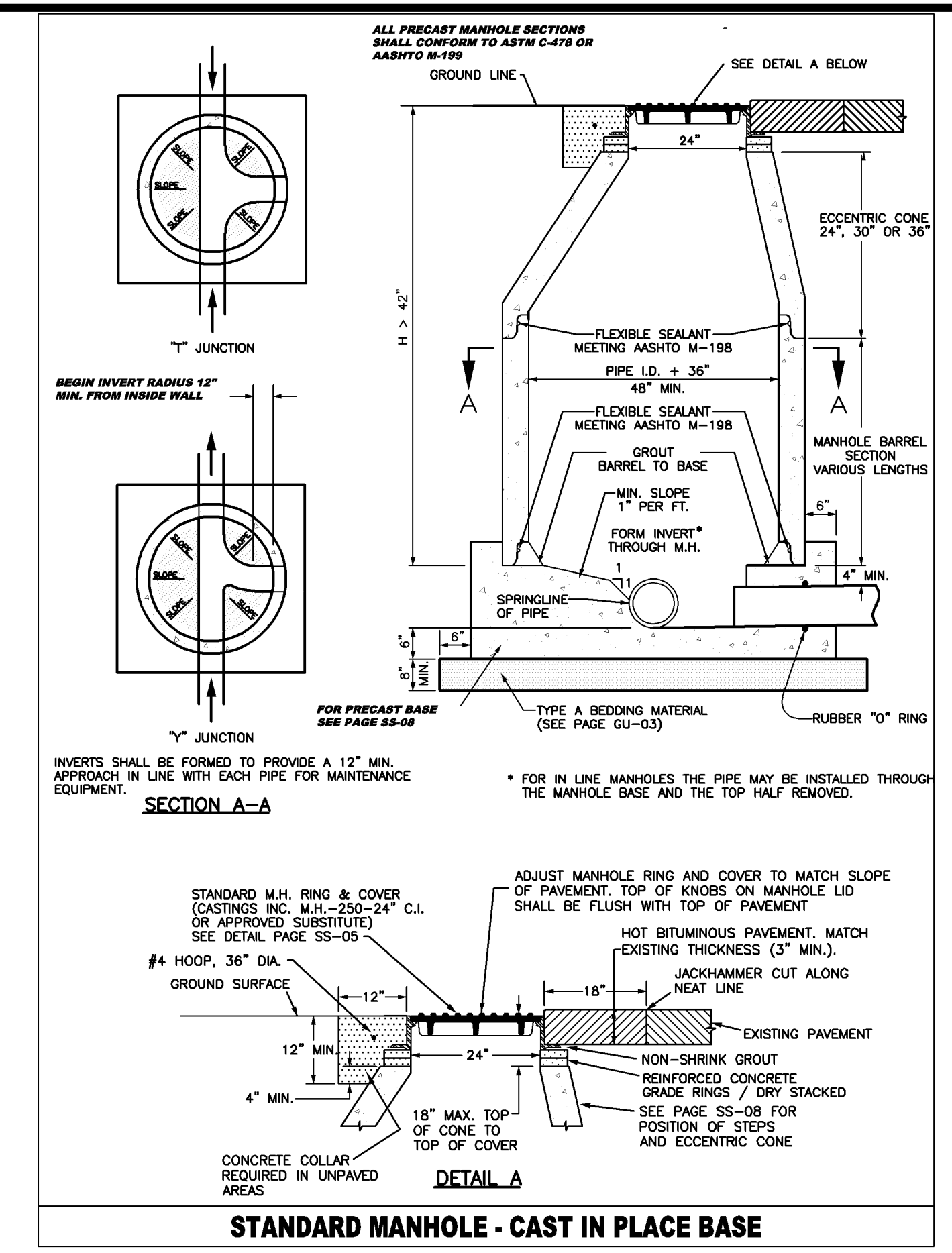


# RECORD DRAWING

- NOTES**
- CERTIFICATION OF THESE RECORD DRAWINGS BY THE REGISTERED PROFESSIONAL ENGINEER SHOWN DOES NOT CONSTITUTE CERTIFICATION THAT THE IMPROVEMENTS SHOWN ON THESE DRAWINGS WERE BUILT IN ACCORDANCE WITH THE APPROVED PLANS OR IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE ACCEPTING AGENCY OR ENTITY. THE INTENT OF THESE RECORD DRAWINGS IS TO PROVIDE REPRESENTATION OF THE PHYSICAL LOCATION OF THE IMPROVEMENTS AND THE TYPES OF MATERIALS INSTALLED.
  - CERTIFICATION OF THESE RECORD DRAWINGS BY THE REGISTERED PROFESSIONAL ENGINEER SHOWN DOES NOT INCLUDE CERTIFICATION OF THE AS-BUILT ELEVATIONS SHOWN. THE AS-BUILT ELEVATIONS OF IMPROVEMENTS SHOWN ON THESE DRAWINGS WERE PROVIDED BY THE SURVEY DEPARTMENT AT LANDesign, LLC.

SEWER COLLECTION SYSTEM IMPROVEMENTS SHOWN ON THIS SHEET WERE INSTALLED DECEMBER 2005 BY SORTER CONSTRUCTION OF GRAND JUNCTION, COLORADO

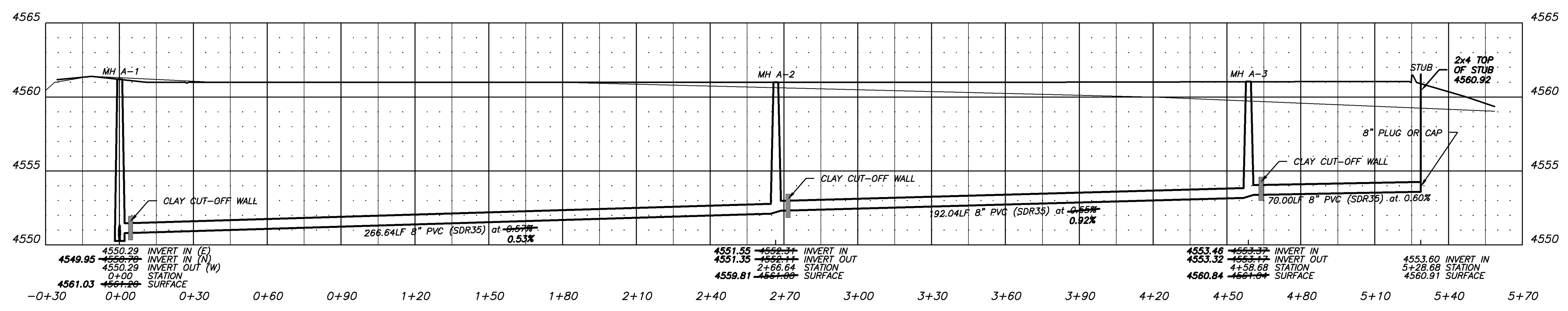


### MANHOLE NOTES

- CONCRETE SHALL BE COLORADO DEPARTMENT OF TRANSPORTATION CLASS "B" (SECTION 601.02)
- ALL CEMENT USED IN MORTAR, CONCRETE BASES, GRADE RINGS, RISER SECTIONS, CONES, AND FLAT TOPS, FOR SANITARY SEWER MANHOLES, SHALL BE TYPE V OR MODIFIED TYPE II PORTLAND CEMENT WITH LESS THAN 5% TRICALCIUM ALUMINATE.
- MANHOLE RISER SECTIONS, CONES, FLAT TOPS, AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478 OR AASHTO M-199.
- BACKFILL AROUND MANHOLES AND OTHER STRUCTURES SHALL BE PLACED IN 8" MAX. LIFTS AND COMPACTED TO 95% AASHTO T-99.
- ALL WORK SHALL BE IN ACCORDANCE WITH APPROVED PLANS AND CITY SPECIFICATION.
- MANHOLE CONE AND FLAT TOP SECTIONS SHALL BE POSITIONED SUCH THAT THE MANHOLE RING AND COVER IS CENTERED ON THE UPSTREAM FLOW LINE. IF THE CONE IS FURNISHED WITH STEPS, THE MANHOLE RING AND COVER WILL BE SHIFTED SO THAT THE STEPS ARE INSTALLED AT A 12" OFFSET FROM THE INLET PIPE.
- IF THE MANHOLE SECTIONS ARE FURNISHED WITH STEPS THEY SHALL BE INSTALLED AT A 12" OFFSET FROM THE INLET PIPE TO FACILITATE CLEANING AND TV EQUIPMENT.
- MANHOLE RING AND COVER SHALL BE SET TO FINISH GRADE USING RAPID ROAD REPAIR (OR APPROVED EQUAL) GROUT TO ADJUST RIM ELEVATION. GROUT SHALL NOT EXCEED 0.10 FT. THICKNESS. GROUT SHALL BE PLACED BETWEEN TOP OF CONCRETE GRADE RING AND RING AND COVER. STEEL PAVING RINGS ARE NOT ALLOWED FOR GRADE ADJUSTMENT UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- INVERTED CASTINGS WILL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER.
- THE INVERTS FOR ALL MANHOLES SHALL BE CONSTRUCTED AS A CONCRETE TROUGH AND EPOXY COATED. EPOXY COATING SHALL CONFORM TO THE CITY OF GRAND JUNCTION STANDARD CONTRACT DOCUMENTS FOR CAPITAL IMPROVEMENTS CONSTRUCTION, FEBRUARY 2001, UNDERGROUND UTILITY SECTION 102.11.

### CITY OF GRAND JUNCTION SANITARY SEWER NOTES

- CONTRACTOR SHALL HAVE ONE SIGNED COPY OF PLANS AND A COPY OF THE CITY OF GRAND JUNCTION'S STANDARD SPECIFICATIONS AT THE JOB SITE AT ALL TIMES.
- ALL SEWER MAINS SHALL BE PVC SDR 35 (ASTM 3034) UNLESS OTHERWISE NOTED.
- ALL SEWER MAINS SHALL BE LAID TO GRADE UTILIZING A PIPE LASER.
- ALL SERVICE LINE CONNECTIONS TO THE NEW MAIN SHALL BE ACCOMPLISHED WITH FULL BODY WYES OR TEES. TAPPING SADDLES WILL NOT BE ALLOWED.
- NO 4" SERVICES SHALL BE CONNECTED DIRECTLY INTO MANHOLES.
- THE CONTRACTOR SHALL NOTIFY THE CITY FOR INSPECTION 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SEWER LINE TESTING TO BE COMPLETED 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 ALSO BE ACCOMPLISHED AFTER PAVING IS COMPLETED. THESE TESTS SHALL BE THE BASIS OF ACCEPTANCE OF THE SEWER LINE EXTENSION.
- THE CONTRACTOR SHALL OBTAIN CITY OF GRAND JUNCTION STREET CUT PERMIT FOR ALL WORK WITHIN EXISTING CITY RIGHT-OF-WAY PRIOR TO CONSTRUCTION.
- A CLAY CUT-OFF WALL SHALL BE PLACED 10' UPSTREAM FROM ALL NEW MANHOLES UNLESS OTHERWISE NOTED. THE CUT-OFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE GRANULAR BACKFILL MATERIAL AND SHALL BE 2' WIDE. IF NATIVE MATERIAL IS NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL APPROVED BY THE ENGINEER.
- SEWER SERVICE STUB OUTS SHALL BE CAPPED AND PLUGGED. STUB OUT SHALL BE 2" x 4" PAINTED GREEN. AS-BUILT SURVEYING FOR VERTICAL GRADE OF STUB OUT REQUIRED PRIOR TO BACKFILL.
- SEWER MAIN LINE STUB OUTS SHALL BE CAPPED AND PLUGGED. STUB OUT SHALL BE IDENTIFIED WITH A STEEL FENCE POST BURIED 1' BELOW FINISHED GRADE. AS-BUILT SURVEYING AND LAMPING OF STUB OUT REQUIRED PRIOR TO BACKFILL.
- RED LINE AS-BUILTS SHALL BE SUBMITTED TO THE CITY DEVELOPMENT ENGINEER PRIOR TO PAVING FOR REVIEW.



### SANITARY SEWER LINE

HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 5'

PROJECT BENCH MARK:  
N:36827.71  
E:87128.91  
#5 REBAR NO CAP  
ELEV.=4556.34

BENCHMARK BASED ON  
MESA COUNTY CONTROL  
NETWORK  
NAVD 88

CITY OF GRAND JUNCTION

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

ACCEPTED AS CONSTRUCTED

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**CALL BEFORE YOU DIG 1-800-922-1987**

NOTICE: FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.

BY: \_\_\_\_\_

REVISION: \_\_\_\_\_

NO: \_\_\_\_\_

DATE: \_\_\_\_\_

**SANITARY SEWER PLAN & PROFILE**

CHK'D: WSM

DRAWN: ARC

DATE: 9/29/05

**HANSON EQUIPMENT**

FILE NAME: 205054-HANSON EQUIPMENT

PROJECT NO.: 205045

**LANDesign**

ENGINEERS • SURVEYORS • PLANNERS

244 NORTH 7th STREET  
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

COLORADO REGISTERED PROFESSIONAL ENGINEER

39263

SHEET 6 OF 15