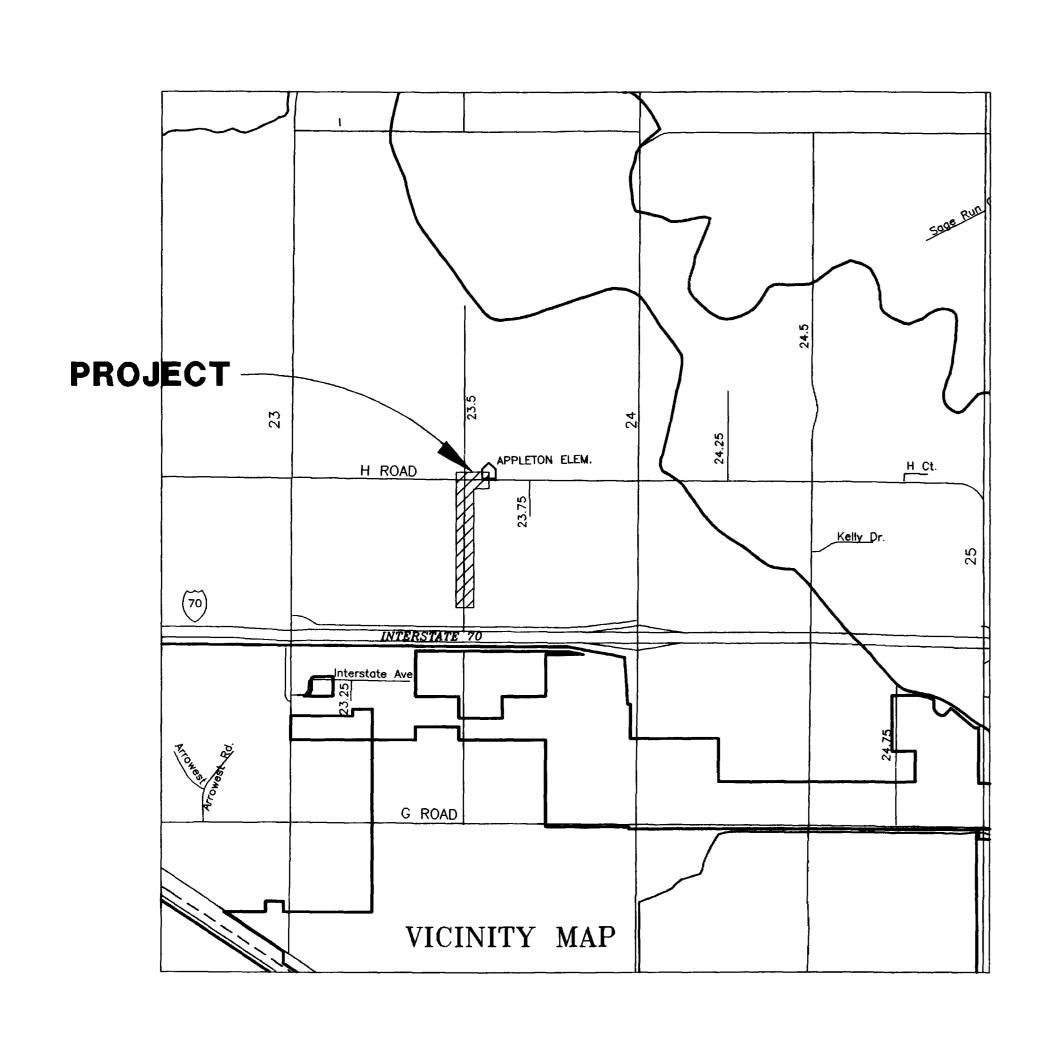
## SCHOOL DISTRICT 51

PLANS FOR CONSTRUCTION OF

# APPLETON SEWER LINE EXTENSION

MARCH 23, 1998



NO.

SHEET	1	OF	9
SHEET	2	OF	9
SHEET	3	OF	9
SHEET	4	OF	9
SHEET	5	OF	9
SHEET	6	OF	9
SHEET	7	OF	9
SHEET	8	$\mathbf{OF}$	9
SHEET	9	OF	9
SHEET	94	OF	7 9

TITLE

COVER							
GENERAL	LEGEND	AND	CO	NSTRUC	TIC	)N	NOTES
SANITARY	SEWER	LINE-	-A (	(SHEET	3	OF	9)
SANITARY	SEWER	LINE-	-A (	(SHEET	4	OF	9)
SANITARY	SEWER	LINE-	-A	SHEET	5	OF	9)
SANITARY	SEWER	LINE-	-A (	SHEET	6	OF	9)
SANITARY	SEWER	LINE-	$-\mathbf{A}$	SHEET	7	OF	9)
SANITARY	SEWER	LINE-	-B	SHEET	8	OF	9)
SANITARY				•			9)
EXHIBIT "	I" SANIT	TARY	SEW	ER DET	'AI	LS	,

THOMPSON-LANGFORD CORP.
529 25 1/2 RD., SUITE B210
GRAND JUNCTION, COLORADO
PH. (970) 243-6067

JOB NO. 0031-012

APPROVED FOR CONSTRUCTION

MESA COUNTY

Date

ACCEPTED AS CONSTRUCTED

MESA COUNTY

Date

APPROVED FOR CONSTRUCTION

CITY OF GRAND JUNCTION

Date

ACCEPTED AS CONSTRUCTED

CITY OF GRAND JUNCTION

ASPHALT REMOVAL/REPLACEMENT SECTION LINE EXISTING EDGE OF ASPHALT EASEMENT LINE CENTERLINE & STATION MARKERS CENTERLINE COMMON TRENCH-ELECTRICAL, TELEPHONE, & CABLE T.V. UNDERGROUND TELEPHONE LINE AND PEDESTAL EXISTING OVERHEAD UTILITY LINES & POLES CONDUIT LINE, TRANSFORMER W/SERVICE TO LOT, SWITCH BOX, POLE W/DROP STREET LIGHT GAS LINE, IX" DIAMETER (UNLESS OTHERWISE NOTED) PROPOSED WATERLINE, TEE & THRUST BLOCK, INLINE VALVE, FIRE HYDRANT, REDUCER, WATER METER, BLOW-OFF EXISTING WATERLINE, TEE & THRUST BLOCK, INLINE VALVE, FIRE HYDRANT, REDUCER, WATER METER, BLOW-OFF PROPOSED SANITARY SEWER. MANHOLE. SERVICE CONNECTION, WYE, SPECIAL PIPE & PLUG EXISTING SANITARY SEWER MANHOLE, SERVICE CONNECTION, WYE, SPECIAL PIPE & PLUG IRRIGATION LINE, TEE & THRUST BLOCK (pressure lines only), INLINE VALVE, PROPOSED, RISER, AND EXISTING RISER CURB INLET W/DIRECTION OF FLOW STORM SEWER, INLET, MANHOLE, OUTFALL (SMALLER THAN 30") BENCHMARK LOCATION SEE SHEET SHEET REF. "n" OF "x"

GENERAL CONSTRUCTION NOTES

- Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before digging.
- 2. All satisfactory excess excavation from either utility or street construction shall be spread uniformly as directed by the owner or his or her designated representative. All unsatisfactory or waste material including vegetation, roots, concrete, rocks, or other debris, shall be hauled from the project by the Contractor. No separate pay.
- 3. Contractor shall give 48 hour notice to all authorized inspectors, superintendents, or persons in charge of public and private utilities affected by his operations prior to commencement of work. Contractor shall assure himself that all construction permits have been obtained prior to commencement of work. All permits obtainable by the Contractor shall be obtained at the Contractor's expense.
- 4. Contractor shall confine his construction operations to the rights-of-way, easements, and lots, as shown on Plans and Plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the
- 5. All road construction, and related work, all materials, performance and quality of work, shall conform to the requirements of the Mesa County Standard Specifications and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards
- Sewer Lines are to be constructed in accordance with the technical specifications of the City of Grand Junction.
   Sewer lines must be tested and approved before paving.
- Water lines are to be constructed in accordance with the technical specifications of the Ute Water Conservancy District. Water lines must be tested and approved before paving.
- 8. Contractor shall familiarize himself with the geotechnical testing requirements of Mesa county. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling within Public rights-of-way or Public easements shall be tested.
- Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench backfill unless otherwise approved by the Engineer.

SANITARY SEWER CONSTRUCTION NOTES

- The Contractor shall obtain Mesa County and Colorado Department of Transportation underground utility permits for all work within existing County/State Right-of-way prior to construction.
- Service connections to manholes will not be permitted. The terminus
  of the services shall be located at the roadway centerline stationing shown
  shown on the Sanitary Sewer Plan and Profile sheets.
- 3. Manholes are to be constructed in accordance with the typical details. Care shall be taken in forming the inverts, cones or slabs are to be rotated such that openings are aligned as nearly as possible overimbe inlets. There are to be no steps inside the manholes. are to be adjusted to grade using pre-cast concrete grade rings or grout placed under the rim. Cast iron grade rings are not to be used. Include cost for adjusting manholes to final grade in unit bid price for manholes.
- Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate
- 5. Where sanitary sewers cross under waterline with less than 2-feet of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide a 20-foot concrete encasement. Where sewer crosses over the waterline, the encasements are to be encased per City of Grand Junction Standard Details.
- Sanitary sewer lines are to be tested in accordance with current City of Grand Junction technical specifications. Contractor to furnish all materials and equipment and is responsible for all required sewer line testing in the presence of the City Inspector. Pressure testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will be done after paving is completed. These tests shall be the basis of acceptance of the sewer line extension. Include cost in unit price bid for sanitary sewer lines.
- 7. All materials and workmanship shall be subject to inspection by the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials or workmanship that does not conform to their standards and specifications.
- 8. The contractor shall notify the City Inspection 48 hours prior to commencement of construction.
- The Contractor shall have one signed copy of the Plans and a copy of the City of Grand Junction standard Specifications at the job site at all times.
- 10. Sewer service stub-outs shall extend 14 ft. beyond the property line, glue capped and marked with a steel fence post buried I' below finished grade. As-built surveying required PRIOR to backfill.
- All sanitary sewer pipe to be PVC SDR 35 (ASTM 3034) unless otherwise specified.
- 12. All sewer mains to be constructed to grade utilizing a pipe laser.
- 13. All service line connections to the new main shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed.
- 14. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.
- 15. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer trench backfill unless otherwise approved by the Engineer.
- 16. A clay cut-off wall shall be placed IO feet upstream from all new manholes unless otherwise noted. The cut-off wall shall extend from 6 inches below to 6 inches above granular backfill material and shall be 2 feet wide. If native material is not suitable, the contractor shall import material approved by the engineer.

PAVING CONSTRUCTION NOTES

FL = flowline

El = elevation

- All road widths, and radii are to face of curb or flowline unless noted otherwise. Any "spot" design elevations are to flowline of curb and gutter unless otherwise noted.
- 2. TC = top of curb elevation
  BOW = back of sidewalk
  EOA = edge of asphalt elevation
  RIM = rim of manhole
  INV = invert elev. of manhole or inlet
  CL = centerline
  PL = property line
- 3. The top 6" of existing ground or the top 6" of areas cut to final grade are to be scarified, moistened and recompacted to 95% of AASHTO T99 to a depth of 6" before starting up with embankments or before base is placed.
- 4. Contractor to protect existing utilities and appurtenances.

  Manholes, drainage inlets, utility lines, etc., damaged,
  covered or filled with dirt or debris by the Contractor shall
  be cleaned and repaired at no expense to the Owner.
- 5. Aggregate base course must be compacted 95% AASHTO T-180.
- 6. Hot-mix asphaltic concrete to be CDOT Grading C. A mix design for the proposed pit must be approved by Engineer prior to placement of pavement.
- Where proposed pavement is to match existing pavement, existing pavement is to be square cut, full base thickness is to be brought to match line and existing surface is to be tack-coated before proposed surface is placed.
- Handicap ramps are to be constructed where indicated on the plans and in accordance with current City of Grand Junction Standard Details.
- 9. Curb, gutter and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than IOO feet. Locate dummy grooved joints between expansion joints at intervals not exceeding IO feet.
- IO. Include backing of curb and Gutter and or sidewalk with native fill material per the typical roadway section in the unit price bid for embankment.

#### WATERLINE CONSTRUCTION

- I. Ute water must have a signed copy of the Improvement Plans 48 hours prior to the commencement of construction.
- Water mains, services and other appurtenances are to be constructed in accordance with Ute Water Conservancy District details and technical specifications. Include cost for adjusting water valves to final pavement grade in unit bid price for gate valves and box's.
- 3. All water mains to be C-900, Class 150.
- All waterlines to have a minimum cover of 54-inches
- 5. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Ute Water Conservancy District details and Technical Specifications.
- 6. Water services are to be extended 14' beyond the property line, capped and marked with a 2x4 post painted blue.
- 7. Developer is responsible for installing meter pits and yokes at the time of construction.

  Ute Water will furnish the pits and yokes.
- 8. Waterlines, Pipe Fittings, Valves, and Services are to be installed, tested, and disinfected in accordance with current Ute Water Conservancy District technical specifications. Contractor is to furnish all materials and equipment. Include cost in unit price bid for waterlines.
- Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for waterline trench backfill unless otherwise approved by the Engineer.
- 10. Take care when installing water service lines where lot lines are not perpendicular to the right-of-way. Deflect service lines as shown or meter installations may fall on adjacent lots.
- II. The policies and fees of the Ute Water Conservancy District in effect at the time of application will apply to this property.

APPROVED FOR CONSTRUCTION	IN	ACCEPTED A	S CONSTRUC	CTED	
MESA COUNTY ENGINEERING	DATE	MESA COUNTY ENGIN	EERING		DATE
APPROVED FOR CONSTRUCTION	IN	APPROVED A	AS CONSTRUC	CTED	
CITY OF GRAND JUNCTION ENGINEERING	DATE	CETY DF GRAND JUN	ICTION ENGINEERING	DAT	E
	MESA COUNTY	, COLORADO	SCALE:	JOB NO:	DATE

 DRAWN BY:
 REVIEWED

 DESIGNED BY:
 DATE:
 FOR

 CHECKED BY:
 DATE:
 TOATE:

DAT

THOMPSON-LANGFORD CORP.
529 25 1/2 RD., SUITE B210
GRAND JUNCTION, COLORADO
PH. (970) 243-6067

American Consulting Engineers Council

	REVISION	DATE	DESCRIPTION	BY	CH'D	SCHOOL DISTRICT 51
<b>'</b> •						

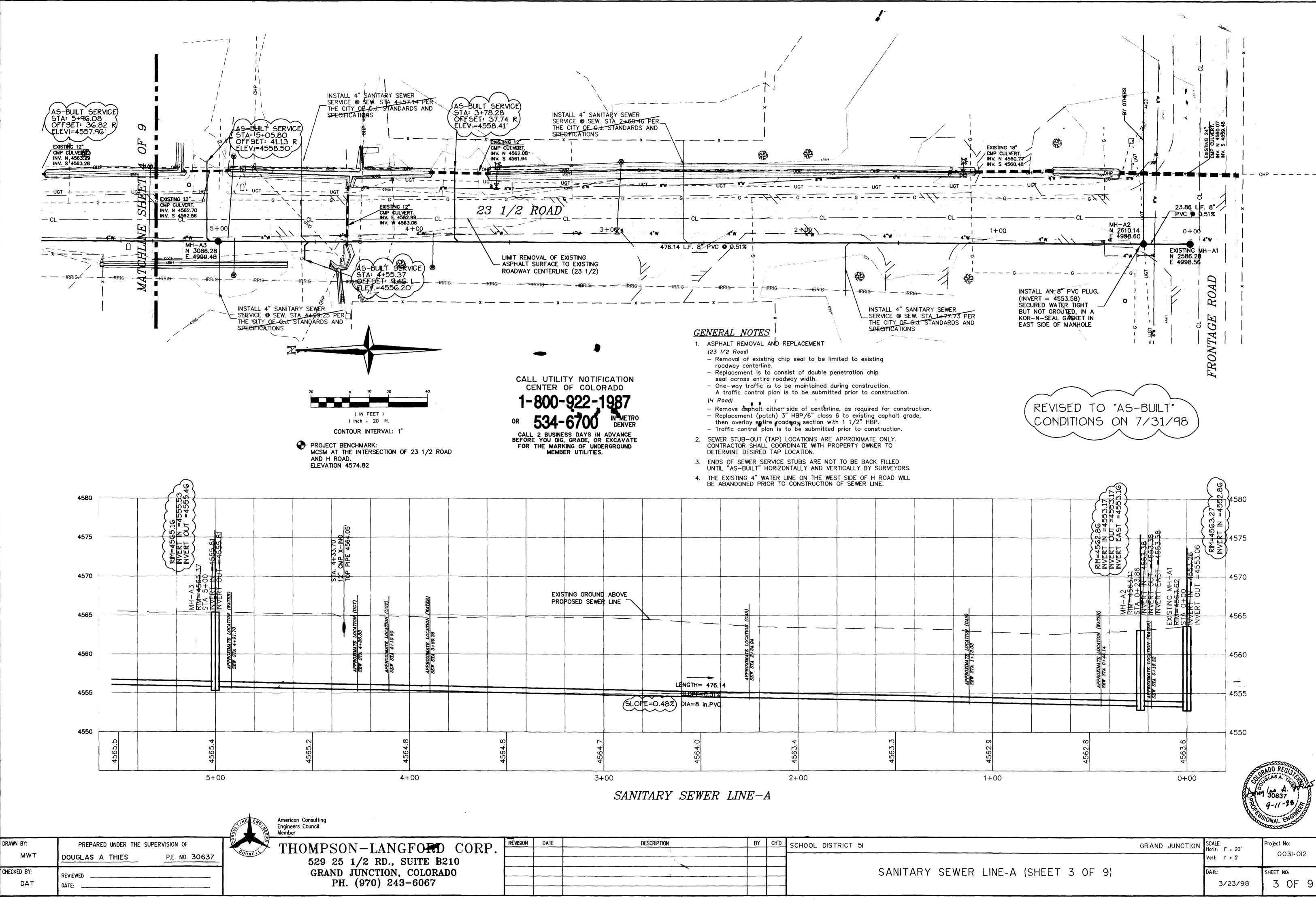
GENERAL LEGEND AND CONSTRUCTION NOTES

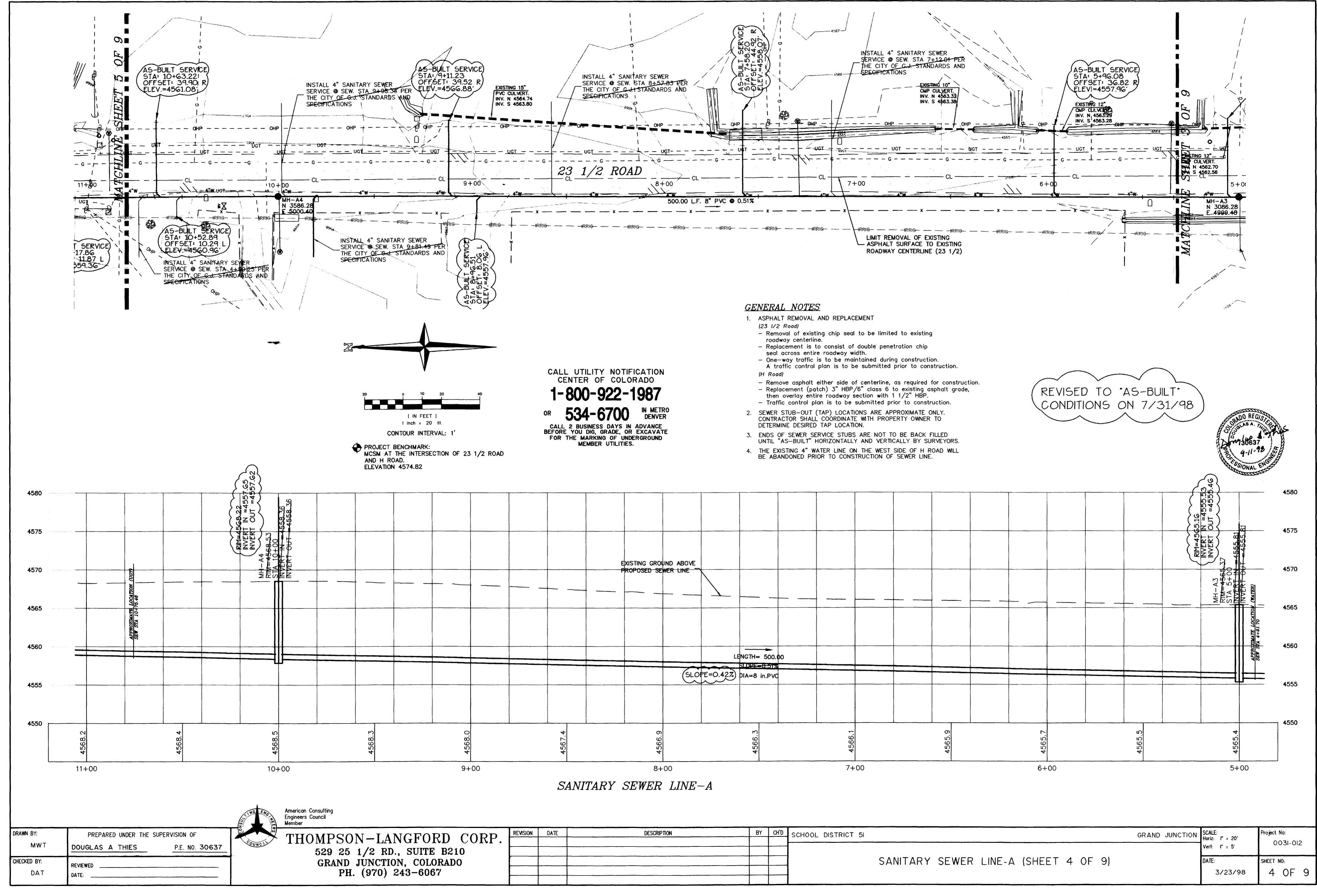
2 of 9

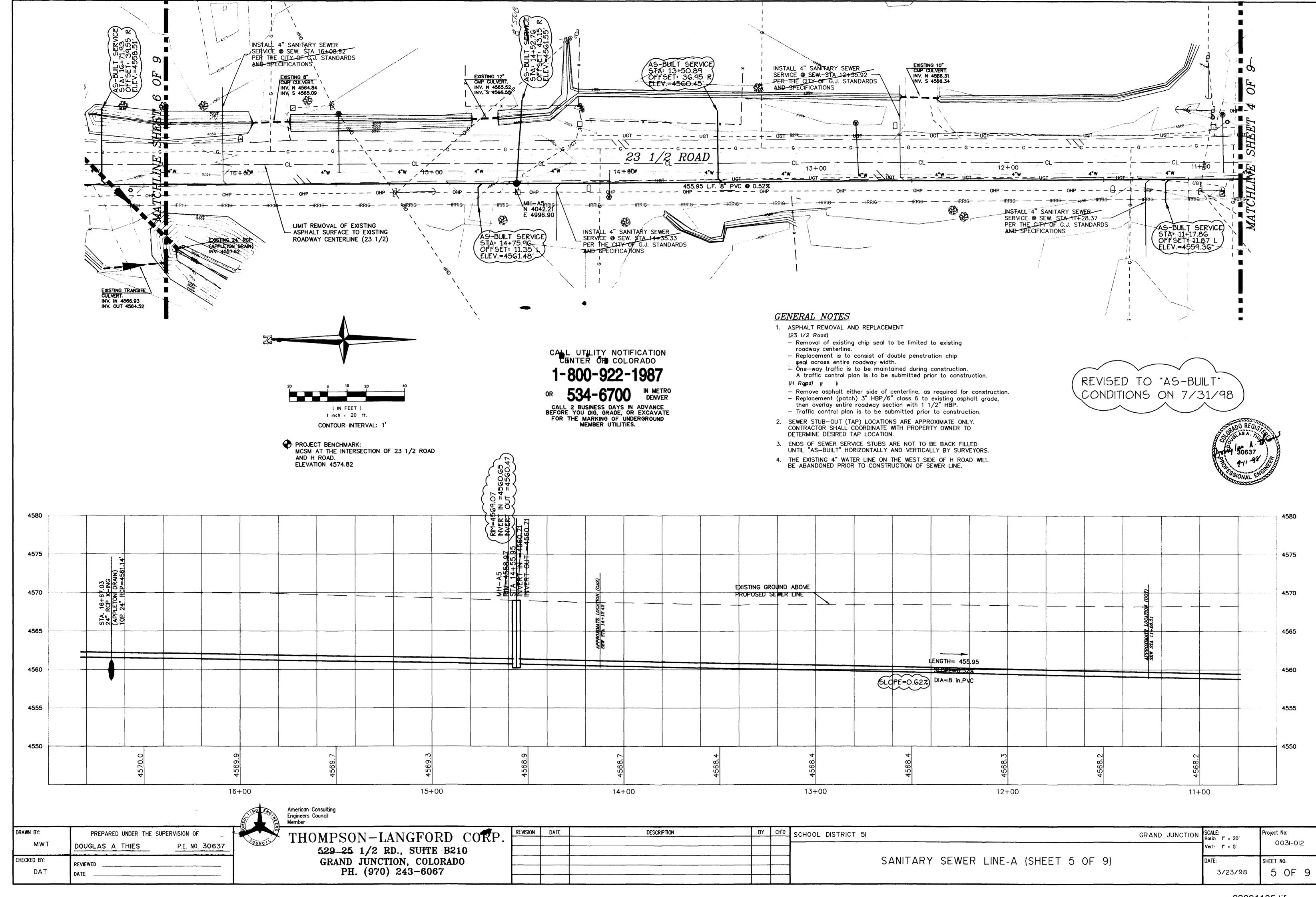
SHEET NO:

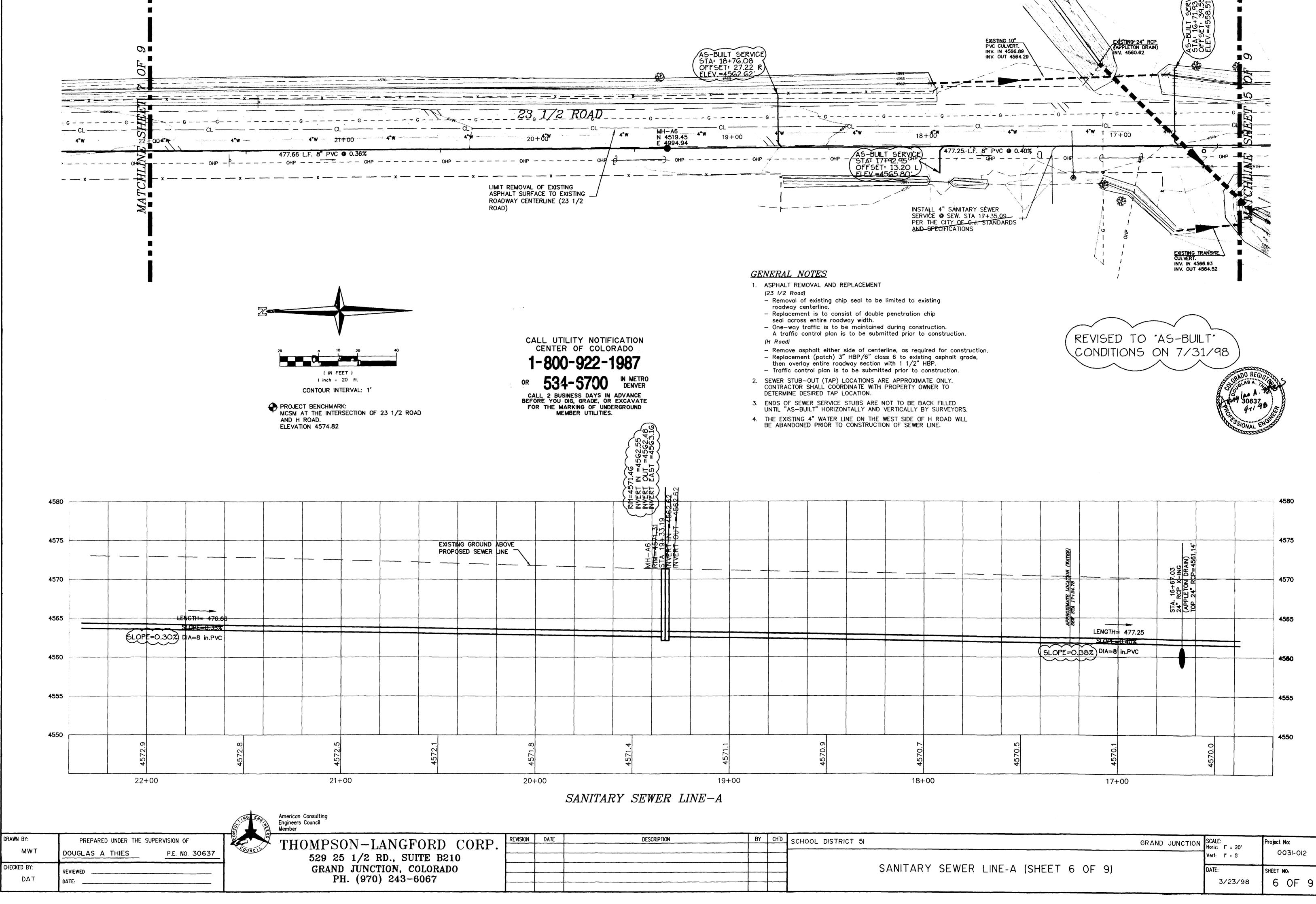
0031-012

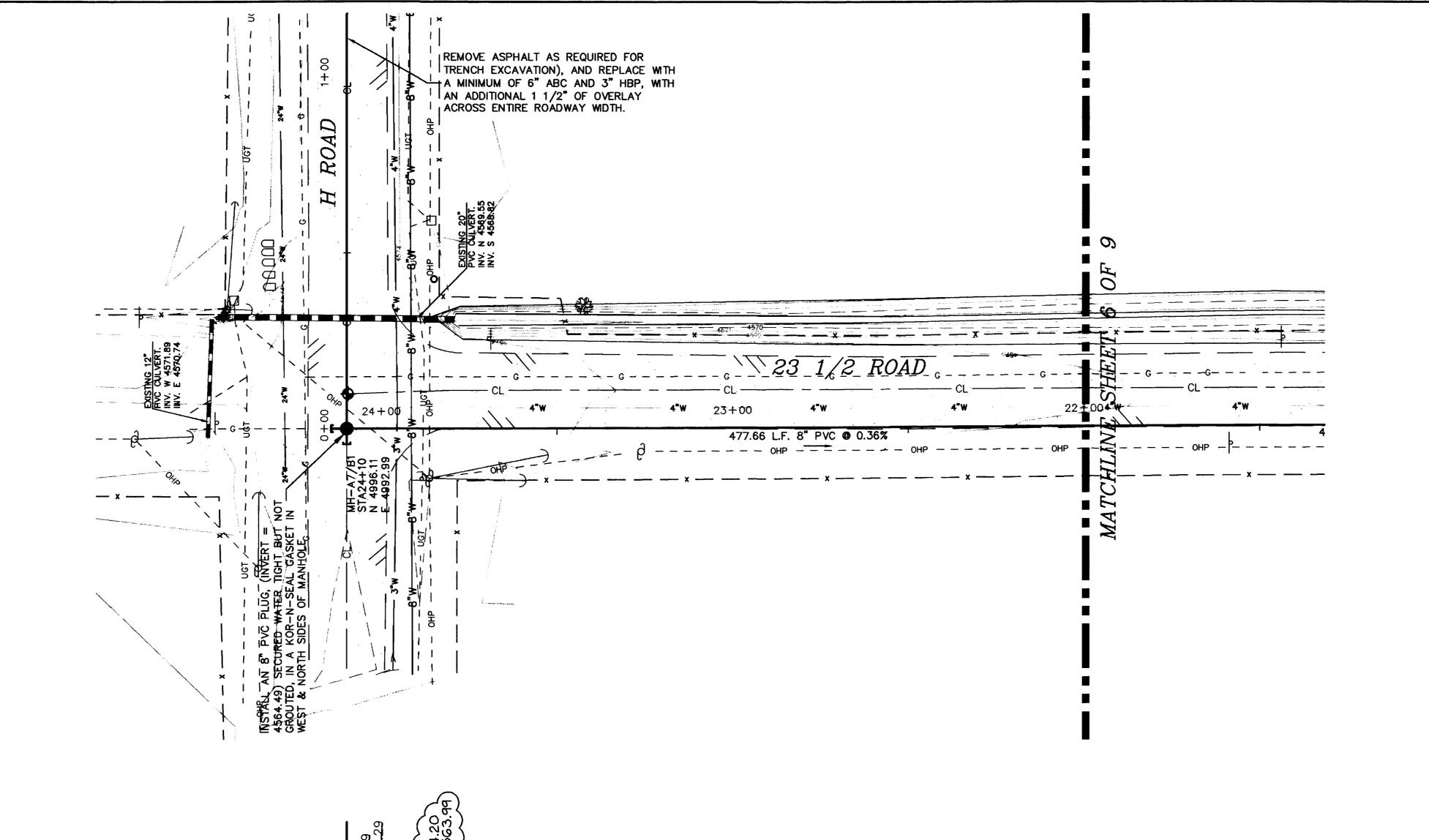
3/23/98





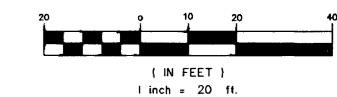






EXISTING GROUND ABOVE PROPOSED SEWER LINE





CONTOUR INTERVAL: 1'

PROJECT BENCHMARK:

MCSM AT THE INTERSECTION OF 23 1/2 ROAD

AND H ROAD. ELEVATION 4574.82

> CALL UTILITY NOTIFICATION CENTER OF COLORADO

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

#### **GENERAL NOTES**

1. ASPHALT REMOVAL AND REPLACEMENT

(23 I/2 Road) - Removal of existing chip seal to be limited to existing roadway centerline.

- Replacement is to consist of double penetration chip seal across entire roadway width.

- One-way traffic is to be maintained during construction. A traffic control plan is to be submitted prior to construction.

- Remove asphalt either side of centerline, as required for construction. - Replacement (patch) 3" HBP/6" class 6 to existing asphalt grade, then overlay entire roadway section with 1 1/2" HBP.

- Traffic control plan is to be submitted prior to construction.

SEWER STUB-OUT (TAP) LOCATIONS ARE APPROXIMATE ONLY. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER TO DETERMINE DESIRED TAP LOCATION.

ENDS OF SEWER SERVICE STUBS ARE NOT TO BE BACK FILLED UNTIL "AS-BUILT" HORIZONTALLY AND VERTICALLY BY SURVEYORS.

4. THE EXISTING 4" WATER LINE ON THE WEST SIDE OF H ROAD WILL BE ABANDONED PRIOR TO CONSTRUCTION OF SEWER LINE.

REVISED TO "AS-BUILT" CONDITIONS ON 7/31/98

GRAND JUNCTION



### SANITARY SEWER LINE-A

23+00

	ING ENG
VISION OF	
P.E. NO. 30637	COUNCIL

PREPARED UNDER THE SUPERVISION OF

DOUGLAS A THIES

DRAWN BY:

CHECKED BY:

MWT

DAT

American Consulting Engineers Council

THOMPSON-LANGFORD CORP.
529 25 1/2 RD., SUITE B210
GRAND JUNCTION, COLORADO
PH. (970) 243-6067

4570

4560

4555

4550

24+00

REVISION	DATE	DESCRIPTION	BY	CH'D

SANITARY	SEWER	LINE-A	(SHEET	7	OF	9)	

4575

4570

4565

4560

4550

SLOPE=0.30Z DIA=8 in.PVC

22+00

SCHOOL DISTRICT 5

l" = 20' l" = 5'	Project No: 0031-012
/23/98	SHEET NO:

