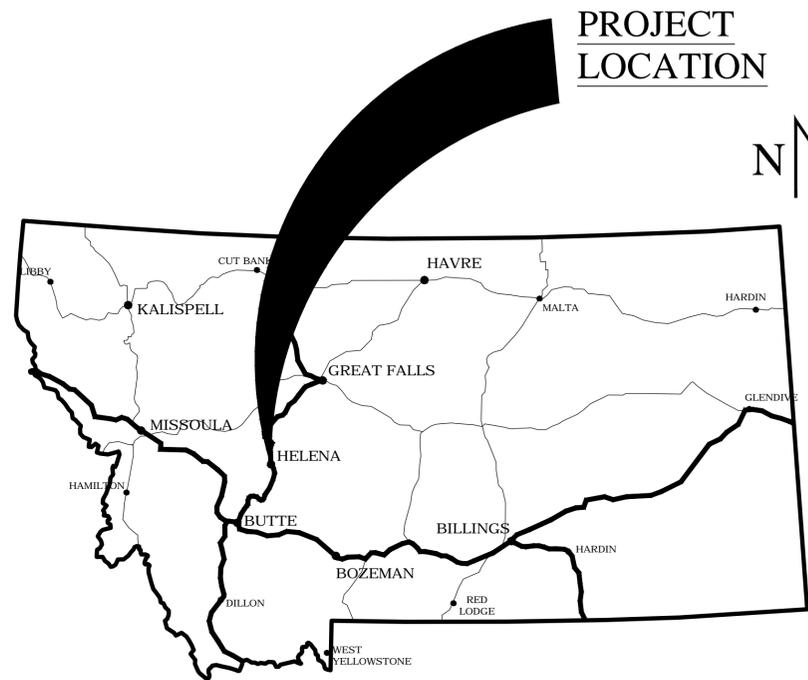
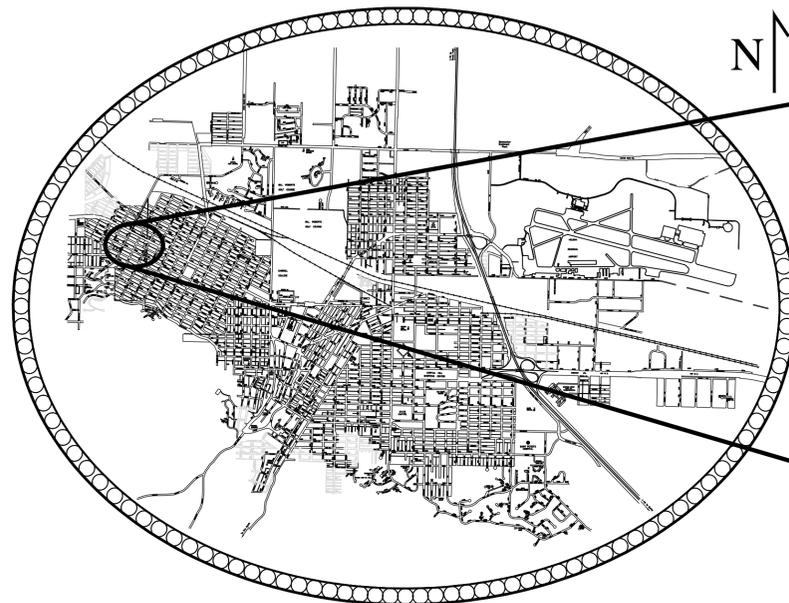


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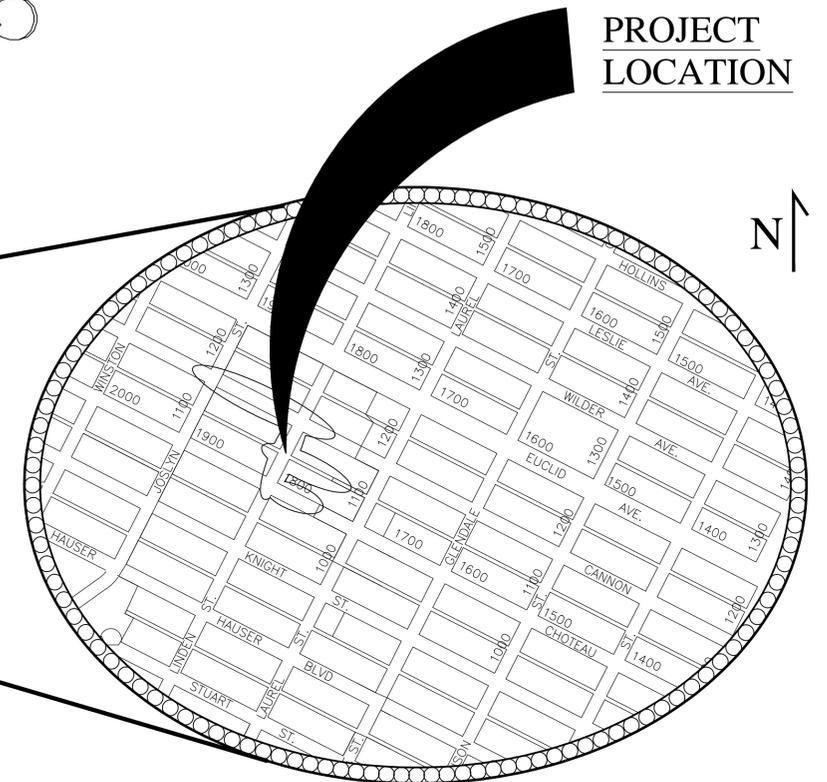
CITY OF HELENA PUBLIC SEWAGE SYSTEM CANNON STREET SEWER MAIN EXTENSION CITY PROJECT #15-15



MONTANA
STATE MAP



CITY OF HELENA
VICINITY MAP



CITY OF HELENA
PROJECT LOCATION MAP

AUGUST 2015

APPROVED BY:
CITY OF HELENA

CITY ENGINEER

DIRECTOR OF PUBLIC WORKS

PREPARED BY:
CITY ENGINEERING DIVISION

CITY OF HELENA
316 NORTH PARK AVENUE
HELENA, MONTANA



City of Helena

INDEX OF SHEETS

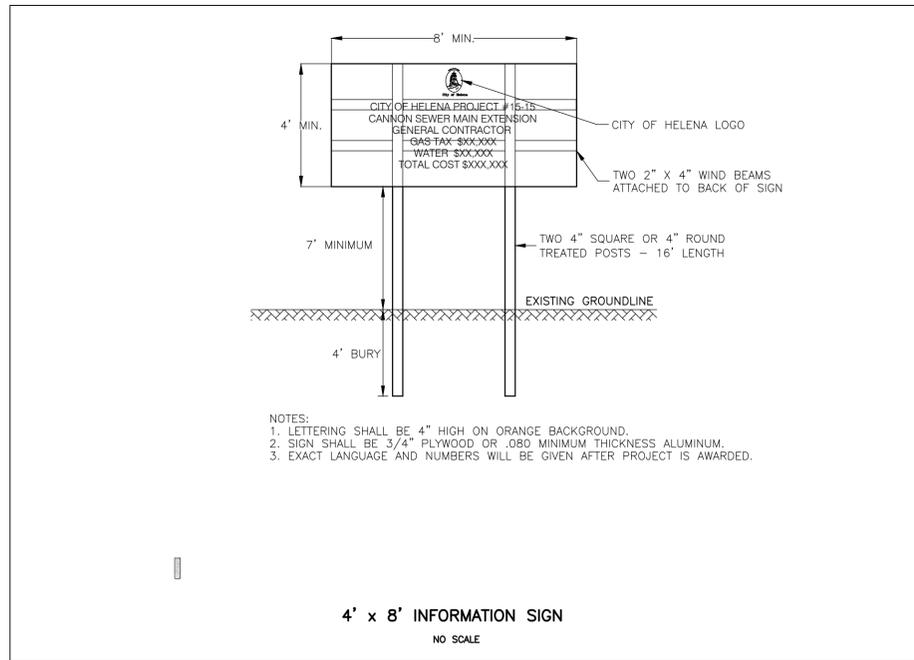
COVER SHEET	1
LEGEND-NOTES	2
P-P CHOTEAU ST	3
P-P LINDEN ST	4
P-P ALLEY WAY CANNON ST-CHOTEAU ST	5
P-P CANNON ST - 1	6
P-P CANNON ST - 2	7

GENERAL PROJECT NOTES:

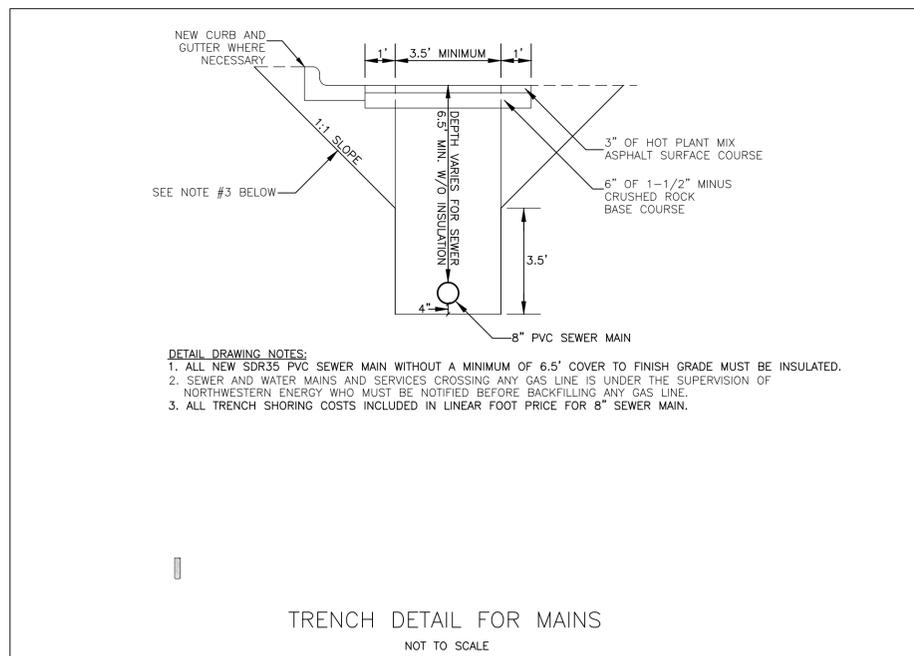
- CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS FOR CONSTRUCTION, DEWATERING AND STORMWATER DISCHARGES AT THEIR OWN EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR USE OF STORM WATER BEST MANAGEMENT PRACTICES (BMPS) TO CONTROL STORMWATER RUNOFF AND RUNON TO EACH PROJECT AREA. BMPS SHALL BE IMPLEMENTED FOR ANY STORMWATER COLLECTED PRIOR TO ANY DISCHARGE TO THE MUNICIPAL STORM SEWER SYSTEM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DUST CONTROL DURING CONSTRUCTION.
- THE LATEST EDITION OF THE CITY OF HELENA ENGINEERING AND DESIGN STANDARDS AND THE MONTANA PUBLIC WORKS STANDARDS (IN THAT ORDER) SHALL APPLY IN THE CASE OF ANY APPLICABLE CLARIFICATION OR INTERPRETATION OF THE PROJECT DRAWINGS OR SPECIFICATIONS.
- WHEN WORKING NEAR AND/OR EXPOSING EXISTING UTILITIES AND SERVICE LINES, WORKERS SHALL UTILIZE HAND-DIGGING METHODS IN ORDER TO AVOID DAMAGE TO THOSE UTILITIES. IF DAMAGE OCCURS, THE COST OF REPAIR WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE OWNER AND ALL AFFECTED RESIDENTS SHALL BE NOTIFIED NO LATER THAN ONE WEEK PRIOR TO CONSTRUCTION THAT WILL IMPACT ACCESSIBILITY TO THEIR PROPERTY, PARKING OR SERVICES.
- ALL ASPHALT, CONCRETE AND CURB AND GUTTER THAT IS DEMOLISHED OR REMOVED UNDER THIS AGREEMENT SHALL BE PROPERLY DISPOSED OF AND ALL COSTS THEREOF SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO DEMOLITION, INSTALLATION OR PLANTING OPERATIONS. ANY DAMAGE TO OR RESULTING FROM ENCOUNTERING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RETURNED TO THEIR PRE-CONSTRUCTION CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
- A PORTION OF THE PROJECT INVOLVES THE REMOVAL AND INSTALLATION OF INFRASTRUCTURE WITHIN THE TRAVELED RIGHT-OF-WAY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES NECESSARY TO ASSURE SAFE AND EFFICIENT FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE CONSTRUCTION AREA(S).
- A NEAT, VERTICAL SAWCUT SHALL BE MADE WHEREVER ASPHALT, CONCRETE, SIDEWALK OR CURB AND GUTTER REMOVAL ABUTS EXISTING INFRASTRUCTURE TO REMAIN.
- DISPOSE OF ALL EXCAVATED SOIL, DEBRIS, ASPHALT, AND CONCRETE OFF THE PROJECT SITE AND IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

PROJECT UTILITY NOTES:

- THE ENGINEER HAS OBTAINED UNDERGROUND UTILITY INFORMATION FROM OWNERS OF THE UNDERGROUND UTILITIES AND HAS INCLUDED THAT INFORMATION AS PART OF THESE PLANS. THIS UTILITY LOCATION INFORMATION IS APPROXIMATE AND MAY BE INCOMPLETE OR INACCURATE.
- BEFORE BEGINNING ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY, THROUGH ONE-CALL NOTIFICATION CENTER, ALL OWNERS OF UNDERGROUND FACILITIES IN THE AREA OF THE PROPOSED EXCAVATION. THE PHONE NUMBER IS: **1-800-424-5555**.
- AFTER AN OWNER OF AN UNDERGROUND FACILITY HAS LOCATED AND MARKED THE UNDERGROUND FACILITIES, THE CONTRACTOR SHALL DETERMINE IF WEATHER, TIME OR OTHER FACTORS MAY HAVE AFFECTED LOCATION MARKS, WARRANTING RELOCATION OF THE UTILITIES.
- IF EXCAVATION HAS NOT OCCURRED WITHIN 30 DAYS OF THE LOCATE AND MARK, THE CONTRACTOR SHALL REQUEST THAT THE FACILITY BE RELOCATED AND REMARKED BEFORE EXCAVATING UNLESS OTHER ARRANGEMENTS HAVE BEEN MADE WITH THE UNDERGROUND FACILITY OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH RELOCATING AND REMARKING A FACILITY THAT IS NOT EXCAVATED WITHIN 30 DAYS OF THE LOCATE AND MARK.
- THE CONTRACTOR MAY NOT BEGIN EXCAVATION BEFORE THE LOCATING AND MARKING IS COMPLETE OR BEFORE THE CONTRACTOR IS NOTIFIED THAT LOCATING AND MARKING IS UNNECESSARY.
- THE CONTRACTOR SHALL LOCATE AND MARK THE AREA TO BE EXCAVATED IF REQUESTED BY THE UNDERGROUND FACILITY OWNER OR THEIR REPRESENTATIVE. IF THE CONTRACTOR DISCOVERS AN UNDERGROUND FACILITY THAT HAS NOT BEEN LOCATED AND MARKED, THE CONTRACTOR SHALL STOP EXCAVATING IN THE VICINITY OF THE FACILITY AND NOTIFY THE FACILITY OWNER OR THE ONE-CALL NOTIFICATION CENTER. IF THIS OCCURS, THE CONTRACTOR SHALL PROCEED WITH OTHER ELEMENTS OF THE PROJECT, AT NO COST TO THE PROJECT OWNER, UNTIL THE UNDERGROUND FACILITY OWNER HAS NOTIFIED THE CONTRACTOR THAT EXCAVATION CAN PROCEED.



4' X 8' PROJECT INFORMATIONAL SIGN DETAIL
SCALE : NOT TO SCALE



UTILITY TRENCH DETAIL
SCALE : NOT TO SCALE

PROJECT PLANS LEGEND/KEY:

- 4235.00** EXISTING MAJOR TOPOGRAPHIC LINE (5' INTERVAL)
- EXISTING MINOR TOPOGRAPHIC LINE (1' INTERVAL)
- EXISTING OVERHEAD UTILITY
- EXISTING UNDERGROUND ELECTRICAL
- 4W** EXISTING 4 INCH DIAMETER CI WATER MAIN
- 6W** EXISTING 6 INCH DIAMETER DI/CI WATER MAIN
- 12W** EXISTING 12 INCH DIAMETER DI WATER MAIN
- EXISTING WATER VALVE AND VALVE RISER BOX
- EXISTING FIRE HYDRANT
- 6SAN** EXISTING 6 INCH VCP SEWER MAIN
- 8SAN** EXISTING 8 INCH SEWER MAIN
- 10SAN** EXISTING 10 INCH SEWER MAIN
- 4SAN** NEW 4 INCH SEWER SERVICE
- EXISTING 48" DIAMETER MANHOLE TO REMAIN
- 8SAN** NEW 8" SDR35 PVC SEWER MAIN
- NEW 48" DIAMETER MANHOLE
- NEW 60" DIAMETER MANHOLE

SURVEY NOTES:

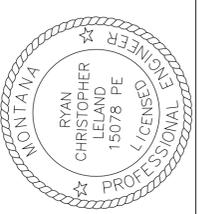
BASIS OF HORIZONTAL
 GEODETIC NORTH OBTAINED BY GPS OBSERVATIONS & OPUS PROCESSING.
 DATUM IS NAD83 (2011) (EPOCH 2010.00)
 PROJECTION: TRANSVERSE MERCATOR
 CENTRAL MERIDIAN: W 111°57'00"
 PROJECT ORIGIN LATITUDE: N 46°30'00"
 SCALE FACTOR AT CENTRAL MERIDIAN: 1.000191
 FALSE NORTHING: 100,000.000 IFT
 FALSE EASTING: 200,000.000 IFT

BASIS OF VERTICAL
 NAVD88 US SURVEY FEET AS OBTAINED THROUGH OPUS PROCESSING AND GEOID 12A.

UTILITY STATEMENT
 UTILITIES SHOWN HEREON ARE FROM CITY UTILITY INFORMATION, PHYSICAL STRUCTURES, OR FROM SURFACE PAINT MARKINGS BY A LOCATOR SERVICE. THE SURVEYOR IMPLIES NO GUARANTEE OR WARRANTY OF MARKINGS AS SHOWN AND ALL UTILITIES SHOULD BE VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITIES.

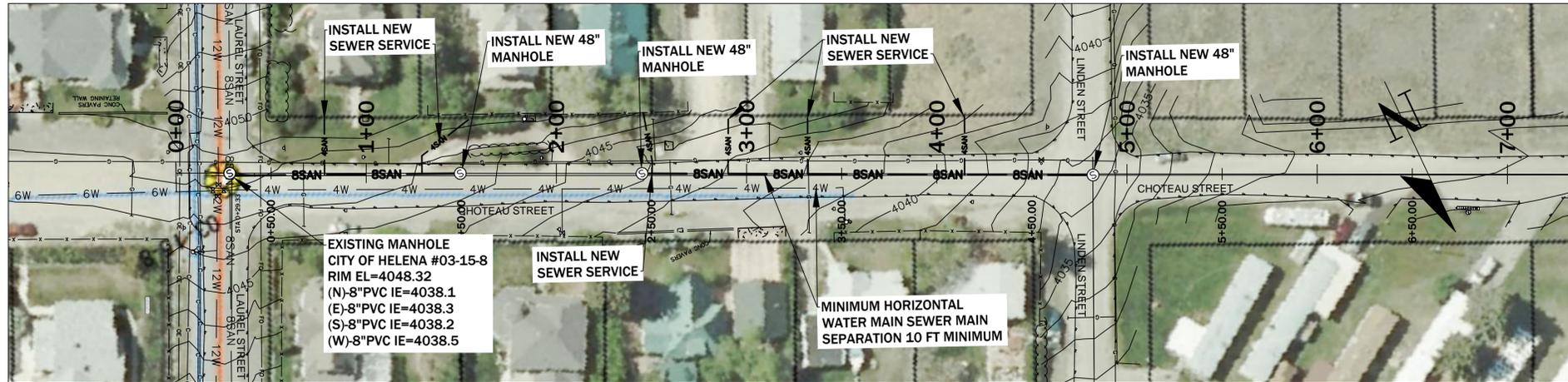
NO.	REVISION DESCRIPTION	BY	DATE

PROJECT: #15-15	DESIGNED: T.JL	DRAWN: T.JL	CHECKED: JRC	APPROVED: RCL	DATE: AUGUST 14, 2015
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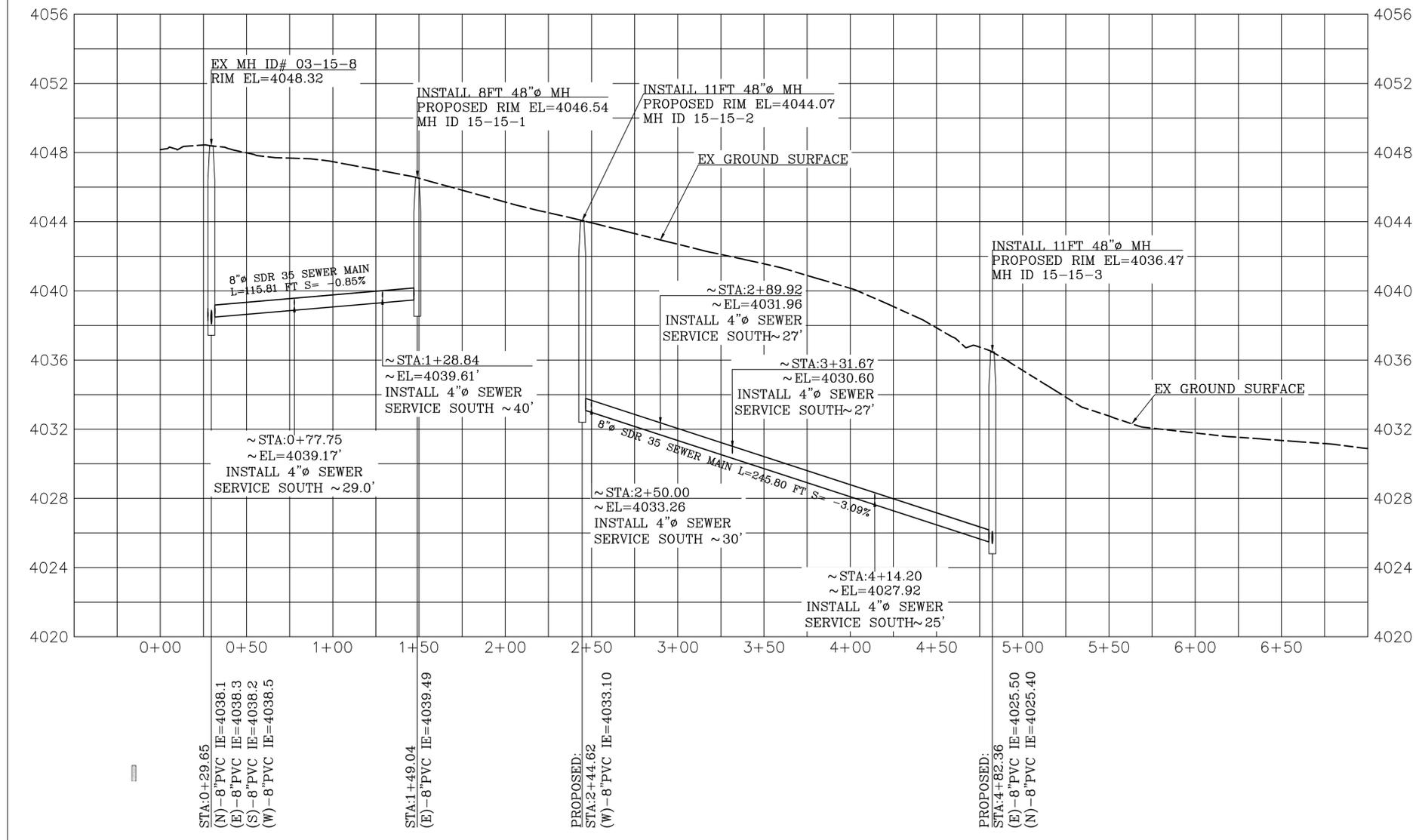
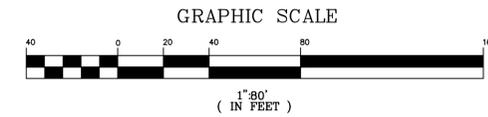
CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY OF HELENA PROJECT #15-15
 DETAILS-LEGEND-NOTES

PLAN VIEW CHOTEAU ST



NOTES:

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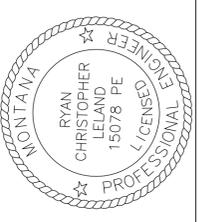


PROFILE VIEW

HORIZONTAL SCALE 1"= 80'
 VERTICAL SCALE 1"= 8'
 VERTICAL EXAGGERATION = 10

NO.	REVISION DESCRIPTION	BY	DATE

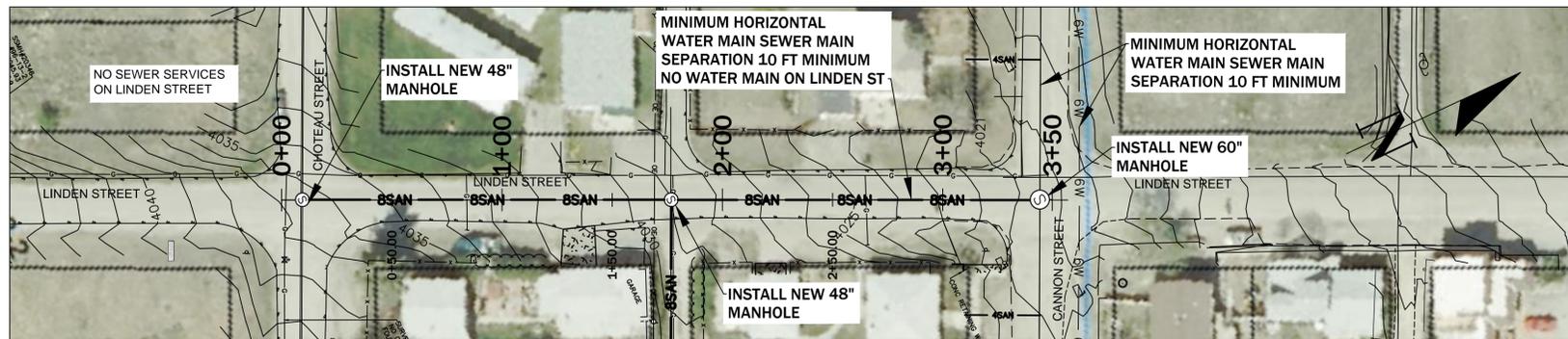
PROJECT: #15-15
DESIGNED: T.J.L
DRAWN: T.J.L
CHECKED: J.R.C
APPROVED: R.C.L
DATE: AUGUST 14, 2015



CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY OF HELENA PROJECT 15-15
 P-P SHEET CHOTEAU ST

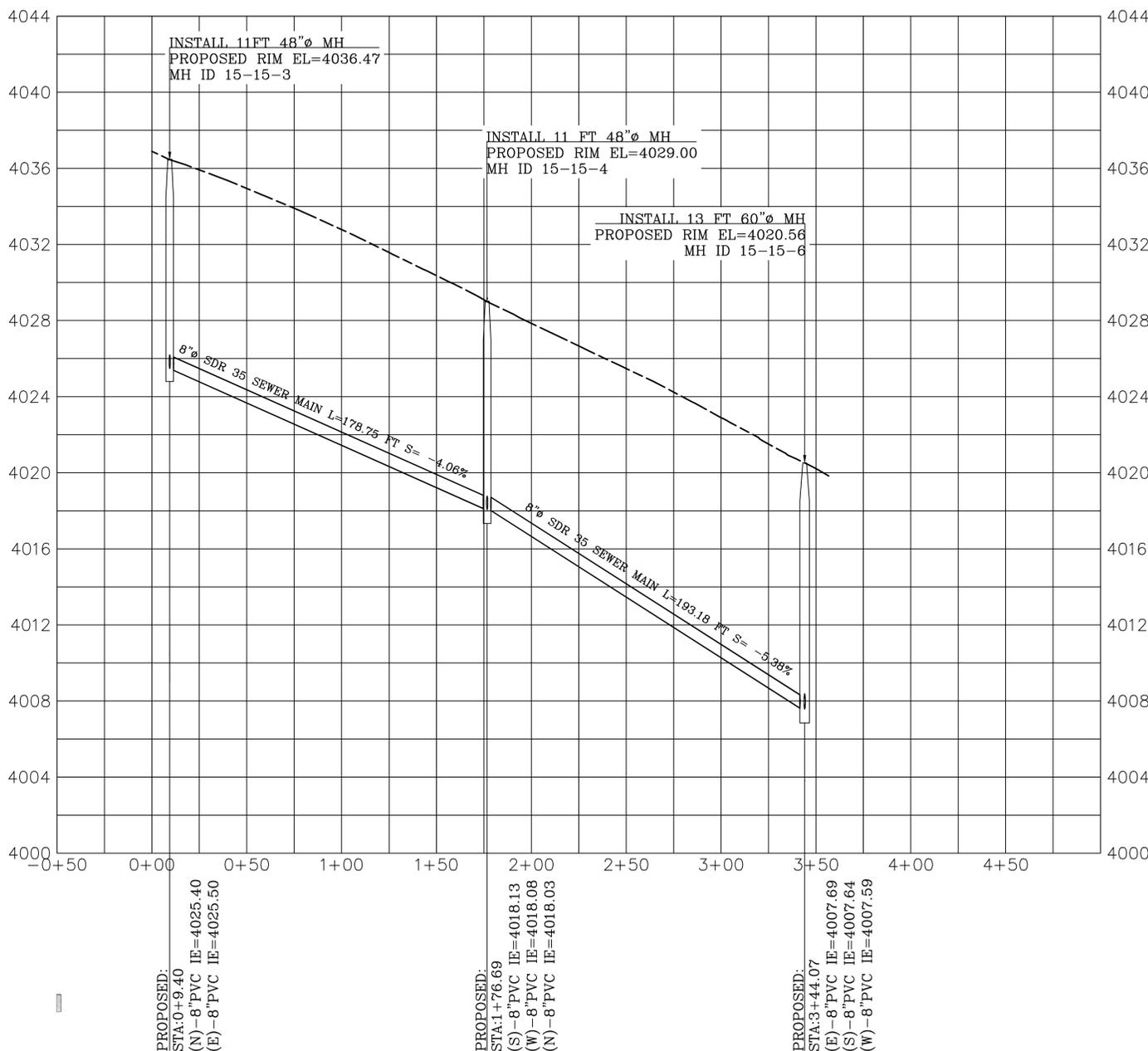
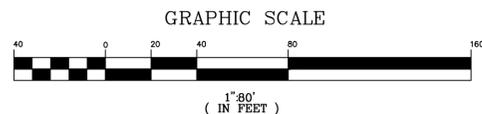
SHEET NO.
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 OF 7

PLAN VIEW LINDEN ST



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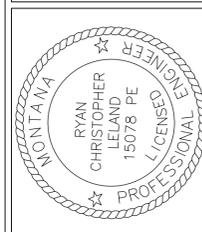


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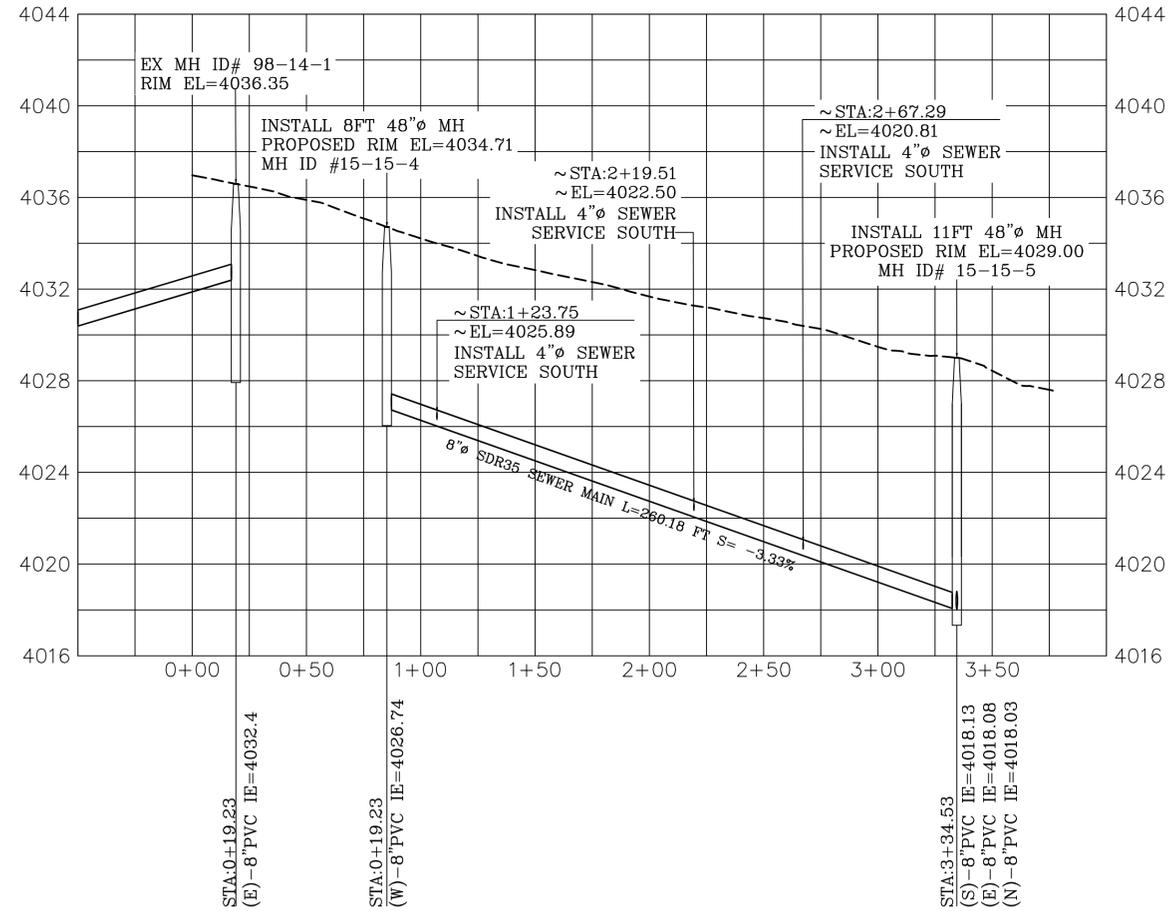
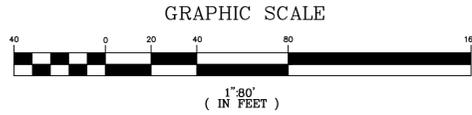
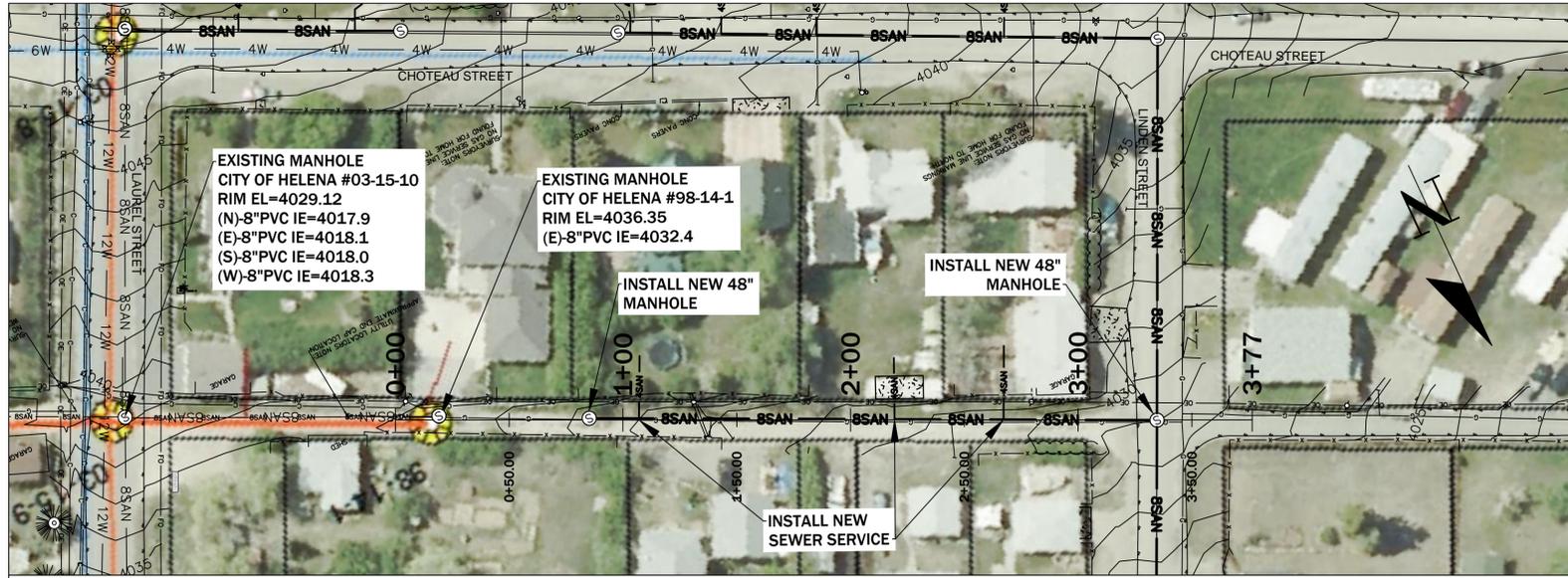
CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY OF HELENA PROJECT #15-15
 P-P SHEET LINDEN ST

SHEET NO.
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PLAN VIEW ALLEY CHOTEAU-CANNON ST

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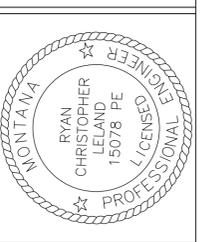
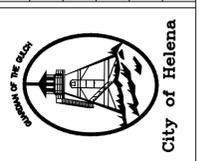


PROFILE VIEW

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 VERTICAL SCALE 1" = 8'
 VERTICAL EXAGGERATION = 10

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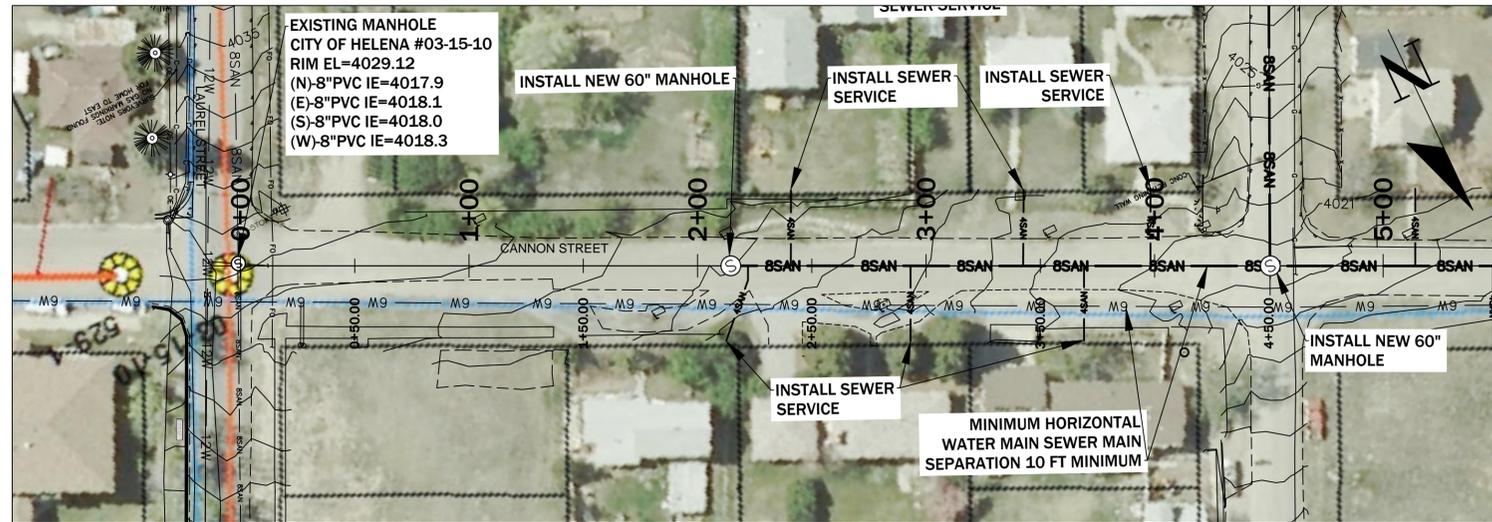
PROJECT: #15-15	DESIGNED: T.JL
DRAWN: T.JL	CHECKED: JRC
APPROVED: RCL	DATE: AUGUST 14, 2015



CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY OF HELENA PROJECT #15-15
 P.P SHEET ALLEY WAY CANNON ST- CHOTEAU ST

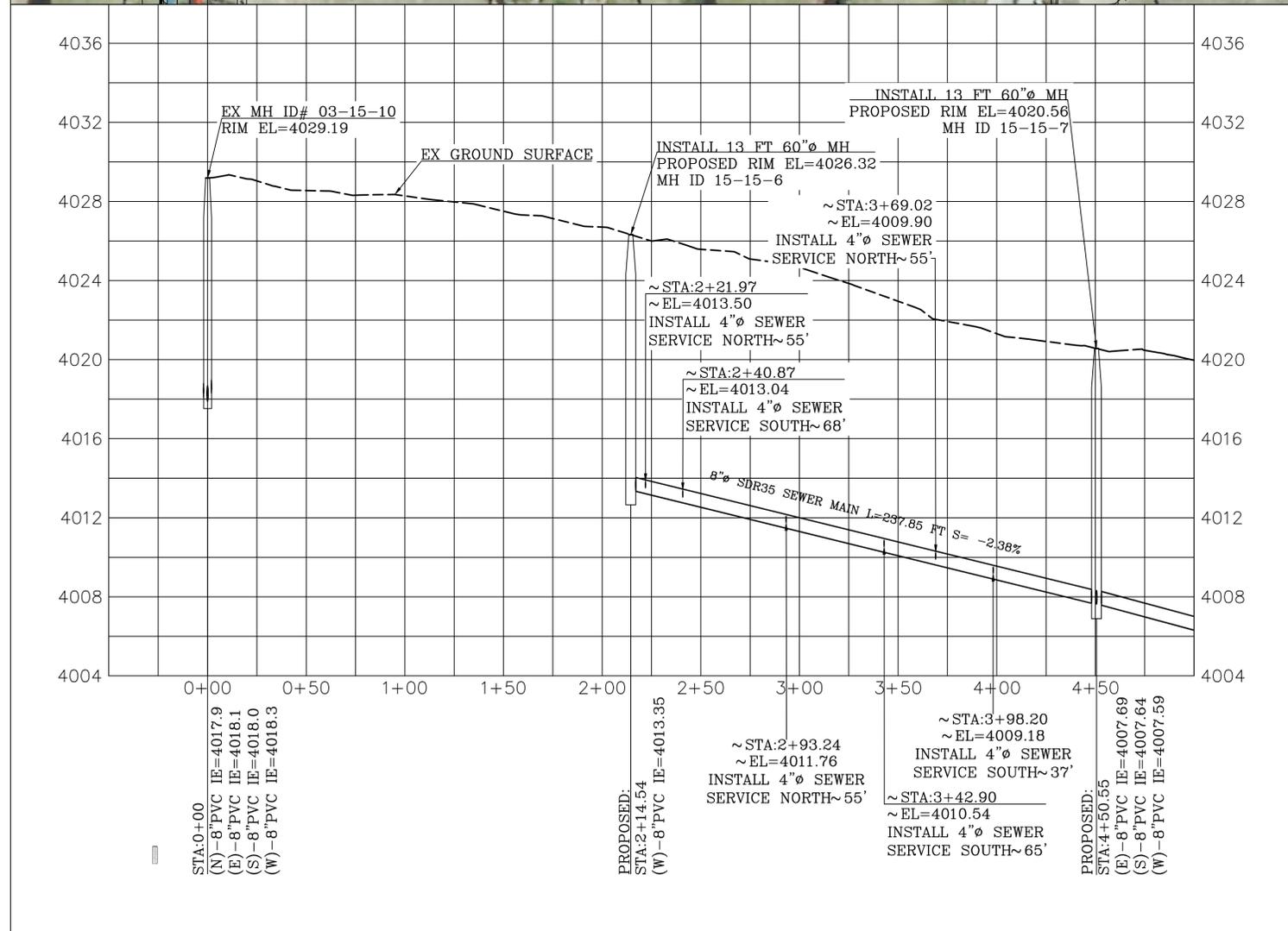
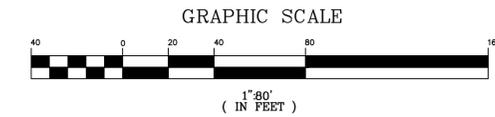
SHEET NO.
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PLAN VIEW CANNON ST



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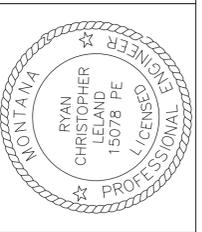
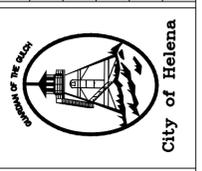


PROFILE VIEW

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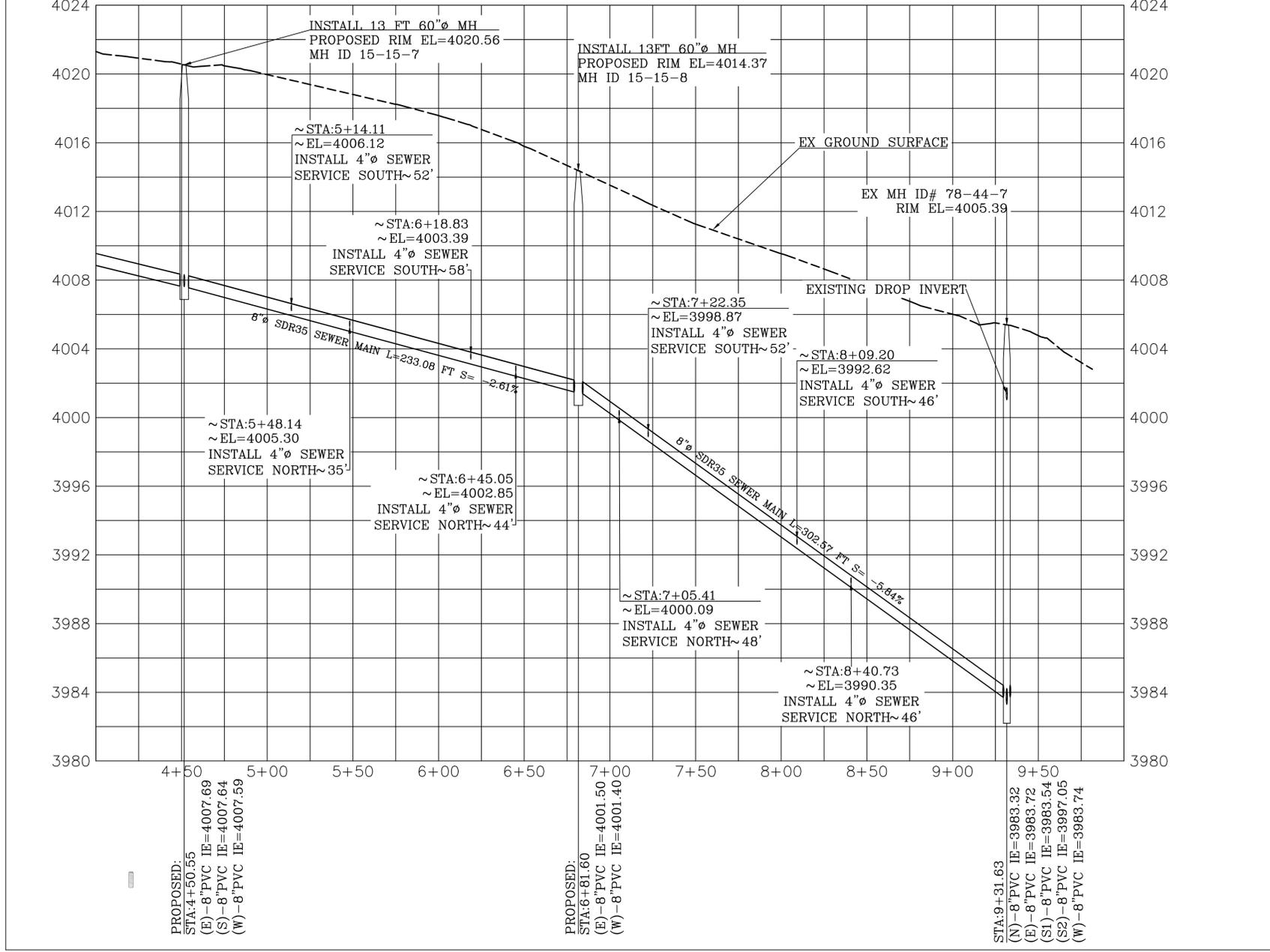
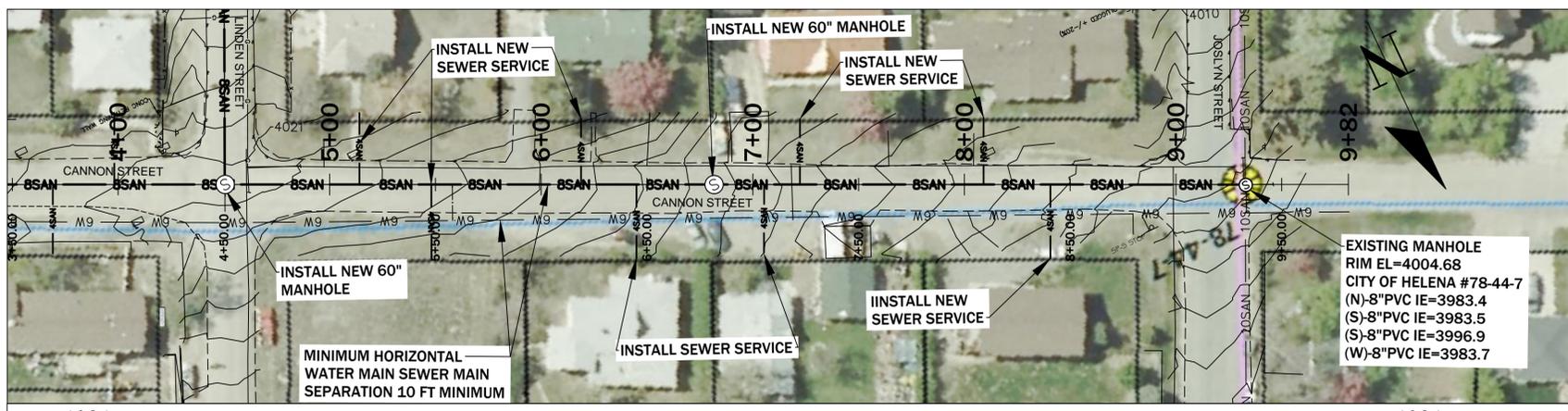


CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY PROJECT #15-15
 P-P SHEET CANNON ST - 1

PROFILE VIEW

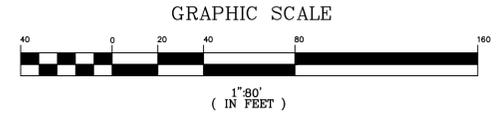
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PLAN VIEW CANNON ST



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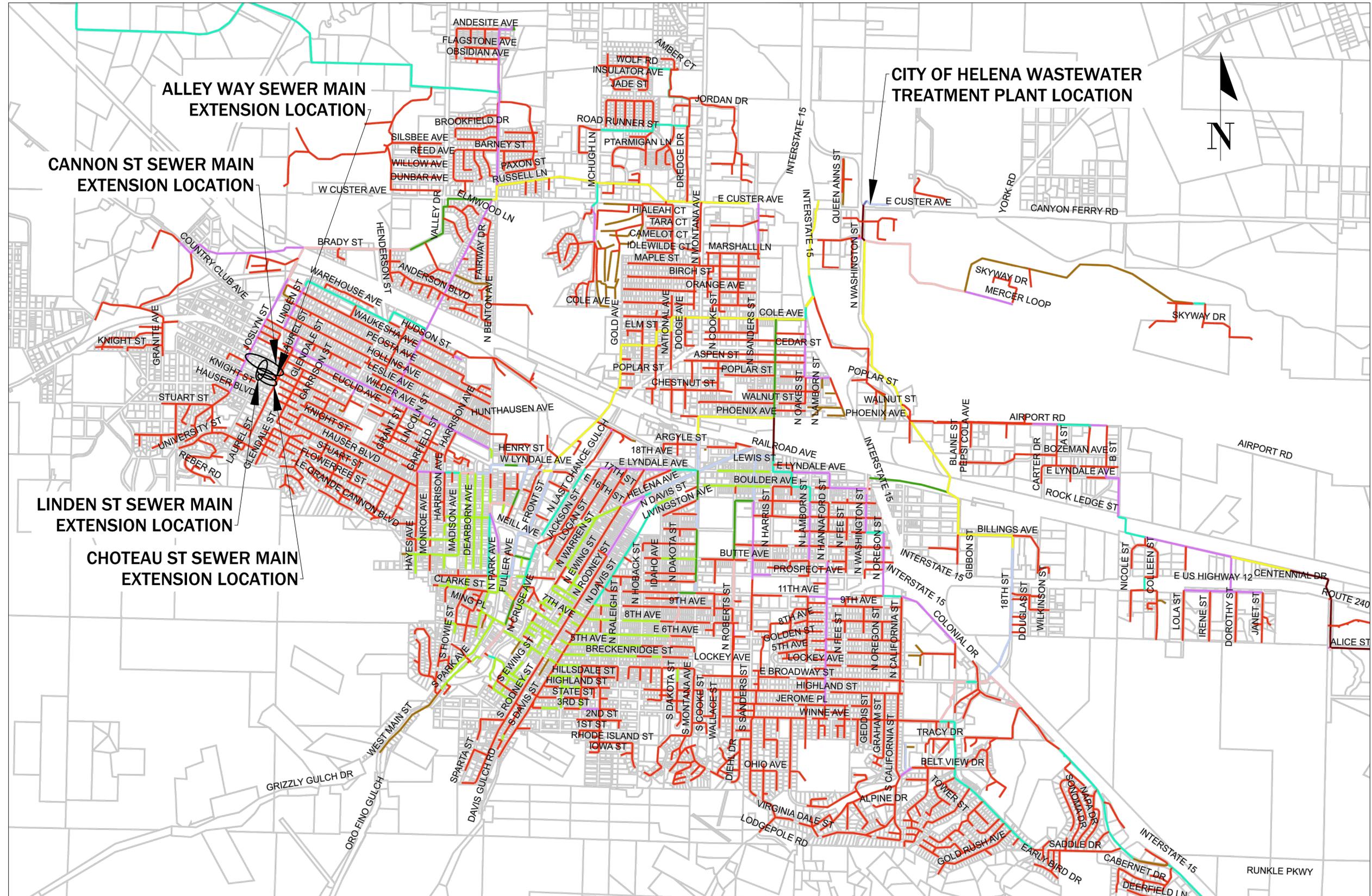
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 APPROVED: R.C.L.
 DATE: AUGUST 14, 2015

CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY PROJECT #15-15
 P-P SHEET CANNON ST - 2

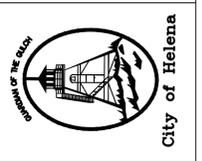
SHEET NO.
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 OF 7

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NO.	REVISION DESCRIPTION	BY	DATE

PROJECT: #15-15
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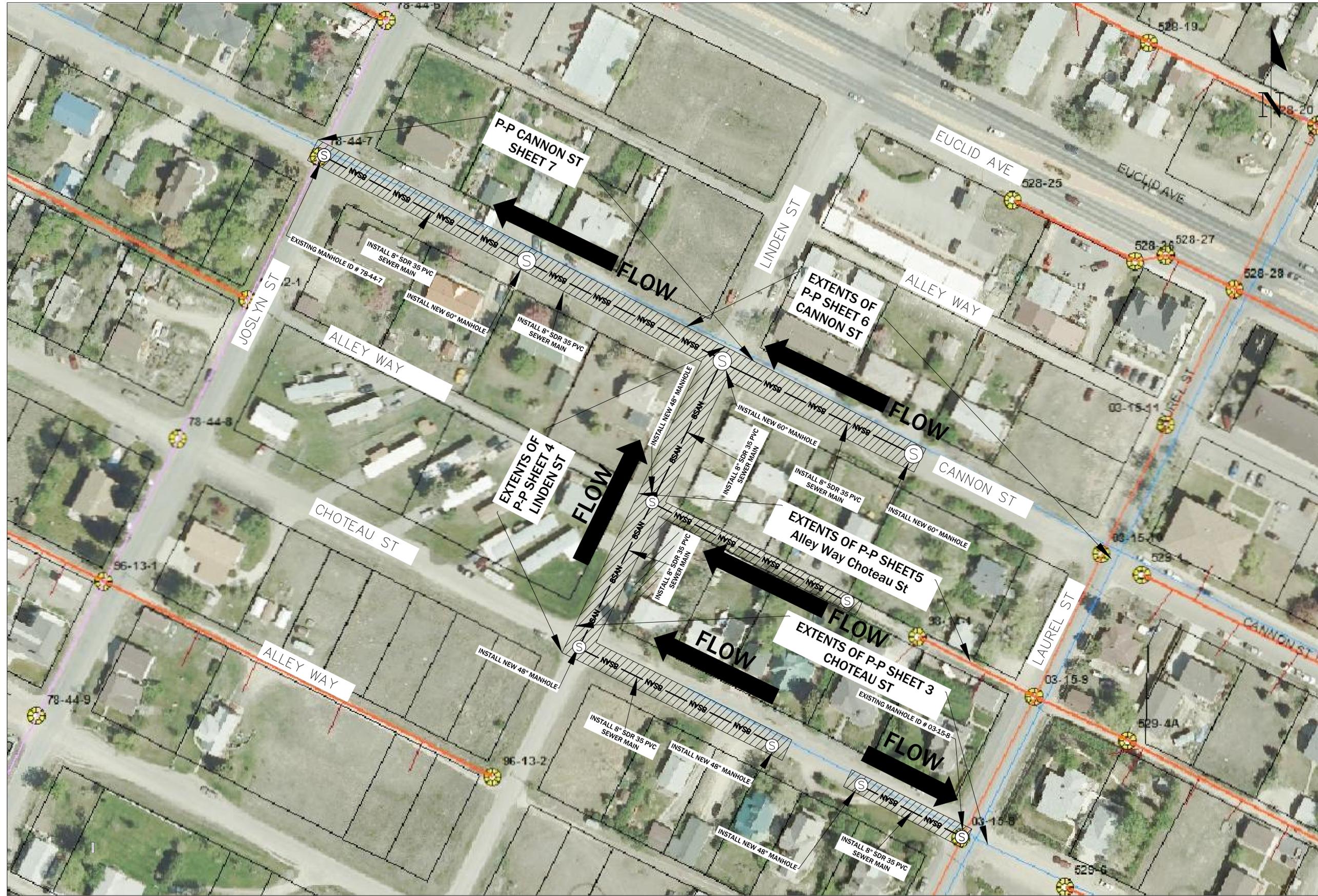


CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY PROJECT #15-15
 EXHIBIT 1 - CITY OF HELENA SANITARY COLLECTION SYSTEM

CITY OF HELENA SANITARY COLLECTION SYSTEM MAP

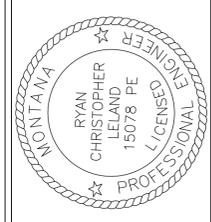
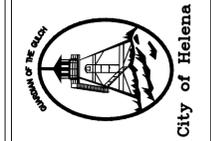
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NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			
4			
5			

PROJECT: #15-XX
 DESIGNED: T.J.L.
 DRAWN: T.J.L.
 CHECKED: J.R.C.
 APPROVED: J.R.C.
 DATE: JULY 1, 2015



CITY OF HELENA ENGINEERING DIVISION
CANNON ST SEWER MAIN EXTENSION
CITY OF HELENA PROJECT 15-15
EXHIBIT 2 - SITE PLAN-INDEX