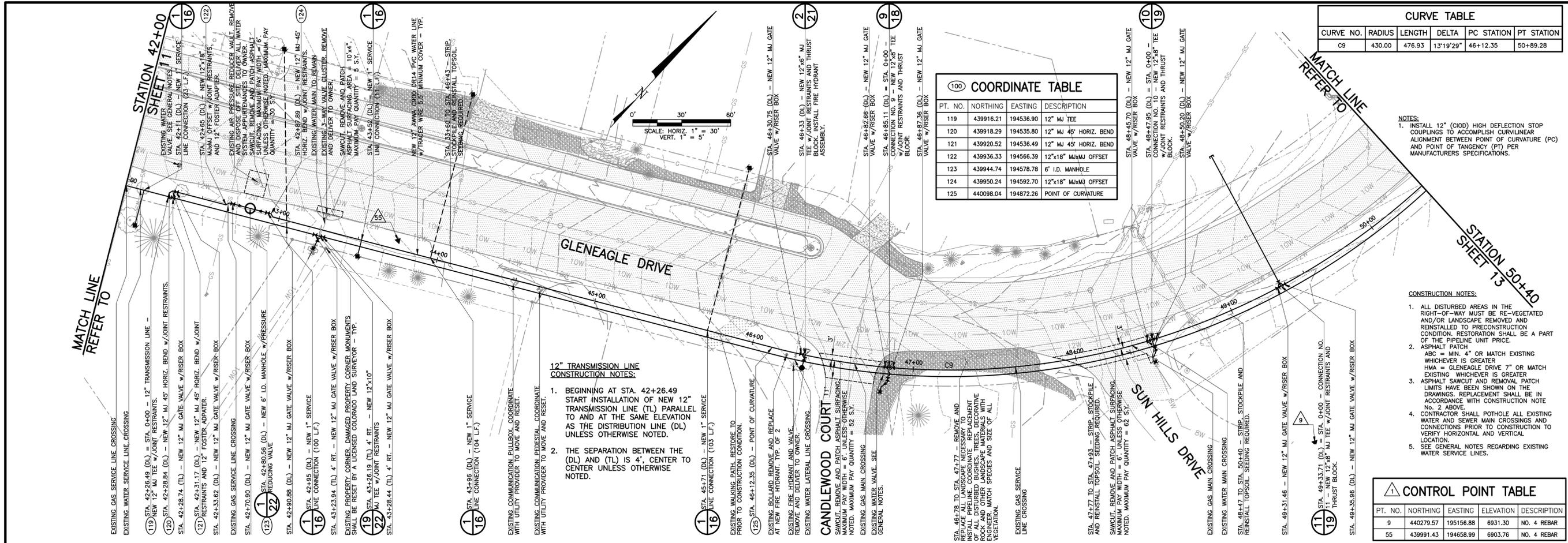
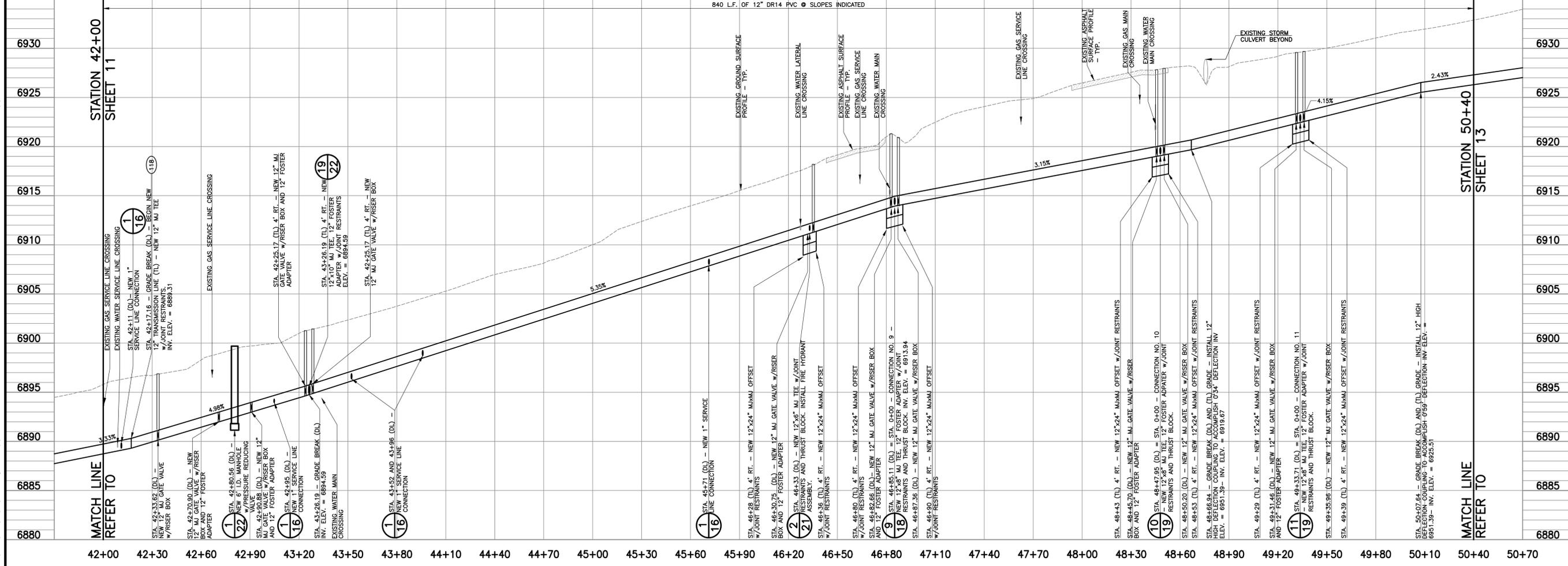


SCHEDULE 2 - STA. 33+60 TO STA. 42+00
PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

DESIGNED	MAL
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DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851

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 611 W. WEBER, SUITE 500
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SHEET
11
OF
22



CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C9	430.00	476.93	13°19'29"	46+12.35	50+89.28

PT. NO.	NORTHING	EASTING	DESCRIPTION
119	439916.21	194536.90	12" MJ TEE
120	439918.29	194535.80	12" MJ 45° HORIZ. BEND
121	439920.24	194536.49	12" MJ 45° HORIZ. BEND
122	439936.33	194566.39	12"x18" MxMxJ OFFSET
123	439944.74	194578.78	6" I.D. MANHOLE
124	439950.24	194592.70	12"x18" MxMxJ OFFSET
125	440098.04	194872.26	POINT OF CURVATURE

PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
9	440279.57	195156.88	6931.30	NO. 4 REBAR
55	439991.43	194658.99	6903.76	NO. 4 REBAR

12" TRANSMISSION LINE CONSTRUCTION NOTES:

- BEGINNING AT STA. 42+26.49 START INSTALLATION OF NEW 12" TRANSMISSION LINE (TL) PARALLEL TO AND AT THE SAME ELEVATION AS THE DISTRIBUTION LINE (DL) UNLESS OTHERWISE NOTED.
- THE SEPARATION BETWEEN THE (DL) AND (TL) IS 4" CENTER TO CENTER UNLESS OTHERWISE NOTED.

NOTES:

- INSTALL 12" (OOD) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURER'S SPECIFICATIONS.

CONSTRUCTION NOTES:

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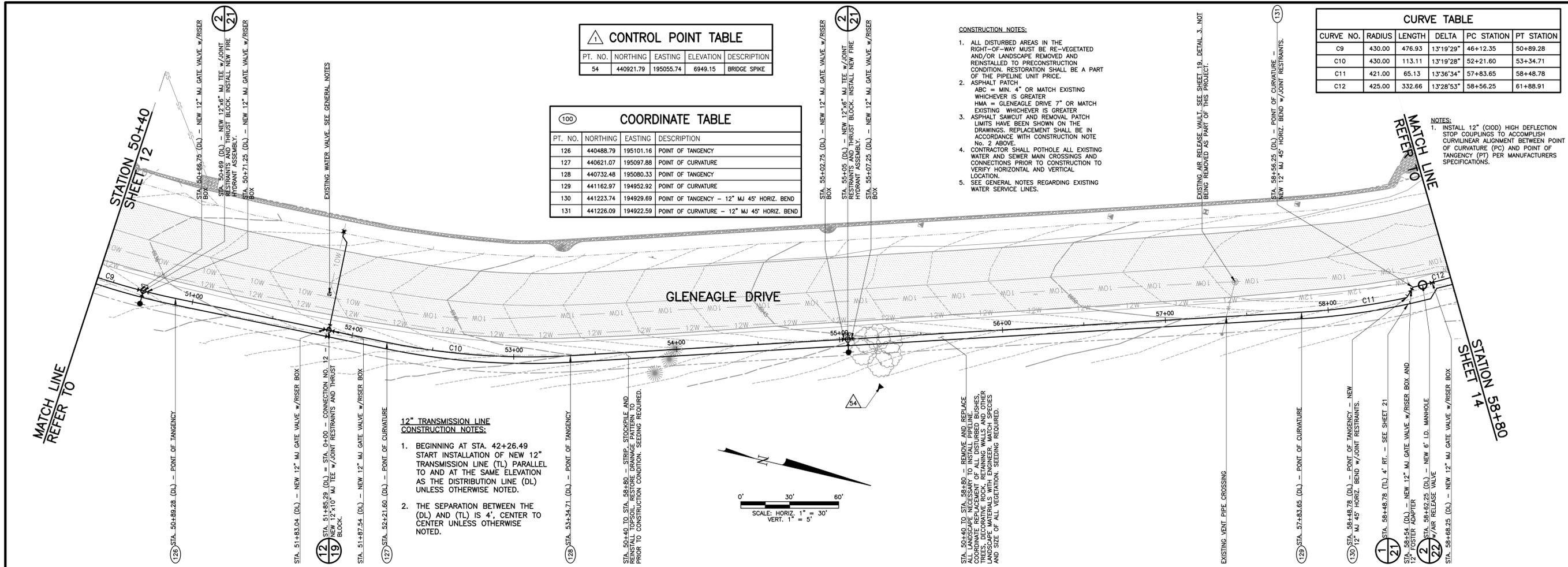
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NO.	DATE	DESCRIPTION
1		

SCHEDULE 2 - STA. 42+00 TO STA. 50+40
PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

DESIGNED	MAL	MAL	2851
CHECKED	DRF		
DATE	MAY 2018		
PROJECT NO.	17072.400		
GMS FILE NO.			

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



CONTROL POINT TABLE				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
54	440921.79	195055.74	6949.15	BRIDGE SPIKE

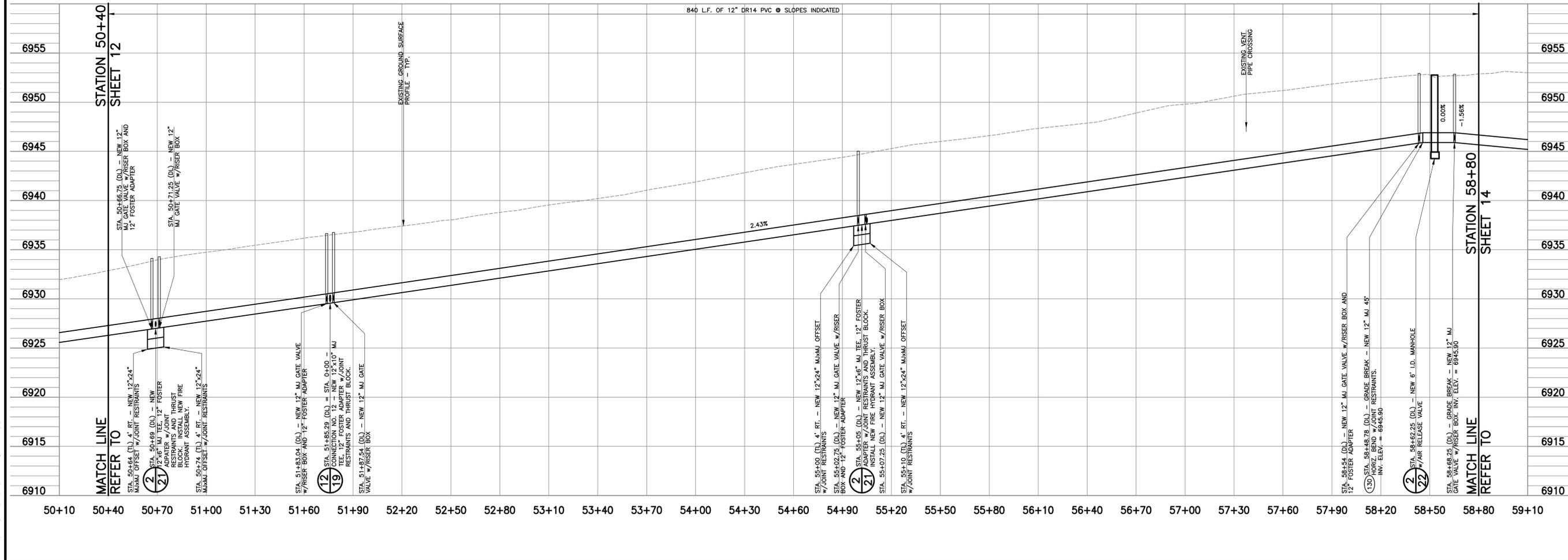
COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
126	440488.79	195101.16	POINT OF TANGENCY
127	440621.07	195097.88	POINT OF CURVATURE
128	440732.48	195080.33	POINT OF TANGENCY
129	441162.97	194952.92	POINT OF CURVATURE
130	441223.74	194929.69	POINT OF TANGENCY - 12" MJ 45' HORIZ. BEND
131	441226.09	194922.59	POINT OF CURVATURE - 12" MJ 45' HORIZ. BEND

- CONSTRUCTION NOTES:
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
 - ASPHALT PATCH
 ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
 HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
 - ASPHALT SAWCUT AND REMOVAL PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 2 ABOVE
 - CONTRACTOR SHALL PATCH ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C9	430.00	476.93	13°19'29"	46+12.35	50+89.28
C10	430.00	113.11	13°19'28"	52+21.60	53+34.71
C11	421.00	65.13	13°36'34"	57+83.65	58+48.78
C12	425.00	332.66	13°28'53"	58+56.25	61+88.91

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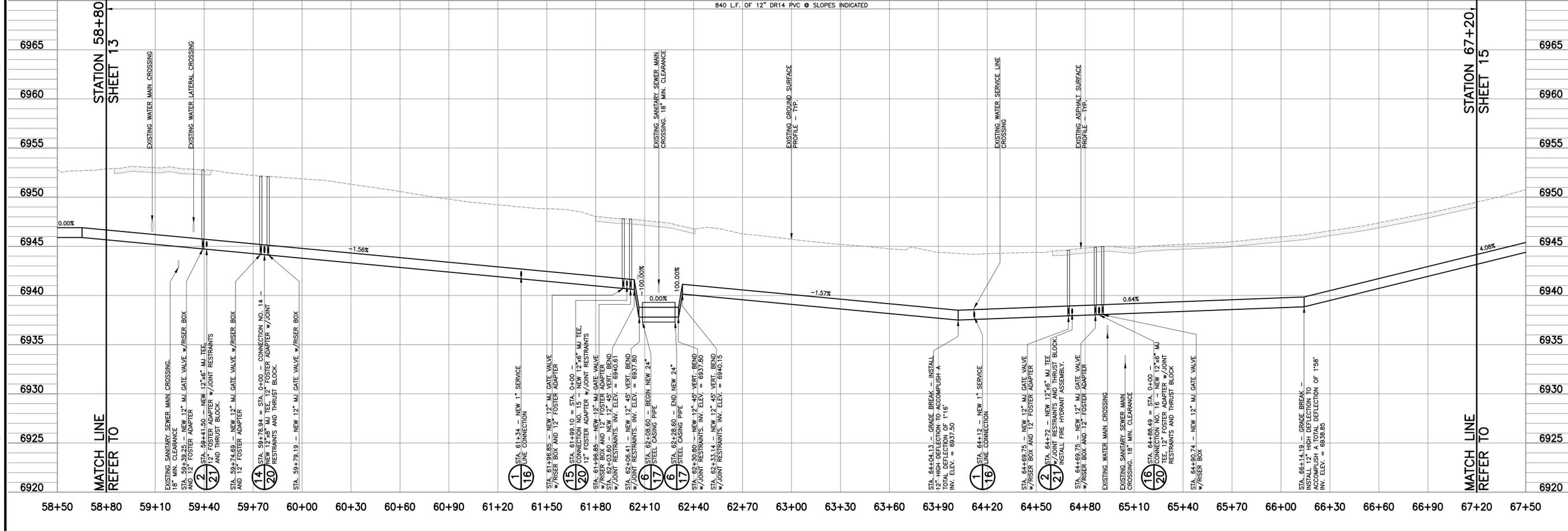
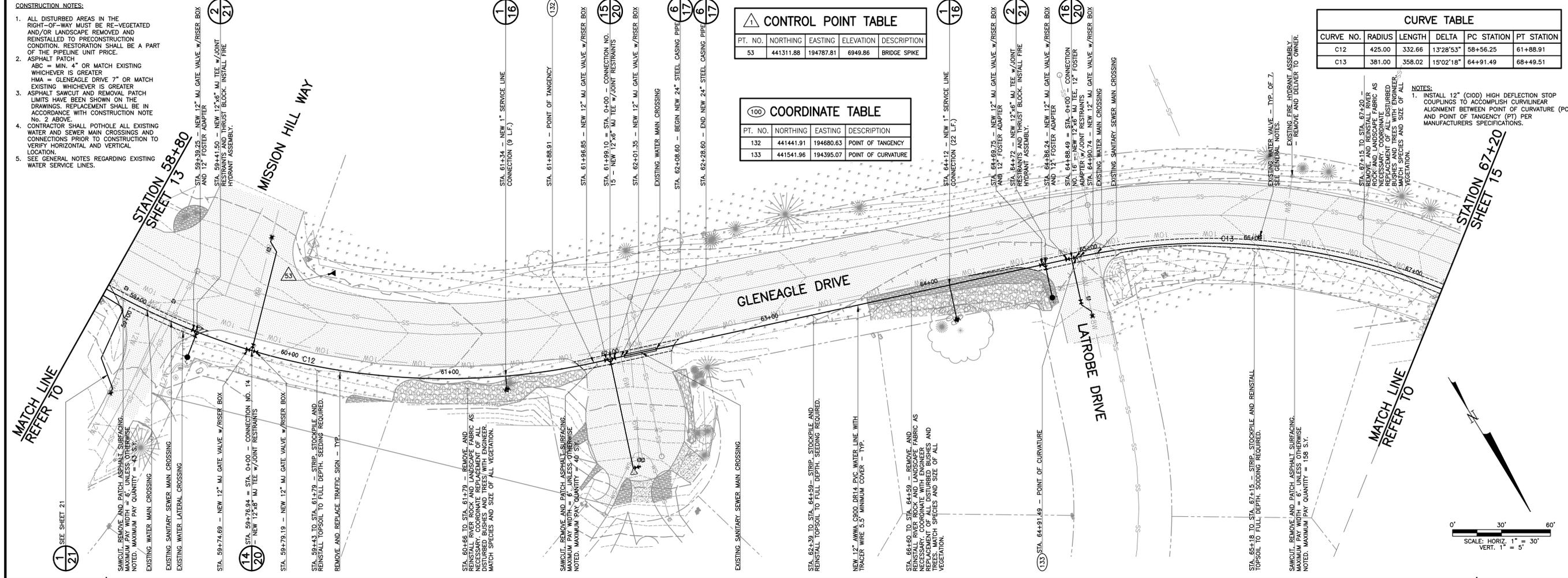
REVISIONS	
NO.	DESCRIPTION

NO.	DATE

SCHEDULE 2 STA. 50+40 TO STA. 58+80
 PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

DESIGNED	MAL
CHECKED	MAL
DATE	DRF
PROJECT NO.	MAY 2018
GMS FILE NO.	17072.400
	2851

SHEET 13 OF 22



CONSTRUCTION NOTES:

- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
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- SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

STATION 58+80 SHEET 13

STATION 67+20 SHEET 15

CONTROL POINT TABLE

PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
53	441311.88	194787.81	6949.86	BRIDGE SPIKE

100 COORDINATE TABLE

PT. NO.	NORTHING	EASTING	DESCRIPTION
132	441441.91	194680.63	POINT OF TANGENCY
133	441541.96	194395.07	POINT OF CURVATURE

CURVE TABLE

CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C12	425.00	332.66	13°28'53"	58+56.25	61+88.91
C13	381.00	358.02	15°02'18"	64+91.49	68+49.51

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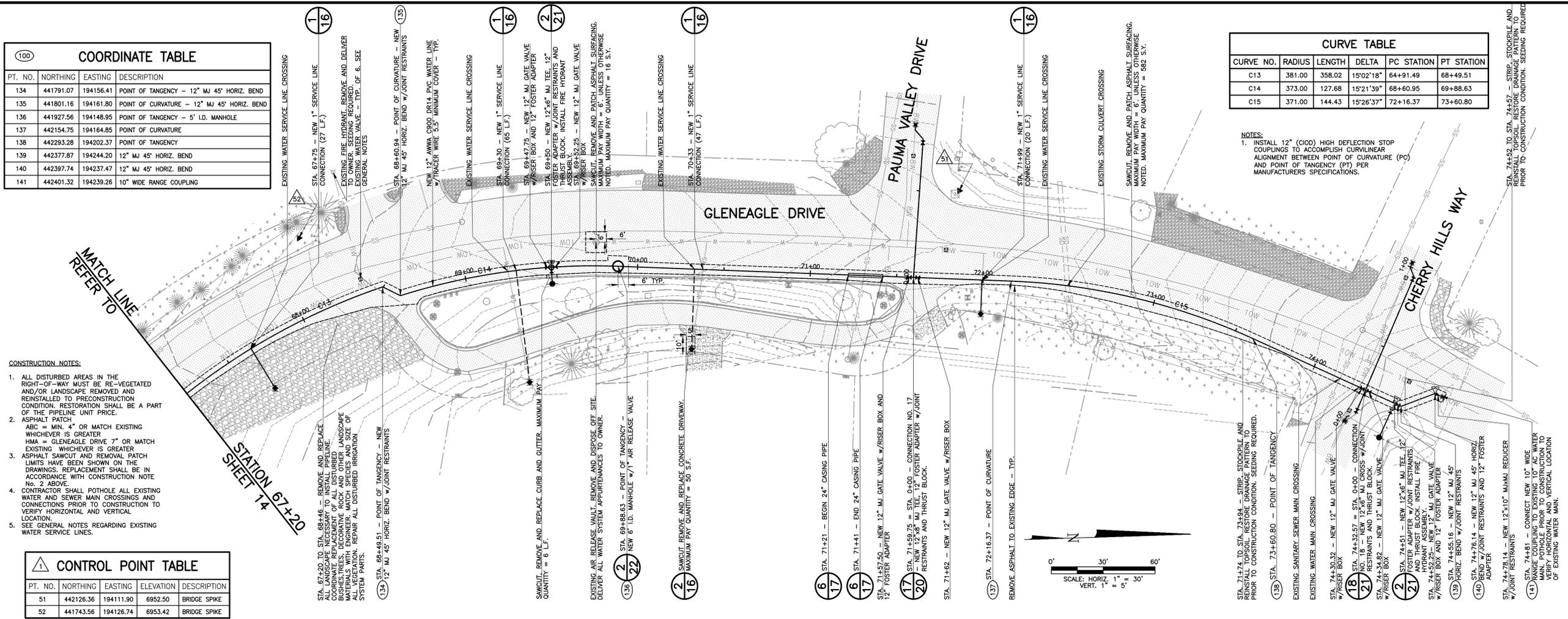
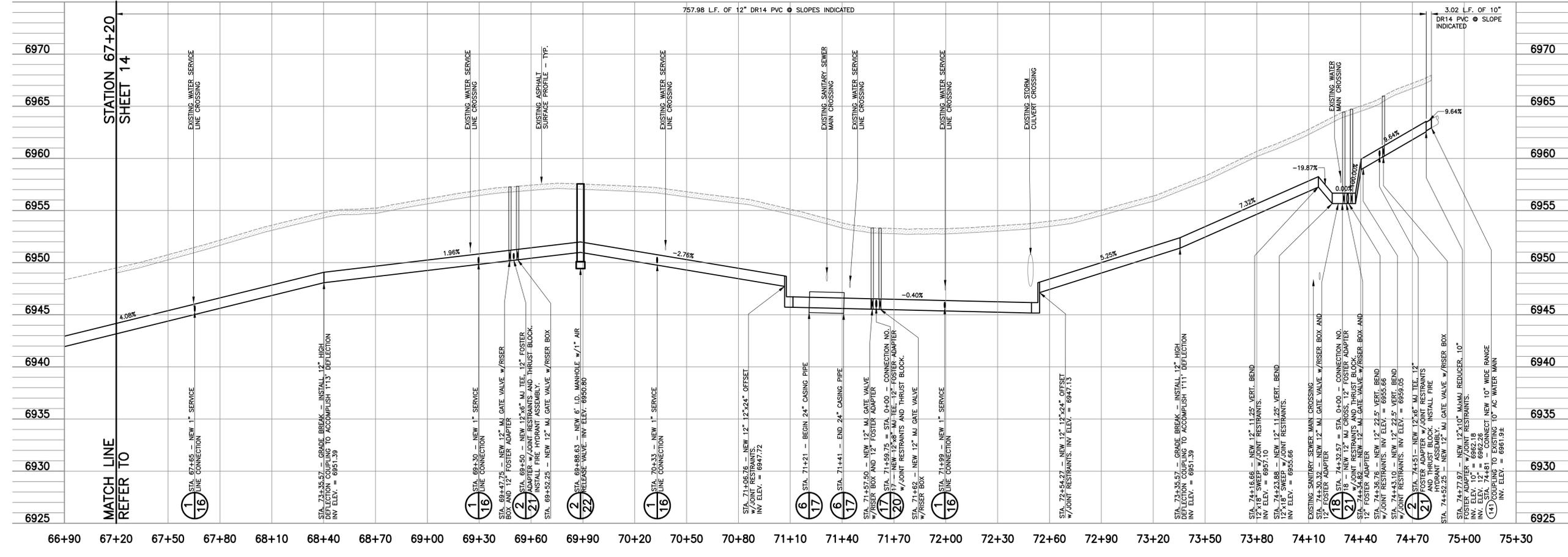
NO.	DATE	DESCRIPTION

SCHEDULE 2 - STA. 58+80 TO STA. 67+20
PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

DRAWN	MAL
DESIGNED	MAL
CHECKED	DRF
DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851

SHEET **14** OF **22**



100 COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
134	441791.07	194156.41	POINT OF TANGENCY - 12" MJ 45° HORIZ. BEND
135	441801.16	194161.80	POINT OF CURVATURE - 12" MJ 45° HORIZ. BEND
136	441927.56	194148.95	POINT OF TANGENCY - 5' I.D. MANHOLE
137	442154.75	194164.85	POINT OF CURVATURE
138	442293.28	194202.37	POINT OF TANGENCY
139	442377.87	194244.20	12" MJ 45° HORIZ. BEND
140	442397.74	194237.47	12" MJ 45° HORIZ. BEND
141	442401.32	194239.26	10" WIDE RANGE COUPLING

- CONSTRUCTION NOTES:**
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
 - ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
 - ASPHALT SAWCUT AND REMOVAL PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 2 ABOVE.
 - CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

CONTROL POINT TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
51	442126.36	194111.90	BRIDGE SPIKE
52	441743.56	194126.74	BRIDGE SPIKE

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C13	381.00	358.02	15°02'18"	64+91.49	68+49.51
C14	373.00	127.68	15°21'39"	68+60.95	69+88.63
C15	371.00	144.43	15°26'37"	72+16.37	73+60.80

NOTES:
 1. INSTALL 12" (HOD) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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NO.	DATE	DESCRIPTION

SCHEDULE 2 - STA. 67+20 TO STA. 74+80.14
PLAN, PROFILE AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
				17072.400	2851

SHEET 15 OF 22

CONSTRUCTION NOTES:

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY AND PRIVATE PROPERTY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE/SERVICE LINE UNIT PRICE.
2. ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
3. ASPHALT SAW CUT AND REMOVED PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE No. 2 ABOVE.
4. CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
5. CONTRACTOR TO COORDINATE WITH ENGINEER/OWNER OF NEW CURB STOP LOCATION.
6. NO EXISTING CURB STOP WAS LOCATED AT 10 DESERT INN WAY AND 155 DESERT INN WAY.
7. SURFACE RESTORATION BEYOND THE ASPHALT SURFACE SHALL BE IN AS GOOD OR BETTER THAN PRECONSTRUCTION CONDITION.

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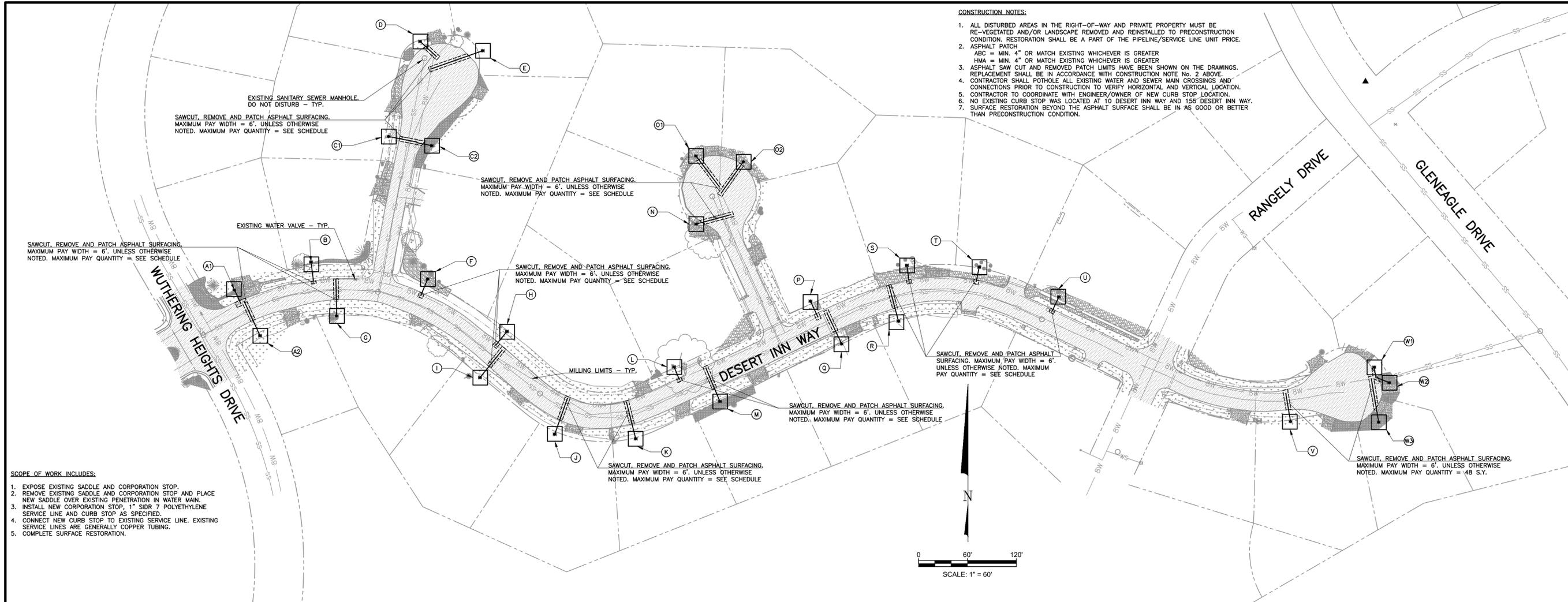
NO.	DATE	REVISIONS DESCRIPTION

**SCHEDULE 3
SERVICE LINE REPLACEMENT
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT**

GMS, INC.
CONSULTING ENGINEERS
6111 HERBERT SUITE 300
COLORADO SPRINGS, COLORADO 80903

DRAWN	MAL
DESIGNED	DRF
CHECKED	DRF
DATE	MAY 2018
PROJECT NO.	MAY 2018
GMS FILE NO.	NO. XXXX

SHEET
16
of
22



SCOPE OF WORK INCLUDES:

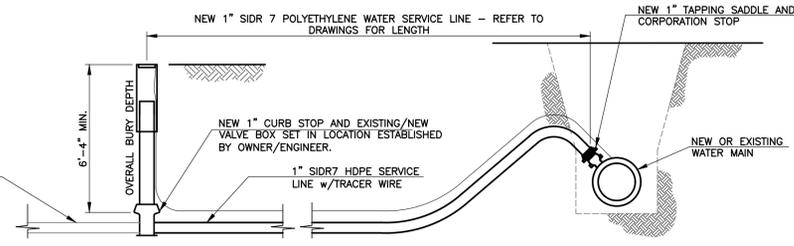
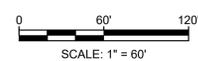
1. EXPOSE EXISTING SADDLE AND CORPORATION STOP.
2. REMOVE EXISTING SADDLE AND CORPORATION STOP AND PLACE NEW SADDLE OVER EXISTING PENETRATION IN WATER MAIN.
3. INSTALL NEW CORPORATION STOP, 1" SIDR 7 POLYETHYLENE SERVICE LINE AND CURB STOP AS SPECIFIED.
4. CONNECT NEW CURB STOP TO EXISTING SERVICE LINE. EXISTING SERVICE LINES ARE GENERALLY COPPER TUBING.
5. COMPLETE SURFACE RESTORATION.

LAST MOD. 6/7/2018 3:37 PM

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DESERT INN WAY - SCHEDULE

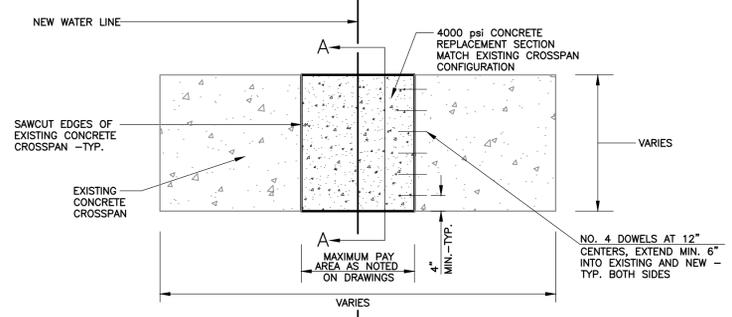
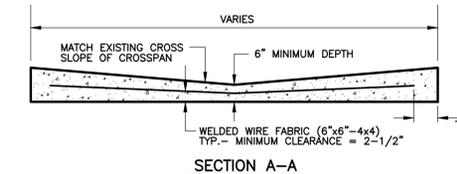
ITEM	ADDRESS	ASPHALT PATCH (SY)	1" SERVICE LINE (LF)	INSTALLATION
A1	10 DESERT INN WAY	26	18	OE
A2	15 DESERT INN WAY	46	46	OE
B	20 DESERT INN WAY	3	24	OE
C1	30 DESERT INN WAY	20	36	OE
C2	60 DESERT INN WAY	19	19	OE
D	40 DESERT INN WAY	14	28	OE
E	50 DESERT INN WAY	34	67	OE
F	70 DESERT INN WAY	4	22	OE
G	45 DESERT INN WAY	17	45	OE
H	90 DESERT INN WAY	5	21	OE
I	75 DESERT INN WAY	19	44	OE
J	95 DESERT INN WAY	21	47	OE
K	115 DESERT INN WAY	20	47	OE
L	130 DESERT INN WAY	3	17	OE
M	135 DESERT INN WAY	19	45	OE
N	140 DESERT INN WAY	26	45	OE
O1	150 DESERT INN WAY	61	48	OE
O2	160 DESERT INN WAY	48	48	OE
P	170 DESERT INN WAY	22	6	OE
Q	155 DESERT INN WAY	19	43	OE
R	205 DESERT INN WAY	19	45	OE
S	190 DESERT INN WAY	3	20	OE
T	210 DESERT INN WAY	3	18	OE
U	250 RANGELY DRIVE	4	19	OE
V	275 DESERT INN WAY	16	37	OE
W2	280 DESERT INN WAY	32	14	OE
W3	285 DESERT INN WAY	54	54	OE
TOTALS		384	922	



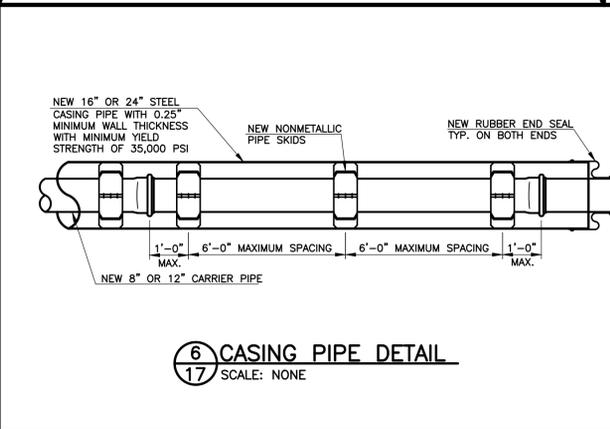
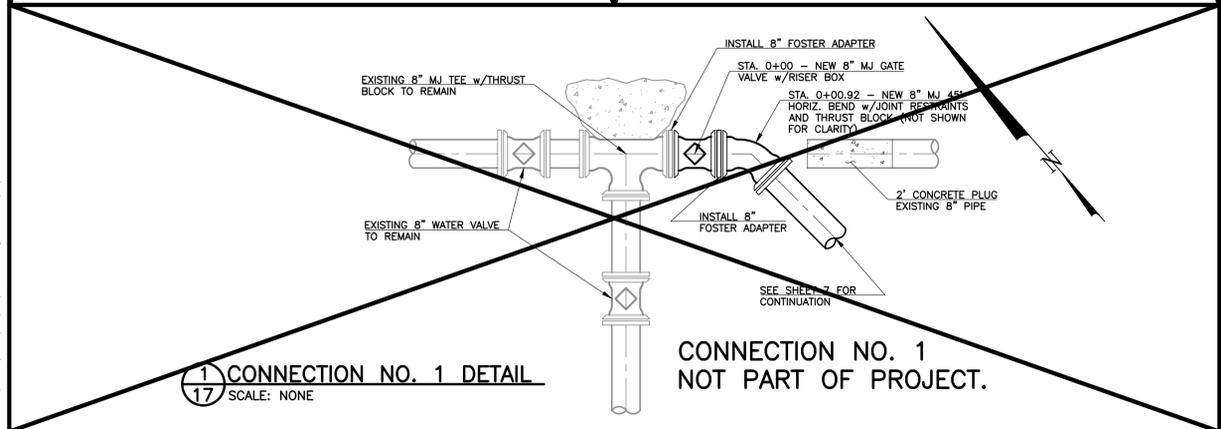
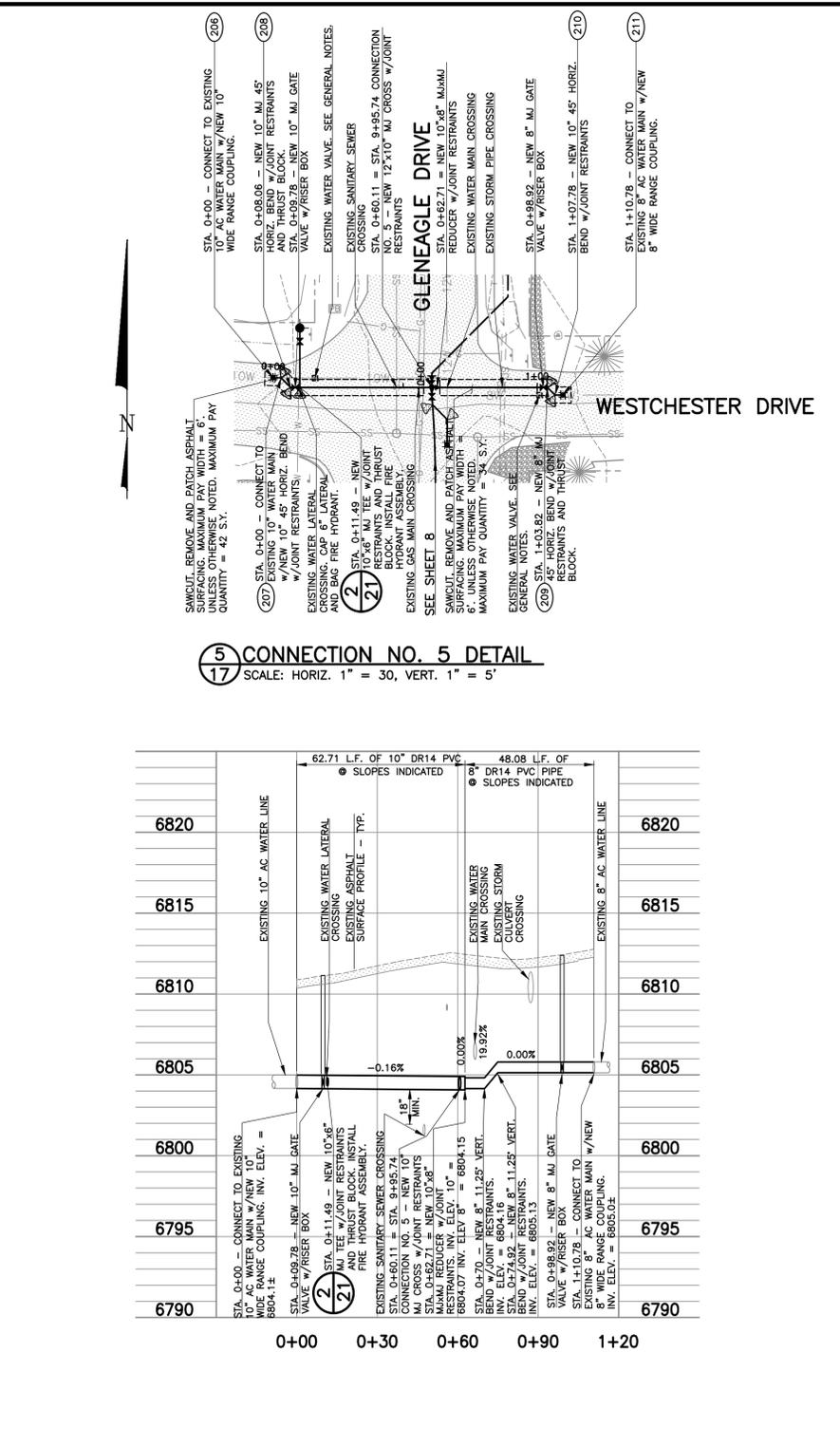
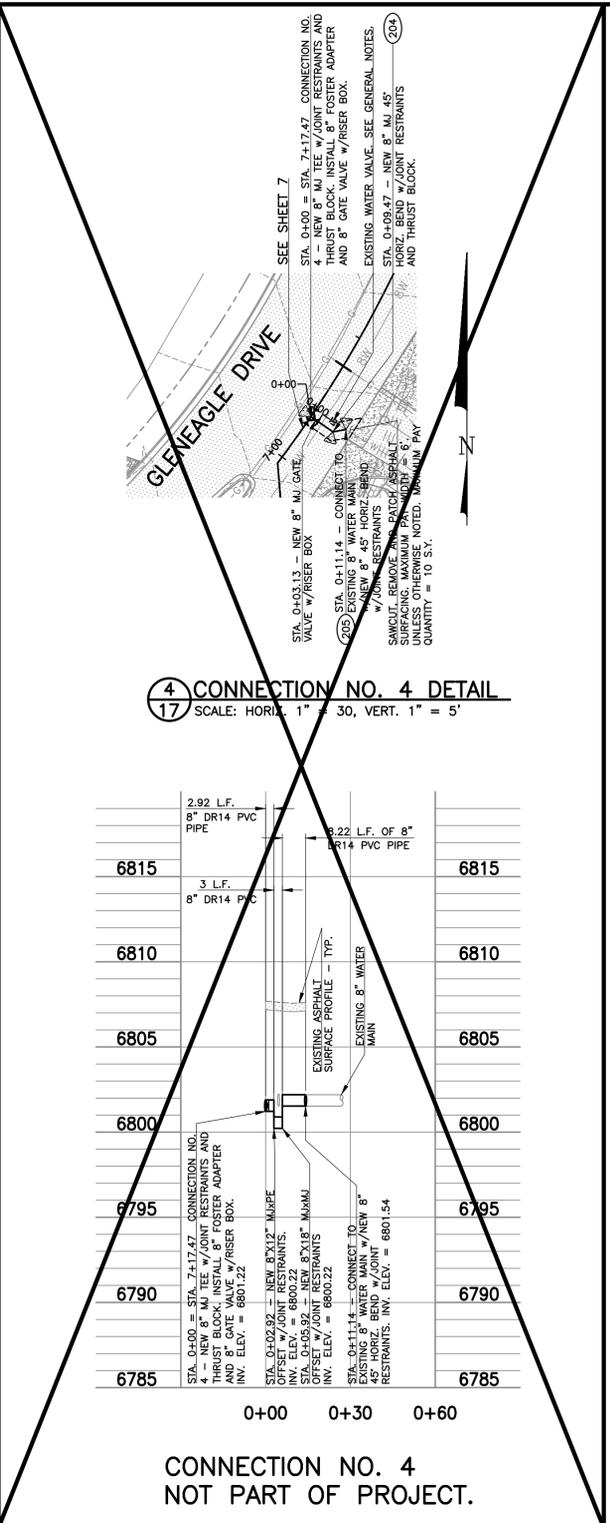
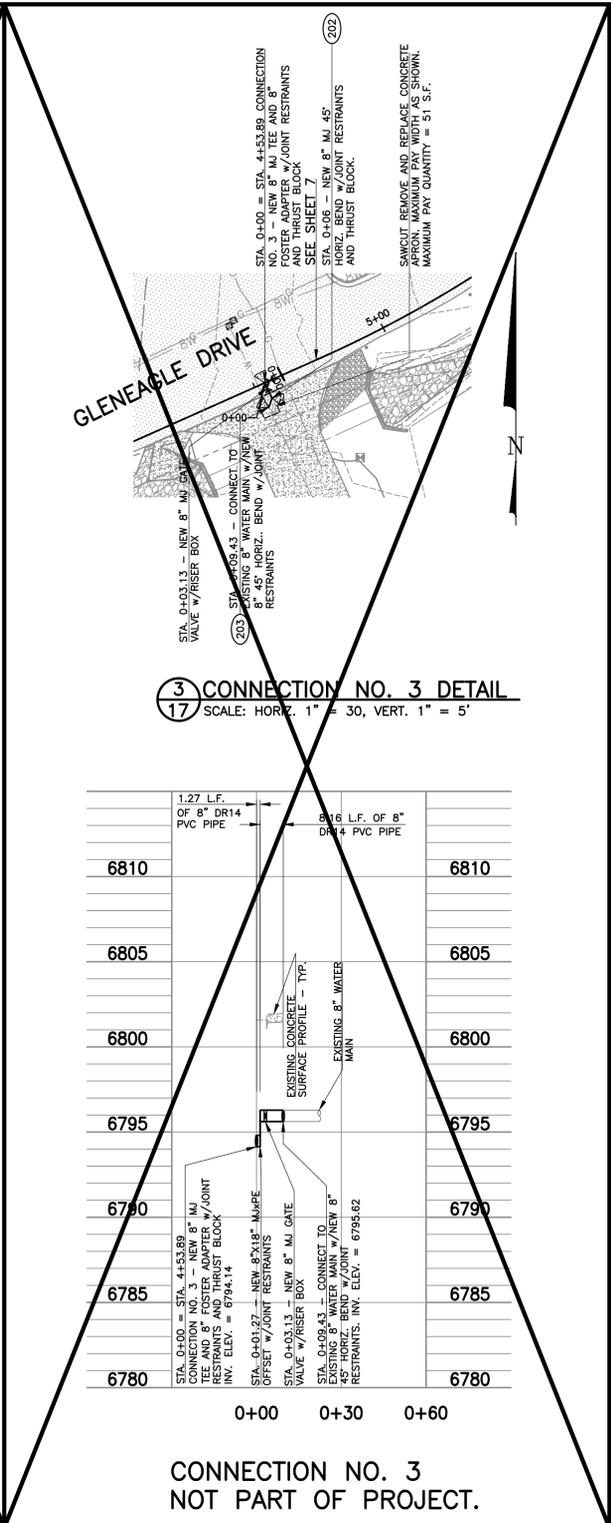
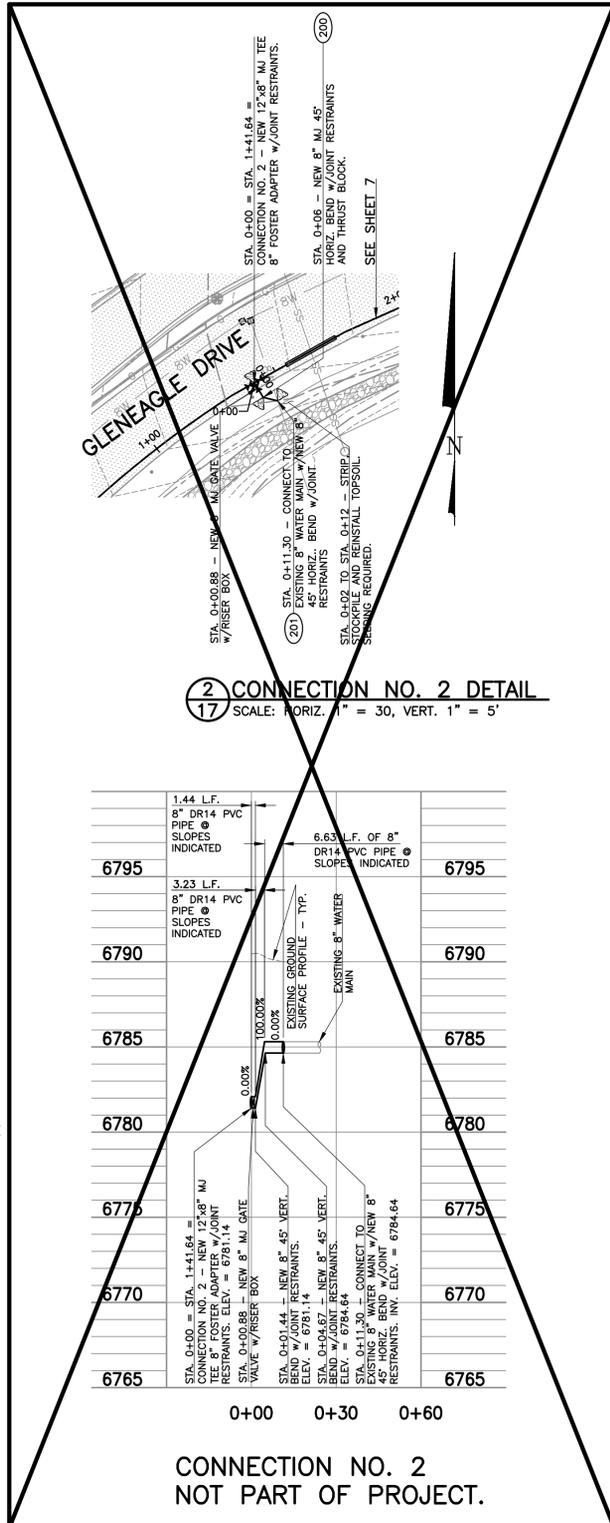
NOTES:

1. FINAL LOCATION OF CURB STOP TO BE ESTABLISHED IN THE FIELD BY THE ENGINEER/OWNER.
2. ALL 1" SERVICE LINE CROSSING ASPHALT SHALL BE INSTALLED BY DIRECTIONAL DRILLING METHOD (DD), PIPE PULLING (PIPE BURSTING) (PP) METHOD OR OPEN EXCAVATION (OE).
3. INSTALL TRACER WIRE ON ALL SERVICE LINES.
4. ALL SERVICE LINES MUST BE CONTINUOUS FROM NEW CORPORATION STOP TO NEW CURB STOP.
5. EXISTING VALVE BOXES TO BE REINSTALLED. CONFIRM CONDITION WITH ENGINEER/OWNER PRIOR TO INSTALLATION.
6. ALL NEW WATER MAINS SHALL BE ANWA C900 DR14 PVC PIPE.
7. EXISTING WATER MAINS ARE GENERALLY AC PIPE.

1 CURB STOP AND SERVICE LINE
SCALE: NONE



2 CONCRETE CROSSSPAN REPLACEMENT DETAIL
SCALE: NONE



CONSTRUCTION NOTES:

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- SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

100 COORDINATE TABLE

PT. NO.	NORTHING	EASTING	DESCRIPTION
200	437892.61	191538.16	8" MJ 45° HORIZ. BEND
201	437891.35	191543.31	8" MJ 45° HORIZ. BEND
202	438021.98	191821.48	8" MJ 45° HORIZ. BEND
203	438018.75	191820.31	8" MJ 45° HORIZ. BEND
204	438191.01	192008.53	8" MJ 45° HORIZ. BEND
205	438191.85	192013.12	8" MJ 45° HORIZ. BEND
206	438464.08	192010.58	10" WIDE RANGE COUPLING
207	438463.99	192013.58	10" MJ 45° HORIZ. BEND
208	438460.41	192017.16	10" MJ 45° HORIZ. BEND
209	438460.41	192112.92	10" MJ 45° HORIZ. BEND
210	438457.61	192115.72	10" MJ 45° HORIZ. BEND
211	438457.63	192118.72	10" WIDE RANGE COUPLING

SCHEDULE 2 CONNECTIONS NO. 1 THRU NO. 5 AND COORDINATE DATA 2018 WATER SYSTEM IMPROVEMENTS DONALD WATER AND SANITATION DISTRICT

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

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NO.	DATE	DESCRIPTION
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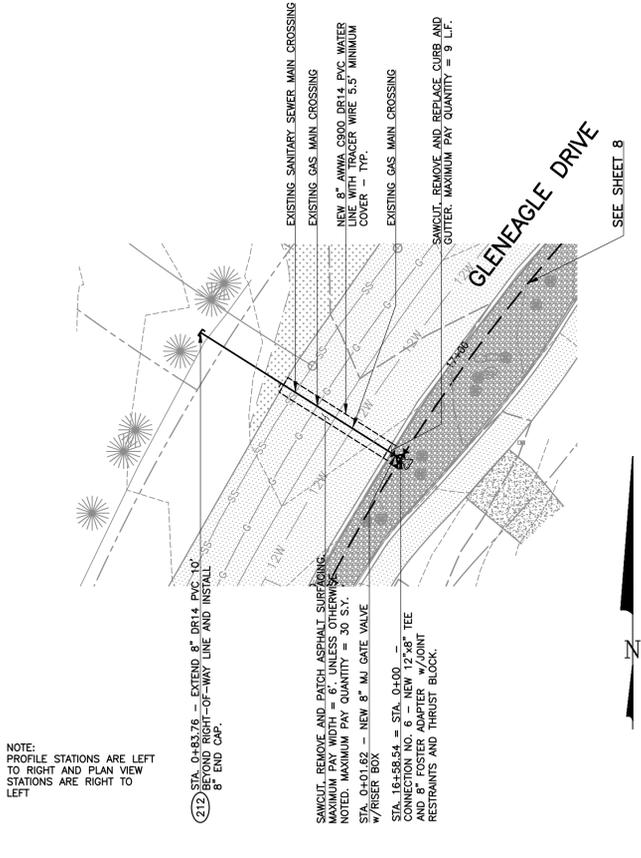
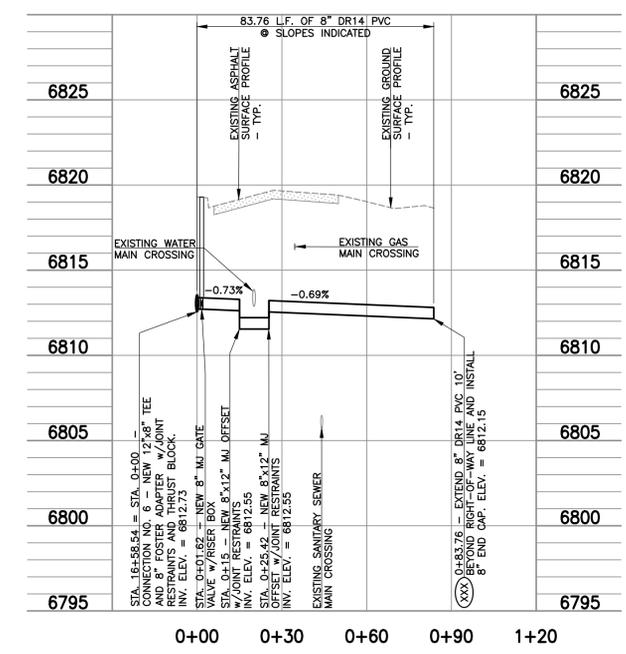
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MAY 2018	

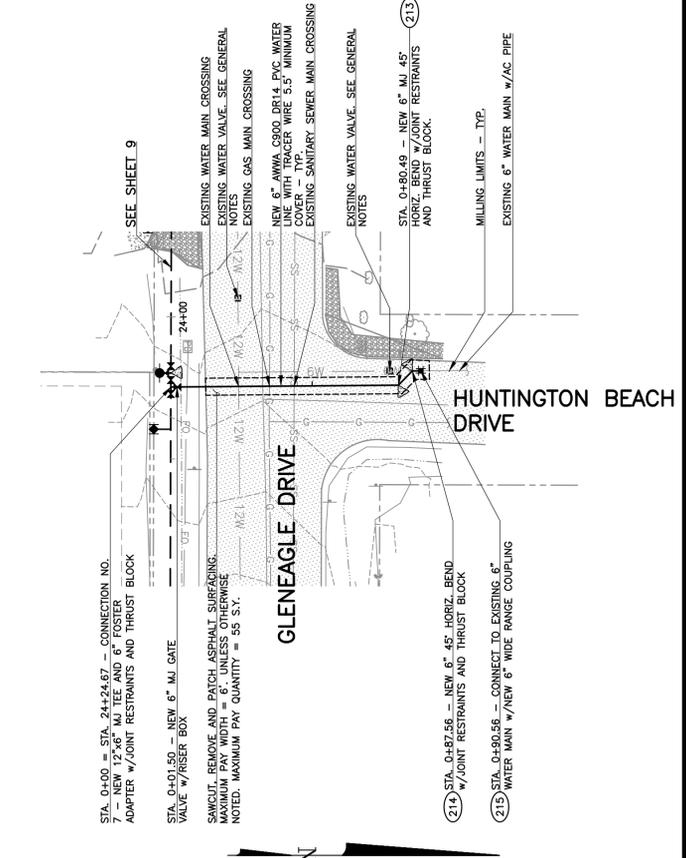
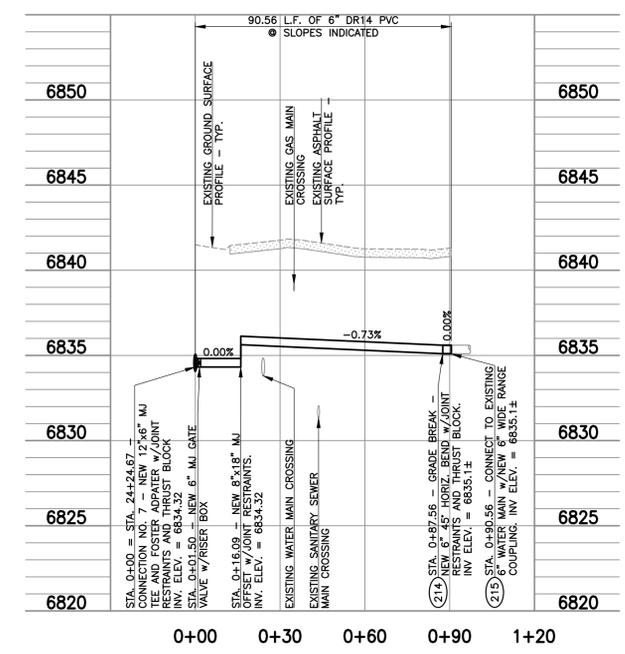
PROJECT NO. 17072-400
 GMS FILE NO. 2851

SHEET 17 OF 22

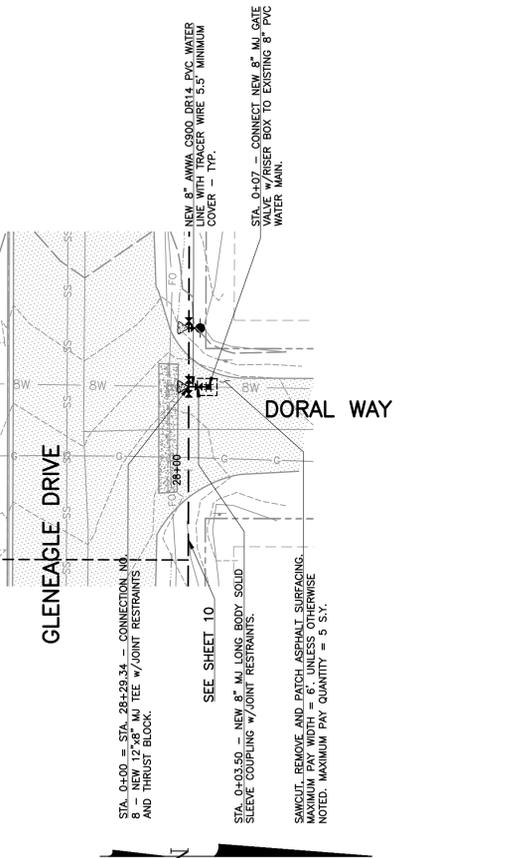
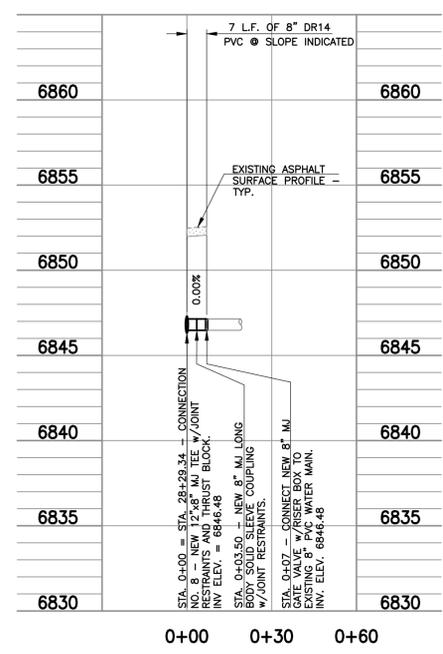
6 CONNECTION NO. 6 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



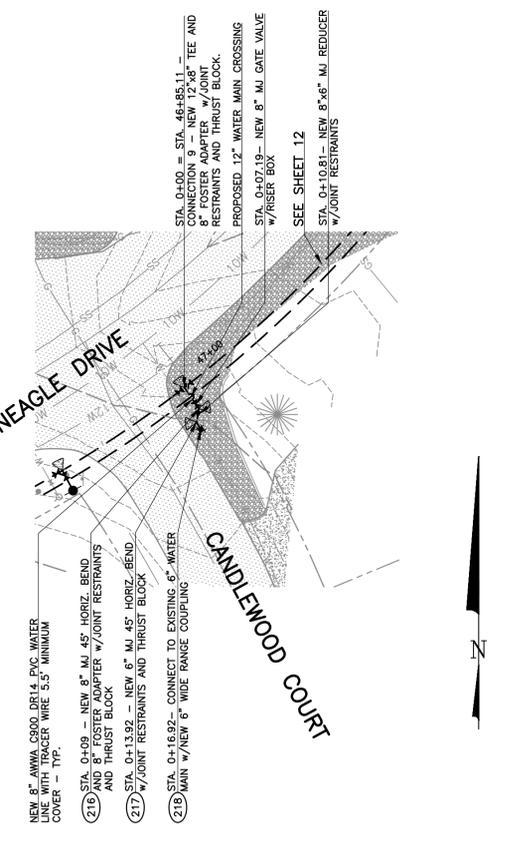
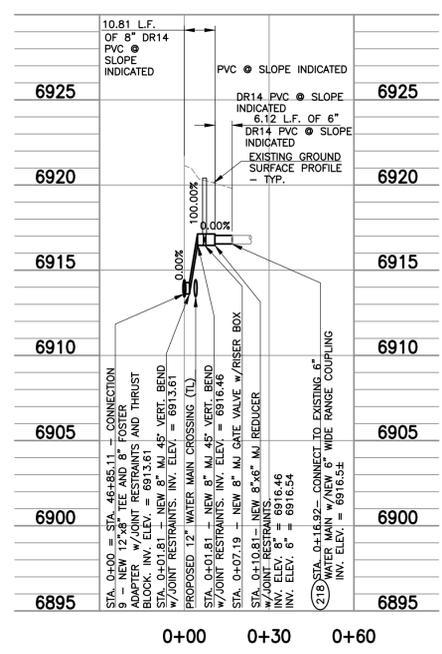
7 CONNECTION NO. 7 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



8 CONNECTION NO. 8 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



9 CONNECTION NO. 9 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



- CONSTRUCTION NOTES:**
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 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

100 COORDINATE TABLE

PT. NO.	NORTHING	EASTING	DESCRIPTION
212	439135.63	192127.58	8" END CAP
213	439460.36	192863.96	6" MJ 45° HORIZ. BEND
214	439465.32	192858.92	6" MJ 45° HORIZ. BEND
215	439468.32	192858.90	6" WIDE RANGE COUPLING
216	440129.95	194938.59	8" MJ 45° HORIZ. BEND
217	440125.10	194937.74	6" MJ 45° HORIZ. BEND
218	440122.52	194939.27	6" WIDE RANGE COUPLING

SCHEDULE 2 CONNECTIONS NO. 6 THRU NO. 9 AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

NO.	DATE	REVISIONS	DESCRIPTION
1			

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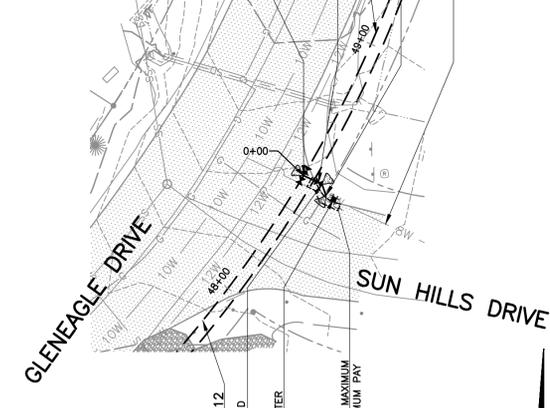
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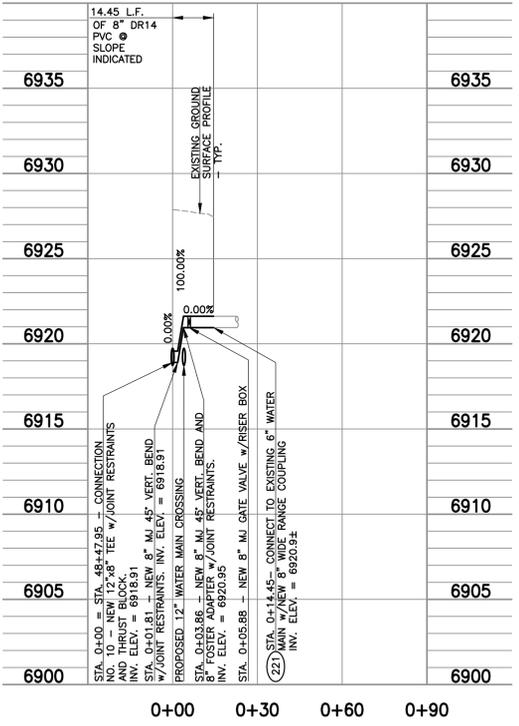
SHEET 18 OF 22

PT. NO.	NORTHING	EASTING	DESCRIPTION
219	440255.28	195047.37	8" MJ 45° HORIZ. BEND
220	440251.28	195048.79	8" MJ 45° HORIZ. BEND
221	440250.00	195051.50	8" WIDE RANGE COUPLING
222	440365.78	194991.98	8" END CAP
223	440583.42	195044.17	10" MJ 45° HORIZ. BEND
224	440580.20	195041.03	10" MJ 45° HORIZ. BEND
225	440580.14	195038.05	10" WIDE RANGE COUPLING
226	441042.84	194929.08	6" MJ 45° HORIZ. BEND
227	441042.82	194926.08	6" WIDE RANGE COUPLING

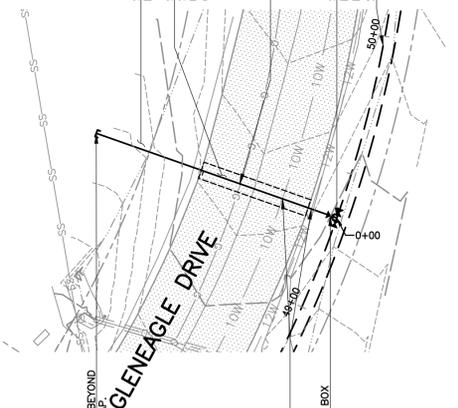
STA. 0+00 = STA. 484+7.95 - CONNECTION NO. 10 - NEW 12" 8" TEE W/JOINT RESTRAINTS AND THRUST BLOCK.
 STA. 0+05.88 = NEW 8" MJ GATE VALVE W/RISER BOX AND 8" FOSTER ADAPTER.
 SEE SHEET 12
 STA. 0+11.45 = NEW 8" MJ 45° HORIZ. BEND W/JOINT RESTRAINTS AND THRUST BLOCK.
 EXISTING 8" AC WATER LINE



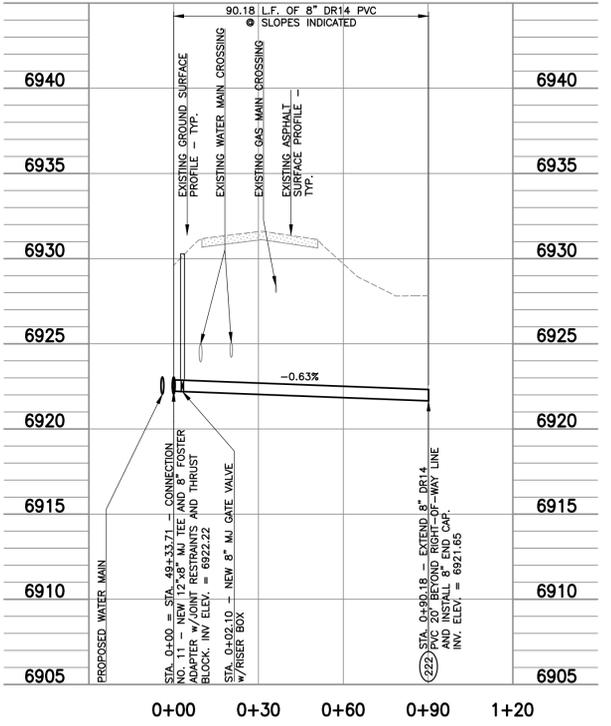
10 CONNECTION NO. 10 DETAIL
 19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



STA. 0+51 TO STA. 0+91 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED. SAWCUT, REMOVE AND PATCH ASPHALT SURFACING. MAXIMUM PAY WIDTH = 6'. UNLESS OTHERWISE NOTED, MAXIMUM PAY QUANTITY = 27 S.Y.
 EXISTING GAS MAIN CROSSING
 STA. 0+00 = STA. 493+33.71 - CONNECTION 11 - NEW 12" 8" MJ TEE AND 8" FOSTER ADAPTER W/JOINT RESTRAINTS AND THRUST BLOCK.
 SEE SHEET 12

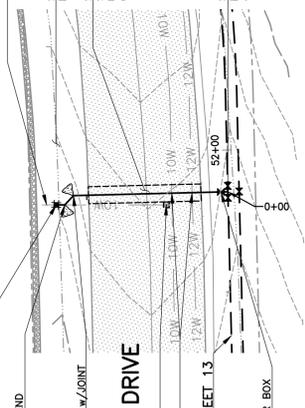


11 CONNECTION NO. 11 DETAIL
 19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'

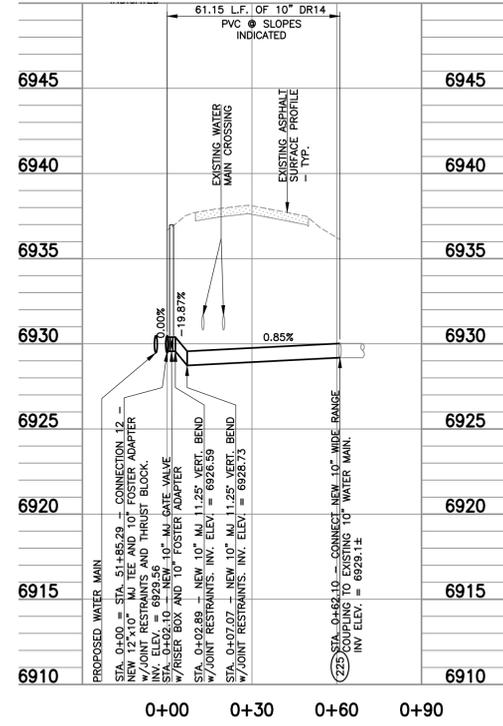


CONSTRUCTION NOTES:
 1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
 2. ASPHALT PATCH:
 ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
 HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
 LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 2 ABOVE.
 3. CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
 4. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

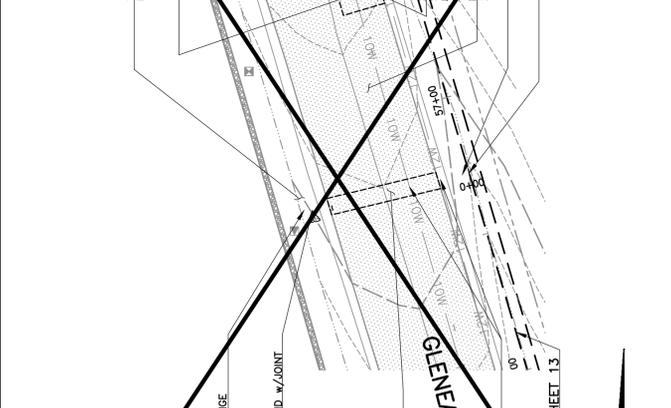
STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED. SAWCUT, REMOVE AND PATCH ASPHALT SURFACING. MAXIMUM PAY WIDTH = 6'. UNLESS OTHERWISE NOTED, MAXIMUM PAY QUANTITY = 27 S.Y.
 EXISTING 10" AC WATER LINE
 STA. 0+00 = STA. 51+85.29 - CONNECTION 12 - NEW 12" 8" TEE AND 8" FOSTER ADAPTER W/JOINT RESTRAINTS AND THRUST BLOCK.
 SEE SHEET 13



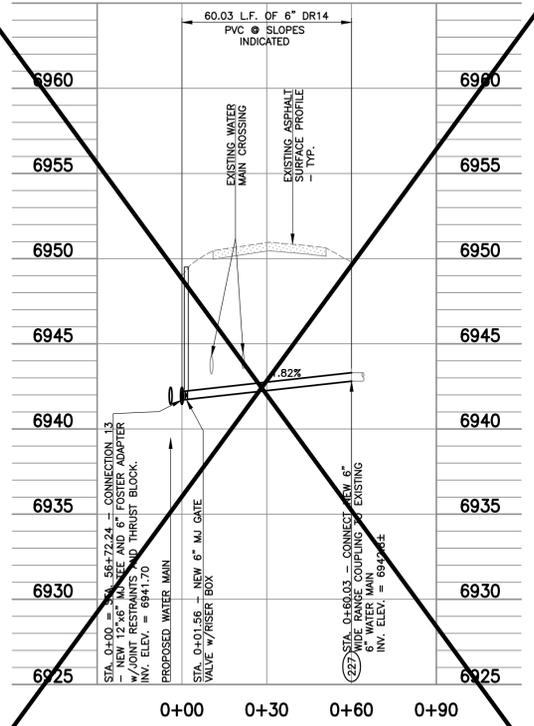
12 CONNECTION NO. 12 DETAIL
 19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



STA. 0+40 TO STA. 0+60 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED. EXISTING AIR RELEASE VALVE. REMOVE AND DISPOSE OFF SITE DELIVER TO WATER SYSTEM APPURTENANCES TO OWNER.
 STA. 0+00 = STA. 56+72.24 - CONNECTION 13 - NEW 12" 8" TEE AND 8" FOSTER ADAPTER W/JOINT RESTRAINTS AND THRUST BLOCK.
 STA. 0+01.56 = NEW 6" MJ GATE VALVE W/RISER BOX
 STA. 0+05.03 = NEW 8" MJ 45° HORIZ. BEND W/JOINT RESTRAINTS AND THRUST BLOCK.
 STA. 0+08.00 = NEW 6" MJ GATE VALVE W/RISER BOX
 STA. 0+10.00 = NEW 10" MJ TEE AND 8" FOSTER ADAPTER W/JOINT RESTRAINTS AND THRUST BLOCK.
 SAWCUT, REMOVE AND PATCH ASPHALT SURFACING. MAXIMUM PAY WIDTH = 6'. UNLESS OTHERWISE NOTED, MAXIMUM PAY QUANTITY = 27 S.Y.
 EXISTING WATER MAIN CROSSING



13 CONNECTION NO. 13 DETAIL
 19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



CONNECTION NO. 13
 NOT PART OF PROJECT.

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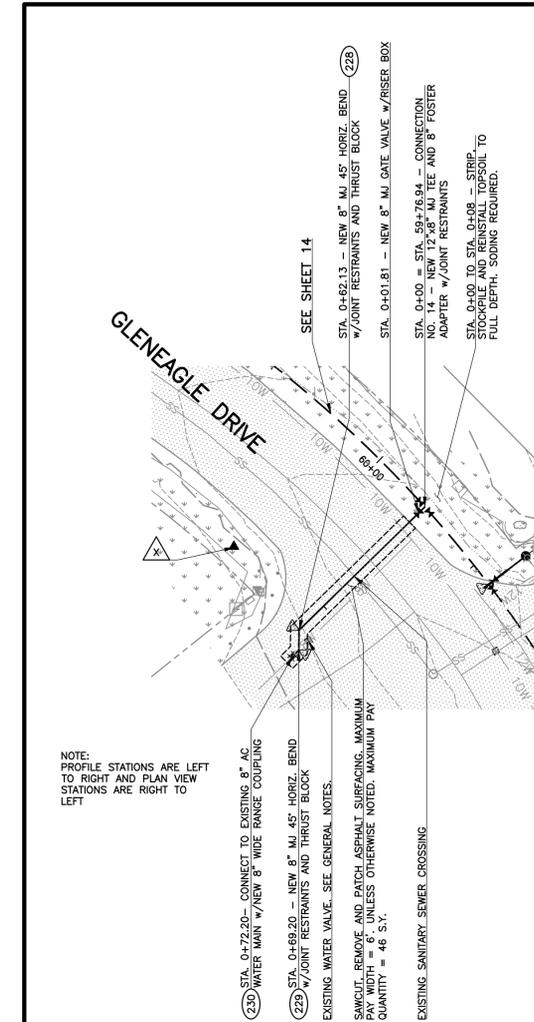
NO.	DATE	REVISIONS DESCRIPTION
1		

SCHEDULE 2
 CONNECTIONS NO. 10 THRU NO. 13
 AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

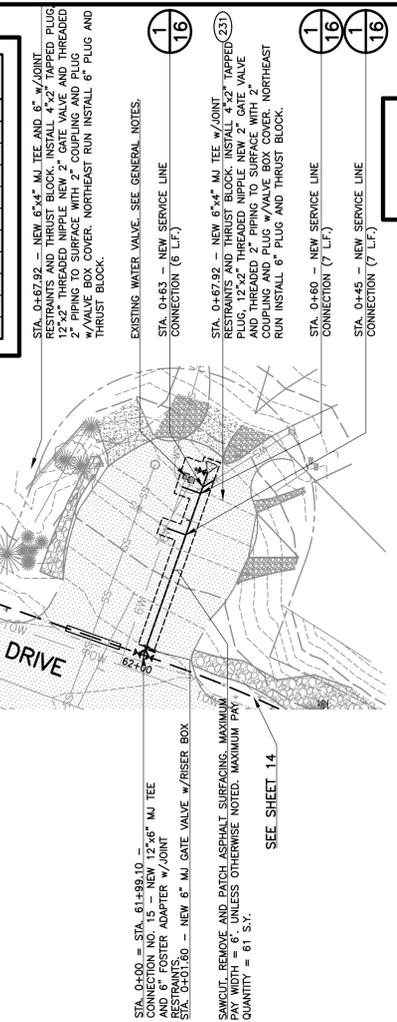
GMS, INC.
 CONSULTING ENGINEERS
 611 N. WEBER, SUITE 300
 COLORADO SPRINGS, COLORADO 80903

DRAWN	MAL
DESIGNED	MAL
CHECKED	DRF
DATE	MAY 2018
PROJECT NO.	17072-400
GMS FILE NO.	2851

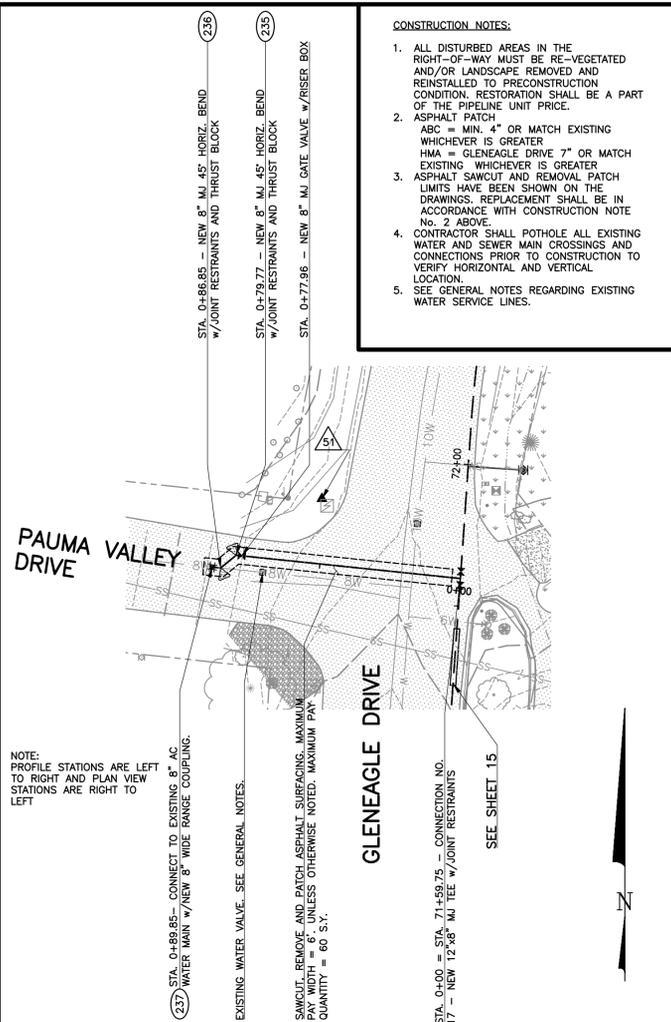
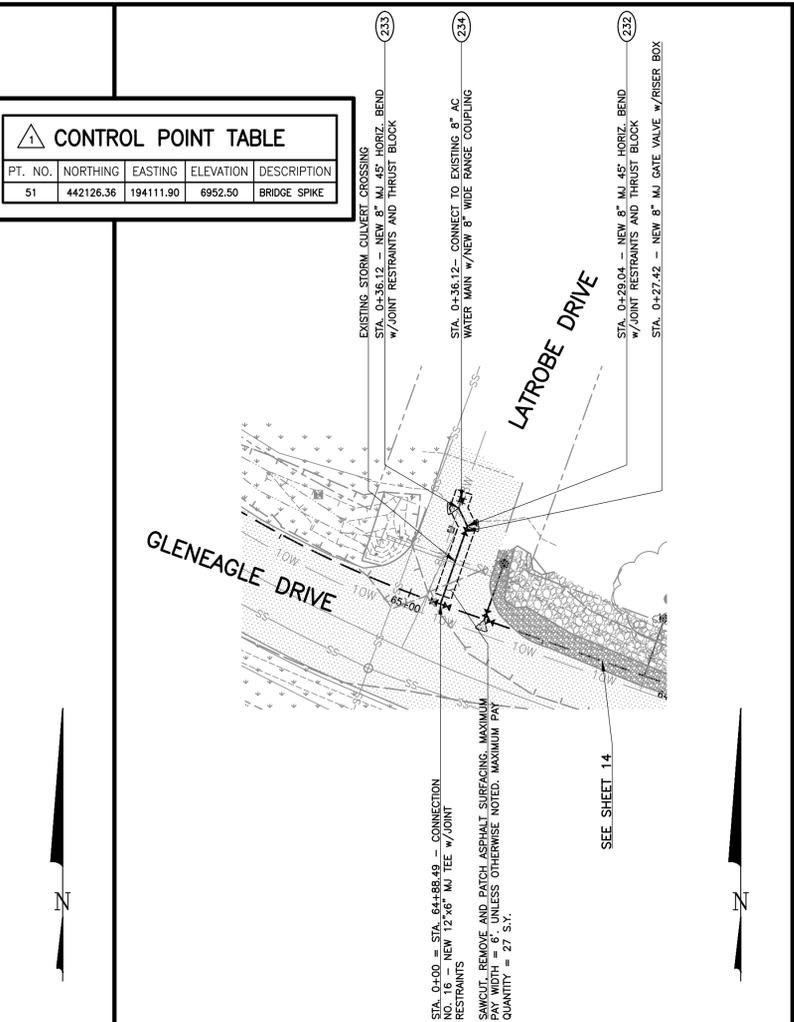
SHEET
 19
 OF
 22



PT. NO.	NORTHING	EASTING	DESCRIPTION
228	441282.46	194810.87	8" MJ 45° HORIZ. BEND
229	441275.39	194810.78	8" MJ 45° HORIZ. BEND
230	441273.30	194808.63	8" WIDE RANGE COUPLING
231	441511.19	194694.35	6"x4" MJ TEE
232	441568.40	194407.43	8" MJ 45° HORIZ. BEND
233	441574.77	194404.34	8" MJ 45° HORIZ. BEND
234	441577.60	194405.34	8" WIDE RANGE COUPLING
235	442106.45	194081.55	8" MJ 45° HORIZ. BEND
236	442101.99	194076.06	8" MJ 45° HORIZ. BEND
237	442102.30	194073.07	8" WIDE RANGE COUPLING



PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
51	442126.36	194111.90	6952.50	BRIDGE SPIKE



- CONSTRUCTION NOTES:**
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 - ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
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 - CONTRACTOR SHALL PATCH ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

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NO.	DATE	DESCRIPTION
1		

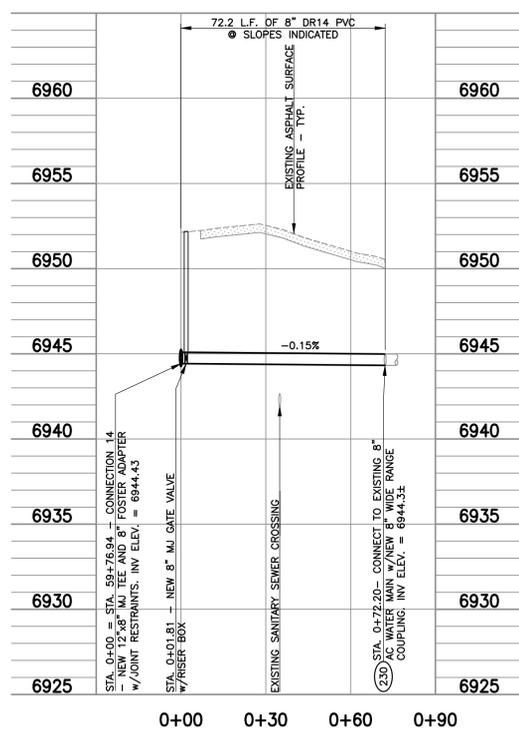
SCHEDULE 2 CONNECTIONS NO. 14 THRU NO. 17 AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

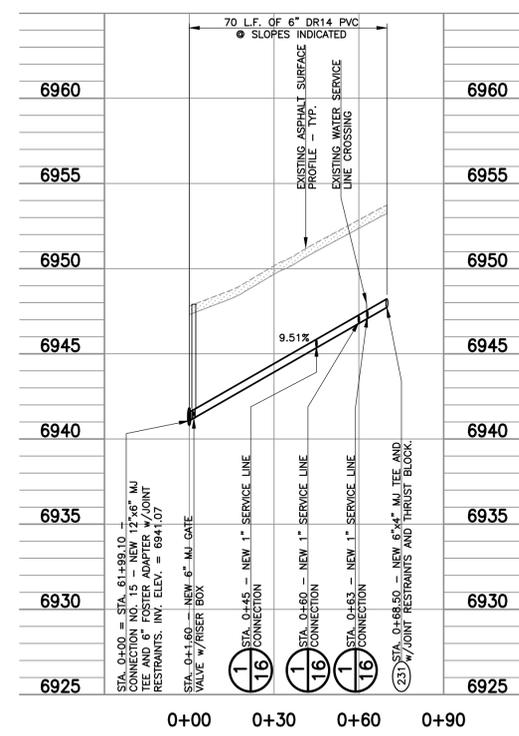
DRAWN	MAL	DESIGNED	MAL
CHECKED	DRF	DATE	MAY 2018
PROJECT NO.	17072-400	GMS FILE NO.	2851

SHEET 20 OF 22

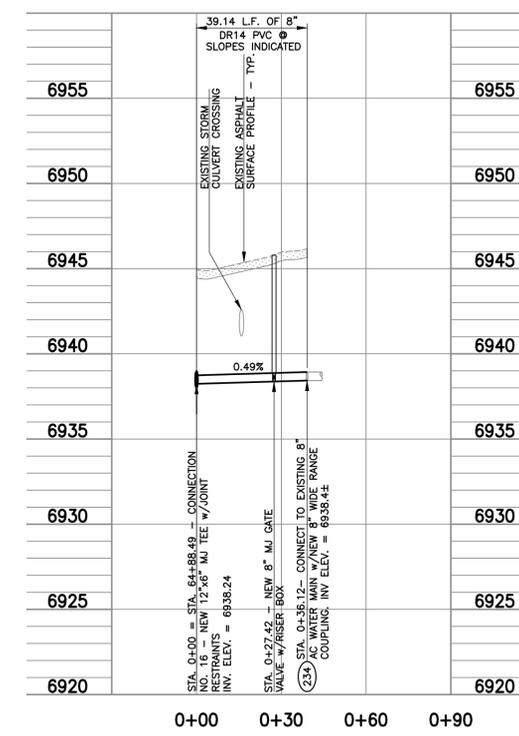
14 CONNECTION NO. 14 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



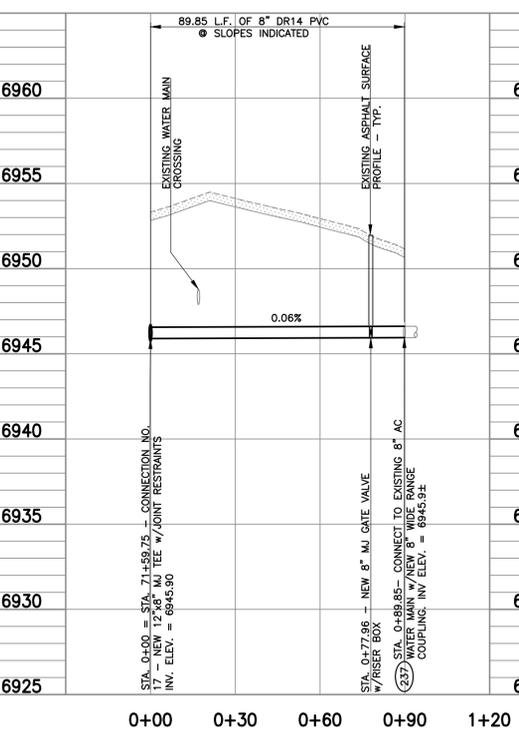
15 CONNECTION NO. 15 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



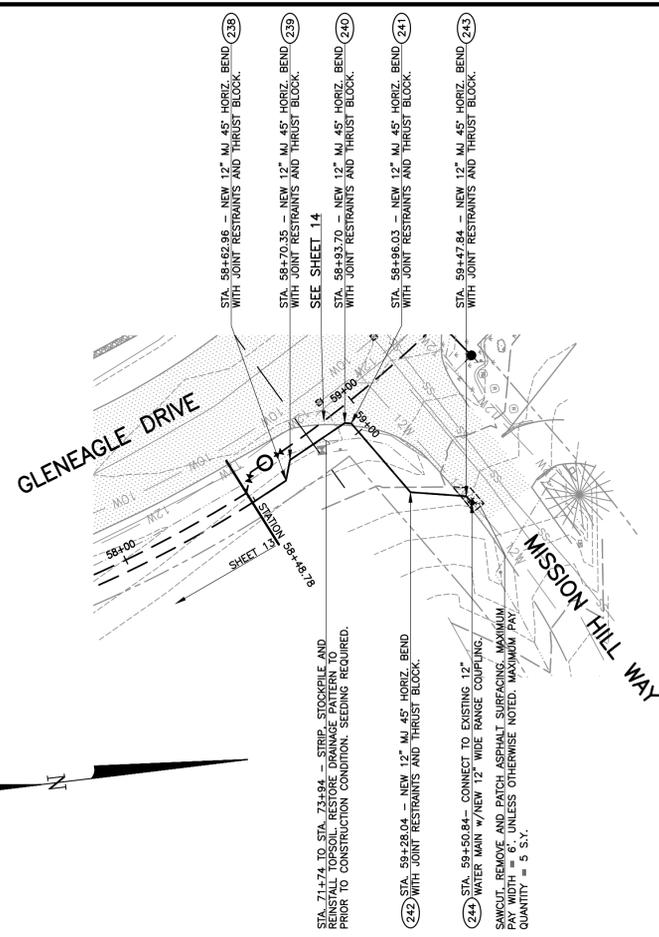
16 CONNECTION NO. 16 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



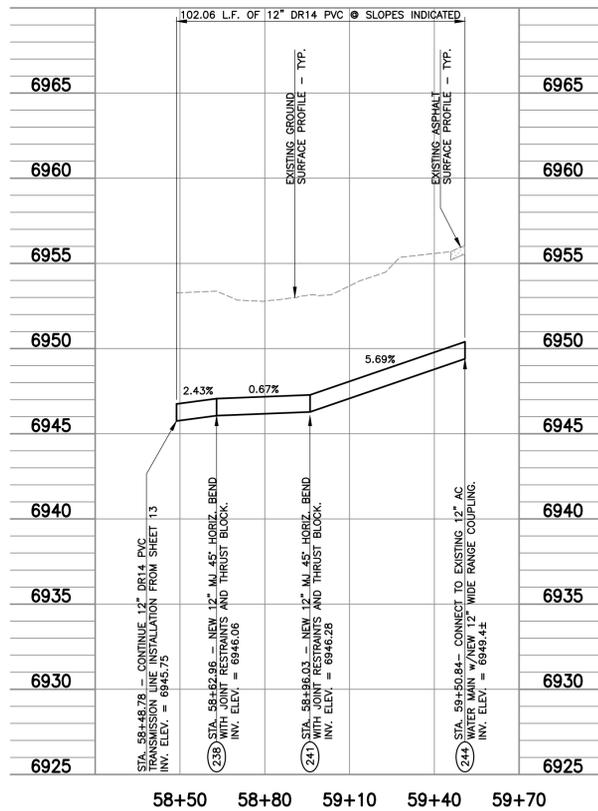
17 CONNECTION NO. 17 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



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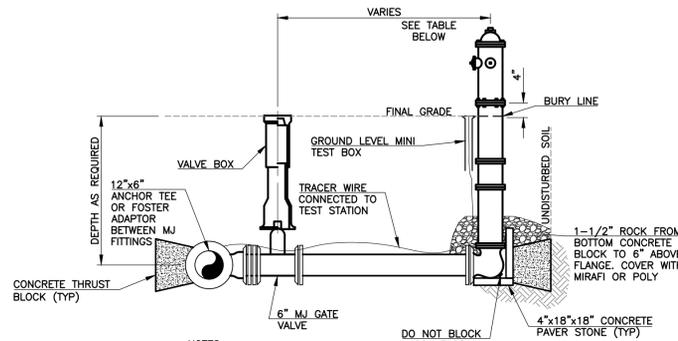


1 12" TRANSMISSION LINE CONTINUATION
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



- CONSTRUCTION NOTES:**
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
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 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

PT. NO.	NORTHING	EASTING	DESCRIPTION
238	441238.17	194927.01	12" MJ 45° HORIZ. BEND
239	441240.42	194919.98	12" MJ 45° HORIZ. BEND
240	441261.22	194909.37	12" MJ 45° HORIZ. BEND
241	441263.50	194909.81	12" MJ 45° HORIZ. BEND
242	441281.40	194936.36	12" MJ 45° HORIZ. BEND
243	441300.83	194940.14	12" MJ 45° HORIZ. BEND
244	441302.53	194942.61	12" WIDE RANGE COUPLING
245	442344.98	194251.76	6" WIDE RANGE COUPLING
246	442346.25	194249.04	6" MJ 45° HORIZ. BEND
247	442351.49	194247.27	6" MJ 45° HORIZ. BEND
248	442387.69	194169.85	6" MJ 45° HORIZ. BEND
249	442385.76	194164.53	6" MJ 45° HORIZ. BEND
250	442387.03	194161.81	6" WIDE RANGE COUPLING

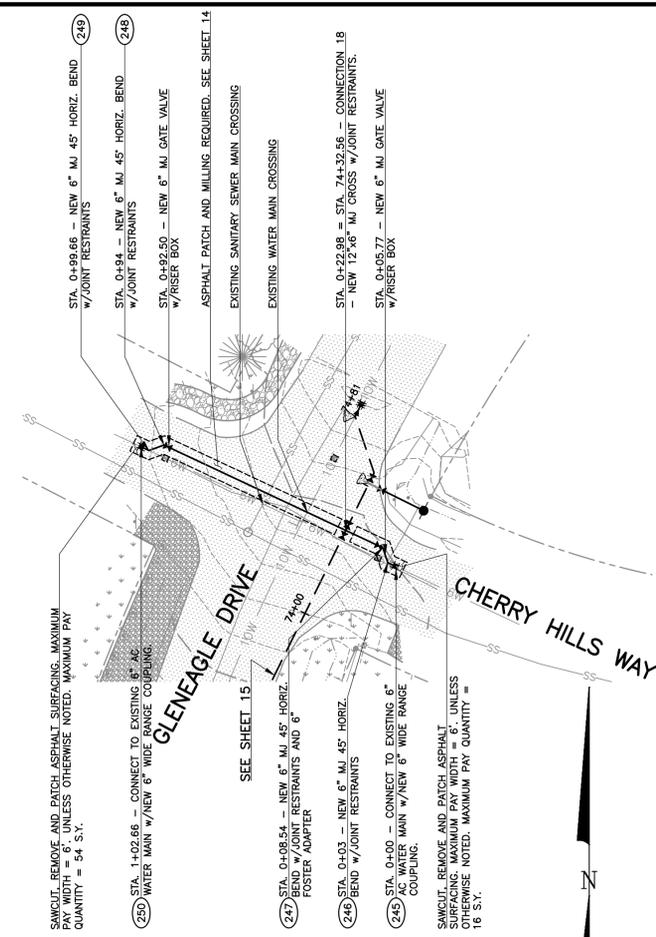


- NOTES:**
- FINAL LOCATION OF GATE VALVE AND HYDRANT TO BE ESTABLISHED IN THE FIELD BY THE ENGINEER/OWNER.
 - INSTALL JOINT RESTRAINTS ON ALL MECHANICAL JOINTS.

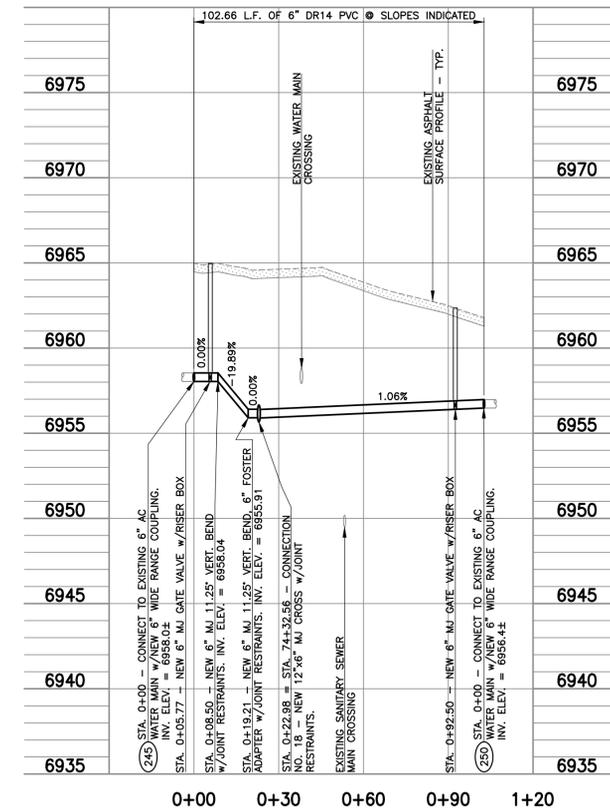
2 FIRE HYDRANT ASSEMBLY DETAIL
 SCALE: NONE

FIRE HYDRANT - SCHEDULE

SHEET NO.	SCHEDULE	STATION	LATERAL 6" (LF)
8	2	13+96	6
9	2	19+06	5
9	2	24+19.77	5
10	2	28+50	5
11	2	36+29	5
11	2	41+18	5
12	2	46+33	8
13	2	50+69	8
13	2	55+05	8
14	2	59+41.50	17
14	2	64+72	21
15	2	69+50	10
15	2	74+51	22
17	2	0+11.49	23
TOTAL			148



3 CONNECTION NO. 18 DETAIL
 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



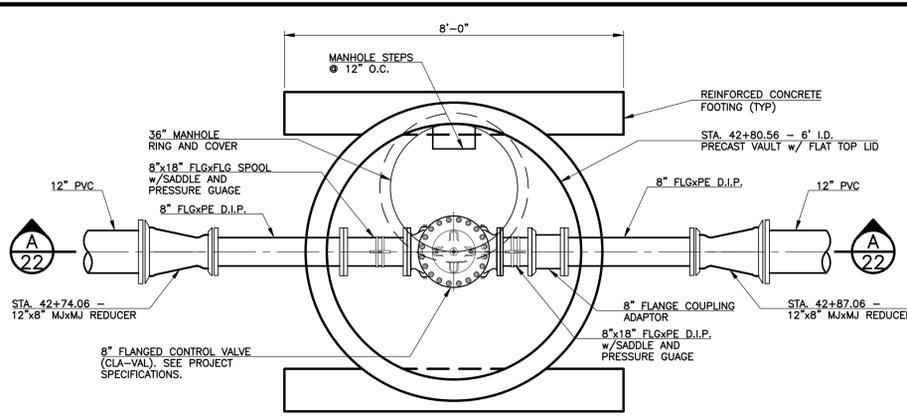
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NO.	DATE	REVISIONS DESCRIPTION
1		

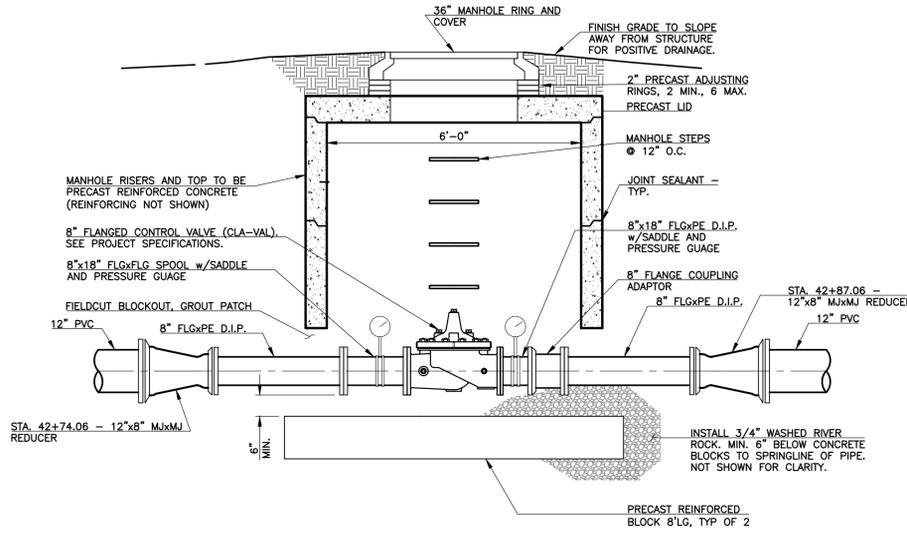
SCHEDULE 2 - 12" TRANSMISSION LINE CONTINUATION, CONNECTION NO. 18, DETAILS AND COORDINATE DATA
 2018 WATER SYSTEM IMPROVEMENTS
 DONALD WATER AND SANITATION DISTRICT

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

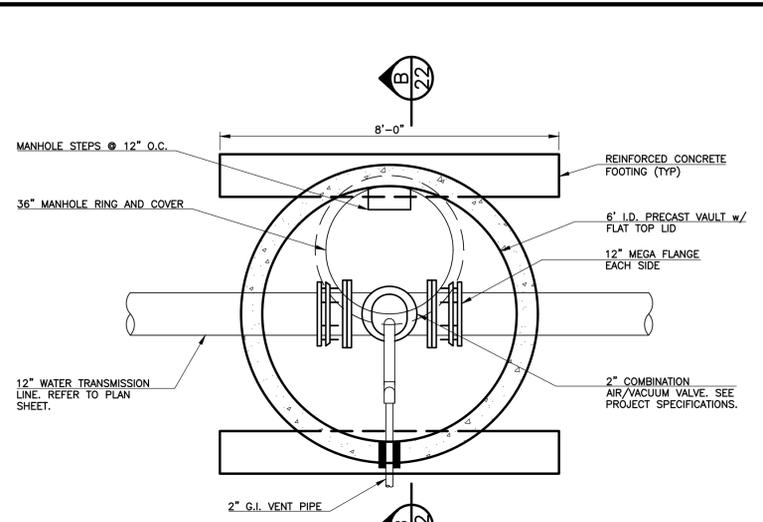
DRAWN	MAL	DESIGNED	MAL	CHECKED	DRF	DATE	MAY 2018	PROJECT NO.	17072-400	GMS FILE NO.	2851
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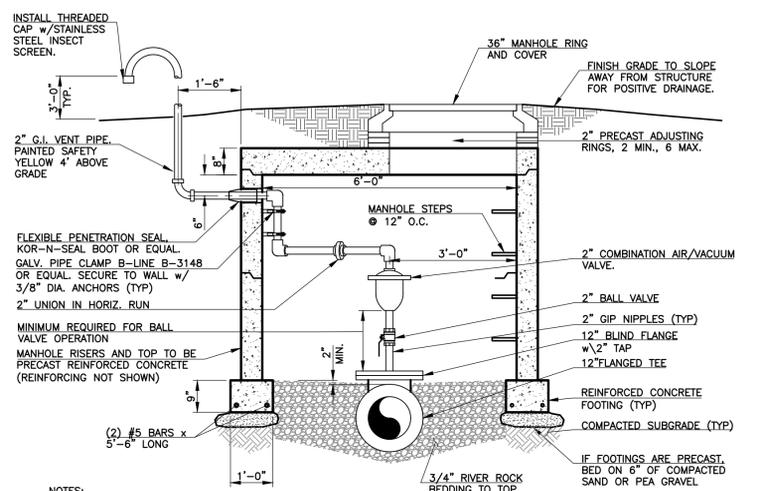
1 **22** **PRESSURE REDUCING VALVE MANHOLE PLAN**
SCALE: 1/2" = 1'-0"



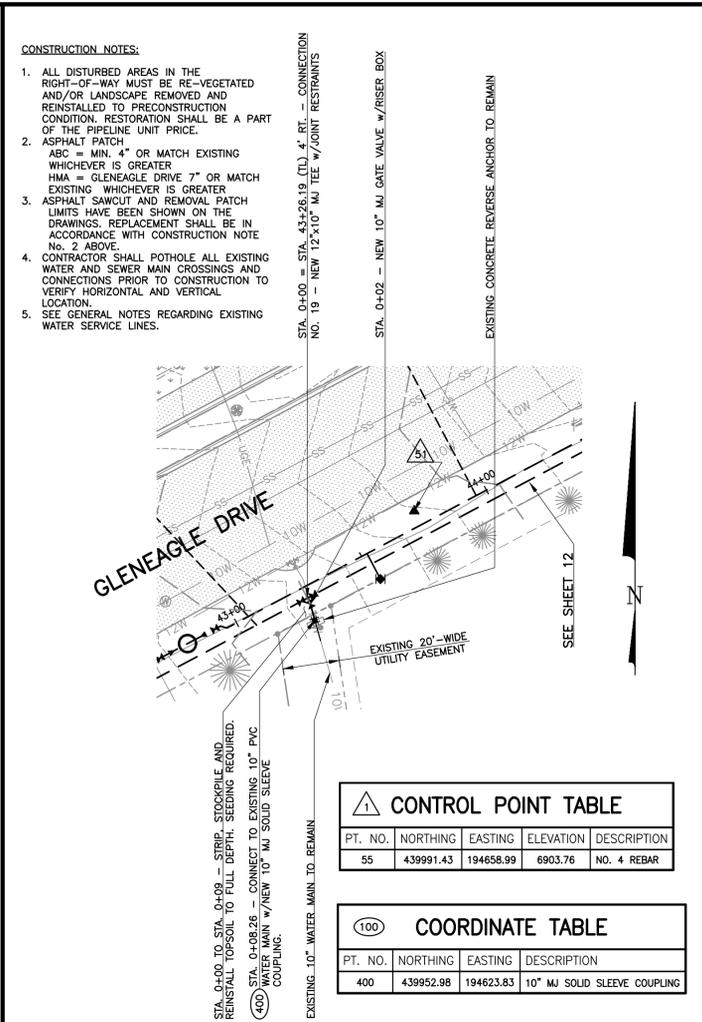
A **22** **PRESSURE REDUCING VALVE MANHOLE SECTION**
SCALE: 1/2" = 1'-0"



2 **22** **2" COMBINATION AIR/VACUUM VALVE MANHOLE PLAN**
SCALE: 1/2" = 1'-0"

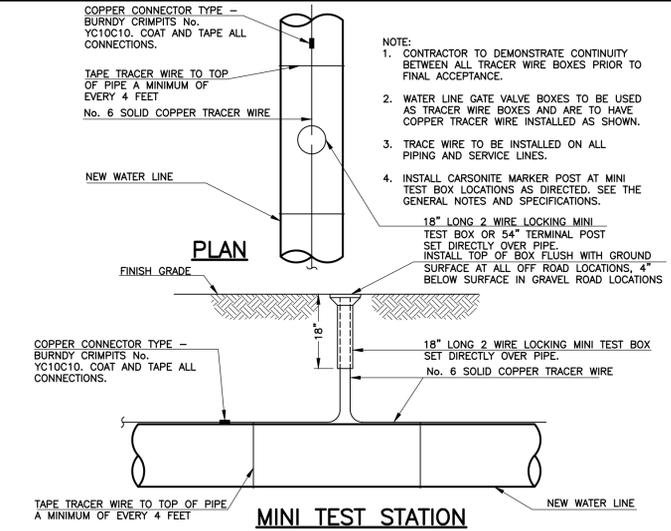


B **22** **2" COMBINATION AIR/VACUUM VALVE MANHOLE SECTION**
SCALE: 1/2" = 1'-0"

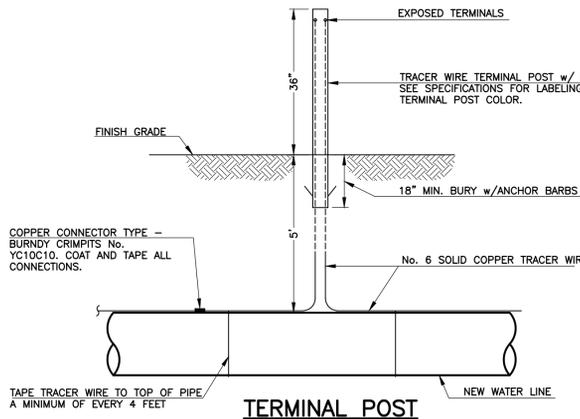


4 **22** **CONNECTION NO. 19 DETAIL**
SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

ELEVATION	DESCRIPTION
6910	EXISTING GROUND SURFACE PROFILE - TYP.
6905	EXISTING CONCRETE REVERSE ANCHOR
6900	0.00% SLOPES INDICATED
6895	8.25' L.F. OF 10" DR14 PVC @ SLOPES INDICATED
6890	STA. 0+00 = STA. 43+26.19 (TL) 4' RT. - CONNECTION NO. 19 - NEW 12"x10" MJ TEE w/ JOINT RESTRAINTS. ELEV. 12' = 6894.59 INT. ELEV. 10' = 6894.67
6885	STA. 0+02 - NEW 10" MJ GATE VALVE w/ RISER BOX
6880	STA. 0+08.26 - CONNECT TO EXISTING 10" WATER MAIN w/ NEW 10" MJ SOLID SLEEVE COUPLING. INT. ELEV. = 6894.64
6875	



MINI TEST STATION (SCHEDULE 2)



TERMINAL POST (SCHEDULE 1)

3 **22** **TRACER WIRE BOX INSTALLATION DETAIL**
SCALE: NONE

- NOTES:
- 12" DR9 IPS HDPE PIPE USE MINIMUM 45mil STAINLESS STEEL TRACER WIRE WITH BLUE INSULATED JACKET. PVC PIPE WILL USE No. 6 SOLID COPPER TRACER WIRE.
 - INSTALL TRACER WIRE ON ALL SERVICE LINES USE MINIMUM 45mil STAINLESS STEEL TRACER WIRE WITH BLUE INSULATED JACKET.
 - INSTALL MINI TEST BOX AT ALL FIRE HYDRANT ASSEMBLIES.
 - SEE SCHEDULE 1 FOR TERMINAL POST LOCATIONS

CONSTRUCTION NOTES:

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2. ASPHALT PATCH ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER. HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER.
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NO.	DATE	DESCRIPTION
1		

SCHEDULE 2 - CONNECTION 19 DETAILS AND SECTIONS
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
			MAY 2018	17072-400	2851

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