PROJECT TEAM

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BID SCHEDULES

THE FOLLOWING BID SCHEDULE WORK IS REFLECTED ON THESE DRAWINGS:
- BID SCHEDULE A: RECYCLED WATER DISTRIBUTION
- BID SCHEDULE B: BOLTED STAINLESS STEEL RESERVOIR, FOUNDATION AND APPURTENANCES - 250,000 GALLON
- BID SCHEDULE C: FRIENDSHIP PARK IRRIGATION SYSTEM
- BID SCHEDULE E: SEWER MAIN REPLACEMENT
- BID SCHEDULE I: BOLTED GLASS-FUSED STEEL-TO-STEEL RESERVOIR, FOUNDATION AND APPURTENANCES - 250,000 GALLON

APPROVALS

PLANS AND SPECIFICATIONS APPROVED BY THE MENDOCINO CITY COMMUNITY SERVICES DISTRICT.

MENDOCINO CITY COMMUNITY SERVICES DISTRICT

RYAN RHOADES, SUPERINTENDENT

_____
SIGNED

ENGINEER: GHD Inc.

MATTHEW G. KENNEDY, PE

_____
SIGNED

SCOPE OF WORK

GENERALLY, THE PROJECT CONSISTS OF THE FOLLOWING:

DISCIPLINE	SUMMARY OF SCOPE
CIVIL	CONSTRUCTION OF NEW RECYCLED WATER MAINS, FIRE HYDRANTS, IRRIGATION SERVICES AND IRRIGATION SYSTEMS IN MENDOCINO, CALIFORNIA. IRRIGATION SYSTEMS ARE LOCATED AT HEIDER FIELD, PALETTE DRIVE, HILLCREST CEMETERY AND EVERGREEN CEMETERY. THE PROJECT ALSO INCLUDES SANITARY SEWER MAINTENANCE WORK INVOLVING REPLACEMENT OF EXISTING SEWER PUMPS AT THE MAIN STREET SEWER LIFT STATION, AND REPLACEMENT OF A SEGMENT OF SEWER MAIN ON EVERGREEN STREET.

PARTIAL LIST OF APPLICABLE CODES

THE 2025 TRIENNIAL EDITION OF CCR, TITLE 24:
PART 1 - CALIFORNIA BUILDING STANDARDS ADMIN. CODE
PART 2 - CALIFORNIA BUILDING CODE
PART 3 - CALIFORNIA ELECTRICAL CODE
PART 4 - CALIFORNIA MECHANICAL CODE
PART 5 - CALIFORNIA PLUMBING CODE
PART 6 - CALIFORNIA ENERGY CODE
PART 9 - CALIFORNIA FIRE CODE
PART 10 - CALIFORNIA EXISTING BUILDING CODE
PART 11 - CALIFORNIA GREEN BUILDING STANDARDS CODE
PART 12 - CALIFORNIA REFERENCE STANDARDS CODE

TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

NATIONAL REFERENCE STANDARDS:

AWWA C110-12	DUCTILE-IRON FITTINGS
AWWA C115-20	FLANGED DUCTILE-IRON PIPE WITH DUCTILE-IRON THREADED FLANGES
AWWA C508-09	SWING CHECK VALVES FOR WATERWORKS
AWWA C509-09	RESILIENT-SEATED GATE VALVES FOR WATER SUPPLY SERVICE
AWWA C512-07	COMBINATION AIR VALVES FOR WATERWORKS SERVICE
AWWA C900-22	POLYVINYL CHLORIDE PRESSURE PIPE AND FITTINGS FOR WATER DISTRIBUTION AND TRANSMISSION
AWWA C906-15	POLYETHYLENE PRESSURE PIPE AND FITTINGS FOR WATER DISTRIBUTION AND TRANSMISSION
NFPA 24-19	INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (CA AMENDED)
NFPA 25-23	INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEM (CA AMENDED)

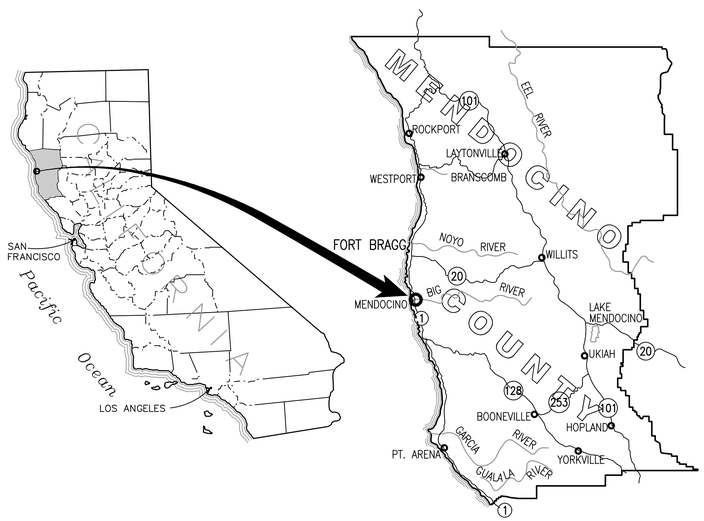
FOR A COMPETE LIST OF APPLICABLE NFPA STANDARDS REFER TO CBC (SFM) CHAPTER 35 AND CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

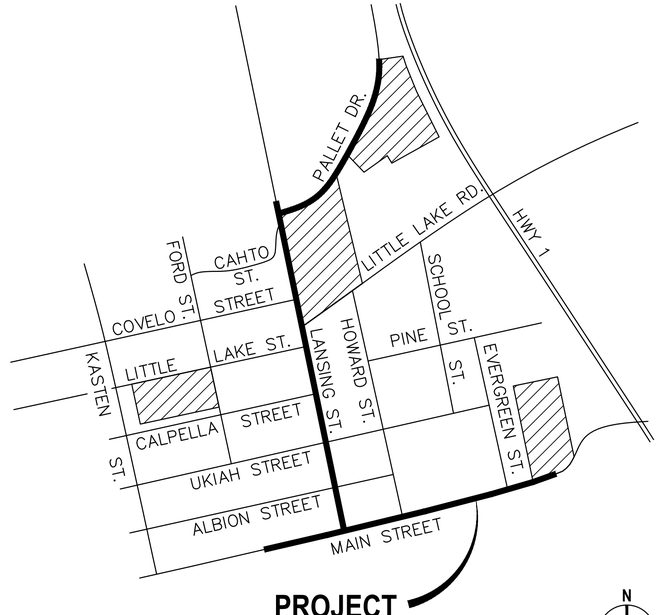
MENDOCINO CITY COMMUNITY SERVICES DISTRICT
RECYCLED WATER EXPANSION PROJECT

NOVEMBER 2026

AREA MAP



LOCATION MAP



No.	Issue	Drawn	Approved	Date

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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title TITLE SHEET, VICINITY MAP AND LOCATION MAP
Project No. 12619547
Original Size ANSI D
Drawing No. G-001
Sheet 1 of 31

Plot Date: 6 November 2026 - 4:36 PM Plotted By: Chris Bach
Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-GN-001.dwg

ABBREVIATIONS

@	AT
AB	AGGREGATE BASE
ABD	ABANDONED
AC	ASPHALT
ACP	ASBESTOS CEMENT PIPE
APN	ASSESSORS PARCEL NUMBER
ARV	AIR RELEASE VALVE/VACUUM VALVE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BEGIN CURVE
BFP	BACKFLOW PREVENTER
BFPCV	BACKFLOW PREVENTION CHECK VALVE
BIR	BIRCH
BO	BLOW-OFF
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICE
BSW	BACK OF SIDEWALK
C	COLD WATER
CATV	CABLE TELEVISION
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
CL	CENTERLINE
CLR	CLEARANCE
CMLC	CEMENT MORTAR LINED AND COATED
CMP	CORREGATED METAL PIPE
CO	CLEANOUT
COM, COMM	COMMUNICATION
CONC	CONCRETE
COND	CONDUIT
COR	CORNER
CP	CONTROL POINT
DCV	DETECTOR CHECK VALVE
DEPT	DEPARTMENT
DI	DRAIN INLET
DN	DOCUMENT NUMBER
DR	DRIVE, DRAIN
DWG	DRAWING
DW, DWY	DRIVEWAY
E	EAST
(E)	EXISTING
EB	ELECTRICAL BOX
EC	END CURVE
EG	EXISTING GRADE
ELEC	ELECTRIC
ELEV	ELEVATION
EOR	ENGINEER OF RECORD
EP	EDGE OF PAVEMENT, END POINT
ER	EDGE OF ROAD
ETW	EDGE OF TRAVELED WAY
EUC	EUCALYPTUS
EXIST	EXISTING
FCA	FLANGE COUPLING ADAPTER
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOWLINE, FLANGE
FLG	FLANGE
FND	FOUND
FM	FLOW METER
FNL	FENCE LINE
FPVC	FUSIBLE PVC
FS	FINISH SURFACE
G	GAS
GALV	GALVANIZED
GB	GRADE BREAK
GV	GAS VALVE
H	HORIZONTAL, HOT WATER
HDD	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HV	HIGH VOLTAGE
ID	INSIDE DIAMETER
INV, IE	INVERT ELEVATION
IT	INFORMATION TECHNOLOGY
IRR	IRRIGATION
(ITEM NO)	TITLE REPORT ITEM NUMBER
JB	JUNCTION BOX
KV	KILOVOLT
L	LENGTH
LA	LIQUID AMBER
LAT	LATERAL
LF	LINEAR FEET
LO	LIVE OAK
LT	LEFT OFFSET FROM CENTERLINE
MAX	MAXIMUM
MB	MAILBOX
MCCSD	MENDOCINO CITY COMMUNITY SERVICES DISTRICT
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
MUSD	MENDOCINO UNIFIED SCHOOL DISTRICT
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
(N)	NEW
NE	NORTHEAST
NW	NORTHWEST
NAVD	NORTH AMERICAN VERTICAL DATUM
No.	NUMBER
NG	NATURAL GROUND
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OR	OFFICIAL RECORDS
ORN	ORNAMENTAL
PCC	PORTLAND CEMENT CONCRETE
PE	PLAIN END
PED	PEDESTRIAN
PGE	PACIFIC GAS AND ELECTRIC
PL	PLASTIC, PROPERTY LINE
POC	POINT OF CONNECTION
PP	POWERPOLE
PSI	POUNDS PER SQUARE INCH
PT	POINT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
R	RADIUS
RC	RELATIVE COMPACTION
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RE	RIM ELEVATION
ROW, R/W	ROGHT-OF-WAY
RT	RIGHT OFFSET FROM CENTERLINE
RW	RECYCLED WATER
RWB	RETAINING WALL BOTTOM
RWT	RETAINING WALL TOP
RWD	REDWOOD
S	SOUTH, SLOPE
SE	SOUTHEAST
SW	SOUTHWEST
SCH	SCHEDULE
SCP	SEDIMENT CONTROL PLAN
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SL	STREET LIGHT
SLB	STREET LIGHT BOX
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
SVC	SERVICE (LATERAL)
S/W	SIDEWALK
TB	TELEPHONE BOX, TOP OF BANK
TC	TOP OF CURB
T, TEL, TELE	TELEPHONE
TF	TOP OF FOUNDATION
TG	TOP OF GRATE
T&G	TONGUE AND GROOVE
TMH	TOP OF MANHOLE
TOE	TOE OF BANK
TOF	TOP OF FOUNDATION
TW	TOP OF WALL
TYP	TYPICAL
UNGD, UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V, VT, VERT	VERTICAL
VAR	VARIES
VCP	VITRIFIED CLAY PIPE
W	WATER, WEST
W/	WITH
WB	WATER BOX
WM	WATER METER
WV	WATER VALVE

NOTE:
SOME ABBREVIATIONS MAY BE USED IN COMBINATION

SYMBOLS

SECTION IDENTIFICATION



DETAIL IDENTIFICATION



"-" INDICATES THAT DETAIL IS REFERENCED FROM SAME SHEET.
"VAR" INDICATES THAT DETAIL IS REFERENCED FROM MULTIPLE SHEETS.

LEGEND

EXISTING

- (E) SURVEY CONTROL POINT
- A-21-001 BORING LOCATION
- RIGHT OF WAY / BOUNDARY LINE
- EASEMENT LINE
- CENTERLINE
- 150 (E) CONTOUR LINE & ELEVATION
- × 465.12 (E) SPOT ELEVATION
- (E) DRIVEWAY
- (E) EDGE OF PAVEMENT
- E (E) UNDERGROUND ELECTRIC LINE
- OH (E) OVERHEAD LINE
- W (E) ABANDONED WATER LINE
- W (E) WATER LINE
- SS (E) SANITARY SEWER LINE
- SD (E) STORM DRAIN LINE
- T (E) TELEPHONE LINE
- AT&T (E) AT&T COMM LINE
- (E) WATER VALVE
- (E) DOUBLE CHECK BACKFLOW PREVENTER
- (E) FIRE HYDRANT
- W (E) WATER METER
- (E) TRAFFIC SIGN
- S (E) SANITARY SEWER MANHOLE
- CO (E) SANITARY SEWER CLEANOUT
- (E) DROP INLET
- (E) TREE
- T (E) TRANSFORMER
- (E) BOLLARD
- WATER (E) WATER VAULT
- ELEC (E) ELECTRICAL VAULT
- (E) UTILITY POLE
- (E) STREET LIGHT
- CATV (E) CABLE TV BOX
- EB (E) ELECTRIC BOX
- SLB (E) STREET LIGHT BOX
- (E) BUILDING
- (E) FENCE LINE
- (E) CONCRETE PVAING
- (E) BRICK PAVING
- (E) RIP-RAP
- APPROXIMATE TREE DRIPLINES

NEW

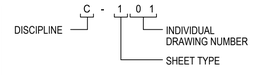
- REMOVE OR ABANDON (E) UTILITY
- E (N) UNDERGROUND ELECTRIC LINE
- RW (N) RECYCLED WATER LINE
- SS (N) SANITARY SEWER LINE
- (N) RECYCLED WATER VALVE
- (N) FIRE HYDRANT
- (N) BLOWOFF
- W (N) WATER METER
- (N) DOUBLE CHECK BACKFLOW PREVENTER
- (E) TRAFFIC SIGN
- (N) CROSS
- (N) TEE
- (N) ELBOW (90-DEGREE SHOWN)
- (N) BLIND FLANGE OR RESTRAINED MECHANICAL PLUG (SHOWN ON ONE LEG OF TEE)
- (N) REDUCER
- S (N) SANITARY SEWER MANHOLE

SHEET INDEX

SHEET	DRAWING NO.	TITLE
GENERAL		
1	G-001	TITLE SHEET AND VICINITY MAP, AND LOCATION MAP
2	G-002	SHEET INDEX, ABBREVIATIONS AND LEGENDS
3	G-003	GENERAL NOTES
4	G-004	ALIGNMENT AND SURVEY CONTROL PLAN
CIVIL		
5	C-101	RECYCLED WATER LINE - STA 10+00 TO 13+00
6	C-102	RECYCLED WATER LINE - STA 13+00 TO 16+30
7	C-103	RECYCLED WATER LINE - STA 16+30 TO 20+00
8	C-104	RECYCLED WATER LINE - STA 20+00 TO 24+50
9	C-105	RECYCLED WATER LINE - STA 24+50 TO 29+00
10	C-106	RECYCLED WATER LINE - STA 29+00 TO 31+97
11	C-107	RECYCLED WATER LINE - STA 40+00 TO 44+50
12	C-108	RECYCLED WATER LINE - STA 44+50 TO 49+00
13	C-109	RECYCLED WATER LINE - STA 49+00 TO 53+16
14	C-110	SANITARY SEWER LINE - STA 60+00 TO 62+00
15	C-401	FORD HOUSE RESTROOMS PLUMBING RETROFIT
16	C-402	HEIDER FIELD PG&E SERVICE
17	C-501	CIVIL DETAILS 1
18	C-502	CIVIL DETAILS 2
19	C-503	CIVIL DETAILS 3
LANDSCAPE		
20	L-001	IRRIGATION SPECIFICATIONS
21	L-002	IRRIGATION SPECIFICATIONS CONT.
22	L-003	TREE PROTECTION NOTES
23	L-100	IRRIGATION OVERVIEW & KEY MAP
24	L-101	MCCSD PROPERTY IRRIGATION PLAN LAYOUT
25	L-102	HILLCREST CEMETERY IRRIGATION PLAN LAYOUT
26	L-103	HEIDER FIELD IRRIGATION PLAN LAYOUT
27	L-104	EVERGREEN CEMETARY IRRIGATION PLAN LAYOUT
28	L-105	EVERGREEN CEMETARY IRRIGATION PLAN LAYOUT
29	L-501	IRRIGATION DETAILS
30	L-502	IRRIGATION DETAILS CONT.
31	L-601	IRRIGATION SCHEDULES AND RECYCLED WATER NOTES

DRAWING DESIGNATION

LETTER	DISCIPLINE
G	GENERAL
C	CIVIL
L	LANDSCAPE
E	ELECTRICAL



NUMBER	SHEET TYPE
0	GENERAL
1	PLANS
2	ELEVATIONS
3	SECTIONS
4	LARGE SCALE VIEWS
5	DETAILS
6	SCHEDULES AND DIAGRAMS
7	CODE COMPLIANCE FORMS

No.	Issue	Drawn	Approved	Date

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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title SHEET INDEX, ABBREVIATIONS AND LEGENDS
Project No. 12619547
Original Size ANSI D
Drawing No. G-002
Sheet 2 of 31

Plot Date: 6 November 2026 - 4:37 PM Plotted By: Chris Bach
Filename: C:\adsk\accdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rowe\sheets\12619547-GHD-RCWE-DWG-GN-002.dwg

GENERAL NOTES

1. ALL WORKMANSHIP, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, LATEST EDITION, THE COUNTY OF MENDOCINO DEPARTMENT OF TRANSPORTATION ROAD STANDARDS, AND THE 2025 CALIFORNIA BUILDING CODE (CBC).
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK. ANY DISCREPANCY DISCOVERED BY CONTRACTOR IN THESE PLANS OR ANY FIELD CONDITIONS DISCOVERED BY CONTRACTOR THAT MAY DELAY OR OBSTRUCT THE PROPER COMPLETION OF THE WORK PER THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY UPON DISCOVERY. SAID NOTIFICATION SHALL BE IN WRITING.
3. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONTRACTOR FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER AND THEIR CONSULTANTS, AND THE DISTRICT, AND EACH OF THEIR OFFICERS, EMPLOYEES AND AGENTS.
3. CONTRACTOR SHALL COMPLY WITH CURRENT COUNTY OF MENDOCINO HEALTH ORDER. THE CURRENT HEALTH ORDER CAN BE FOUND ONLINE AT HTTPS://WWW.MENDOCINOCOUNTY.ORG/COMMUNITY/NOVEL-CORONAVIRUS/HEALTH-ORDER. CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE "CONSTRUCTION PROJECT SAFETY PROTOCOL COVID-19 PREVENTION" INCLUDED AS APPENDIX B OF THE HEALTH ORDER.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS DURING CONSTRUCTION. MAIL AND GARBAGE SERVICE SHALL BE MAINTAINED THROUGHOUT THE COURSE OF THIS PROJECT. CONTRACTOR SHALL NOTIFY PROPERTY OWNERS AT LEAST 72 HOURS IN ADVANCE OF DRIVEWAY CLOSURES. DRIVEWAY CLOSURES ARE LIMITED TO 48 HRS MAXIMUM. CONTRACTOR SHALL CLOSE ONLY ONE DRIVEWAY AT A TIME FOR PROPERTIES WITH MORE THAN ONE DRIVEWAY ACCESS, AND SHALL PROVIDE ALTERNATE ACCESS WHERE POSSIBLE FOR SINGLE DRIVEWAY PROPERTIES.
5. UNDERGROUND OBSTRUCTIONS, NOT SHOWN ON THESE PLANS, MAY BE ENCOUNTERED. THOSE SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE AND THE CONTRACTOR IS CAUTIONED THAT THE OWNER, THE ENGINEERS, AND DISTRICT ASSUME NO RESPONSIBILITY FOR ANY OBSTRUCTIONS EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES WORKING WITHIN THE LIMITS OF THIS PROJECT.
6. ALL UNDERGROUND IMPROVEMENTS SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING TRENCHES AND EXCAVATIONS.
7. CONTRACTOR SHALL ONLY REMOVE EXISTING TREES OR SHRUBS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE DISTRICT OR ENGINEER.
8. CONTRACTOR SHALL EXERCISE CAUTION WHEN DIGGING WITHIN THE DRIPLINE OF TREES DESIGNATED TO REMAIN. ROOTS LARGER THAN 2 INCHES SHALL NOT BE CUT WITHOUT PERMISSION FROM THE ENGINEER. IN THE EVENT THAT A ROOT LARGER THAN 2 INCHES NEEDS TO BE REMOVED, THE ROOT SHALL BE CUT CLEAN WITH A SAW APPROPRIATE FOR THE SIZE OF THE ROOT TO BE CUT. AFTER THE CUT THERE SHALL BE NO TORN BARK OR SPLINTERED WOOD REMAINING ON THE ROOT. ACTUAL CUTTING OF ROOTS SHALL BE DONE WITH A HAND SAW, RECIPROCATING SAW, CUT-OFF SAW OR OTHER SUITABLE HAND OR POWER EQUIPMENT TO OBTAIN A CLEAN CUT. ANY PRUNED ROOTS THAT ARE TO REMAIN EXPOSED TO AIR FOR MORE THAN 24 HOURS MUST BE TEMPORARILY PROTECTED FROM DESICCATION UNTIL BACKFILLING OCCURS AND ROOTS ARE COVERED. ROOTS MUST BE COVERED WITH FABRIC WHILE EXPOSED, AND FABRIC MUST REMAIN WET AT ALL TIMES. REMOVE FABRIC PRIOR TO BACKFILLING.
9. ALL LANDSCAPING AND UTILITIES OR OTHER DISTRICT OWNED OR PRIVATE IMPROVEMENTS DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED IN KIND OR AS DIRECTED BY THE DISTRICT OR ENGINEER.
10. AN INITIAL STUDY / MITIGATED NEGATIVE DECLARATION FOR THE RECYCLED WATER SYSTEM RECONSTRUCTION PROJECT DATED FEBRUARY 2022 WAS PREPARED BY GHD INC. COPIES ARE AVAILABLE FOR VIEWING AT THE DISTRICT OFFICE AND A COPY OF THE MITIGATION MONITORING AND REPORTING PROGRAM IS PROVIDED AS AN APPENDIX TO THE PROJECT SPECIFICATIONS.
11. ONLY AUTHORIZED DISTRICT PERSONNEL SHALL OPERATE VALVES ON THE EXISTING WATER AND RECYCLED WATER SYSTEM. SHUTDOWNS REQUIRE A MINIMUM 48 HOUR NOTICE SENT TO THE DISTRICT. A COPY OF THE NOTICE MUST BE SUBMITTED TO THE DISTRICT FOR APPROVAL PRIOR TO ISSUING.
12. ALL DISTANCES SHOWN ON THE DRAWINGS ARE BASED ON HORIZONTAL AND VERTICAL MEASUREMENTS.
13. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
14. CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN (SCP) FOLLOWING THE PROCEDURES OUTLINED BY THE COUNTY OF MENDOCINO STORMWATER POLLUTION PREVENTION PROGRAM FOR WORK WITHIN THE COUNTY R/W. SUBMIT SCP TO THE ENGINEER AND COUNTY OF MENDOCINO FOR APPROVAL WITH THE ENCROACHMENT PERMIT APPLICATION.
15. EROSION CONTROL MEASURE SHOWN HERE AND SPECIFIED ARE THE MINIMUM RECOMMENDED. THE CONTRACTOR SHALL ADHERE TO THE QSD/QSP SPECIFIC PLAN OF BMP'S (BEST MANAGEMENT PRACTICES) FOR THE PROJECT SITE APPROPRIATE TO THE PHASE OF CONSTRUCTION AND THE TIME OF YEAR.
16. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PROVIDE PHOTO AND VIDEO DOCUMENTATION OF THE EXISTING CONDITION OF ROADWAYS AFFECTED BY THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONSTRUCTION RELATED DAMAGE, AND SHALL RESTORE ROADS TO PRE-CONSTRUCTION CONDITIONS IN ACCORDANCE WITH COUNTY OF MENDOCINO STANDARDS. SEE PROJECT SPECIFICATIONS FOR MORE DETAILS.
17. CONTRACTOR SHALL PROPERLY ADJUST THE VOLUMETRIC QUANTITIES OF CONCRETE DELIVERIES TO AVOID SPILLAGE ON STEEP SLOPES. ALL SPILLS SHALL BE REMOVED AND CLEANED IMMEDIATELY.
18. IF CONTAMINATED SOIL IS ENCOUNTERED DURING CONSTRUCTION, CONTRACTOR SHALL NOTIFY DISTRICT. AFTER CONTAMINATED SOIL IS ENCOUNTERED (OIL, PETROLEUM, HYDROCARBONS, SMELLS OR ODORS, OIL SHEET AT THE SURFACE). ALL CONTAMINATED SOILS WILL BE STOCKPILED ON AND COVERED WITH 10 MIL PLASTIC SHEETING.
19. ALL EXCESS MATERIAL FROM THE PROJECT INCLUDING BUT NOT LIMITED TO SOILS/CUTTINGS FROM WELL WORK SHALL BE DISPOSED OF AT A LOCATION APPROVED BY THE DISTRICT IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
20. CONSTRUCTION WATER TO BE SURFACED DISPOSED ON SITE. WATER SHALL BE DIRECTED AWAY FROM EXISTING WATER COURSES, PONDS AND SPRINGS.
21. CONTRACTOR SHALL RESTORE OR REPLACE ANY DAMAGED COUNTY OF MENDOCINO SURVEY MONUMENTS RESULTING FROM THEIR OPERATION AND SHALL BEAR ALL COSTS OF SUCH REPLACEMENT. REPLACE DAMAGED SURVEY MONUMENTS IN ACCORDANCE WITH COUNTY STANDARD NO. A30.
22. UPON COMPLETION OF THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.
23. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT AN ENCROACHMENT PERMIT APPLICATION AND A TRAFFIC CONTROL PLAN TO THE COUNTY OF MENDOCINO FOR APPROVAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. SUBMIT THE TRAFFIC CONTROL PLAN AND ENCROACHMENT PERMIT APPLICATION TO ENGINEER.
24. REMOVE AND REPLACE ALL SIGNS AS REQUIRED FOR TRENCHING.
25. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL SURVEY DATA. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING RIGHT-OF-WAY LINES, SLOPE EASEMENTS, AND ALL HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION.
26. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND SHALL ARRANGE FOR STAKING WITH A LICENSED SURVEYOR. STAKING WILL BE REVIEWED BY OWNER FOR CONFIRMATION TO DESIGN PRIOR TO CONSTRUCTION.
27. ALL GRADES BETWEEN SPOT ELEVATIONS SHALL HAVE UNIFORM SLOPE UNLESS OTHERWISE INDICATED. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING WALLS AND DOORS.

GENERAL NOTES

28. ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE HAND RAKED SMOOTH AND RETURNED TO ORIGINAL EXISTING CONDITIONS.
29. ALL DITCHES, SWALES, GUTTERS, ETC. SHOULD BE CONSIDERED ACTIVE STORM CONVEYANCES UNLESS OTHERWISE INDICATED. CONTRACTOR IS RESPONSIBLE FOR ADDRESSING STORM WATER DRAINAGE AND DEWATERING OF WORK AREAS DURING CONSTRUCTION.
30. DURING WET WEATHER PERIODS, CONTRACTOR IS RESPONSIBLE FOR SEQUENCING CONSTRUCTION IN A MANNER TO MINIMIZE IMPACT ON OPEN EARTHWORK AND COMPACTION OPERATIONS AND MANAGE ALL TRENCH DEWATERING ACTIVITIES NECESSARY TO MAINTAIN TRENCHES IN AN ACCEPTABLE STATE FOR CONSTRUCTION.
31. COMPLETELY COVER ANY SOIL STOCKPILES WITH 6 MIL BLACK PLASTIC AND PROVIDE RESTRAINTS TO HOLD PLASTIC IN PLACE. MONITOR PLASTIC COVER AS PART OF CONTINUOUS EROSION CONTROL PLAN. PLACE SILT FENCE COMPLETELY AROUND STOCKPILE.

UTILITY NOTES

1. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL NOT BEGIN UTILITY POTHOLING OR EXCAVATION UNTIL ALL EXISTING UTILITIES HAVE BEEN MARKED IN THE FIELD BY THE UTILITY OWNER RESPONSIBLE FOR THAT PARTICULAR UTILITY. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER AT LEAST 48 HOURS BEFORE STARTING WORK.
3. UNDERGROUND SERVICE ALERT: CALL TOLL FREE (800) 642-2444 OR 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
4. EXISTING UTILITIES SHOWN ARE BASED UPON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL POTHOLE AND VERIFY THE EXACT LOCATION, SIZE, TYPE, AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. THE ENGINEER MAY ADJUST THE GRADE AND ALIGNMENT OF RECYCLED WATER SYSTEM IMPROVEMENTS ACCORDINGLY.
5. IF AN UNMARKED UTILITY IS ENCOUNTERED, OR IF CONTRACTOR IS UNABLE TO LOCATE A MARKED UTILITY AFTER EXCAVATING TO THE LIMITS SPECIFIED BY U.S.A. LAWS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THAT UTILITY AND THE DISTRICT.
6. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES, FEATURES, AND STRUCTURES LOCATED ON THE SITE. LOCATE, PROTECT, AND AVOID DISRUPTION OF ALL ABOVE AND BELOW GRADE UTILITIES DURING CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR POTHOLING ALONG THE ALIGNMENTS OF ALL NEW UTILITIES TO IDENTIFY POTENTIAL UTILITY CONFLICTS, SOILS CONDITIONS, AND TIE-IN POINTS. CONTRACTOR SHALL INCLUDE IN THEIR BID ADJUSTMENTS UP TO FOUR FEET HORIZONTALLY AND TWO FEET VERTICALLY IN THE RECYCLED WATER PIPELINE TO ACCOMMODATE ACTUAL FIELD CONDITIONS.
8. ALL EXISTING UTILITIES AND TIE-IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE INDICATED.
9. ALL UNDERGROUND BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION.
10. INSIDE THE COUNTY OF MENDOCINO RIGHT-OF-WAY, INSTALL NEW UNDERGROUND UTILITIES IN TRENCHES WHERE SHOWN ON DRAWINGS WITH BEDDING IN ACCORDANCE WITH DETAIL 2 ON DRAWING C-501, AND TRENCH BACKFILL, COMPACTION AND RESURFACING IN ACCORDANCE WITH COUNTY OF MENDOCINO STANDARD DRAWINGS A60A, A60B AND A60C, WHICH ARE DETAIL 1 ON DRAWING C-501. SPECIFIC AREAS OF THE PAVED ROADWAY IN THE MENDOCINO COUNTY RIGHT-OF-WAY SHALL BE REPAVED BASED ON WHERE THE PIPELINE IS CONSTRUCTED IN ACCORDANCE WITH DETAIL 4 ON DRAWING C-501. OUTSIDE THE COUNTY OF MENDOCINO RIGHT-OF-WAY, INSTALL NEW UNDERGROUND UTILITIES IN TRENCHES WHERE SHOWN ON THE DRAWINGS WITH BEDDING, BACKFILL AND RESURFACING IN ACCORDANCE WITH DETAIL 2 ON DRAWING C-501.
11. ADJUSTMENTS TO THE PIPELINE ALIGNMENT THAT RESULT IN LESS PAVEMENT REPAIR ARE ACCEPTABLE WITH ENGINEER AND COUNTY APPROVAL.
12. PRIOR TO BACKFILLING, VERIFY THAT THE PIPE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
13. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AND POLYETHYLENE WRAPPED.
14. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
15. PROVIDE CONCRETE THRUST BLOCKS AS SHOWN IN DETAIL 3 ON DRAWING C-501.

GENERAL ELECTRICAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRICAL CODE (CEC), AND ALL RECOGNIZED CODES OF THE AUTHORITY HAVING JURISDICTION.
2. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED TO MAINTAIN SAFETY.
3. PRIOR TO COMMENCING WORK ON EXISTING SYSTEMS OR WHERE EXISTING SYSTEMS REQUIRE TEMPORARY SHUT DOWNS, COORDINATE WITH OWNERS REPRESENTATIVE. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT OR SYSTEMS, PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND DESCRIPTION OF PROPOSED WORK FOR APPROVAL PRIOR TO COMMENCING WORK . WORK ON EXISTING EQUIPMENT SHALL NOT COMMENCE UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE OWNERS REPRESENTATIVE.
4. ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.
5. ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF CEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS.
6. CONTRACTOR RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO CONSTRUCTION. DRAWINGS INDICATE THE REQUIRED EQUIPMENT, DEVICES, FIXTURES, ETC. AND THEIR RELATED CIRCUITING REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE DEVICE LOCATIONS WITH ALL DISCIPLINES.
7. UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL EQUIPMENT INDICATED SHALL BE CONSIDERED NEW AND PROVIDED BY THE CONTRACTOR COMPLETE, INSTALLED, TESTED AND FUNCTIONING.
8. MAINTAIN AS BUILT CONDITIONS OF THE INSTALLATION DURING CONSTRUCTION AND SUBMIT THE FINAL CONSTRUCTED CONDITIONS TO THE OWNER/ARCHITECT FOR THEIR RECORDS.
9. ALL EXTERIOR ABOVE GRADE CONDUIT SHALL BE PVC COATED GALVANIZED RIGID STEEL CONDUIT.
10. ALL EXTERIOR MOUNTED EQUIPMENT ENCLOSURES SHALL BE TYPE 316 STAINLESS STEEL.

FIRE SERVICE NOTES

1. CONTRACTOR TO MAINTAIN A FUNCTIONING WATER SUPPLY AND FIRE PROTECTION SYSTEM AT ALL TIMES.
2. A VALVE SHALL BE INSTALLED IN THE HYDRANT CONNECTIONS; ALL VALVES SHALL BE INSTALLED WITHIN 20 FEET OF THE HYDRANT. EXCEPTIONS SHOWN ON PLANS ARE APPROVED BY LOCAL FIRE CHIEF.
3. HYDRANTS SHALL BE PROTECTED IF SUBJECT TO MECHANICAL DAMAGE. THE MEANS OF PROTECTION SHALL BE ARRANGED IN A MANNER THAT DOES NOT INTERFERE WITH CONNECTION TO OR OPERATION OF HYDRANTS.
4. ALL BURIED FITTINGS SHALL BE OF AN APPROVED TYPE WITH JOINTS AND PRESSURE CLASS RATINGS COMPATIBLE WITH THE PIPE USED.
5. FIRE HYDRANTS SHALL BE INSTALLED A MINIMUM OF 4-FT FROM THE EDGE OF PAVEMENT AND WITH A MINIMUM OF 3-FT IN ALL DIRECTIONS UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
6. ALL UNDERGROUND BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION.
7. ALL TEES, PLUGS, CAPS BENDS, REDUCERS, VALVES AND HYDRANT BRANCHES SHALL BE RESTRAINED AGAINST MOVEMENT IN ACCORDANCE WITH 2019 NFPA 24 §10.8.2 OR §10.8.3
8. THRUST BLOCKS, OR OTHER APPROVED METHOD OF THRUST RESTRAINT, SHALL BE PROVIDED WHEREVER PIPE CHANGES DIRECTION.
9. THE TRENCH SHALL BE EXCAVATED FOR THRUST BLOCKS AND INSPECTED PRIOR TO POUR. THRUST BLOCKS SHALL BE PLACED BETWEEN UNDISTURBED EARTH AND THE FITTING TO BE RESTRAINED AND SHALL BE CAPABLE OF RESISTING THE CALCULATED THRUST FORCE.
10. THRUST BLOCKS SHALL BE PLACED SO THAT THE JOINTS ARE ACCESSIBLE FOR REPAIR.
11. A HYDROSTATIC TEST (250 PSI FOR TWO HOURS OR 50 PSI OVER MAXIMUM OPERATING PRESSURE, WHICHEVER IS GREATER) SHALL BE WITNESSED BY THE DISTRICT ENGINEER. THE TRENCH SHALL BE BACK-FILLED BETWEEN THE JOINTS TO PREVENT MOVEMENT OF THE PIPE.
12. THE SYSTEM SHALL BE THOROUGHLY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD PIPING. FLOW SHALL BE THROUGH A MINIMUM OF A 4" HOSE OR PIPE UNLESS OTHERWISE APPROVED BY THE DISTRICT ENGINEER.
13. CONTROL VALVES SHALL BE SUPERVISED BY ONE OF THE 4 ACCEPTABLE METHODS LISTED IN 2019 NFPA 24 §6.7.2.
14. ALL UNDERGROUND FIRE UTILITIES SHALL BE INSTALLED TO MEET 2019 NFPA 24 AND CSFM REQUIREMENTS.
15. FIRE SAFETY DURING CONSTRUCTION WILL BE ENFORCED IN ACCORDANCE WITH CBC/CFC CHAPTER 33.
16. ALL FIRE HYDRANTS SHOWN ON THE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE MENDOCINO FIRE CHIEF.

PG&E SERVICE NOTES

GENERAL PG&E SERVICE REQUIREMENTS

1. COORDINATE ALL SERVICE INSTALLATION WORK WITH PG&E PRIOR TO CONSTRUCTION.
2. OBTAIN ALL REQUIRED PERMITS AND INSPECTIONS BEFORE ENERGIZATION.
3. VERIFY SERVICE VOLTAGE, METER LOCATION, CONDUIT SIZE, AND SERVICE POINT WITH PG&E BEFORE INSTALLATION.
4. CONTRACTOR SHALL FIELD-VERIFY EXISTING SITE CONDITIONS AND UTILITY CONFLICTS PRIOR TO TRENCHING.
5. CALL 811 AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE EXCAVATION.

UNDERGROUND TRENCHING

1. EXCAVATE TRENCHES IN ACCORDANCE WITH PG&E REQUIREMENTS AND APPLICABLE OSHA REGULATIONS.
2. TRENCH BOTTOMS SHALL BE SMOOTH, FREE OF ROCKS, DEBRIS, AND SHARP OBJECTS THAT MAY DAMAGE CONDUIT.
3. PROVIDE SUITABLE NATIVE OR IMPORTED BACKFILL MATERIAL FREE OF ROCKS, BROKEN CONCRETE, ORGANIC MATERIAL, AND OTHER DELETERIOUS SUBSTANCES.
4. COMPACT TRENCH BACKFILL TO MEET PG&E AND LOCAL AGENCY REQUIREMENTS.
   a. PROVIDE 95% RELATIVE COMPACTION WITHIN PUBLIC STREETS AND ROADWAYS.
   b. PROVIDE 90% RELATIVE COMPACTION IN PRIVATE PROPERTY AREAS.
5. RESTORE ALL DISTURBED PAVEMENT, CONCRETE, LANDSCAPING, AND SITE IMPROVEMENTS TO ORIGINAL OR BETTER CONDITION.
6. MAINTAIN MINIMUM UTILITY SEPARATIONS AND CLEARANCES AS REQUIRED BY PG&E AND LOCAL AGENCIES.
7. INSTALL WARNING TAPE ABOVE UNDERGROUND ELECTRICAL CONDUITS WHERE REQUIRED BY UTILITY STANDARDS.

CONDUIT INSTALLATION

1. INSTALL UNDERGROUND SERVICE CONDUITS IN ACCORDANCE WITH CURRENT PG&E GREENBOOK REQUIREMENTS.
2. CONDUITS SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE REQUIRED BY PG&E OR SITE CONDITIONS. PG&E IDENTIFIES PVC SCHEDULE 40 AS THE STANDARD CONDUIT TYPE FOR OPEN TRENCH INSTALLATIONS.
3. USE PVC SCHEDULE 80, RIGID GALVANIZED STEEL CONDUIT, OR OTHER APPROVED RACEWAY WHERE SUBJECT TO PHYSICAL DAMAGE OR AS REQUIRED BY CODE.
4. INSTALL FACTORY ELBOWS AND LONG-RADIUS BENDS ONLY. FIELD-FABRICATED BENDS ARE NOT PERMITTED UNLESS SPECIFICALLY APPROVED.
5. MAINTAIN CONTINUOUS RACEWAY BETWEEN SERVICE PULL POINTS AND EQUIPMENT.
6. CONDUIT JOINTS SHALL BE WATERTIGHT AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
7. CAP CONDUIT ENDS DURING CONSTRUCTION TO PREVENT THE ENTRY OF MOISTURE, DIRT, OR DEBRIS.
8. PROVIDE PULL ROPE IN ALL SPARE AND SERVICE CONDUITS.
9. MAINTAIN CONDUIT ALIGNMENT AND GRADE TO FACILITATE CABLE INSTALLATION.
10. CONDUITS PASSING BENEATH BUILDING SLABS OR FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH PG&E AND STRUCTURAL REQUIREMENTS.
11. MANDREL AND CLEAN CONDUITS PRIOR TO REQUESTING UTILITY CABLE INSTALLATION WHERE REQUIRED BY PG&E STANDARDS.

SERVICE EQUIPMENT AND METERING

1. SERVICE EQUIPMENT SHALL BE UL-LISTED AND APPROVED FOR THE INTENDED APPLICATION.
2. PROVIDE A 100-AMP, SERVICE-RATED MAIN DISCONNECT AT NEW PANELBOARD.
3. METER LOCATION AND SERVICE TERMINATION SHALL BE APPROVED BY PG&E PRIOR TO INSTALLATION.
4. WORKING CLEARANCES AROUND METERING AND ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC, CEC, AND PG&E REQUIREMENTS.
5. DO NOT INSTALL PIPING, DUCTS, OR EQUIPMENT THAT OBSTRUCT ACCESS TO UTILITY METERING FACILITIES.
6. SERVICE EQUIPMENT SHALL BE PERMANENTLY LABELED WITH SERVICE VOLTAGE, PANEL DESIGNATION, AND CIRCUIT IDENTIFICATION.

PANELBOARD REQUIREMENTS

1. PROVIDE A 100-AMP PANELBOARD WITH MINIMUM INTERRUPTING RATING SUITABLE FOR THE AVAILABLE FAULT CURRENT.
2. PANELBOARD SHALL BE LISTED, DEAD-FRONT CONSTRUCTION, AND SUITABLE FOR THE INSTALLED ENVIRONMENT.
3. CLEARLY IDENTIFY ALL CIRCUITS WITH TYPED PANEL SCHEDULES.
4. PROVIDE DEDICATED EQUIPMENT GROUNDING CONDUCTOR AND GROUNDING SYSTEM IN ACCORDANCE WITH NEC AND PG&E REQUIREMENTS.
5. SEPARATE GROUNDED (NEUTRAL) AND GROUNDING CONDUCTORS ON DOWNSTREAM DISTRIBUTION PANELS AS REQUIRED BY CODE.
6. PROVIDE SPARE BREAKER SPACES AS REQUIRED.
7. VERIFY AVAILABLE FAULT CURRENT AND PROVIDE EQUIPMENT WITH ADEQUATE SCCR/AIC RATINGS.

GROUNDING

1. INSTALL GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC ARTICLE 250 AND LOCAL UTILITY REQUIREMENTS.
2. BOND ALL SERVICE EQUIPMENT, RACEWAYS, AND GROUNDING ELECTRODES AS REQUIRED BY CODE.
3. GROUNDING ELECTRODE CONDUCTORS SHALL BE CONTINUOUS OR IRREVERSIBLY SPLICED WHERE PERMITTED.

INSPECTIONS AND TESTING

1. OBTAIN APPROVAL FROM PG&E PRIOR TO ENERGIZATION.
2. TEST GROUNDING AND VERIFY CONTINUITY OF RACEWAYS AND GROUNDING CONDUCTORS BEFORE SERVICE ACTIVATION.
3. CLEAN AND PREPARE ALL SERVICE EQUIPMENT FOR FINAL INSPECTION AND UTILITY CONNECTION.

NOTE: ACTUAL REQUIREMENTS AT THE TIME OF CONSTRUCTION MAY VARY FROM WHAT IS SHOWN ON THESE PLANS. THE EXACT CONDUIT SIZE, TRENCH DIMENSIONS, METER CONFIGURATION, AND SERVICE ENTRANCE ARRANGEMENTS SHALL BE CONFIRMED WITH THE ASSIGNED PG&E SERVICE PLANNER PRIOR TO CONSTRUCTION.

PG&E SERVICE PLANNER CONTACT INFORMATION:
NAME: FREEDOM SMITH
EMAIL: FJSG@PGE.COM

No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet
0 — 1"

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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client: MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project: RECYCLED WATER EXPANSION PROJECT
Title: GENERAL NOTES
Project No. 12619547
Original Size: ANSI D
Drawing No. G-003
Sheet 3 of 31

Plot Date: 6 November 2026 - 4:38 PM Plotted By: Chris Bach Filename: C:\adsk\accdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rcwe\sheets\12619547-GHD-RCWE-DWG-GN-003.dwg

SHEET GENERAL NOTES

1. FIELD TOPOGRAPHIC SURVEY WAS COMPLETED BY MENDOCINO SURVEYORS IN JUNE 2026.
2. ALL ELEVATION INFORMATION IS IN FEET OR DECIMAL THEREOF.
3. UNAUTHORIZED CHANGES AND USES: THE PROFESSIONAL PREPARING THIS MAP WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THIS MAP. CHANGES TO THIS MAP MUST BE REQUESTED IN WRITING AND MUST BE APPROVED BY THE PROFESSIONAL.
4. THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON OBSERVED SURFACE FEATURES AND AVAILABLE INFORMATION. THE PROFESSIONAL PREPARING THIS MAP ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THESE FACILITIES OR FOR THE INADVERTENT OMISSION OF RELATED INFORMATION.
5. BEARINGS AND DISTANCES DESCRIBING MUSD PARCEL ARE BASED ON SURVEY.
6. THE ELEVATIONS AND RELATIVE POSITIONS OF FEATURES SHOWN HEREON ARE IN CONFORMANCE WITH THE NATIONAL STANDARDS OF THE AMERICAN CONGRESS ON SURVEYING AND MAPPING.

SURVEY INFORMATION

BASIS OF BEARING:

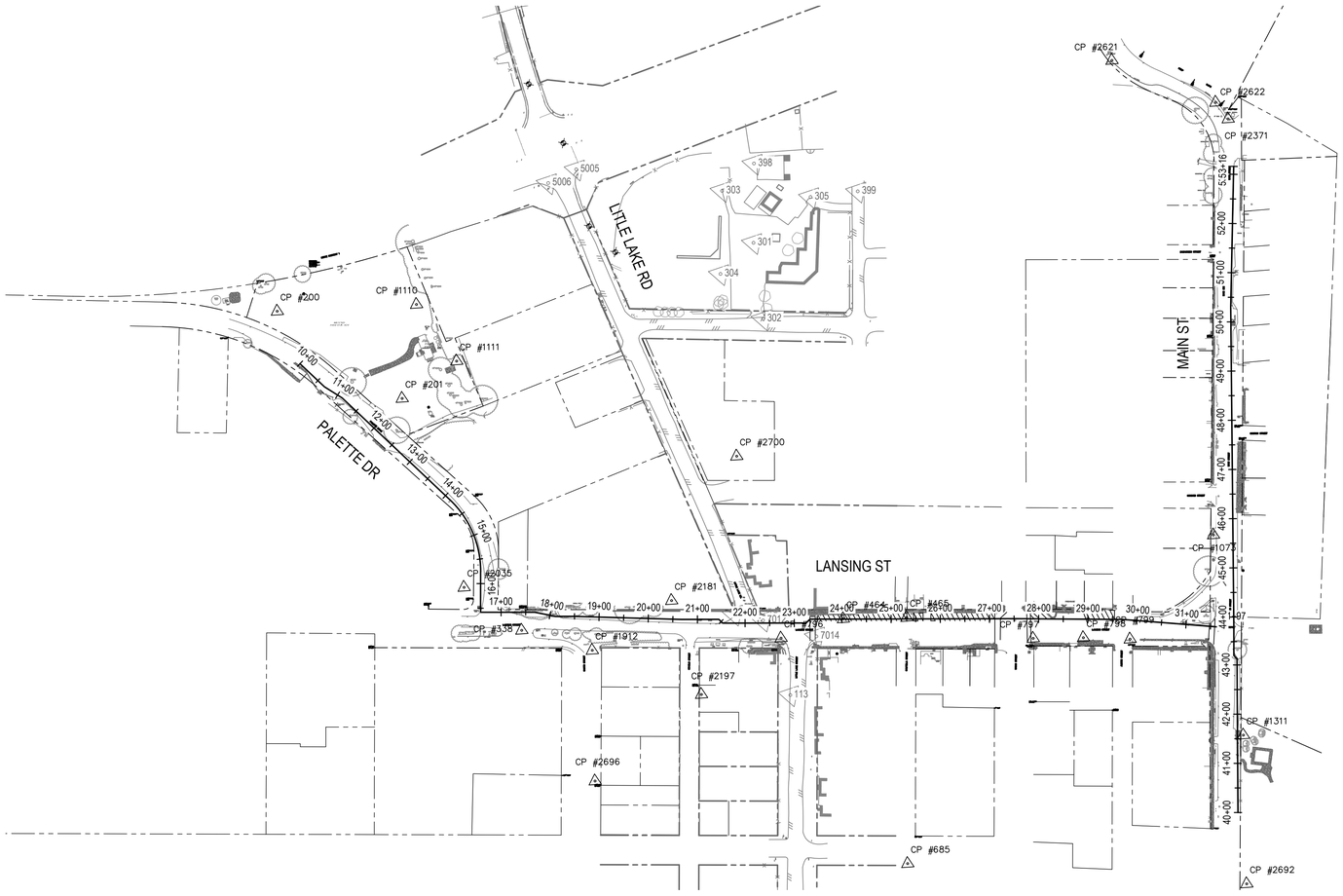
CALIFORNIA COORDINATE SYSTEM '83 - ZONE 2, BASED ON GPS OBSERVATIONS AND THE PUBLISHED COORDINATES FOR THE BELOW LISTED BENCHMARK.

BENCHMARK:

CALTRANS HPGN STA. 01-ED, PID KT2303: 2.5" BRASS DISC WITH PUNCH. ELEVATION = 184.21' PER POST PROCESSED OPUS SOLUTION OF GPS STATIC OBSERVATION.

SURVEY CONTROL TABLE

POINT #	NORTHING	EASTING	ELEV	DESCRIPTION
200	2244196.67	6053130.68	185.14	CP SPIKE
201	2243912.62	6053007.40	187.70	CP SPIKE
338	2243580.81	6052593.73	181.69	CP MAG SPIKE
464	2242944.74	6052746.32	136.58	CP MAG SPIKE
465	2242818.96	6052774.67	132.90	CP MAG SPIKE
685	2242717.72	6052284.71	N/A	CP
796	2243060.98	6052682.68	139.99	CP MAG SPIKE
797	2242558.55	6052784.07	122.94	CP MAG SPIKE
798	2242458.81	6052805.59	116.05	CP MAG SPIKE
799	2242365.18	6052821.59	108.90	CP MAG SPIKE
1073	2242241.18	6053062.84	96.99	CP SPIKE
1110	2243921.98	6053200.39	184.54	CP SPIKE
1111	2243819.17	6053103.75	186.69	CP SPIKE
1311	2242100.67	6052676.11	96.34	CP SPIKE
1912	2243432.16	6052582.28	181.24	CP SPIKE
2035	2243713.01	6052656.02	180.52	CP SPIKE
2181	2243294.24	6052713.39	169.36	CP
2197	2243196.87	6052538.39	N/A	CP
2371	2242379.80	6053897.52	104.77	CP SPIKE
2621	2242634.94	6053967.29	113.48	CP MAG SPIKE
2622	2242411.16	6053925.54	105.31	CP SPIKE
2692	2242034.04	6052381.20	N/A	CP
2696	2243373.86	6052323.10	N/A	CP
2700	2243222.77	6053027.33	N/A	CP



2 ALIGNMENT AND SURVEY CONTROL PLAN

0 150' 300'

N

No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet

0 1"

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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
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Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT

Project RECYCLED WATER EXPANSION PROJECT

Title ALIGNMENT AND SURVEY CONTROL PLAN

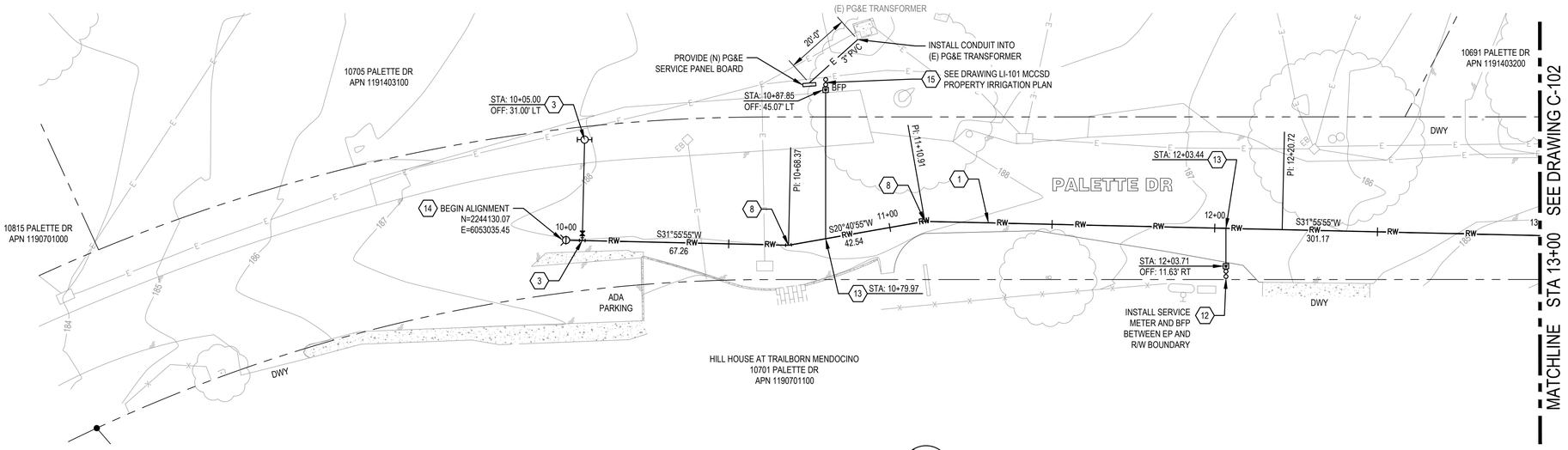
Project No. 12619547

Original Size ANSI D

Drawing No. G-004

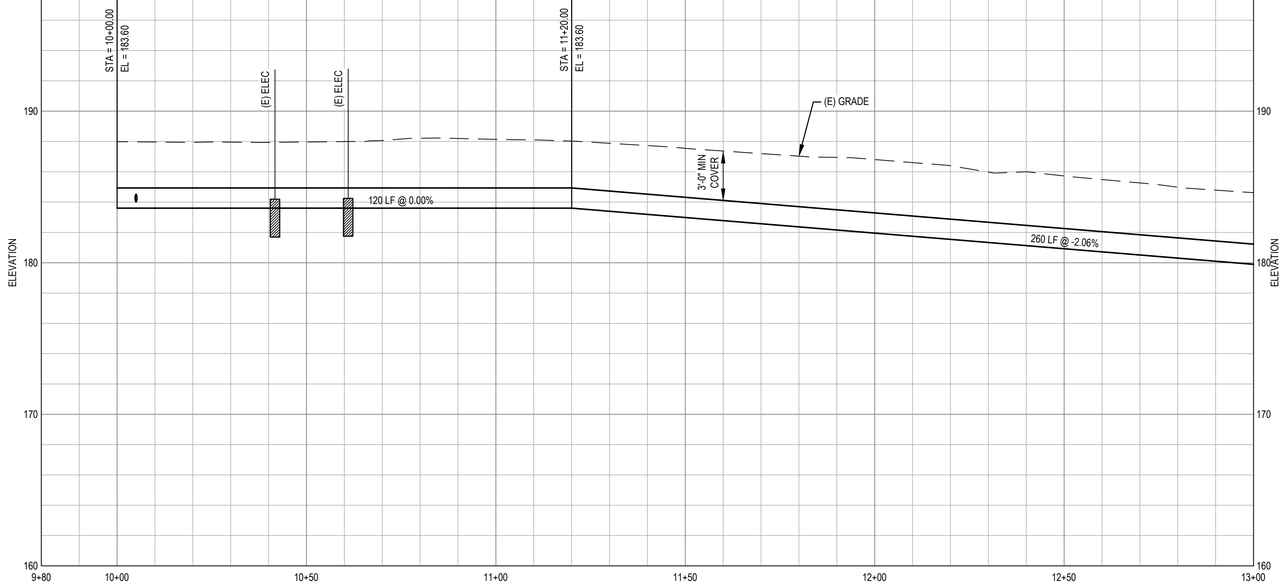
Sheet 4 of 31

Plot Date: 5 November 2026 - 4:31 PM Plotted By: Chris Bach Filename: C:\adsk\accdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rowe\sheets\12619547-GHD-RCWE-DWG-GN-004.dwg



1 PLAN VIEW

0 10' 20' 40'



2 PROFILE VIEW

0 2.5' 5' 10' VERTICAL
0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY. PROVIDE A MINIMUM OF 6" SAND AROUND UTILITIES IF USING CONTROLLED DENSITY FILL SLURRY IN ACCORDANCE WITH MENDOT STD NO. A60A AND A60B.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN (E) UNDERGROUND SEWER AND (N) RECYCLED WATER MAIN. PROVIDE A MINIMUM OF 12" OF VERTICAL CLEARANCE BETWEEN (E) POWER, TELECOMMUNICATIONS, AND GAS UTILITIES AND (N) RECYCLED WATER MAIN. PROVIDE A MINIMUM OF 18" OF VERTICAL CLEARANCE BETWEEN (E) STORM DRAINS AND (N) RECYCLED WATER MAIN.
5. THE MINIMUM ALLOWABLE RADIUS ON 8" NOMINAL DIAMETER PIPE SHALL BE 189 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 6 ON SHEET C-502.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. CONTRACTOR TO LOCATE STREET LIGHTING CONDUIT AND CABLE.
10. MAPPING BETWEEN STA 40+00 AND STA 40+92 IS APPROXIMATE AND NOT A PRODUCT OF SURVEY.
11. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.

SHEET KEYNOTES

1. PROVIDE 8" PVC DR 18 RECYCLED WATER MAIN.
2. PROVIDE 8" GATE VALVE, UNO. SEE DETAIL 4 ON DRAWING C-502.
3. PROVIDE FIRE HYDRANT. SEE DETAIL 1 ON DRAWING C-502.
4. PROVIDE 8" TEE, UNO.
5. PROVIDE 8" 90° ELBOW, UNO.
6. PROVIDE 8" 45° ELBOW, UNO.
7. PROVIDE 8" 22.5° ELBOW, UNO.
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9. PROVIDE HIGH DEFLECTION COUPLING, ROMAC ALPHA OR APPROVED EQUAL.
10. PROVIDE AIR RELEASE VALVE AT HIGH POINT IN RECYCLED WATER MAIN. SEE DETAIL 2 ON DRAWING C-502.
11. PROVIDE RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
12. PROVIDE BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 5 ON DRAWING C-502.
13. PROVIDE 2" RECYCLED WATER SERVICE AND METER. SEE DETAIL 3 ON DRAWING C-502.
14. PROVIDE PERMANENT BLOWOFF IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861.
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22. PROVIDE 1" RECYCLED WATER SERVICE AND METER IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861 AND 1" REDUCED PRESSURE BACKFLOW DEVICE IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 876. CONTRACTOR PROVIDES METER. PROVIDE BFP ENCLOSURE IN ACCORDANCE WITH DETAIL 5 ON DRAWING C-502.

No.	Issue	Drawn	Approved	Date

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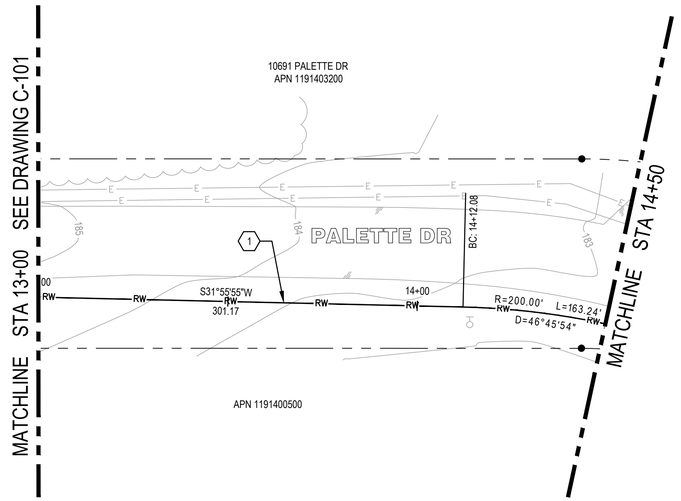
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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title RECYCLED WATER LINE - STA 10+00 TO 13+00
Project No. 12619547
Original Size ANSI D
Drawing No. C-101
Sheet 5 of 31

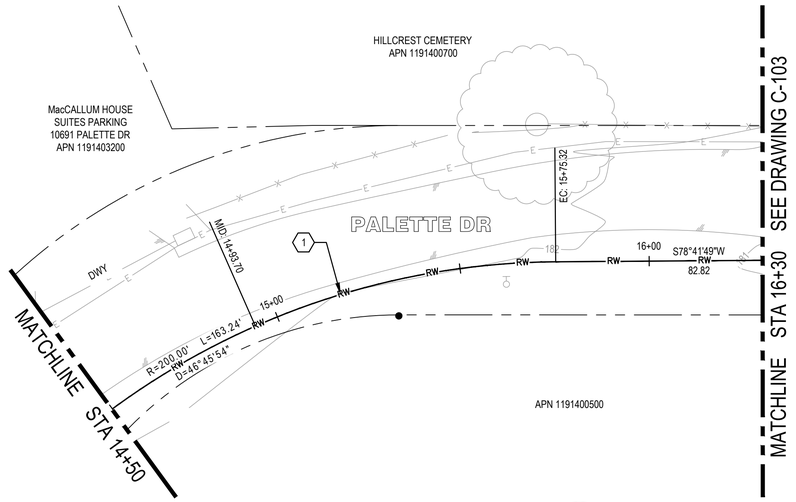
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1 PLAN VIEW

0 10' 20' 40'

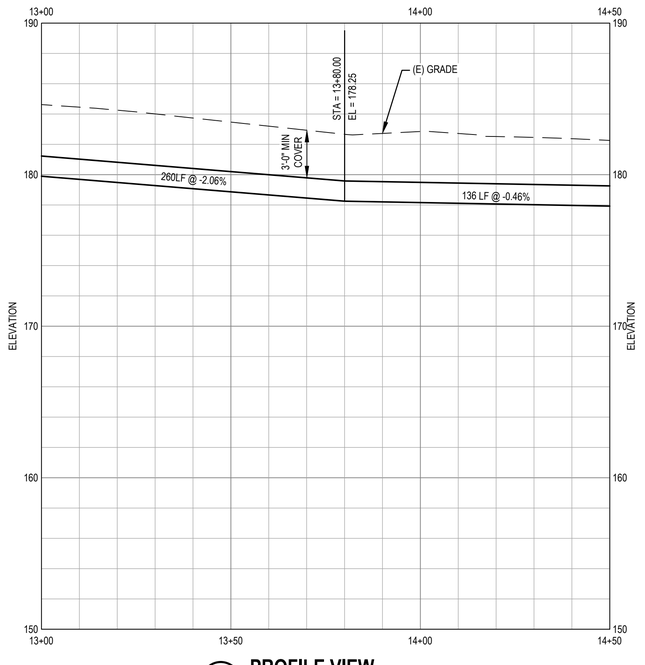
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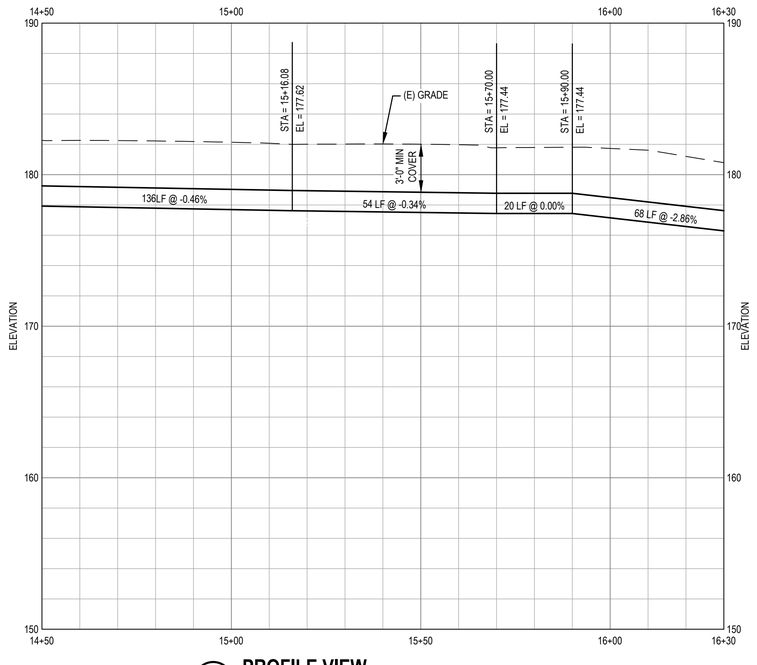
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2 PROFILE VIEW

0 2.5' 5' 10' VERTICAL

0 10' 20' 40' HORIZONTAL



2 PROFILE VIEW

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0 1"

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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT

Project RECYCLED WATER EXPANSION PROJECT

Title **RECYCLED WATER LINE - STA 13+00 TO 16+30**

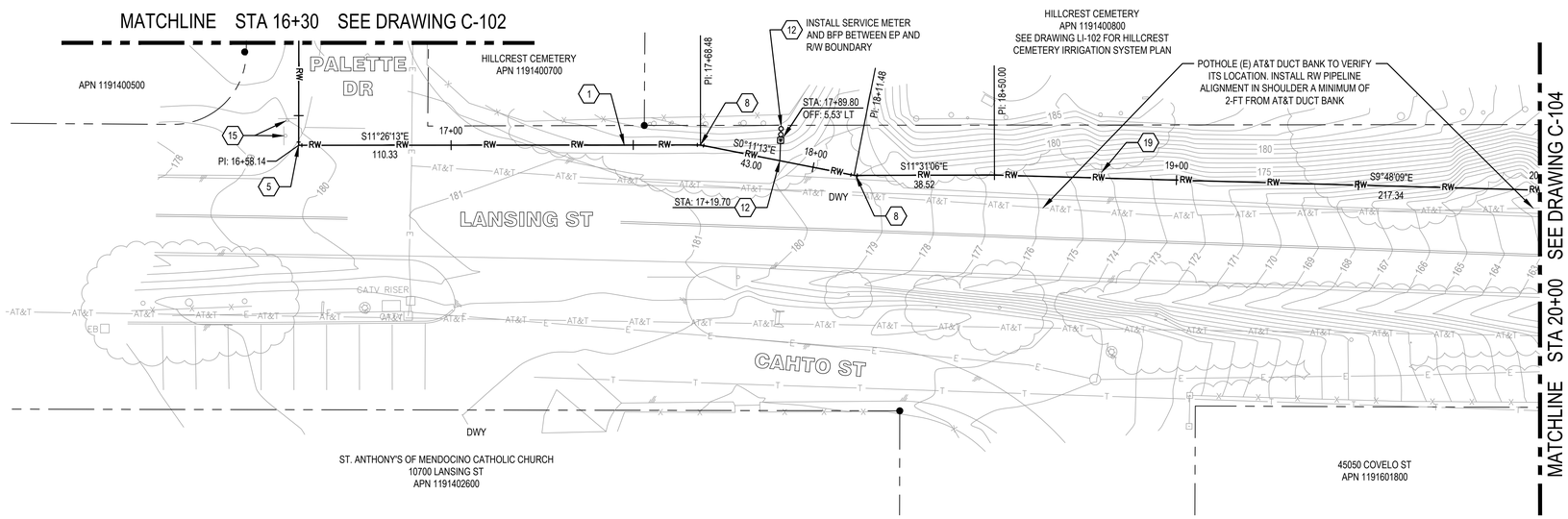
Project No. 12619547

Original Size ANSI D

Drawing No. **C-102**

Sheet 6 of 31

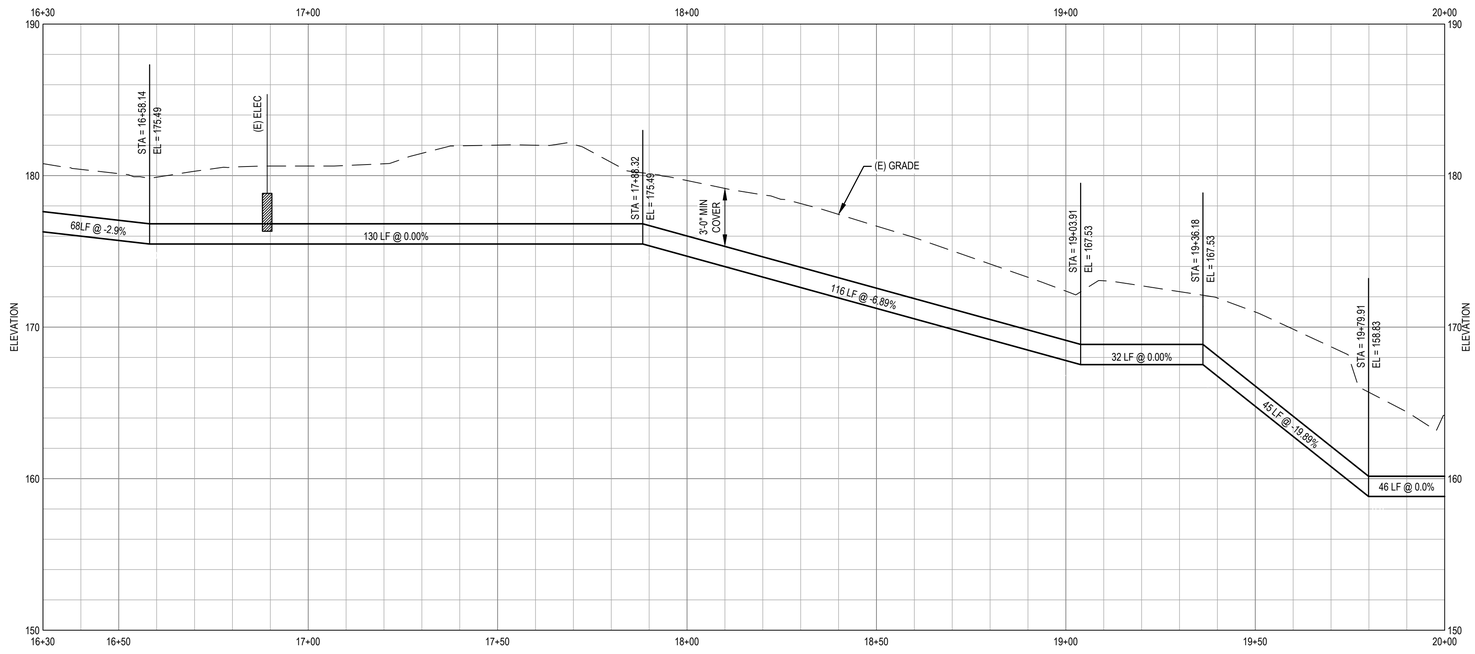
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1 PLAN VIEW

0 10' 20' 40'

N



2 PROFILE VIEW

0 2.5' 5' 10' VERTICAL
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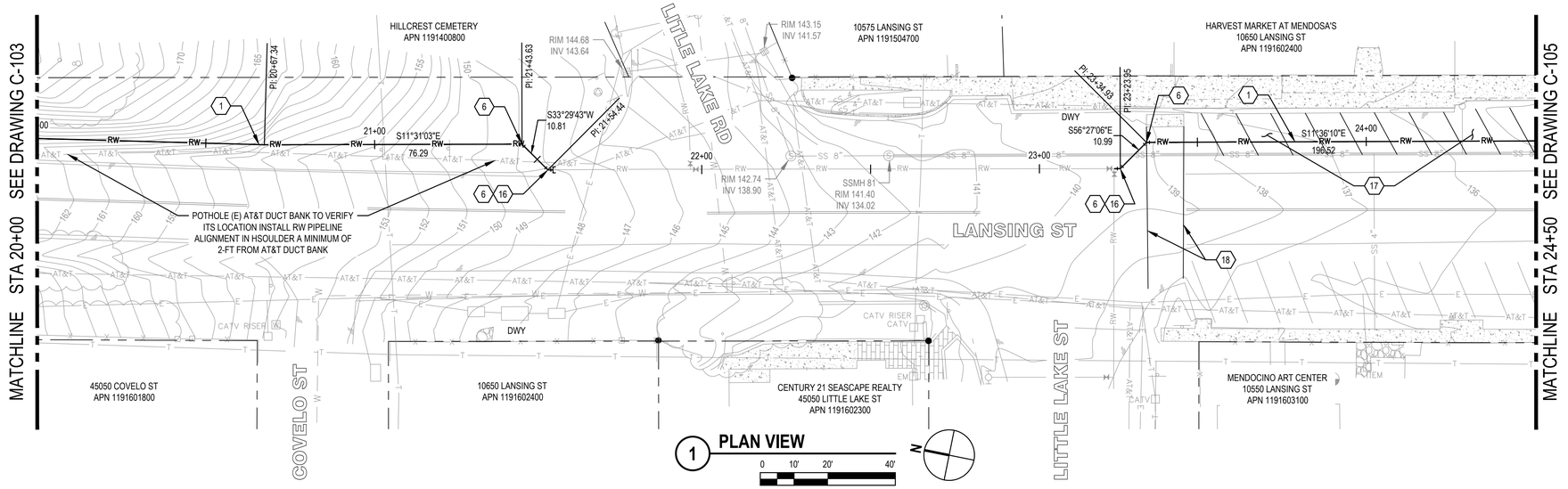
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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title RECYCLED WATER LINE - STA 16+30 TO 20+00
Project No. 12619547
Original Size ANSI D
Drawing No. C-103
Sheet 7 of 31

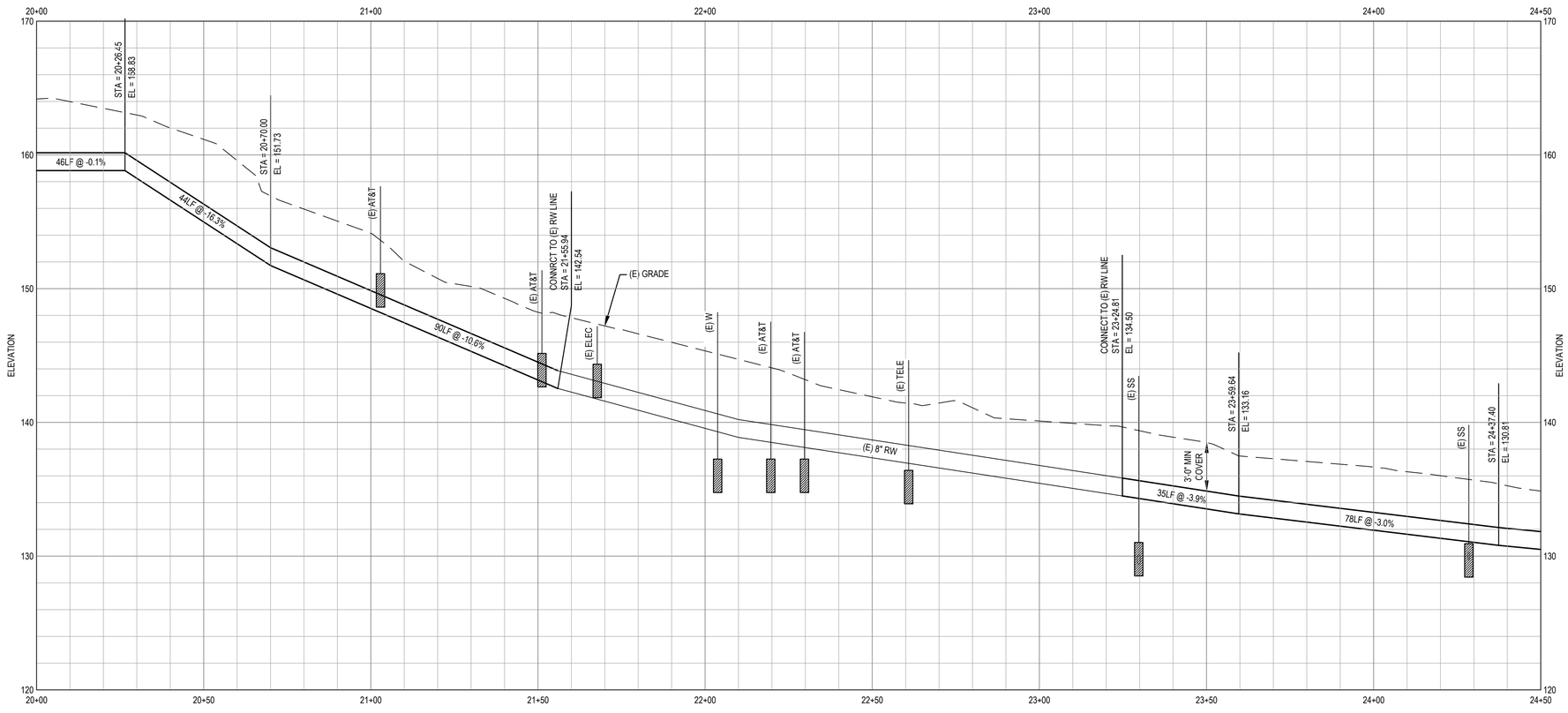
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1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2.5' 5' 10' VERTICAL

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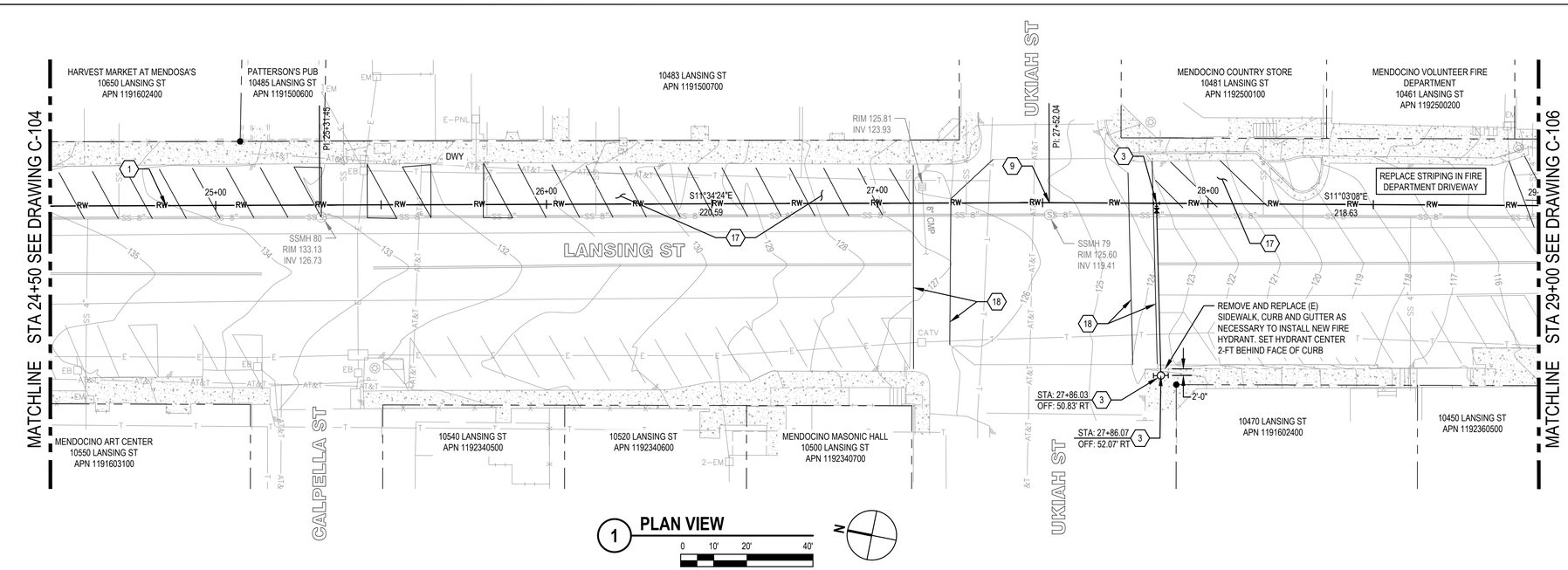
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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client **MENDOCINO CITY COMMUNITY SERVICES DISTRICT**
Project **RECYCLED WATER EXPANSION PROJECT**
Title **RECYCLED WATER LINE - STA 20+00 TO 24+50**
Project No. **12619547**
Original Size **ANSI D**
Drawing No. **C-104**
Sheet **8** of **31**

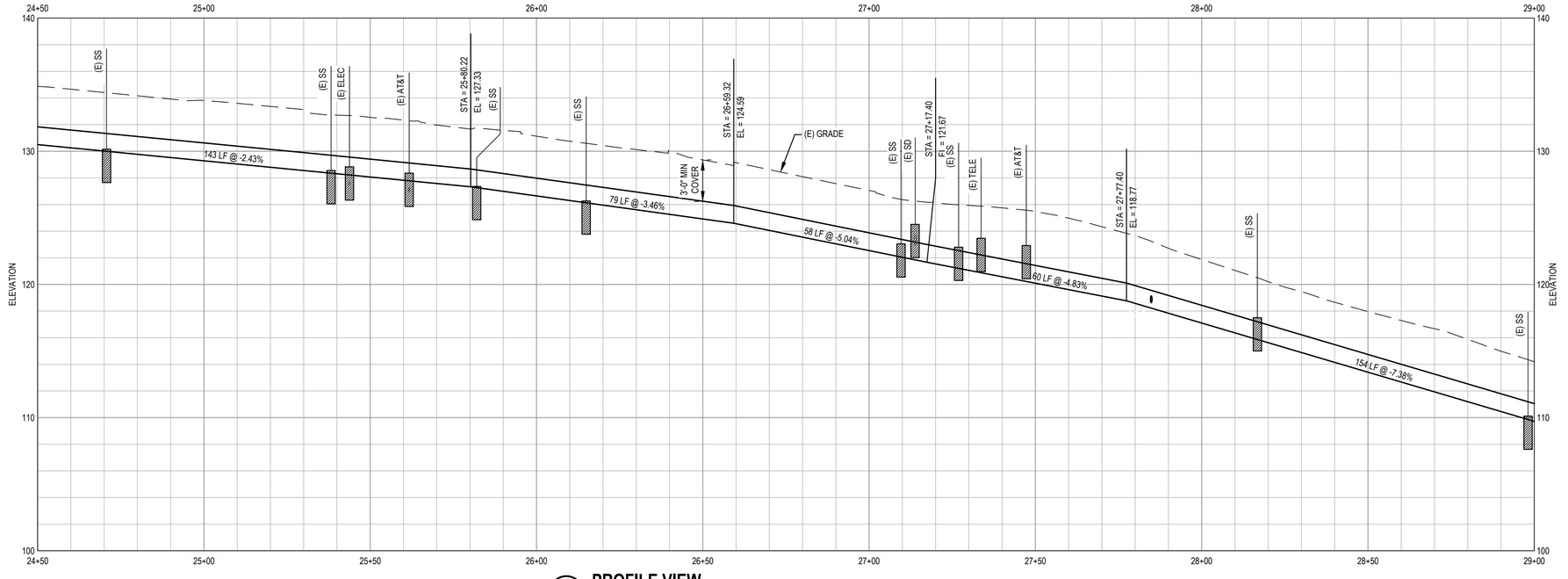
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1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2.5' 5' 10' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY. PROVIDE A MINIMUM OF 6" SAND AROUND UTILITIES IF USING CONTROLLED DENSITY FILL SLURRY IN ACCORDANCE WITH MENDOT STD NO. A60A AND A60B.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN (E) UNDERGROUND SEWER AND (N) RECYCLED WATER MAIN. PROVIDE A MINIMUM OF 12" OF VERTICAL CLEARANCE BETWEEN (E) POWER, TELECOMMUNICATIONS, AND GAS UTILITIES AND (N) RECYCLED WATER MAIN. PROVIDE A MINIMUM OF 18" OF VERTICAL CLEARANCE BETWEEN (E) STORM DRAINS AND (N) RECYCLED WATER MAIN.
5. THE MINIMUM ALLOWABLE RADIUS ON 8" NOMINAL DIAMETER PIPE SHALL BE 189 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 6 ON SHEET C-502.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. CONTRACTOR TO LOCATE STREET LIGHTING CONDUIT AND CABLE.
10. MAPPING BETWEEN STA 40+00 AND STA 40+92 IS APPROXIMATE AND NOT A PRODUCT OF SURVEY.
11. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.

SHEET KEYNOTES

1. PROVIDE 8" PVC DR 18 RECYCLED WATER MAIN.
2. PROVIDE 8" GATE VALVE, UNO. SEE DETAIL 4 ON DRAWING C-502.
3. PROVIDE FIRE HYDRANT. SEE DETAIL 1 ON DRAWING C-502.
4. PROVIDE 8" TEE, UNO.
5. PROVIDE 8" 90° ELBOW, UNO.
6. PROVIDE 8" 45° ELBOW, UNO.
7. PROVIDE 8" 22.5° ELBOW, UNO.
8. PROVIDE 8" 11.25° ELBOW, UNO.
9. PROVIDE HIGH DEFLECTION COUPLING, ROMAC ALPHA OR APPROVED EQUAL.
10. PROVIDE AIR RELEASE VALVE AT HIGH POINT IN RECYCLED WATER MAIN. SEE DETAIL 2 ON DRAWING C-502.
11. PROVIDE RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
12. PROVIDE BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 5 ON DRAWING C-502.
13. PROVIDE 2" RECYCLED WATER SERVICE AND METER. SEE DETAIL 3 ON DRAWING C-502.
14. PROVIDE PERMANENT BLOWOFF IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861.
15. REMOVE AND REPLACE (E) STOP SIGN AND SNS ON NEW POSTS IN ACCORDANCE WITH CALTRANS STANDARD PLAN RS5 AS NECESSARY TO CONSTRUCT RW PIPE.
16. REMOVE (E) RESTRAINED MECHANICAL PLUG. PROVIDE 10"x8" REDUCER AND CONNECT TO (E) RW PIPE.
17. REPLACE ANGLED PARKING SPACE STRIPING, 6-INCH WHITE STRIPE, 2-PART PAINT. MATCH (E) IN KIND.
18. REPLACE (E) CROSSWALK STRIPING, 12-INCH WHITE THERMOPLASTIC IN ACCORDANCE WITH COUNTY DEPARTMENT OF TRANSPORTATION ROAD STANDARDS, TAB E.
19. REMOVE AND REPLACE (E) RIGHT TURN SIGN ON NEW POST IN ACCORDANCE WITH CALTRANS STANDARD PLAN RS5 AS NECESSARY TO CONSTRUCT RW PIPE.
20. REMOVE (E) BOLLARDS AND CONCRETE FOUNDATIONS.
21. REMOVE (E) FIRE HYDRANT, BURY AND PIPING AND PLUG (E) PIPE AT FACE OF CURB.
22. PROVIDE 1" RECYCLED WATER SERVICE AND METER IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861 AND 1" REDUCED PRESSURE BACKFLOW DEVICE IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 876. CONTRACTOR PROVIDES METER. PROVIDE BFP ENCLOSURE IN ACCORDANCE WITH DETAIL 5 ON DRAWING C-502.

No.	Issue	Drawn	Approved	Date

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0 1"

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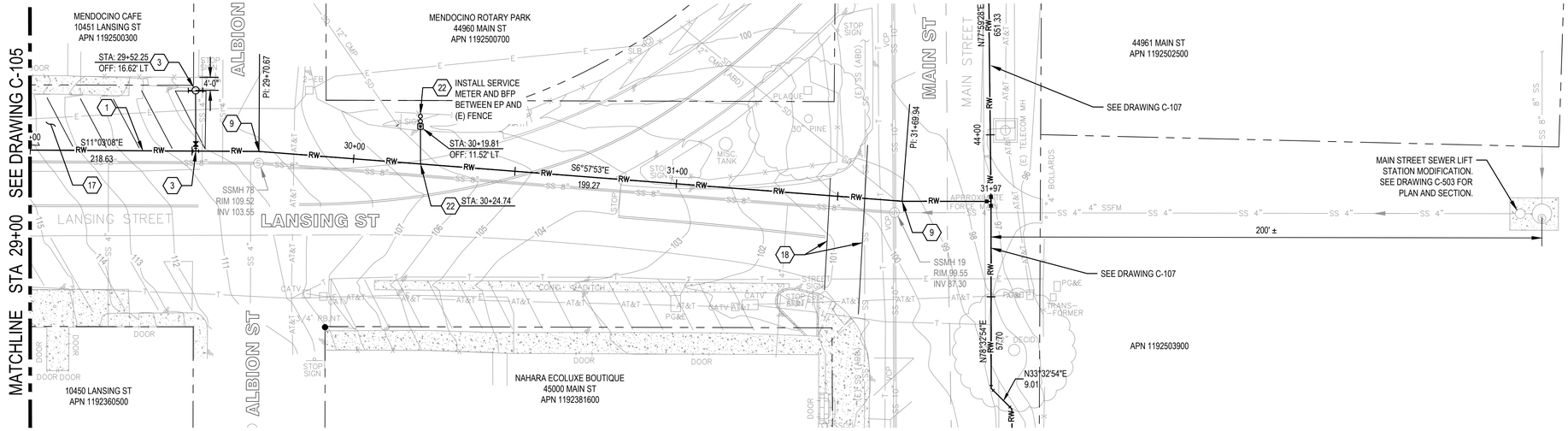
REGISTERED PROFESSIONAL ENGINEER — ERIN GLEA KENNEDY — No. 28304 — CIVIL — STATE OF CALIFORNIA

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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
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Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title RECYCLED WATER LINE - STA 24+50 TO 29+00
Project No. 12619547
Original Size ANSI D
Drawing No. C-105
Sheet 9 of 31

Plot Date: 6 November 2026 - 4:40 PM Plotted By: Chris Bach Filename: C:\adsk\accdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rcwe\sheets\12619547-GHD-RCWE-DWG-CI-101.dwg



1 **PLAN VIEW**

0 10' 20' 40'



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0 2.5' 5' 10' VERTICAL

0 10' 20' 40' HORIZONTAL

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7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 6 ON SHEET C-502.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. CONTRACTOR TO LOCATE STREET LIGHTING CONDUIT AND CABLE.
10. MAPPING BETWEEN STA 40+00 AND STA 40+92 IS APPROXIMATE AND NOT A PRODUCT OF SURVEY.
11. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.

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No.	Issue	Drawn	Approved	Date

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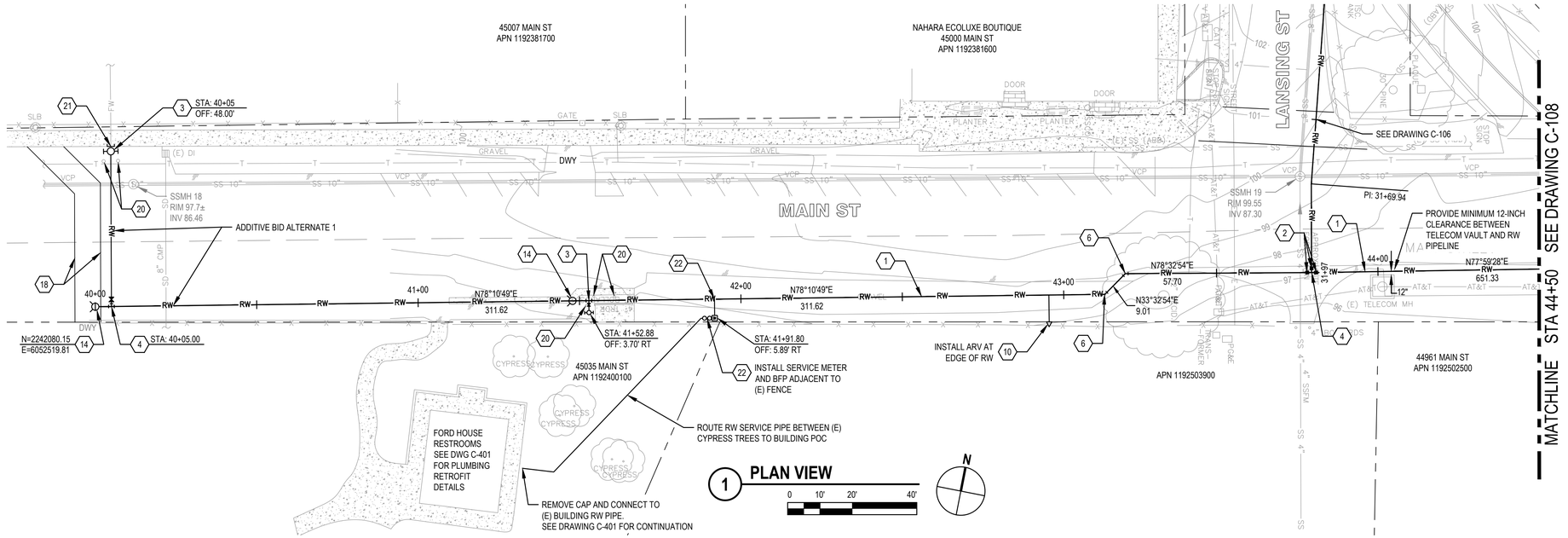
REGISTERED PROFESSIONAL ENGINEER — KENNETH GLEN KENNEDY — 28304 — CIVIL — STATE OF CALIFORNIA

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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
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Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title RECYCLED WATER LINE - STA 29+00 TO 31+97
Project No. 12619547
Original Size ANSI D
Drawing No. C-106
Sheet 10 of 31

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REGISTERED PROFESSIONAL ENGINEER
HIGH GLEN KENNARD
No. 93304
CIVIL
STATE OF CALIFORNIA

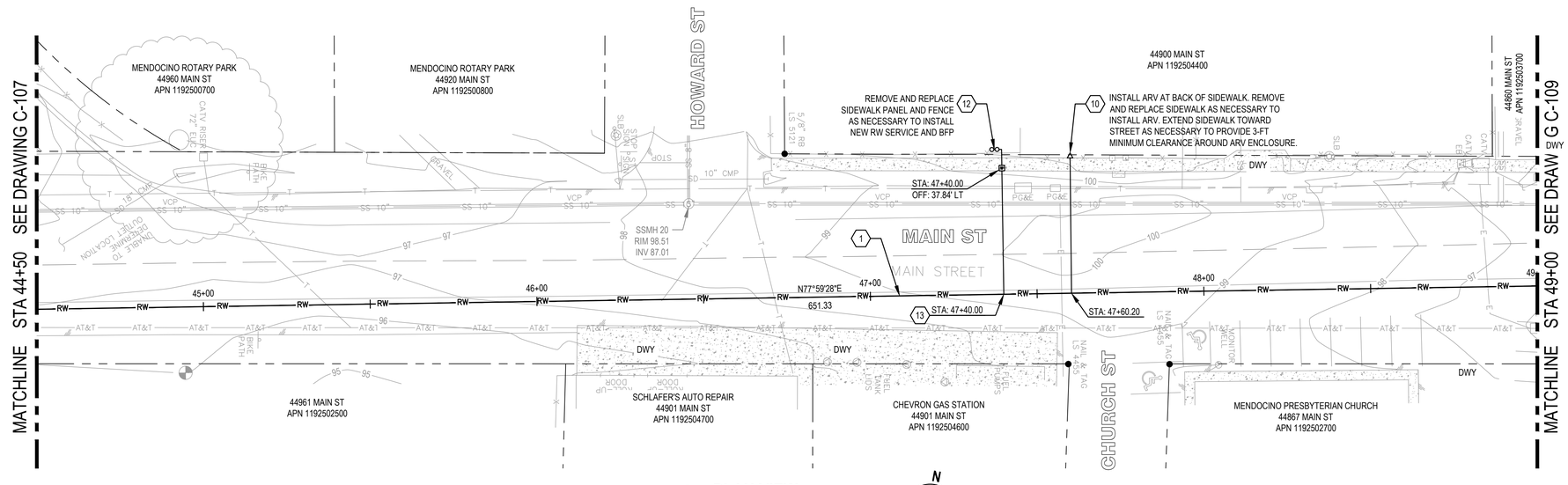
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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

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Project RECYCLED WATER EXPANSION PROJECT
Title RECYCLED WATER LINE - STA 40+00 TO 44+50
Project No. 12619547
Original Size ANSI D
Drawing No. C-107
Sheet 11 of 31

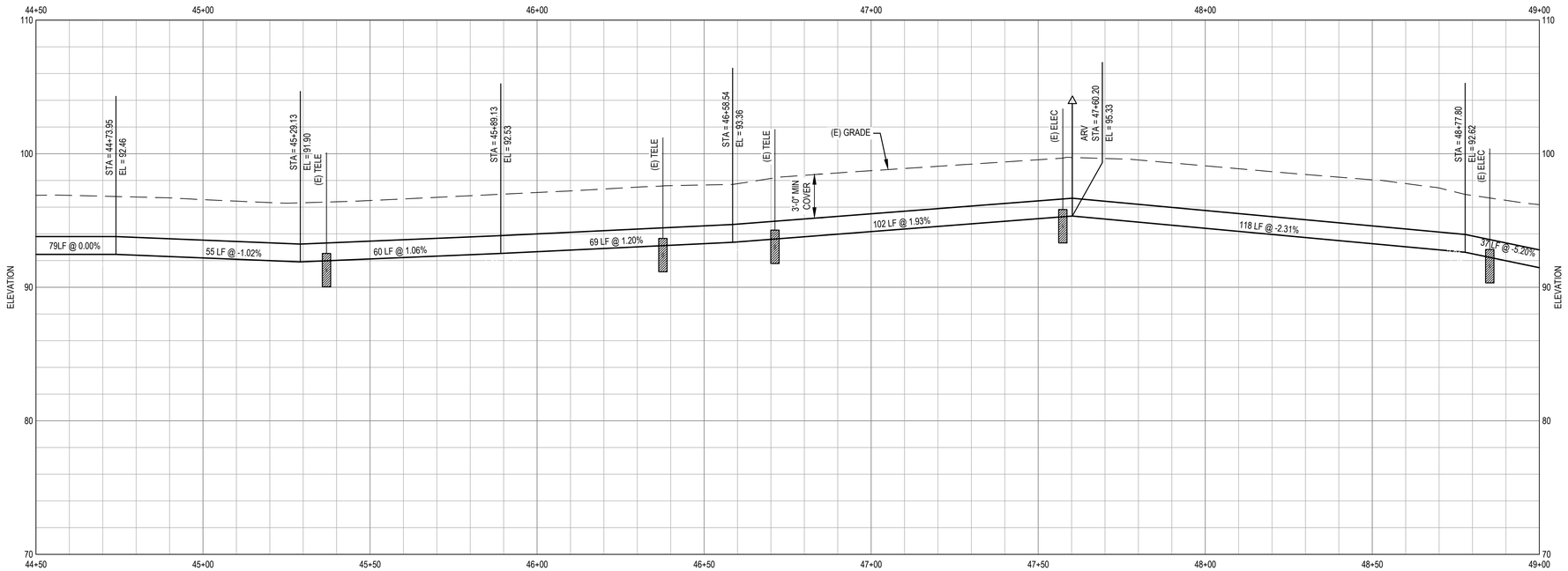
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1 PLAN VIEW

0 10' 20' 40'

N



2 PROFILE VIEW

0 2.5' 5' 10' VERTICAL
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17. REPLACE ANGLED PARKING SPACE STRIPING, 6-INCH WHITE STRIPE, 2-PART PAINT. MATCH (E) IN KIND.
18. REPLACE (E) CROSSWALK STRIPING, 12-INCH WHITE THERMOPLASTIC IN ACCORDANCE WITH COUNTY DEPARTMENT OF TRANSPORTATION ROAD STANDARDS, TAB E.
19. REMOVE AND REPLACE (E) RIGHT TURN SIGN ON NEW POST IN ACCORDANCE WITH CALTRANS STANDARD PLAN RS5 AS NECESSARY TO CONSTRUCT RW PIPE.
20. REMOVE (E) BOLLARDS AND CONCRETE FOUNDATIONS.
21. REMOVE (E) FIRE HYDRANT, BURY AND PIPING AND PLUG (E) PIPE AT FACE OF CURB.
22. PROVIDE 1" RECYCLED WATER SERVICE AND METER IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861 AND 1" REDUCED PRESSURE BACKFLOW DEVICE IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 876. CONTRACTOR PROVIDES METER. PROVIDE BFP ENCLOSURE IN ACCORDANCE WITH DETAIL 5 ON DRAWING C-502.

No.	Issue	Drawn	Approved	Date

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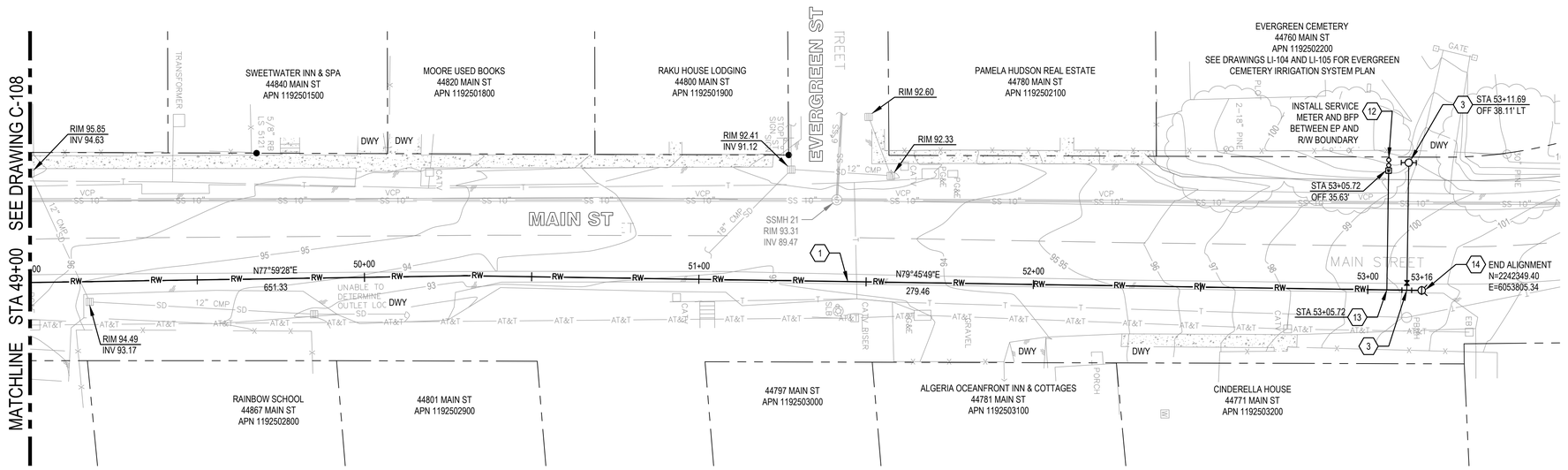
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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title RECYCLED WATER LINE - STA 44+50 TO 49+00
Project No. 12619547
Original Size ANSI D
Drawing No. C-108
Sheet 12 of 31

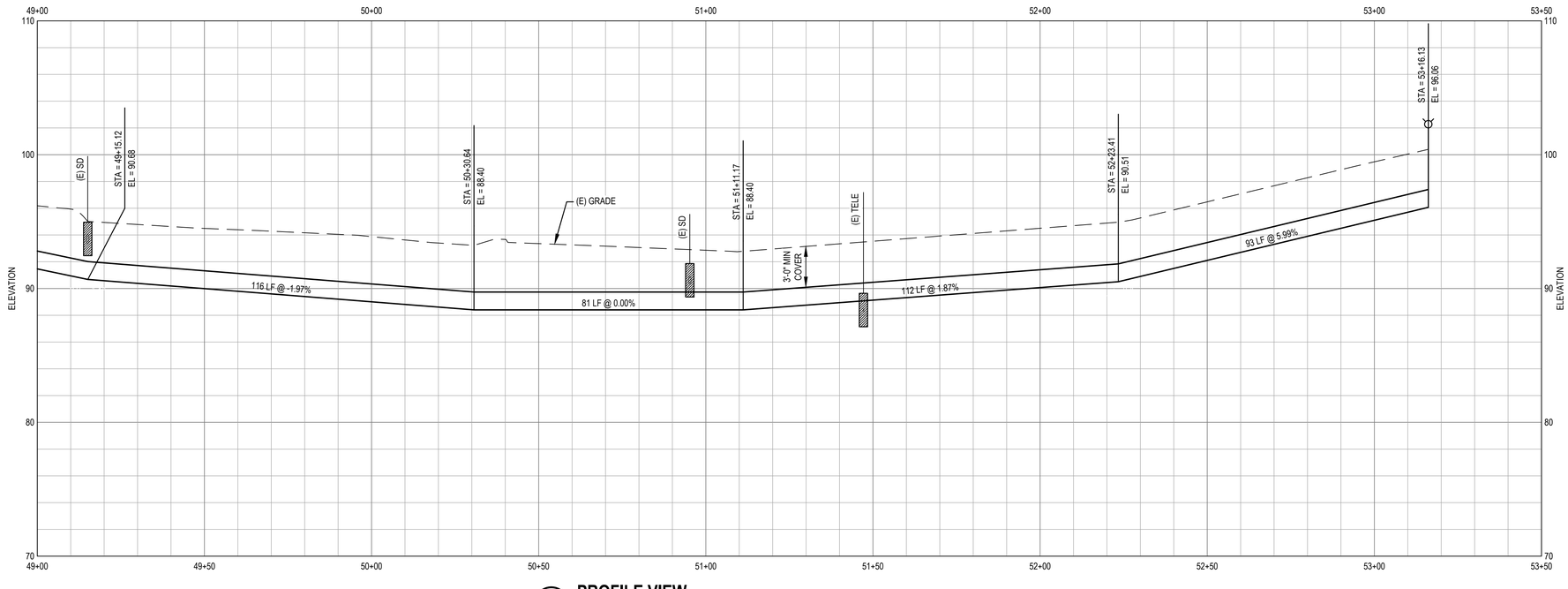
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1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2.5' 5' 10' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY. PROVIDE A MINIMUM OF 6" SAND AROUND UTILITIES IF USING CONTROLLED DENSITY FILL SLURRY IN ACCORDANCE WITH MENDOT STD NO. A60A AND A60B.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN (E) UNDERGROUND SEWER AND (N) RECYCLED WATER MAIN. PROVIDE A MINIMUM OF 12" OF VERTICAL CLEARANCE BETWEEN (E) POWER, TELECOMMUNICATIONS, AND GAS UTILITIES AND (N) RECYCLED WATER MAIN. PROVIDE A MINIMUM OF 18" OF VERTICAL CLEARANCE BETWEEN (E) STORM DRAINS AND (N) RECYCLED WATER MAIN.
5. THE MINIMUM ALLOWABLE RADIUS ON 8" NOMINAL DIAMETER PIPE SHALL BE 189 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 6 ON SHEET C-502.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. CONTRACTOR TO LOCATE STREET LIGHTING CONDUIT AND CABLE.
10. MAPPING BETWEEN STA 40+00 AND STA 40+92 IS APPROXIMATE AND NOT A PRODUCT OF SURVEY.
11. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.

SHEET KEYNOTES

1. PROVIDE 8" PVC DR 18 RECYCLED WATER MAIN.
2. PROVIDE 8" GATE VALVE, UNO. SEE DETAIL 4 ON DRAWING C-502.
3. PROVIDE FIRE HYDRANT. SEE DETAIL 1 ON DRAWING C-502.
4. PROVIDE 8" TEE, UNO.
5. PROVIDE 8" 90° ELBOW, UNO.
6. PROVIDE 8" 45° ELBOW, UNO.
7. PROVIDE 8" 22.5° ELBOW, UNO.
8. PROVIDE 8" 11.25° ELBOW, UNO.
9. PROVIDE HIGH DEFLECTION COUPLING, ROMAC ALPHA OR APPROVED EQUAL.
10. PROVIDE AIR RELEASE VALVE AT HIGH POINT IN RECYCLED WATER MAIN. SEE DETAIL 2 ON DRAWING C-502.
11. PROVIDE RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
12. PROVIDE BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 5 ON DRAWING C-502.
13. PROVIDE 2" RECYCLED WATER SERVICE AND METER. SEE DETAIL 3 ON DRAWING C-502.
14. PROVIDE PERMANENT BLOWOFF IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861.
15. REMOVE AND REPLACE (E) STOP SIGN AND SNS ON NEW POSTS IN ACCORDANCE WITH CALTRANS STANDARD PLAN RS5 AS NECESSARY TO CONSTRUCT RW PIPE.
16. REMOVE (E) RESTRAINED MECHANICAL PLUG. PROVIDE 10"x8" REDUCER AND CONNECT TO (E) RW PIPE.
17. REPLACE ANGLED PARKING SPACE STRIPING, 6-INCH WHITE STRIPE, 2-PART PAINT. MATCH (E) IN KIND.
18. REPLACE (E) CROSSWALK STRIPING, 12-INCH WHITE THERMOPLASTIC IN ACCORDANCE WITH COUNTY DEPARTMENT OF TRANSPORTATION ROAD STANDARDS, TAB E.
19. REMOVE AND REPLACE (E) RIGHT TURN SIGN ON NEW POST IN ACCORDANCE WITH CALTRANS STANDARD PLAN RS5 AS NECESSARY TO CONSTRUCT RW PIPE.
20. REMOVE (E) BOLLARDS AND CONCRETE FOUNDATIONS.
21. REMOVE (E) FIRE HYDRANT, BURY AND PIPING AND PLUG (E) PIPE AT FACE OF CURB.
22. PROVIDE 1" RECYCLED WATER SERVICE AND METER IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 861 AND 1" REDUCED PRESSURE BACKFLOW DEVICE IN ACCORDANCE WITH CITY OF SANTA ROSA STANDARD 876. CONTRACTOR PROVIDES METER. PROVIDE BFP ENCLOSURE IN ACCORDANCE WITH DETAIL 5 ON DRAWING C-502.

No.	Issue	Drawn	Approved	Date

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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client **MENDOCINO CITY COMMUNITY SERVICES DISTRICT**

Project **RECYCLED WATER EXPANSION PROJECT**

Title **RECYCLED WATER LINE - STA 49+00 TO 53+16**

Project No. **12619547**

Original Size **ANSI D**

Drawing No. **C-109**

Sheet **13** of **31**

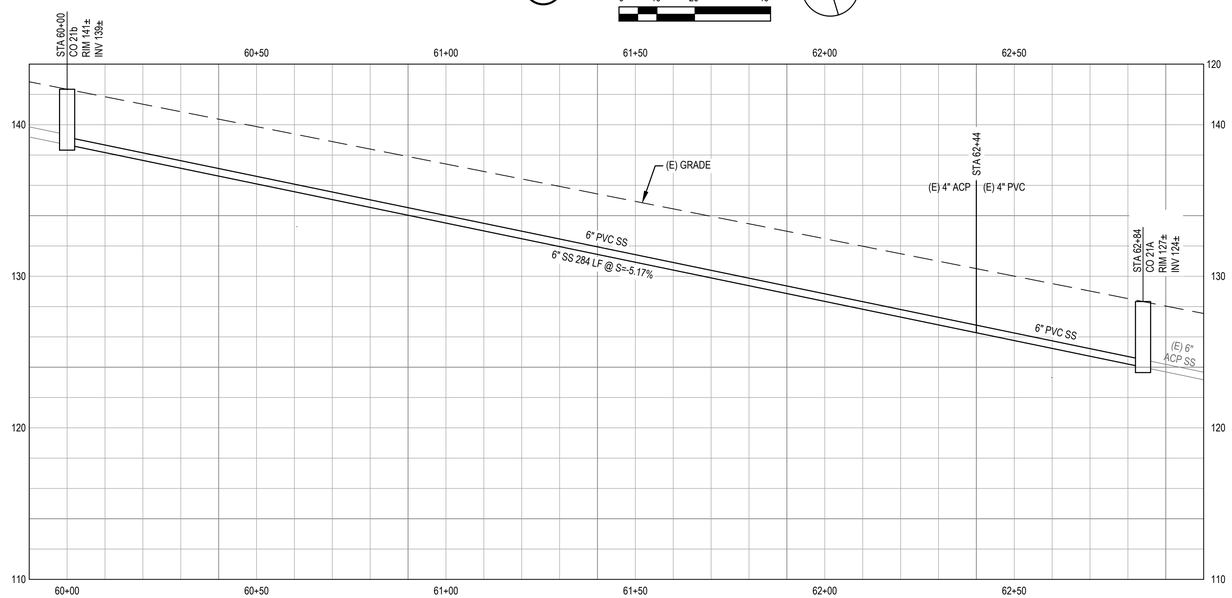
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Plotted By: Chris Bach
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1 PLAN VIEW

0 10' 20' 40'

N



2 PROFILE VIEW

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. THIS PLAN IS NOT A PRODUCT OF SURVEY. LAYOUT AND ELEVATIONS SHOWN ARE APPROXIMATE AND BASED ON FIELD INVESTIGATIONS, VISUAL OBSERVATIONS, AND CCTV VIDEO INSPECTION REPORTS.
4. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
5. CONTRACTOR TO LOCATE STREET LIGHTING CONDUIT AND CABLE.

SHEET KEYNOTES

1. REMOVE (E) 4" ACP SEWER MAIN. INSTALL (N) 8" PVC SS MAIN IN THE SAME ALIGNMENT (BID SCHEDULE G).
2. REMOVE (E) CLEANOUT AND PROVIDE (N) SSMH. SEE DETAIL 1 ON DRAWING C-503 (BID SCHEDULE G).
3. RECONNECT (E) SS LATERAL USING INSERTA TEE FITTING OR APPROVED EQUAL. ENSURE A WATERTIGHT CONNECTION (BID SCHEDULE G).

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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT

Project RECYCLED WATER EXPANSION PROJECT

Title EVERGREEN STREET SANITARY SEWER LINE STA 60+00 TO 62+84

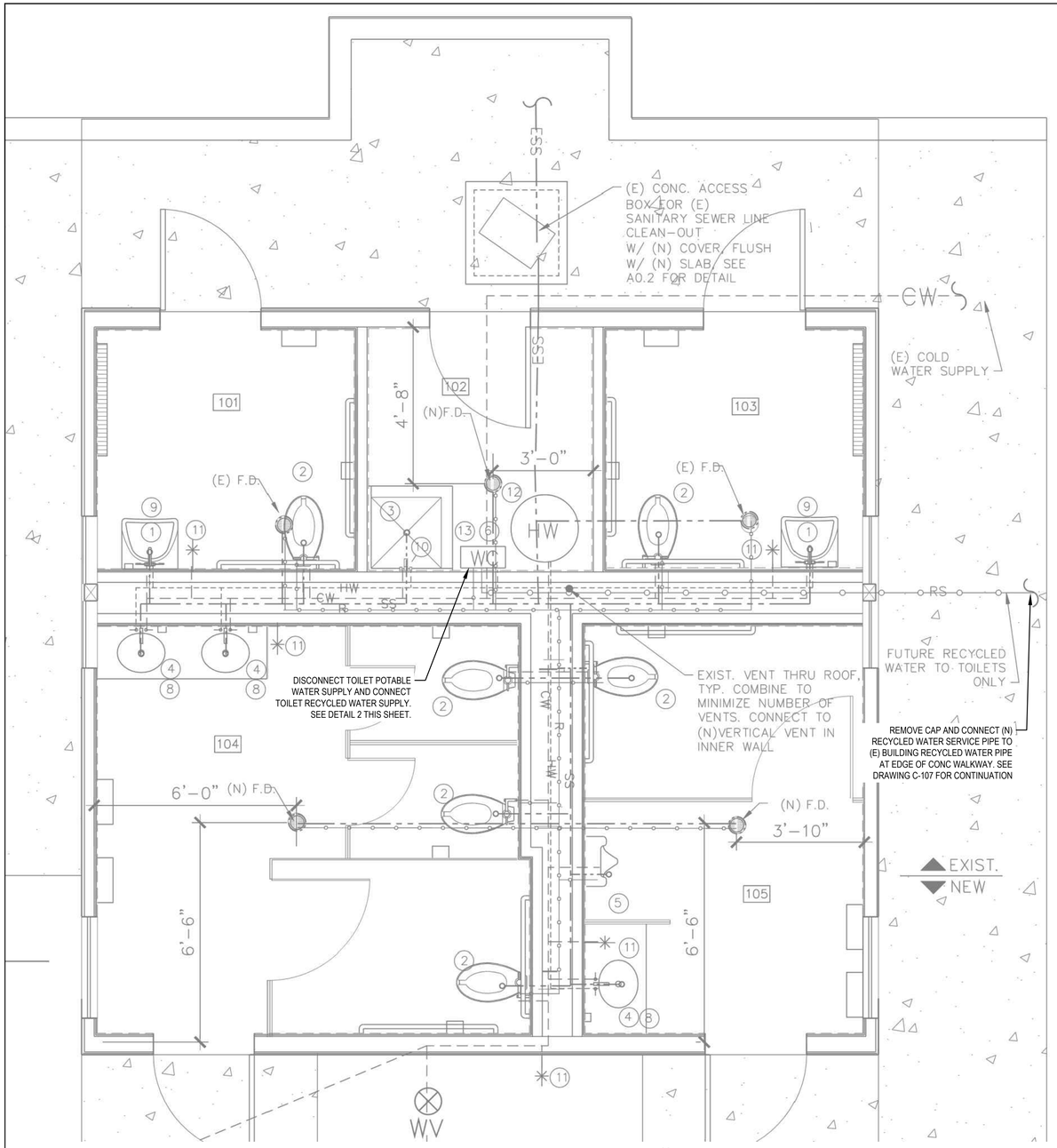
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Original Size ANSI D

Drawing No. C-110

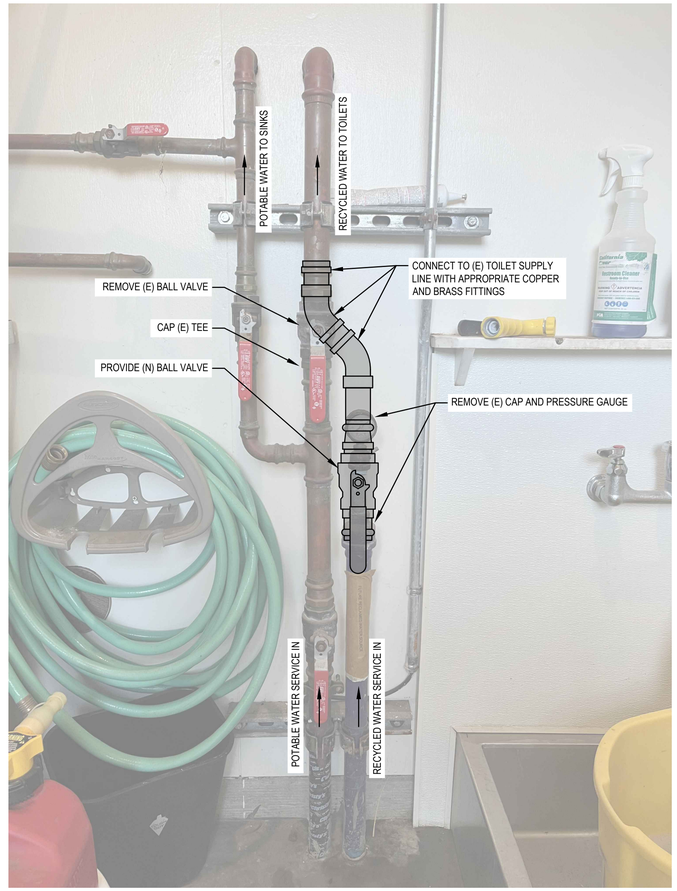
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1 PLUMBING RETROFIT PLAN

SCALE: 1/2"=1' 0 2' 4'



2 PLUMBING RETROFIT DETAIL (BID ITEM A-14)

SCALE: NTS

SHEET GENERAL NOTES

1. EXISTING PLUMBING PLAN USED FOR PLUMBING RETROFIT PLAN IS FROM FORD HOUSE RESTROOM REMODEL PROJECT DATED NOVEMBER 17, 2021. NOT A RECORD DRAWING. ACTUAL CONDITIONS MAY VARY.
2. NOTIFY ENGINEER IF DISCREPANCIES ARE FOUND.
3. COORDINATE WITH CALIFORNIA STATE PARKS FOR RESTROOM ACCESS AND PUBLIC NOTIFICATIONS PRIOR TO PERFORMING WORK. PROVIDE MINIMUM 72 HOUR NOTICE TO CALIFORNIA STATE PARKS PRIOR TO SHUTTING OFF WATER TO PERFORM PLUMBING RETROFIT WORK.
4. VERIFY ALL PIPE AND FITTING SIZES PRIOR TO COMMENCING WORK.
5. PROVIDE PIPE "POTABLE WATER" AND "RECYCLED WATER" LABELS ON EACH PIPE TO CLEARLY DISTINGUISH EACH. LABELS SHALL HAVE WHITE BACKGROUND AND BLACK TEXT WITH 1-INCH HIGH LETTERS.

No.	Issue	Drawn	Approved	Date

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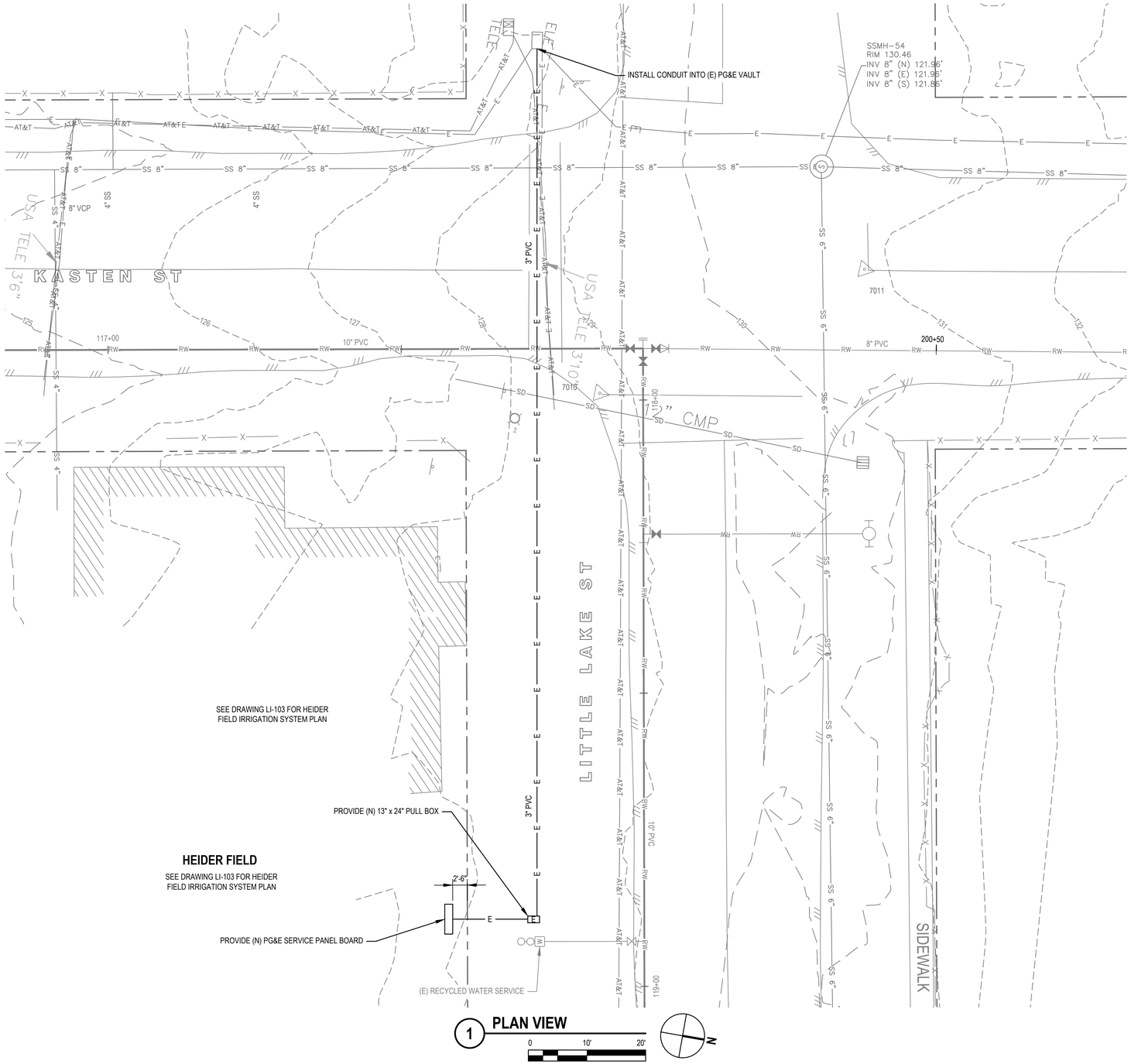
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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title FORD HOUSE RESTROOMS PLUMBING RETROFIT
Project No. 12619547
Original Size ANSI D
Drawing No. C-401
Sheet 15 of 31

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SHEET GENERAL NOTES

1. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.



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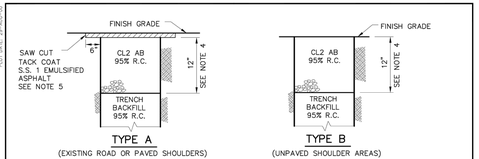
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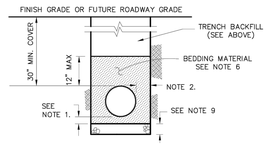
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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title HEIDER FIELD PG&E SERVICE
Project No. 12619547
Original Size ANSI D
Drawing No. C-402
Sheet 16 of 31

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TRENCH BACKFILL AND SURFACING



NOTE:
SEE MENDOT STD. A60B AND A60C FOR ALL TRENCH RESTORATION NOTES.

MENDOCINO COUNTY	TRENCH RESTORATION SECTIONS	MENDOT STD. NO. A60A
	SCALE: NONE | DESIGN: HND | DRAWN: HND | FEB. 2008	PAGE: A-44

TRENCH RESTORATION NOTES:

1. BEDDING BELOW PIPE SHALL BE AS REQUIRED BY UTILITY OR AGENCY THAT OWNS THE FACILITY.
2. 12" MIN., OR 6" MIN. IF SLURRY CEMENT BACKFILL IS USED. SEE NOTE 10.
3. RELATIVE COMPACTION DESIGNATED R.C.
4. THE MINIMUM ROAD STRUCTURAL SECTION SHALL BE A MIN. OF 3" A.C. ON 12" CL. 2 A.B. OR SHALL MATCH EXISTING PAVEMENT THICKNESS WHICHEVER IS THICKER, UNLESS OTHERWISE SHOWN ON THE PLANS. STRUCTURAL SECTION IN SHOULDERS SHALL MATCH EXISTING AND SHALL BE A MIN. OF 8" CL. 2 A.B.
5. NEATLY CUT PAVEMENT SIX INCHES FROM EDGE OF TRENCH AFTER TRENCH IS BACKFILLED. SS1 DESIGNATES SS1 ASPHALTIC EMULSION PER CALTRANS STANDARD SPECIFICATION, SECTION 94, ASPHALTIC EMULSION.
6. **MATERIAL SPECIFICATIONS**

6a. DRAIN ROCK SHALL BE EITHER OF THE NOMINAL SIZES DESIGNATED AS 1-1/2" BY 3/4" OR 2-1/2" BY 1-1/2".

6b. PIPE BEDDING AND TRENCH BACKFILL MATERIAL SHALL BE A WELL GRADED GRAVEL/SAND MATERIAL AND SHALL HAVE A MINIMUM SAND EQUIVALENT VALUE OF 20 AND SHALL CONFORM TO THE FOLLOWING GRADINGS:

PERCENT PASSING

	3"	3/4"	3/8"	NO. 4	NO. 16	NO. 30	NO. 200
PIPE BEDDING		100	80-100	10-50	5-30		0-4
TRENCH BACKFILL	100			35-100		20-100	

6c. IN ADDITION, WHEN TESTED WITH THE FOLLOWING SERIES OF SIEVES, NO MORE THAN 25% OF THE MATERIAL WILL BE RETAINED BETWEEN ANY ADJACENT SIEVES: 3", 2-1/2", 2", 1-1/2", 1", 3/4", 1/2", 3/8", NO. 4, NO. 8, NO. 16, NO. 30, NO. 50, NO. 100, AND NO. 200.

6d. **AGGREGATE BASE** CL 2 A.B. DESIGNATES CLASS 2 AGGREGATE BASE AND SHALL CONFORM TO THE PROVISIONS OF SECTION 26 OF THE COUNTY STANDARD SPECIFICATIONS.

6e. **NATIVE MATERIAL** SHALL NOT CONTAIN ROCKS LARGER THAN 3".

MENDOCINO COUNTY	TRENCH RESTORATION NOTES	MENDOT STD. NO. A60B
	SCALE: NONE | DESIGN: HND | DRAWN: HND | FEB. 2008	PAGE: A-45

7. **COMPACTION REQUIREMENTS:** (AS SHOWN ON A60A AND IN THE FOLLOWING MODIFICATIONS)

7a. **DRAIN ROCK** SHALL BE CONSOLIDATED WITH VIBRATORY COMPACTION EQUIPMENT TO A MINIMUM R.C. OF 90%.

7b. **PIPE BEDDING MATERIAL** SHALL BE CONSOLIDATED WITH VIBRATORY COMPACTION EQUIPMENT TO A MINIMUM R.C. OF 90%.

7c. **GENERAL:** THE COMPACTION REQUIREMENTS SHALL BE ACHIEVED UTILIZING METHODS AND EQUIPMENT APPROVED BY THE COUNTY. ANY METHOD OF COMPACTION WHICH FAILS TO UNIFORMLY ACHIEVE THE REQUIRED LEVELS OF COMPACTION THROUGHOUT THE LENGTH AND DEPTH OF TRENCHES SHALL BE DISCONTINUED. COMPACTION METHODS AND EQUIPMENT SHALL BE SUCH AS NOT TO DAMAGE THE INSTALLED PIPE, EXCEED ITS LOADING CAPACITY OR DISTURB ITS ALIGNMENT. FLOODING, PONDING OR JETTING WILL NOT BE ALLOWED.

7d. **MECHANICAL COMPACTION:** TRENCH BACKFILL SHALL BE PLACED IN UNIFORM, HORIZONTAL LAYERS NOT EXCEEDING EIGHT (8) INCHES IN THICKNESS BEFORE COMPACTION. EACH LAYER SHALL BE COMPACTED, USING MECHANICAL MEANS, TO THE SPECIFIED DENSITY SHOWN ON THE PLANS.

THE CONTRACTOR MAY, AT CONTRACTOR'S SOLE OPTION AND AT CONTRACTOR'S SOLE EXPENSE, CONSTRUCT A TEST TRENCH SECTION WHICH DEMONSTRATES METHODS, EQUIPMENT, OR MATERIALS WHICH WILL RELIABLY ACHIEVE THE REQUIRED COMPACTION IN LIFTS GREATER THAN 8 INCHES. AT ITS SOLE DISCRETION, THE COUNTY MAY INCREASE THE MAXIMUM ALLOWABLE LIFT THICKNESS PERMITTED BASED UPON THE RESULTS DEMONSTRATED BY THE TEST TRENCH SECTION. SHOULD SUBSEQUENT TESTING DEMONSTRATE THAT THE REQUIRED COMPACTION IS NOT BEING RELIABLY ACHIEVED, THE COUNTY MAY, AT ITS SOLE DISCRETION, REDUCE THE MAXIMUM LIFT THICKNESS TO ITS ORIGINAL VALUE OF 8 INCHES.

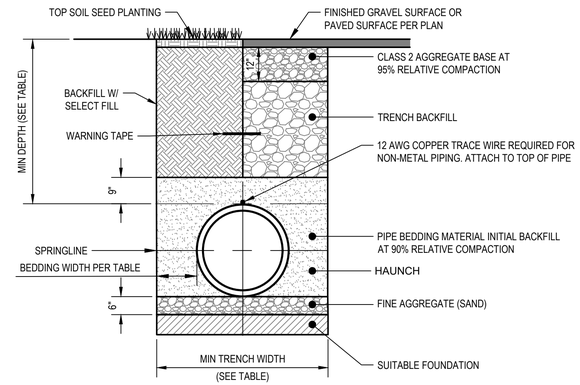
8. **TRENCHING METHODS:** ROCK WHEEL TRENCHING SHALL BE ALLOWED FOR TRENCH CONSTRUCTION IN COUNTY ROADS. INSTALLATION OF CABLE USING THE PLOW METHOD SHALL NOT BE ALLOWED.
9. **TRENCH BASE:** TRENCH BASE SHALL BE STABILIZED USING ADDITIONAL PIPE BEDDING; DRAIN ROCK, OR OTHER SUITABLE MATERIAL AS DIRECTED BY UTILITY, COUNTY DOT, OR CIVIL ENGINEER IN RESPONSIBLE CHARGE OF THE WORK.
10. **SLURRY CEMENT BACKFILL:** SLURRY CEMENT BACKFILL MAY BE USED FOR TRENCH BACKFILL ONLY AS AUTHORIZED BY COUNTY DOT, BUT SHALL BE REQUIRED WHEN TRENCH WIDTHS OF LESS THAN 12 INCHES ARE REQUESTED. SLURRY CEMENT BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 19-3.062, SLURRY CEMENT BACKFILL, OF THE CALTRANS STANDARD SPECIFICATIONS, UNLESS COUNTY DOT DIRECTOR APPROVES A SPECIFIC MIX DESIGN.

MENDOCINO COUNTY	TRENCH RESTORATION NOTES (CONTINUED)	MENDOT STD. NO. A60C
	SCALE: NONE | DESIGN: RCW | DRAWN: LMM | OCT. 2000	PAGE: A-46

1 MENDOCINO COUNTY TRENCH RESTORATION REQUIREMENTS

NOT TO SCALE

NOTES:
1. WIDER TRENCHES SHALL REQUIRE HIGHER STRENGTH PIPE AND/OR SPECIAL BEDDING.
2. DIFFERING TRENCH WIDTHS REQUIRE PRIOR APPROVAL OF ENGINEER.
3. WARNING TAPE SHALL BE BURIED 12 INCHES BELOW FINISHED GRADE.
4. TRACER WIRE SHALL BE ATTACHED DIRECTLY TO THE TOP OF THE PIPE.
5. TRENCH BACKFILL AND PAVING WITHIN COUNTY R/W AND ON COUNTY ROADS SHALL BE PER MENDOCINO COUNTY TRENCH RESTORATION DETAILS. SEE DETAIL 1 THIS SHEET.
6. RESTORE GRAVEL SURFACE PER DETAIL 6 ON DRAWING C-501.
7. RESTORE PAVED SURFACE PER DETAIL 4 ON DRAWING C-504.
8. PIPE BEDDING WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THIS DETAIL.

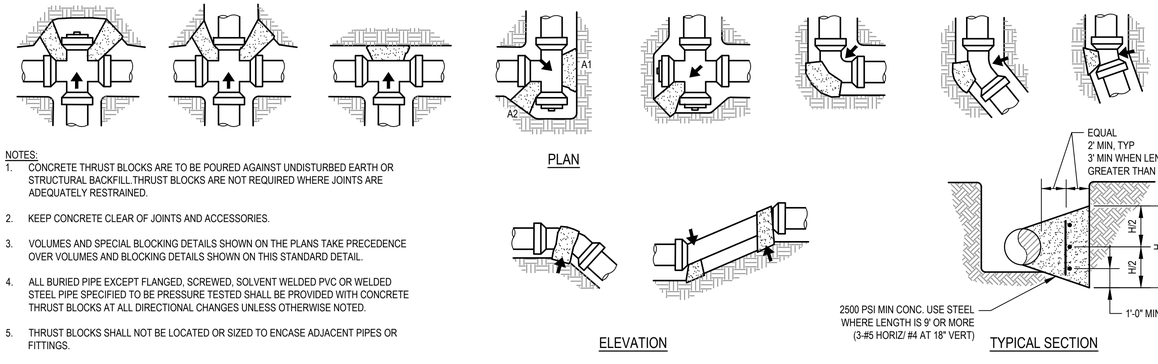


MINIMUM TRENCH DEPTHS	
PIPE DIA	MIN DEPTH OF COVER
1-2"	18"
3"	24"
4"	36"
6"	36"
8"	36"

MINIMUM BEDDING WIDTHS	
PIPE DIA	MIN BEDDING WIDTH
<4"	14"
4" - 12"	6"

2 TYPICAL TRENCH SECTION

NOT TO SCALE



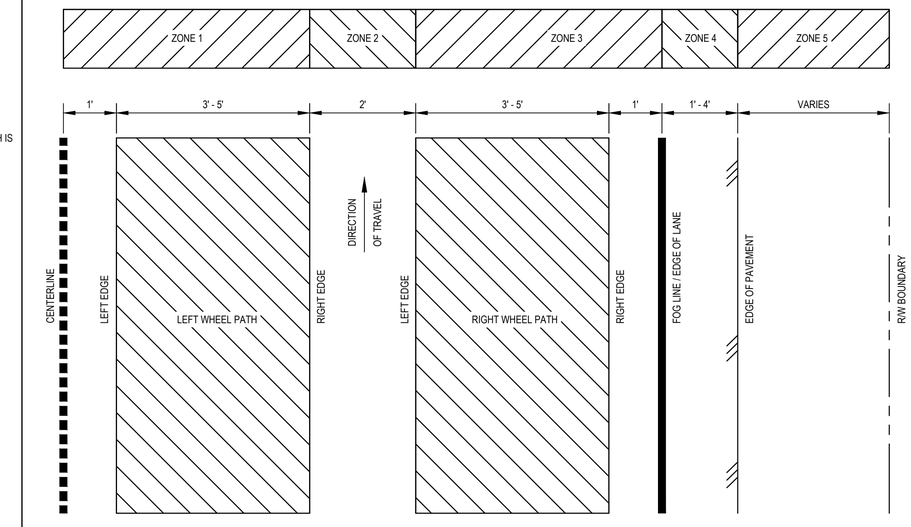
NOTES:
1. CONCRETE THRUST BLOCKS ARE TO BE POURED AGAINST UNDISTURBED EARTH OR STRUCTURAL BACKFILL.THRUST BLOCKS ARE NOT REQUIRED WHERE JOINTS ARE ADEQUATELY RESTRAINED.
2. KEEP CONCRETE CLEAR OF JOINTS AND ACCESSORIES.
3. VOLUMES AND SPECIAL BLOCKING DETAILS SHOWN ON THE PLANS TAKE PRECEDENCE OVER VOLUMES AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.
4. ALL BURIED PIPE EXCEPT FLANGED, SCREWED, SOLVENT WELDED PVC OR WELDED STEEL PIPE SPECIFIED TO BE PRESSURE TESTED SHALL BE PROVIDED WITH CONCRETE THRUST BLOCKS AT ALL DIRECTIONAL CHANGES UNLESS OTHERWISE NOTED.
5. THRUST BLOCKS SHALL NOT BE LOCATED OR SIZED TO ENCASE ADJACENT PIPES OR FITTINGS.
6. THE SIZE AND WEIGHT OF ALL UPLIFT THRUST BLOCKS SHALL BE AS DETERMINED BY ENGINEER.
7. THE BEARING AREAS ARE BASED ON TEST PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING STRESS OF 1000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:
   BEARING AREA = $\left(\frac{\text{TEST PRESSURE}}{150}\right)$ x $\left(\frac{1000}{\text{SOIL BEARING STRESS}}\right)$ x (TABLE VALUE)
   TEST PRESSURE = 250 PSI
   SOIL BEARING STRESS = 5,000 PSF
8. THRUST BLOCKS REQUIRED ONLY WHERE SHOWN ON PLAN.
9. CONTRACTOR TO PROVIDE ALL COMPONENTS.
10. ALL PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE TO PREVENT CORROSION AND CONCRETE ADHESION.

BEARING AREA OF THRUST BLOCK IN SQ. FT. (SEE NOTE 7)

PIPE SIZE	TEE, WYE, PLUG OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED A1	TEE PLUGGED A2	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1.5	2	2	1.5	1.5	1	1
6	3	4.5	4.5	3	2.5	1.5	1
8	5	7	7	5	4	2	1

3 STANDARD THRUST BLOCK DETAIL

NOT TO SCALE



NOTES:
1. THIS DETAIL ILLUSTRATES THE GENERAL PAVEMENT REPAIR REQUIREMENTS FOR COUNTY STANDARD A60A TYPE A T-SECTION TRENCH RESTORATIONS WITHIN EXISTING PAVED TRAVEL LANES IN THE COUNTY OF MENDOCINO R/W.
2. THE DIMENSIONS SHOWN MAY VARY DEPENDING ON THE ACTUAL LANE WIDTH AND SHOULDER WIDTH.
3. ZONE 1 LEFT WHEEL PATH: TRENCHES WITHIN ZONE 1 REQUIRE REPAVING FROM THE ROAD CENTERLINE TO THE RIGHT EDGE OF THE LEFT WHEEL PATH.
4. ZONE 2 CENTER OF LANE: TRENCHES WITHIN ZONE 2 REQUIRE REPAVING OF THE LANE FROM THE ROAD CENTERLINE TO THE FOG LINE. IF THE PAVED SHOULDER IS LESS THAN 2-FT WIDE, REPAVING SHALL EXTEND TO THE EDGE OF PAVEMENT.
5. ZONE 3 RIGHT WHEEL PATH: TRENCHES WITHIN ZONE 3 REQUIRE REPAVING FROM THE CENTER OF THE LANE TO THE FOG LINE. IF THE PAVED SHOULDER IS LESS THAN 2-FT WIDE, REPAVING SHALL EXTEND TO THE EDGE OF PAVEMENT.
6. ZONE 4 PAVED SHOULDER: TRENCHES WITHIN ZONE 4 REQUIRE REPAVING OF THE TYPE A T-SECTION ONLY. REPAVING IS LIMITED TO THE TYPE A T-SECTION UNLESS THE REMAINING PAVED SHOULDER IS LESS THAN 2-FT IN WIDTH IN WHICH CASE THE ENTIRE SHOULDER SHALL BE REPAVED.
7. ZONE 5 UNPAVED SHOULDER: TRENCHES WITHIN ZONE 5 SHALL BE REPAIRED IN ACCORDANCE WITH THE COUNTY STANDARD A60A TYPE B TRENCH RESTORATION.

4 COUNTY TRAVEL LANE TRENCH REPAIR

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0 1"

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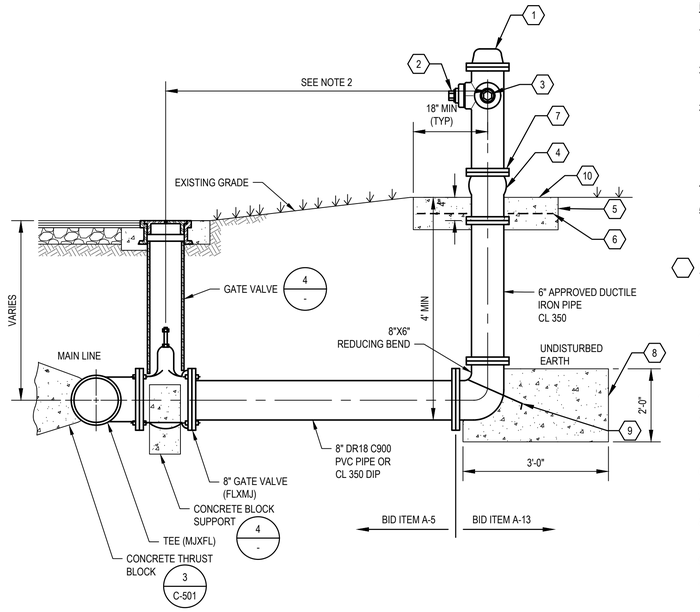
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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title CIVIL DETAILS 1
Project No. 12619547
Original Size ANSI D
Drawing No. C-501
Sheet 17 of 31

Plot Date: 6 November 2026 - 4:45 PM Plotted By: Chris Bach
Filename: C:\adsk\accdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rcwe\sheets\12619547-GHD-RCWE-DWG-CI-501.dwg



NOTES:

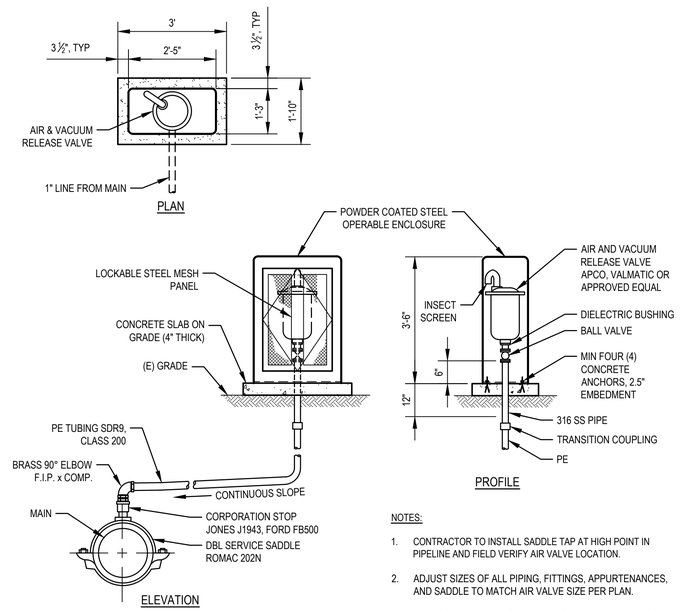
1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 3 FT. IN ALL DIRECTIONS OF FIRE HYDRANT.
2. FIRE HYDRANTS MUST BE INSTALLED A MINIMUM OF 4-FT FROM THE EDGE OF PAVEMENT.
3. VALVE MAY BE CONNECTED TO TEE AT MAIN LINE. USE FLANGED JOINT ENDS. WHERE SPOOL IS REQUIRED BETWEEN TEE AND VALVE, USE FLANGED MECHANICAL ENDS WITH ¾" DIAMETER TIE RODS.
4. ALL JOINTS AND FITTINGS SHALL BE RESTRAINED.
5. PAINT FIRE HYDRANT BODY WHITE AND CAP AND NOZZLES PURPLE.

KEYNOTES:

1. FIRE HYDRANT (WET BARREL ONLY), IN ACCORDANCE WITH SECTION 33 11 00.
2. PUMPER NOZZLE 4½" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.
3. HOSE NOZZLE 2 x 2½".
4. BREAK OFF CHECK VALVE.
5. 3'x3'x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
6. #10; 6/6 WWF.
7. BREAKAWAY FLANGE.
8. CONC. THRUST BLOCK, APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH
9. 2"x1/4" STEEL ANCHOR PINS.
10. TOP OF SLAB SHALL BE 4" BELOW THE BREAK LINE OF THE HYDRANT.

1 FIRE HYDRANT LATERAL

NOT TO SCALE

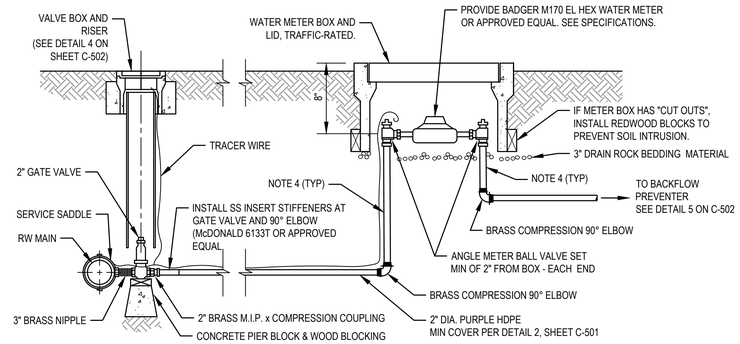


NOTES:

1. CONTRACTOR TO INSTALL SADDLE TAP AT HIGH POINT IN PIPELINE AND FIELD VERIFY AIR VALVE LOCATION.
2. ADJUST SIZES OF ALL PIPING, FITTINGS, APPURTENANCES, AND SADDLE TO MATCH AIR VALVE SIZE PER PLAN.
3. ENCLOSURE DIMENSIONS MAY VARY FROM PLAN BASED ON MANUFACTURER. PROVIDE SUFFICIENT INTERIOR CLEARANCE BETWEEN VALVE AND ENCLOSURE.

2 AIR RELEASE/VACUUM VALVE

NOT TO SCALE



NOTES:

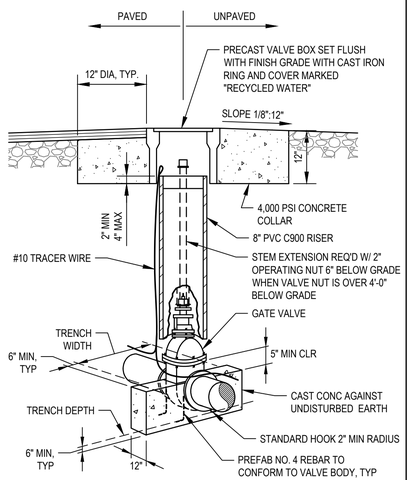
1. SERVICE LATERAL BEDDING MATERIAL TO BE COMPACTED TO MINIMUM 90% R.C. IN ACCORDANCE WITH ASTM D1557 PRIOR TO INSTALLATION OF POLYETHYLENE SERVICE TUBING.
2. METER BOX SHALL BE INSTALLED SO THAT TOP IS 1" ABOVE FINISH GRADE.
3. PROVIDE TRAFFIC RATED BOX AND LID.
4. SERVICE PIPE MATERIALS BETWEEN SERVICE METER AND BFP SHALL BE COPPER (TYPE K) WITH BRASS COMPRESSION FITTINGS OR THREADED BRASS PIPING WITH THREADED BRASS FITTINGS.
5. PROVIDE MIN 12" LONG THREADED BRASS NIPPLE WITH BRASS TO PVC ADAPTER COUPLING.

3 WATER SERVICE METER

NOT TO SCALE

NOTES:

1. A BURIED VALVE 5' AND DEEPER SHALL BE PROVIDED WITH A SOLID STEEL EXTENSION STEM OPERATOR WITH A 2" SQUARE AWWA NUT WITHIN 36" OF VALVE BOX COVER. NUT IS TO INDICATE DIRECTION OF ROTATION TO OPEN VALVE.
2. CONTRACTOR SHALL REMOVE ALL DEBRIS AND SOIL FROM VALVE BOX BEFORE ACCEPTANCE.
3. CONCRETE COLLAR FLUSH WITH FINISHED GRADE FOR PAVED AREA AND 2" ABOVE FINISHED GRADE FOR UNPAVED AREA.
4. JOINTS, BOLTS AND NUTS SHALL BE CLEAR OF CONCRETE.
5. VALVE BOX SHALL BE CHRISTY MODEL G5 TRAFFIC BOX, OR APPROVED EQUAL.
6. VALVE SIZE AS SHOWN ON PLANS.
7. WRAP VALVE IN POLYETHYLENE PRIOR TO POURING CONCRETE.

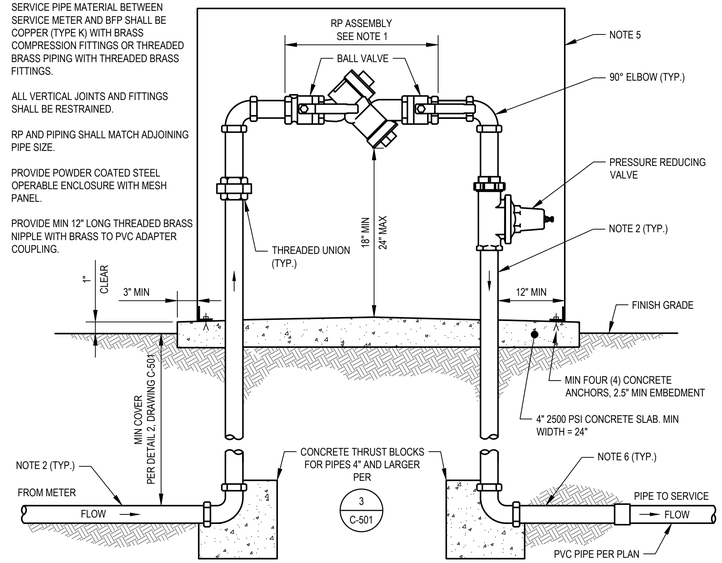


4 GATE VALVE

NOT TO SCALE

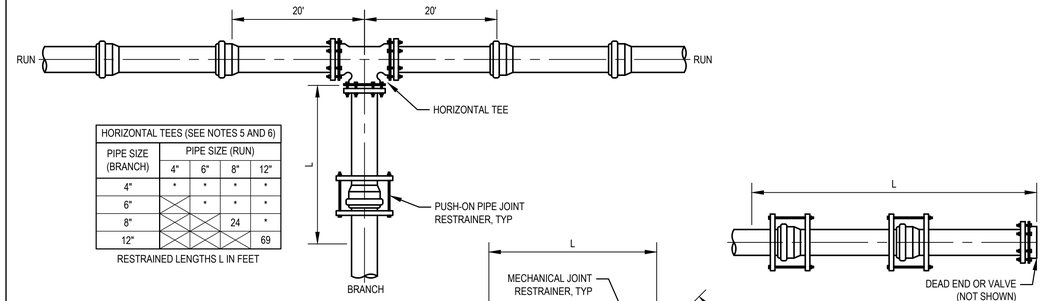
NOTES:

1. REDUCED PRESSURE (RP) BACKFLOW PREVENTION DEVICE SHALL BE CENTERED ON CONCRETE PAD.
2. SERVICE PIPE MATERIAL BETWEEN SERVICE METER AND BFP SHALL BE COPPER (TYPE K) WITH BRASS COMPRESSION FITTINGS OR THREADED BRASS PIPING WITH THREADED BRASS FITTINGS.
3. ALL VERTICAL JOINTS AND FITTINGS SHALL BE RESTRAINED.
4. RP AND PIPING SHALL MATCH ADJOINING PIPE SIZE.
5. PROVIDE POWDER COATED STEEL OPERABLE ENCLOSURE WITH MESH PANEL.
6. PROVIDE MIN 12" LONG THREADED BRASS NIPPLE WITH BRASS TO PVC ADAPTER COUPLING.



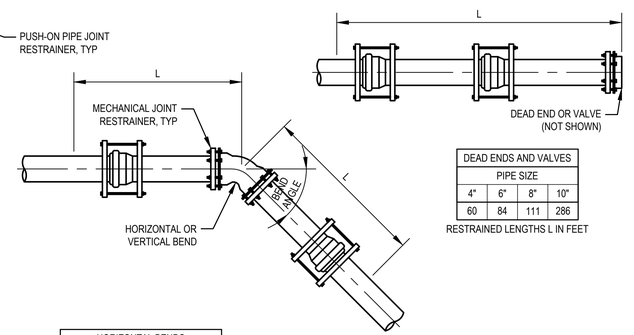
5 REDUCED PRESSURE BACKFLOW PREVENTER

NOT TO SCALE



HORIZONTAL TEES (SEE NOTES 5 AND 6)				
PIPE SIZE (BRANCH)	PIPE SIZE (RUN)			
	4"	6"	8"	12"
4"	*	*	*	*
6"		*	*	*
8"			24	*
12"				69

RESTRAINED LENGTHS L IN FEET



DEAD ENDS AND VALVES			
PIPE SIZE			
4"	6"	8"	10"
60	84	111	286

RESTRAINED LENGTHS L IN FEET

NOTES:

1. ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. IF THE DISTANCE BETWEEN FITTINGS IS LESS THAN OR EQUAL TO THE RESTRAINT LENGTH, RESTRAIN ALL JOINTS BETWEEN THOSE FITTINGS.
2. LENGTHS LISTED ARE MINIMUMS. RESTRAINTS SHALL BE INSTALLED TO THE NEXT JOINT BEYOND THE LENGTH SPECIFIED.
3. IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, THE RESTRAINED LENGTH SHALL BE DETERMINED BY THE DISTRICT.
4. ALL RESTRAINED LENGTHS ARE BASED ON PVC PIPE, SOIL TYPE ML (SOIL TYPE ML (INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, PER UCS CLASSIFICATION ASTM D 2487), SAFETY FACTOR OF 1.5, TRENCH TYPE 3, DEPTH OF BURY OF 4', AND A TEST PRESSURE OF 250 PSI.
5. FOR RUN SIDE OF HORIZONTAL TEES, RESTRAIN BOTH RUN SIDE JOINTS AT THE TEE AND INSTALL A FULL LENGTH OF PIPE ON EACH RUN SIDE.
6. FOR BRANCH SIDE OF HORIZONTAL TEES WITH * CONDITION, RESTRAIN ONLY THE BRANCH SIDE JOINT AT THE TEE. NO ADDITIONAL JOINT RESTRAINTS REQUIRED ALONG THE BRANCH PIPE.

HORIZONTAL BENDS				
BEND ANGLE	PIPE SIZE			
	4"	6"	8"	10"
11.25°	3	4	5	6
22.5°	5	7	9	12
45°	11	15	19	24
90°	25	35	46	57

RESTRAINED LENGTHS L IN FEET

VERTICAL BENDS				
BEND ANGLE	PIPE SIZE			
	4"	6"	8"	10"
11.25°	6	9	11	14
22.5°	12	17	22	28
45°	25	35	46	57

RESTRAINED LENGTHS L IN FEET

6 RESTRAINT LENGTH DETAILS

NOT TO SCALE

No.	Issue	Drawn	Approved	Date

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0 1"

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Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

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Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT

Project RECYCLED WATER EXPANSION PROJECT

Title CIVIL DETAILS 2

Project No. 12619547

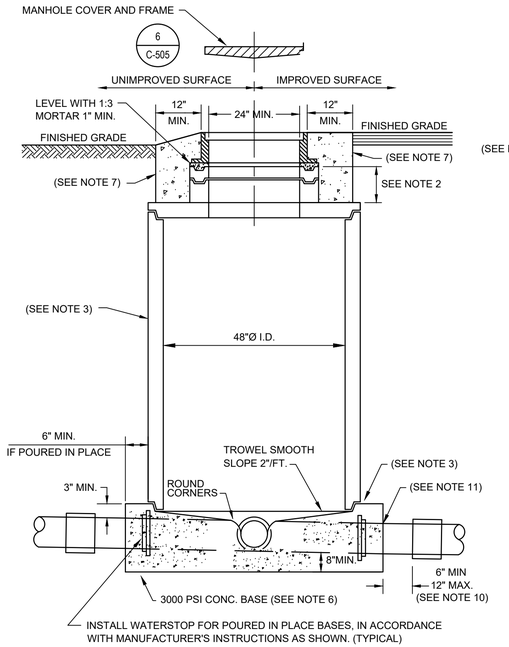
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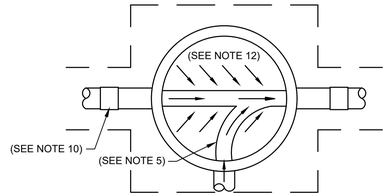
Drawing No. C-502

Sheet 18 of 31

Plot Date: 6 November 2026 - 4:46 PM Plotted By: Chris Bach

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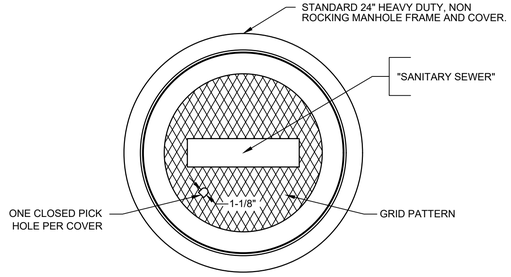
MANHOLE BASE
CHANNELIZATION PLAN

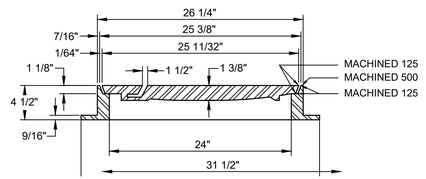
NOTES:

1. WHEN MANHOLES ARE INSTALLED IN UN-IMPROVED AREAS, THE TOP OF THE COVER SHALL BE A MIN. OF 4" ABOVE GRADE.
2. MIN. OF ONE 3" GRADE ADJUSTMENT RING. MAX. HEIGHT OF GRADE ADJUSTMENT RINGS = 20". ALTERNATELY, CONTRACTOR MAY CAST GRADE ADJUSTMENT RINGS IN PLACE.
3. SET ALL BARREL SECTIONS & TAPER SECTIONS IN PLASTIC GASKET, RAM-NEK OR APPROVED ALTERNATE. TYPICAL JOINT USE (1) 3/4"X 2-1/2" RAM-NEK SEAL.
4. SHAPE MANHOLE BENCH AND INVERT TO DIRECT FLOW TOWARD THE DOWNSTREAM END OF THE MANHOLE.
5. AFTER LOWER RING SECTION IS SET, BREAK OUT TOP HALF OF PIPE FLUSH WITH INSIDE FACE OF M.H. WALL AND CONINSTRUCT SHELF AND U-SHAPED CHANNEL. MAKE ELEVATION CHANGES GRADUALLY AND DIRECTIONAL CHANGES WITH SMOOTH CURVES. SLOPE AND SIZE OF CHANNELS SHALL MATCH UPSTREAM AND DOWNSTREAM PIPES. MANHOLE CHANNELS WITH A HORIZONTAL CHANGE IN DIRECTION OF 30° OR MORE SHALL HAVE A MINIMUM DROP OF 0.1' ACROSS THE MANHOLE OR SHALL MATCH THE SLOPE OF THE PIPE, WHICHEVER IS GREATER.
6. POURED-IN-PLACE BASE SHALL BE POURED FULL THICKNESS ON UNDISTURBED SOIL. PRECAST BASE TO BE APPROVED BY ENGINEER AND PLACED ON 6" MINIMUM OF 3/4" DRAIN ROCK INSTALLED AGAINST UNDISTURBED EARTH.
7. 3000 PSI CONC. COLLAR SHALL BE FLUSH WITH FINISHED GRADE.
8. STANDARD MANHOLE BARREL SECTION PER ASTM C478.
9. 48"Ø I.D. M.H. TO BE USED FOR SEWER MAINS LESS THAN 18"Ø.
10. FLEXIBLE PIPE COUPLING IS REQUIRED ON ALL PIPE. FLEX COUPLING TO BE INSTALLED IN MAINLINE TRENCH AND OUT OF MANHOLE EXCAVATION.
11. WHEN CONNECTING NEW MAINS TO EXISTING MANHOLES, CORE EXISTING MANHOLE. JACK HAMMERING IS NOT ALLOWED. USE FLEXIBLE PIPE TO MANHOLE CONNECTOR TO SEAL OPENING. REPAIR BENCHES AND CHANNELS.

1 SANITARY SEWER MANHOLE

NOT TO SCALE



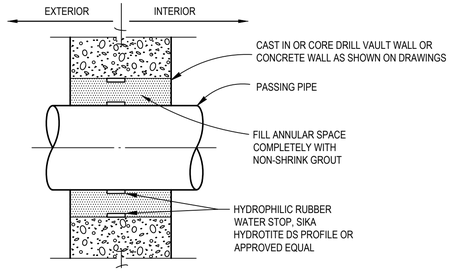


NOTES:

1. SPECIFY SANITARY SEWER WHEN ORDERING. ALL CASTINGS SHALL BE DIPPED IN APPROVED ASPHALTUM OR BITUMINOUS PAINT.
2. ALL MATERIAL USED IN MANUFACTURING SHALL CONFORM TO A.S.T.M. DESIGNATION A-48 CLASS 35 B, OR OF UNITED STATES GOVERNMENT SPECIFICATIONS QQ1-652B.
3. MINIMUM WEIGHT COMPONENTS: COVER - 130 POUNDS
   FRAME - 135 POUNDS
4. BOLT DOWN GASKETED COVERS ARE REQUIRED ON ALL SEWER MANHOLES. COAT THE BOLT THREADS ON FINAL BOLT UP WITH "NEVER CEASE" OR TEFLON BASED PIPE DOPE.

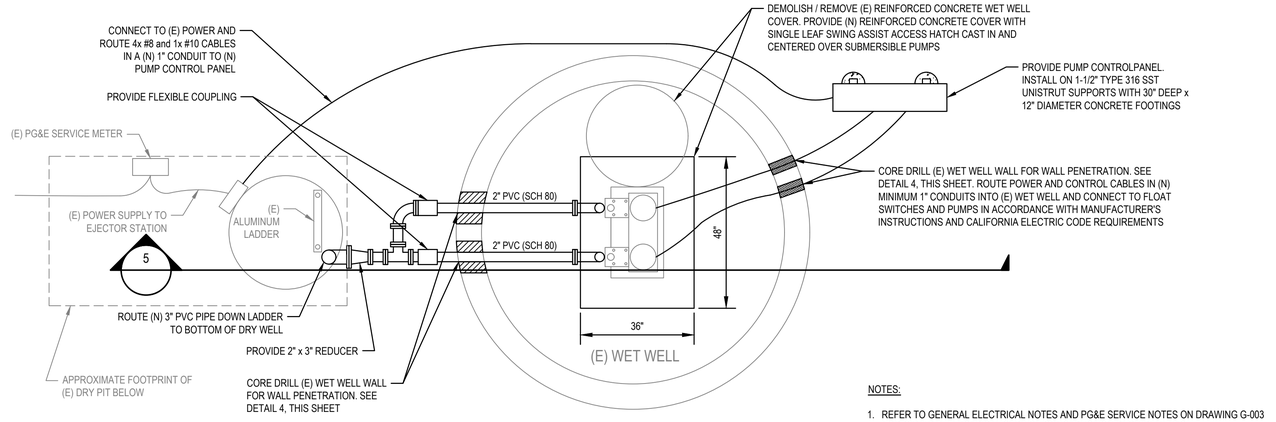
3 MANHOLE FRAME AND COVER

NOT TO SCALE



4 WALL PENETRATION

NOT TO SCALE



NOTES:

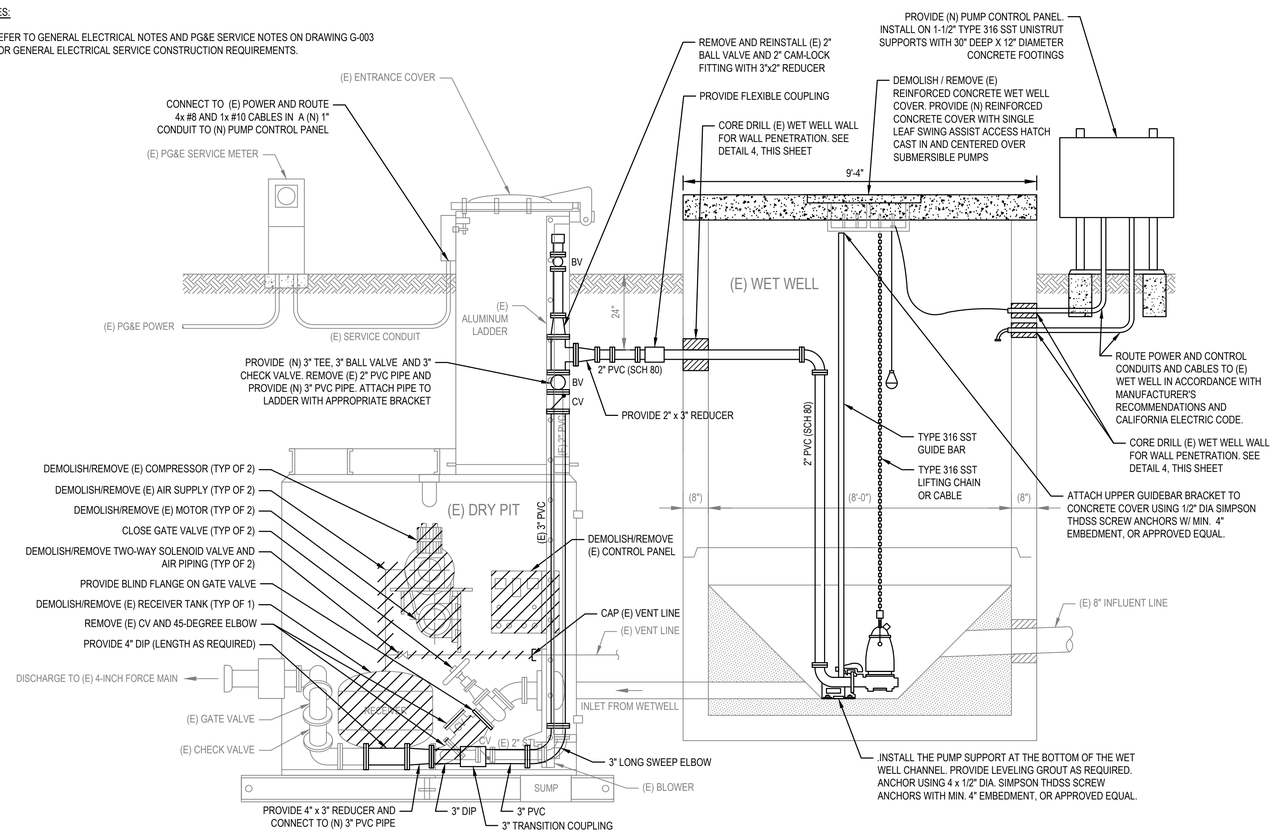
1. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.

2 MAIN STREET SEWER LIFT STATION MODIFICATION - PLAN

SCALE: 1" = 2'

NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES AND PG&E SERVICE NOTES ON DRAWING G-003 FOR GENERAL ELECTRICAL SERVICE CONSTRUCTION REQUIREMENTS.



5 MAIN STREET SEWER LIFT STATION MODIFICATION - SECTION

SCALE: 1" = 2'

No.	Issue	Drawn	Approved	Date

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0 1"

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Drawn	C. BACH	Designer	M. KENNEDY
Drafting Check	M. KENNEDY	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
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Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title CIVIL DETAILS 3
Project No. 12619547
Original Size ANSI D
Drawing No. C-503
Sheet 19 of 31

Plot Date: 6 November 2026 - 5:02 PM Plotted By: Chris Bach Filename: C:\adsk\acccdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rcwe\sheets\12619547-GHD-RCWE-DWG-CI-503.dwg

IRRIGATION SPECIFICATIONS

PART 1 - GENERAL

For the purpose of these specifications, the Owner's Representative shall be defined as the Landscape Architect, The Project Superintendent, and or the Architect.

These specifications are general requirements for product and installation for irrigation systems. This project utilizes recycled water and, therefore, require additional product requirements and installation standards. Refer to the additional requirements outlined in the details and recycled water notes contained in these drawings.

1.01 SECTION INCLUDES

A. The work included under this Section consists of furnishing all fees and permits, all labor, tools, materials, equipment, transportation, and services required to complete the installation of the Underground Sprinkler Irrigation system, including revisions to existing systems, as shown on the Drawings and as specified in this section.
B. Related Sections:
1. Section 2900 - Planting: Provision of requirements for fine grading of planting areas.

1.02 REFERENCES

A. National Electric Code (NEC).
B. Uniform Plumbing Code (UPC).
C. Underwriters Laboratories Inc. (UL):

1.03 QUALITY ASSURANCE

A. All work and materials shall be in full accordance with the latest rules and regulations of the National Electric Code, the Uniform Plumbing Code, and other applicable State or local laws or regulations. Nothing in these Drawings or Specifications is to be construed to permit work not conforming to these Codes.
B. When the Specifications call for materials or construction of a better quality or larger size than required by the above mentioned rules and regulations, the provision of the Specifications shall take precedence over the requirements of the said rules and regulations.
C. The Contractor shall furnish, without any extra charge, any additional material and labor when required by the compliance mentioned on these particular Specifications or shown on the Drawings.
D. The Contractor shall erect and maintain barricades, guards, warning signs, and lights as necessary or required by OSHA regulations and as required by these contract documents for the protection of the public or workmen.
E. Any existing buildings, equipment, piping, sewers, sidewalks, landscaping or other Site improvements damaged by the Contractor during the course of his work shall be replaced or repaired by the Contractor in a manner satisfactory to the Owner's representative and at the Contractor's own expense, and before the final payment is made. The Contractor shall be responsible for damage caused by leaks in the piping systems being installed or having been installed by him. He shall repair, at his own expense, all damage so caused, in a manner satisfactory to the Owner's representative.
F. Installing company and its job site superintendent shall have at least 3 years immediate and continuous experience installing systems of similar design and type of equipment.
G. The Contractor shall obtain and pay all fees, licenses, and permits required for the Project.
H. Before making bid, examine the Site carefully, verifying dimensions and other Site conditions in relation to the Plans. The Contractor is responsible for informing himself of all conditions under which work is to be done before submitting his bid.
I. In case of an apparent discrepancy among Drawings, Specifications, and actual Site conditions, bring the discrepancy to the attention of the Owner's Representative in writing.

1.04 PERFORMANCE REQUIREMENTS

A. Irrigation System:
1. Construct irrigation system to sizes, grades, and locations indicated on the Drawings.
2. Irrigation lines indicated on the Drawings are essentially diagrammatic.
3. Establish exact locations of tree well bubblers and drip zone tubing, at time of construction.

1.05 SUBMITTALS

A. Submit and cut sheets provide for all irrigation system components.
B. Record Drawings
1. The Contractor shall maintain, in good order, in the field office, one complete Set of Irrigation Drawings showing all water lines, valves, controllers, stub-outs, and sleeves. In the event any work is not installed as indicated on the Drawings, such work shall be immediately corrected and dimensioned accurately from the building walls on these Record Drawings.
2. All underground stub-outs and sleeves for future connections (if noted on the plans) shall be located and dimensioned accurately from the building walls on these Record Drawings.
3. Upon completion of the work, and prior to final acceptance, the Contractor shall provide the 'As Built' conditions. Furnish these corrected 'As Built' plans to the Owner's Representative.
C. Contract Closeout Submittals:
1. Submit to Owner's Representative
a. Project Record Documents: After final acceptance of project, turn over record documents to the Owner's Representative.
b. Operation and Maintenance: Provide operation and maintenance manuals covering the system and its components including a detailed typewritten instructions for Winter and Summer controller programming, including demonstration.

1.06 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping:
1. Deliver plastic pipe, fittings, and connectors to project site in unbroken bundles or rolls, packaged in such manner as to provide adequate protection for pipe ends, threaded or plain.
B. Storage and Protection
1. During construction and storage protect materials from damage and prolonged exposure to sunlight, excessive heat, and/or deleterious materials.

1.07 JOB CONDITIONS

A. Proceed with and complete irrigation work as rapidly as portions of Site become available, working within seasonal limitations.
B. Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate as required.
C. Maintain grade stakes set by others until removal is mutually agreed on by parties concerned.

1.08 SUBSTITUTION AND VERIFICATION

A. Certain numbers on the Drawings and the Specifications are taken from the catalogues of the manufacturers named. The Contractor shall be responsible for verifying that listed numbers correspond to appropriate equipment currently available from the manufacturers.
B. Numbers on the Drawings refer to the basic equipment required and the Contractor shall be responsible for determining additional incidental parts necessary for the attachment or assembly of equipment within the system.
C. Requests for substitutes must be in writing and approved of by the Owner's Representative.

PART 2 - PRODUCTS

2.01 PVC PLASTIC PIPING AND FITTINGS

A. Exterior main lines (pressure lines) & Exterior lateral lines (non-pressure): All piping is to be PVC Schedule 40 (ATM D 1785) plastic pipe. Use Type 1 Schedule 40 High Impact PVC solvent weld fittings.
B. Connections between mainlines and RCV's shall be of Schedule 80 PVC nipples and fittings as per Detail on Plan.
C. Plastic to metal connections shall be made with Schedule 80 male adapter or threaded nipple.
D. Plastic saddles and flange type fittings are not to be used.

2.02 GALVANIZED STEEL PIPE AND FITTINGS

A. Steel pipe shall be standard weight Schedule 40 as specified in Section 15252, mild steel pipe of domestic origin, galvanized, and shall be new and scale free. All nipples shall be of the same material.
B. Steel pipe fittings shall be heavy pattern, banded, galvanized malleable iron, threaded pipe fittings.
C. Nipples are to be of same material as pipe.
D. Crosses, bushings, and close nipples are not to be used.
E. All galvanized steel pipe and fittings occurring below grade, including to 6 inches above finish grade, are to be field wrapped with a PVC tape. The wrapping tape and technique are to be subject to Owner's Representative approval.
F. All dissimilar metal piping are to be joined with a dielectric fitting.

2.03 SLEEVES AND CHASES

A. All irrigation pipe sleeves and/or electrical chases shall be PVC Schedule 40 (ASTM D 1785). Size twice the diameter of the sum of the pipe or pipes total diameter.
B. Class 1 and Class 2 electrical conductors are not to be placed in the same conduit.

2.04 IRRIGATION SYSTEM EQUIPMENT

A. The backflow prevention assembly, automatic sprinkler controller, control valves, and other miscellaneous equipment shall be as specified on the Plans (or on the civil engineering plans) and/or in the Irrigation System Legend.
B. Sprinkler Heads:
1. Type and Sizes: Provide types and sizes with diameter (or radius) of throw, pressure, discharge, and any other designations as indicated on the Plans.
2. For Each Particular Type: Provide from same manufacturer and mark with manufacturer's such position that they can be identified without removing the name and identification in sprinkler from the system.
C. Sprinkler Risers:
1. Rotor and Rotary Pop-up Sprinkler Are to have adjustable assembly (double swing joint) risers as indicated on the Plans.
2. Stationary Pop-up Sprinklers: Are to have swing joint risers or as indicated on the Plans.
B. Drip system components as indicated on the plans.

2.05 CONTROL WIRE

A. Control wire shall be type UF, 600 volt, single conductor wire with PVC insulation 4\64 inches thick (minimum). Control wire shall be #14 single conductor solid copper wire. All control or 'hot' wires shall be of one color (RED) and all common or 'ground' wires shall be (WHITE). Common ground wires size shall be #12 single conductor.
B. Electrical wire connections shall be 3M Brand DBY Direct Bury Splice Kit, shall splice and effectively moisture seal two or more conductors. The electrical connector shall be a 'Scotchlok' Y.

2.06 AUTOMATIC CONTROLLER

A. Provide and install automatic irrigation controller, as indicated in the irrigation legend, and in approximate location shown on the Plans. The exact location will be determined on the Site by the Owner's Representative.
B. Controller shall have correct number of modules to allow for operation of all wired valves.

2.07 DECODERS AND TWO WIRE PATH (if a two wire system is utilized on plans)

A. Two-wire decoders shall be compatible with the specified irrigation controller.
B. Two wire path shall be twisted pair, solid-core, color-coded red/blue pairs with each conductor in a polyethylene jacket suitable for direct burial. The two-wire paths shall be Hunter Industries Model IDWIRE1 for 14 AWG(1.5mm) conductors, or Model IDWIRE2 for 12 AWG(2mm) conductors for extended range (over 10,000 ft./3km, up to 15,000 ft./4.5km).
C. The two-wire paths may be spliced, or “teed”, permitting extensions of the path in multiple directions. In general, the distance from the controller to the end of any one end of a “tee” or wire run shall not exceed the maximum for the gauge of wire, even if the total of all wire exceeds that number. For example, a path comprised of IDWIRE1 (rated for 10,000ft./3km) could extend 5000 ft./1.5km to a “tee” splice, and each arm of the tee could extend an additional 5000 ft./1.5km. The total wire connected would equal 15,000 ft./4.5km, but the distance from the controller, to the end of each run, would be 10,000ft./3km or less, meeting the specification. All wire splices must be made in a valve box with DBR-6 or equal direct-burial waterproof connectors.
D. All connections in the two-wire paths (outside the controller enclosure) shall be made with 3M DBR-6 waterproof, strain-relieving direct burial connectors, or exact equals. Decoder output to solenoid connections shall be made with 3M DBY waterproof, strain-relieving connectors, or exact equals. No substitution of wire or wire connector specifications is permissible. All connections, tees, and splices shall be positioned in valve boxes for future location and service.

2.08 BACKFLOW PREVENTERS

A. Backflow prevention devices are to be installed as per plan details and specifications (see civil plans). Verify point of connection size and location in field. Contact Owner's Representative if contrary to plan.

2.09 MASTER VALVE AND FLOW SENSOR

A. Master Valve and Flow Sensor as specified on the plans.
B. Connect master valve to system controller via the two-wire path and a single-station decoder (compatible with controller and other decoders).
C. Connect system sensors via the Sensor Decoder and the two-wire path. Flow sensor decoder shall be compatible with controller and other decoders.

2.10 REMOTE CONTROL VALVES

A. Remote Control Valves specified on the plans. Wire runs between valves and the controller. Each valve shall have a unique and individual hot wire and shared common ground.
B. Remote Control Valves shall be as indicated on the plans.

2.11 GATE VALVES

A. Gate Valves shall be as indicated on the plans.

2.12 VALVE BOXES

A. Valve boxes shall be Carson #1419-13 as manufactured by Carson Industries, Inc. and are to have bold down lids, with "RCV" cast on lid, or approved equal.
B. Install only one RCV or gate valve per valve box.
C. Install all valve boxes on a pea gravel or 3/4" wash base as indicated on the details.

2.13 MISCELLANEOUS EQUIPMENT AND MATERIALS

A. PVC pipe connections: Solvent cement and primer for solvent weld joints shall be of make and type approved by manufacturer of pipe and fittings. Cement shall be maintained at proper consistency throughout use.
B. Galvanized pipe connections: Pipe joint compound shall be 'Rectorseal' or equivalent, non-hardening, non-toxic material designed specifically for use on threaded connections in water-carrying pipe.
C. PVC threaded connections: Use Teflon tape or approved equal.
D. Provide the Owner, at completion of the maintenance period, three each of all operating and servicing keys, wrenches, and adjustment screwdrivers required for complete maintenance and operation of all heads and valves. Include all wrenches necessary for complete disassembly of all heads and valves.

No.	Issue	Drawn	Approved	Date

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Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title IRRIGATION SPECIFICATIONS
Project No. 12619547
Original Size ANSI D
Drawing No. L-001
Sheet 20 of 31

Plot Date: 5 November 2026 - 4:48 PM Plotted By: Chris Bach Filename: C:\adsk\accdocs\ghd services pty ltd\12619547 - mccsd rw project\project files\01 wip\civil\acad-rcwe\sheets\12619547-GHD-RCWE-DWG-L-001.dwg

IRRIGATION SPECIFICATIONS (continued)

PART 3 - EXECUTION

3.01 SUPERVISION AND WORKMANSHIP

A. The Contractor, personally or through an authorized and competent representative, shall supervise the work constantly and shall, as far as possible, keep the same foreman and workmen on the job from commencement to completion. The workmanship of the entire job shall in every way be first class, and only experienced and competent workmen shall be allowed on the job.

3.02 LAYOUT OF THE WORK

A. Stake out the irrigation system as shown on the Drawings. Any necessary changes from the original system shall be determined at this time. Verify location of existing underground utilities and make any necessary adjustments to avoid damage.

3.03 INSTALLATION PREPARATION

A. Schedule and coordinate placement of materials and equipment in a manner to complete the work as quickly as possible in conformance with construction schedules. Protect all work material from damage during construction and storage.

3.04 COORDINATION OF WORK

A. Coordinate work with other trades. In particular, schedule placement of irrigation line and wire sleeves prior to paving work.

3.05 EXCAVATING, TRENCHING AND BACKFILL

A. Excavation and Backfill for Sprinkler Lines:
   1. Excavation: Place when pipe and soil temperatures are approximately the same.
   2. Backfill and Compaction: Top 6 inches in landscaped areas may be 85 percent.

B. Excavation shall be in all cases ample space for joining. Provide warning signs and barricades as needed for open trenches. Bottom of trenches shall provide continuous support for pipe.

C. Make trenches for pipe lines deep enough to provide minimum cover from finish grade as follows:
   1. 18 inches minimum cover over mainlines and control wires to control valves and quick coupler valves, 24 inches under paving.
   2. 12 inches minimum cover over lateral lines. 24 inches under paving.
   3. When rocky conditions exist, as determined by the Owner's Representative, the bottom of all trenches shall have 3 inches of sand placed in them. Trenching depth shall be sufficient to allow for the 3 inches of bedding sand.

D. Restore surfaces, existing underground installations, or other Site improvements damaged or cut as a result of excavations, to original condition in a manner approved by the Owner's Representative.

E. Where other utilities interfere with irrigation trenching and pipe work, adjust the trench depth as instructed by the Owner's Representative.

F. No work on excavating, trenching, or backfilling shall be done when soil is muddy, as determined by the Owner's Representative.

3.06 PIPELINE ASSEMBLY / PLASTIC PIPE

A. All pipe shall be assembled free from dirt. Field cut ends shall be reamed only to full diameter, with rough edges and burrs removed.

B. Solvent weld joints: Assemble PVC pipe using primer, solvents, and methods in accordance with manufacturer's recommendations. Wipe excess cement off the outside of the joints.

C. For long pipe runs, 'snake' pipe from side to side in trench to allow for thermal expansion. Install pipe with manufacturer's labels face up for inspection before backfill.

D. Threaded Joints:
   1. Field threading of plastic pipe or fittings is not permitted, factory formed threads only will be permitted.
   2. All plastic to metal connections shall be made with PVC male adapters. All screwed joints shall have Teflon tape applied to the male threads.
   3. Where assembling threaded plastic fittings, take up joint no more than one full turn beyond hand tight. Use strap-eye friction wrench only; do not use metal jawed wrench.

E. Cap or plug openings as pipeline is assembled to prevent entrance of dirt or obstruction. Remove caps or plugs only when necessary to continue assembly.

F. Where pipes or control wires pass through sleeves, provide removable non-decaying seal at ends of sleeve to prevent entrance of earth.

G. Install concrete thrust blocks on the main line at all changes in pipe direction associated with PVC tee's, el's, and other fittings as needed and as per detail on the plans. Do not cover thrust blocks until fully acceptable to the Owner's Representative.

3.07 REMOTE CONTROL VALVES (RCV)

A. Install where shown and group together where practical. Limit one RCV per valve box. Locate in shrub or ground cover beds wherever possible.

B. The valve designation (i.e.: controller and station no.) shall be painted on the inside of each valve box lid.

C. Locate valves no closer than 12 inches from pavement or curbs, buildings, and walks.

D. Thoroughly flush main line before installing valve.

3.08 AUTOMATIC CONTROL WIRING

A. Run wires along main lines wherever practical. Tie wires in bundles with pipe wrapping tape at 20 foot intervals and allow slack for contraction between strapping. Place all above ground wiring in conduit.

B. Make connections with 3M Brand DBY Direct Bury Splice Kit, shall splice and effectively moisture seal two or more conductors. The electrical connector shall be a 'Scotchlok' Y. The device shall be installed per manufacture's instructions and all applicable codes. The device shall be UL Listed as a Wire Connector System For Use With Underground Conductors.

C. Loop a minimum of three (3) feet of extra control wire and ground wire in each valve box and at all corners and at 200 foot intervals.

D. Splicing will be permitted only at valve locations or in junction boxes, equivalent to valve boxes, and approved by Engineer.

E. Where control lines pass under paving, or where interior wires are exposed, they shall pass through Schedule 40 PVC conduit.

3.09 AUTOMATIC CONTROLLER

A. The automatic sprinkler controller is to be a new automatic controller. Reference irrigation equipment legend. Contractor is to provide the following:
   1. Furnish and install the new auto controller, controller steel enclosure, and or enclosure concrete base as specified.
   2. Provide all 100X electrical work required to heat the new controller.
   3. Provide all 120 volt electrical work required to reconnect the existing systems control wires to the new auto controller.
   4. Provide telephone service to controller location, if required per plan legend. Coordinate with installing contractor.
   5. Provide adequate electrical surge protection for the new automatic controller and as approved by the Owner's Representative.

3.10 SPRINKLER HEADS

A. General:
   1. Set heads perpendicular to finished grades, unless otherwise indicated on the Drawings.
   2. Sprinkler heads adjacent to Existing Walks, Curbs, or Other Paved Areas are to be set to grade, and as shown on the drawings.
   3. Sprinkler heads in lawn areas where turf has not be established are to be set 2 inches above finished grade.
      a. Lower heads installed in this manner to grade when turf is sufficiently established to allow walking on it without appreciable damage.
      b. Complete lowering of heads within 30 calendar days after written notification by the Owner's Representative.

B. Flush lines thoroughly before installing heads, with the most distant circuit flushed last. Once the flushing water is clean, put on sprinkler heads, starting with the closest circuit to the vacuum breaker.

C. The Contractor shall be responsible for providing full and even coverage. Make all necessary adjustments for proper distribution and coverage.

D. Avoid overthrow onto windows and keep overthrow onto buildings and pavement to an absolute minimum.

E. Bring any potential problems to the attention of the Owner's Representative prior to completion of the work.

3.11 BACKFILLING

A. Use earth excavated from trenches, free from rocks or other deleterious material. Avoid any sharp objects adjacent to pipe which could cause damage. At the Contractor's option, rock-free imported topsoil may be used to backfill around piping.

B. All PVC piping is to be covered with a 3 inch layer of sand wherever the backfill is rocky in nature as determined by Owner's Representative.

C. The sprinkler system trenches are to be backfilled in 6 inch lifts and adequately compacted to prevent subsequent settling.

D. Finish Site. Site grade areas of backfill to match adjacent grade, removing any rocks or debris from the Obtain approval from the Owner's Representative for relocating any excess earth on

E. If settlement occurs along trenches, make all necessary adjustments to bring irrigation system, soil and turf or paving to proper grade at no additional cost to the Contract.

3.12 FIELD QUALITY CONTROL

A. PIPE TESTING: Notify Owner's Representative at least three (3) working days in advance of testing. All tests shall be at Contractor's expense. Use small amounts of backfill to stabilize pipe before testing, but keep all joints exposed. Test lines as follows:

B. Trench Inspection and Main Line Pressure Test
   1. The Contractor shall not backfill pressure main line trench until an open trench inspection has been conducted and approved.
   2. Test all pressure lines and connections to quick coupler valves, remote control valves and gate valves under hydrostatic pressure of 120 pounds per square inch prior to installation of remote control valves.
   3. All piping under paved areas shall be tested under hydrostatic pressure of 120 pounds per square inch prior to paving.
   4. Sustain pressure in pressure lines for not less than twenty-four (24) hours. If leaks develop, replace joints and repeat test until entire system is proven watertight.
   5. All hydrostatic tests shall be made only in the presence of the Owner. No pipe shall be backfilled, except for center loading, until it has been observed, tested and approved in writing by the Owner. Should any work be covered up before such observation and tests are completed, the Contractor shall, at his own expense, uncover the work; and after it has been observed, tested and approved, he then shall make all repairs with such materials as required to restore all work disturbed to original and proper condition.
   6. Furnish necessary force pump and all other test equipment.

C. Flushing and Testing:
   1. After new sprinkler piping and risers are in place and connected and necessary work has been completed, and prior to installation of sprinkler heads, open control valves and apply full head of water to flush out system.
   2. After the system is thoroughly flushed, and prior to backfilling, cap off and pressure test system.
   3. All testing to be in full compliance with the requirements of the specifications. B. Final System Test:

D. When irrigation system is complete and all adjustments have been made, notify the Owner's Representative to arrange final testing of system. A complete test of the system shall be made with all equipment connected and operating. Make any necessary adjustments as required by the Owner's Representative and retest as needed for final approval of system.

E. Manufacturer's Field Service:
   1. Equipment manufacturer for controllers and automatic control valves shall provide one half day of field training in the operation and maintenance of the equipment to the Owner.
   2. Equipment manufacturer for controllers, automatic control valves, and sprinklers shall inspect the installed system and its operation and certify in writing its proper installation and operation.

3.13 GUARANTEE

A. Submit in writing to the Owner's Representative.

B. It shall be the responsibility of the Contractor to fill and repair all depressions and replace all necessary paving or plating due to the settlement of irrigation trenches for one year following completion and acceptance of the job.

C. The Contractor shall guarantee all materials, equipment, and workmanship furnished by him to be free of all defects of workmanship and materials, and shall agree to replace at his expense at any time within one year after installation is accepted, any and all defective parts that may be found. In cases where emergency repairs are needed, or if the Contractor is not immediately available for repair work, the Owner shall have the option of making repairs at the Contractor's expense.

3.14 CLEAN-UP

A. The Contractor shall keep his work areas in a workmanlike and safe condition and so his rubbish, waste, and debris does not interfere with the work.

B. Upon completion of work in this Section, remove all rubbish, waste and debris from Site.

C. Remove all equipment and implements of service, leave entire area in a neat and clean condition to meet acceptance by the Owner's Representative.

3.15 WATER EFFICIENT LANDSCAPE - COMPLIANCE CERTIFICATE OF COMPLETION

A. The Contractor shall comply with the completion of all forms associated with the Certificate of Completion associated with the Water Efficient Landscape Compliance Certificate of Completion.

B. IRRIGATION AUDIT: Irrigation audit shall be conducted by a third party irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape. Irrigation audit required for projects as described (15.92.160). The applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and other factors necessary for accurate programing.

C. IRRIGATION RUNTIME SCHEDULE: The Landscape Contractor shall provide the City of Sacramento, as part of the Irrigation Audit and Certification of Completion, an Irrigation Runtime Schedule. This schedule shall break down individual valve schedules and runtimes based on the irrigation volume requirements determined during the irrigation audit.

END OF SECTION

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Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title IRRIGATION SPECIFICATIONS CONT.
Project No. 12619547
Original Size ANSI D
Drawing No. L-002
Sheet 21 of 31

Plot Date: 5 November 2026 - 4:50 PM Plotted By: Chris Bach
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TREE PROTECTION NOTES

A. GENERAL

1. Protect all existing trees and vegetation not specifically designated for removal.
2. Comply with applicable requirements of ANSI A300 Standards, ISA Best Management Practices for Managing Trees During Construction, and the requirements of the authority having jurisdiction.
3. Prior to commencing work within the dripline of an existing tree, retain an ISA Certified Arborist to review the proposed construction methods and monitor construction activities that may affect protected trees.
4. Provide a minimum of 48 hours' advance notice to the Owner's Representative and ISA Certified Arborist before trenching, excavation, grading, boring, or utility work within the dripline of an existing tree.

B. PROTECTION OF EXISTING TREES

Protect all exiting trees and vegetation designated to remain from the following:

1. Bark injury, trunk scarring, branch breakage, root damage, or other physical injury.
2. Soil compaction caused by vehicular traffic, construction equipment, staging activities, or repeated pedestrian traffic.
3. Storage or stockpiling of materials, equipment, excavated soil, debris, waste materials, or portable facilities within the dripline.
4. Grade changes, trenching, excavation, or construction activities not expressly authorized by the Contract Documents.
5. Discharge of concrete washout, fuels, lubricants, chemicals, herbicides, or other deleterious materials within the dripline.
6. Parking of vehicles or operation of construction equipment within the dripline unless specifically approved by the ISA Certified Arborist and Owner's Representative.

C. TRENCHING WITHIN TREE DRIPLINES

Where trenching, utility installation, or excavation occurs within the dripline of an existing tree:

1. Perform all work under the observation of an ISA Certified Arborist.
2. Limit excavation methods to hand excavation, pneumatic excavation (AirSpade or approved equivalent), hydro excavation, tunneling, boring, or other root-preserving methods approved by the ISA Certified Arborist.
3. Do not use conventional trenching equipment, backhoes, trenchers, or excavators within the dripline unless specifically authorized by the ISA Certified Arborist and Owner's Representative.
4. Route utilities to avoid major structural roots whenever feasible.
5. Roots less than 2 inches in diameter may be pruned only with clean, sharp saws or loppers. Do not tear, break, chop, rip, or pull roots from the soil.
6. Leave roots 2 inches in diameter and larger undisturbed wherever feasible.
7. Do not cut roots 2 inches in diameter or larger without written approval of the Landscape Architect and ISA Certified Arborist.
8. If a root 2 inches in diameter or larger is encountered, cease excavation in the immediate area until the ISA Certified Arborist reviews the condition and provides direction.

D. EXPOSED ROOT PROTECTION

1. Do not permit exposed roots to dry out.
2. At the end of each working day, protect exposed roots with moist untreated burlap, geotextile fabric, mulch, or temporary backfill.
3. Maintain exposed roots in a continuously moist condition until permanently backfilled, including weekends and nonworking days.
4. Backfill excavations adjacent to roots as soon as practical.
5. Minimize compaction of backfill within root zones and perform compaction only to the extent necessary for utility installation.

E. DAMAGE TO PROTECTED TREES

1. Immediately report damage to any tree designated to remain to the Owner's Representative and ISA Certified Arborist.
2. Perform remedial pruning or treatment only by qualified personnel under the direction of the ISA Certified Arborist and in accordance with applicable ANSI A300 standards.
3. Repair, treat, or replace trees damaged by Contractor operations at no additional cost to the Owner, as determined by the Owner's Representative.

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Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client **MENDOCINO CITY COMMUNITY SERVICES DISTRICT**
Project **RECYCLED WATER EXPANSION PROJECT**
Title **TREE PROTECTION NOTES**
Project No. **12619547**
Original Size **ANSI D**
Drawing No. **L-003**
Sheet **22** of **31**

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0 1"

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Drawn	L. GOLLER	Designer	L. GOLLER
Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client **MENDOCINO CITY COMMUNITY SERVICES DISTRICT**
Project **RECYCLED WATER EXPANSION PROJECT**
Title **IRRIGATION OVERVIEW & KEY MAP**
Project No. **12619547**
Original Size **ANSI D**
Drawing No. **LI-100**
Sheet **23** of **31**

Plot Date: 5 November 2026 - 4:52 PM Plotted By: Chris Bach
Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-L-100.dwg

IRRIGATION MAINLINE ROUTING SHOWN IS DIAGRAMMATIC. PRIOR TO TRENCHING, CONTRACTOR SHALL FIELD-STAKE THE COMPLETE PROPOSED ALIGNMENT AND COORDINATE THE FINAL ROUTING WITH THE CITY REPRESENTATIVE TO AVOID CONFLICTS WITH EXISTING UTILITIES, IMPROVEMENTS, RIGHT-OF-WAY, MONUMENTS, TREES, AND OTHER FEATURES TO REMAIN. DO NOT BEGIN EXCAVATION UNTIL THE STAKED ALIGNMENT HAS BEEN APPROVED BY THE CITY REPRESENTATIVE.

CAUTION: EXISTING TRANSFORMER IN THIS APPROXIMATE LOCATION. PROTECT IN PLACE.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

RECYCLED WATER MAIN ALIGNMENT, PER CIVIL PLANS.

50-FOOT WELL BUFFER, SEE WELL BUFFER NOTE ABOVE ON THIS SHEET

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

50-FOOT WELL BUFFER

CONTRACTOR SHALL FIELD VERIFY ALL WELL LOCATIONS ADJACENT THE PROJECT AREA AND ESTABLISH 50-FT WELL BUFFER ZONES PRIOR TO BEGINNING IRRIGATION WORK. ADJUST SPRAY HEAD LOCATIONS AND ARC/RADIUS AS REQUIRED TO PREVENT OVERSPRAY WITHIN BUFFER ZONES, TO THE SATISFACTION OF THE CITY.

PALETTE DR

STATE HIGHWAY 1

C1 41.4 1½"
C2 33.3 1½"
C3 41.4 1½"
C4 41.4 1½"
C5 41.4 1½"
C6 41.4 1½"
C7 41.4 1½"
C8 41.4 1½"
C9 41.4 1½"
C10 28.6 1½"
C11 33.3 1½"
C12 33.3 1½"
C13 22.2 1½"
C14 42.9 1½"

POC 1

Pl: 10+68.37
Pl: 11+10.91
Pl: 12+20.72
10+00
11+00
12+00
13+00

MCCSD PROPERTY

SCALE: 1" = 20"

0 10' 20' 40'

N

IRRIGATION SCHEDULE MCCSD

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
12	RAIN BIRD 8005-NP 12 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	11
16	RAIN BIRD 8005-NP 16 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	5
22	RAIN BIRD 8005-NP 22 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	16

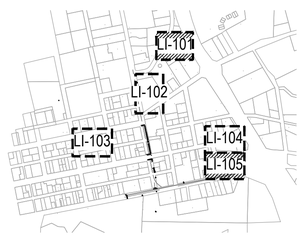
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PESB-R-PRS-D 1IN. DURABLE CHLORINE-RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, PURPLE FLOW CONTROL HANDLE, AND PRESSURE REGULATOR MODULE.	14
	1" BRASS QUICK-COUPLING VALVE RAIN BIRD MODEL: 5-NP, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 1-PIECE BODY.	10
MV	MASTER VALVE 2" RAIN BIRD PESBR, DURABLE CHLORINE-RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, AND PURPLE FLOW CONTROL HANDLE. INSTALL WITH RECYCLED WATER TAGS. SIZE AS SHOWN ON PLANS.	1
C	SMART CONTROLLER 12 STATION COMMERCIAL OUTDOOR CONTROLLER IN AN OUTDOOR STAINLESS STEEL PEDESTAL. CONTROLLER TO HAVE FLOW SENSING, RAIN SENSING, AND MASTER VALVE SHUT OFF BUILT-IN CAPABILITIES. ADD ADDITIONAL STATION MODULES AS NEEDED. RAINBIRD MODEL ESP-12LXMEF CONTROLLER WITH LXMMSS OR EQUAL. SEE DETAIL FOR PEDESTAL AND CONTROLLER INSTALLATION.	1
FS	FLOW SENSOR 1.5" BRASS IMPELLER FLOW SENSOR THAT IS COMPATIBLE WITH CONTROLLER. FLOW SENSOR SHALL HAVE A MINIMUM SUGGESTED OPERATING RANGE OF 4GPM - 80GPM. RAINBIRD MODEL FS150B OR EQUAL.	1
POC 1	POINT OF CONNECTION 3" POC FOR MCCSD PROPERTY IRRIGATION, SEE CIVIL PLANS FOR PRESSURE REDUCER, BACKFLOW, AND RW MAIN ROUTING.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	1,387 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	1,061 LF
	PIPE SLEEVE: PVC CLASS 200 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	27.6 LF

Valve Callout

Valve Number
Valve Flow
Valve Size

IRRIGATION CONTROLLER NOTE:

CONTRACTOR SHALL COORDINATE AND PROVIDE ELECTRICAL CONNECTIONS TO IRRIGATION CONTROLLERS SERVING THE HEIDER FIELD AND MCCSD PROPERTY IRRIGATION SYSTEMS. COORDINATE POWER SOURCE AND CONNECTION REQUIREMENTS WITH THE ELECTRICAL WORK PRIOR TO INSTALLATION. FINAL CONTROLLER PEDESTAL LOCATIONS SHALL BE CONFIRMED IN THE FIELD WITH THE CITY PRIOR TO INSTALLATION.



No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet
0 1"

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Drawn	L. GOLLER	Designer	L. GOLLER
Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title MCCSD PROPERTY IRRIGATION PLAN LAYOUT
Project No. 12619547
Original Size ANSI D
Drawing No. LI-101
Sheet 24 of 31

Plot Date: 6 November 2026 - 3:38 PM Plotted By: Chris Bach
Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-101.dwg

50-FOOT WELL BUFFER

CONTRACTOR SHALL FIELD VERIFY ALL WELL LOCATIONS ADJACENT THE PROJECT AREA AND ESTABLISH 50-FT WELL BUFFER ZONES PRIOR TO BEGINNING IRRIGATION WORK.

IRRIGATION MAINLINE ROUTING SHOWN IS DIAGRAMMATIC. PRIOR TO TRENCHING, CONTRACTOR SHALL FIELD-STAKE THE COMPLETE PROPOSED ALIGNMENT AND COORDINATE THE FINAL ROUTING WITH THE CITY REPRESENTATIVE TO AVOID CONFLICTS WITH EXISTING UTILITIES, IMPROVEMENTS, BURIAL PLOTS, MONUMENTS, TREES, AND OTHER FEATURES TO REMAIN. DO NOT BEGIN EXCAVATION UNTIL THE STAKED ALIGNMENT HAS BEEN APPROVED BY THE CITY REPRESENTATIVE.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

INSTALL RECYCLED WATER WARNING SIGN ON EXISTING WOOD FENCE.

TRENCHING WITHIN TREE DRIPLINE: RETAIN ISA CERTIFIED ARBORIST TO OBSERVE WORK. USE HAND, PNEUMATIC, HYDRO EXCAVATION, BORING, OR OTHER APPROVED ROOT-PRESERVING METHODS. DO NOT CUT ROOTS 2 INCHES IN DIAMETER OR LARGER WITHOUT WRITTEN APPROVAL. ADJUST ALIGNMENT OR DEPTH AS DIRECTED TO AVOID STRUCTURAL ROOTS. SEE TREE PROTECTION NOTES ON SHEET L-003.

RECYCLED WATER MAIN ALIGNMENT, PER CIVIL PLANS.

LITTLE LAKE RD

LANSING ST

POC 2

Pt: 17+68.48

Pt: 18+11.48

Pt: 18+50.00

Pt: 20+67.34

Pt: 21+43.53

Pt: 21+54.44

IRRIGATION SCHEDULE HILLCREST CEMETERY

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	1" BRASS QUICK-COUPLING VALVE RAIN BIRD MODEL: 5-NP, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 1-PIECE BODY.	12
	GATE VALVE NIBCO T-113, CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3". PROVIDE RECYCLED WATER TAG, SEE DETAIL	1
POC 2	CAP FOR FUTURE USE CAP AT THE MAINLINE OR LATERAL LINE FOR FUTURE USE. THE PRESSURE AND FLOW PROVIDED TO THAT LOCATION ARE INDICATED NEXT TO THE CAP SYMBOL.	4
	POINT OF CONNECTION 2" POC FOR HILLCREST CEMETERY IRRIGATION SYSTEM. SEE CIVIL PLANS FOR PRESSURE REDUCER, BACKFLOW, AND RW MAIN ROUTING.	1
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	1,111 LF
	PIPE SLEEVE: PVC CLASS 200 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	160.4 LF

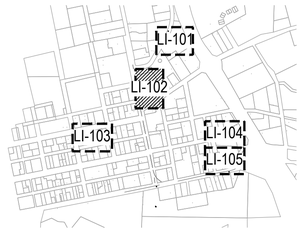
PROVIDE CUT SHEET OF SIGN FOR APPROVAL BY THE DISTRICT.



SECURE SIGN TO FENCE USING SCREWS OR WIRE.

POST IN CONSPICUOUS LOCATIONS AT OR NEAR THE LOCATION SHOWN ON THIS DRAWING.

SIGN SHALL BE AN ALUMINUM SIGN SIMILAR TO THE EXAMPLE PROVIDED ABOVE, PURPLE IN COLOR WITH WHITE LETTERING. MINIMUM 4" X 8" IN SIZE. CONTRACTOR TO PROVIDE A SHOP DRAWING OR CUT SHEET OF THE ACTUAL SIGN FOR APPROVAL PRIOR TO INSTALLATION.



MCCSD PROPERTY

SCALE: 1" = 20"

0 10' 20' 40'

N

No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet

0 1"

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Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT

Project RECYCLED WATER EXPANSION PROJECT

Title HILLCREST CEMETERY IRRIGATION PLAN LAYOUT

Project No. 12619547

Original Size ANSI D

Drawing No. LI-102

Sheet 25 of 31

Plot Date: 5 November 2026 - 4:54 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-102.dwg

IRRIGATION MAINLINE ROUTING SHOWN IS DIAGRAMMATIC. PRIOR TO TRENCHING, CONTRACTOR SHALL FIELD-STAKE THE COMPLETE PROPOSED ALIGNMENT AND COORDINATE THE FINAL ROUTING WITH THE CITY REPRESENTATIVE TO AVOID CONFLICTS WITH EXISTING UTILITIES, IMPROVEMENTS, BURIAL PLOTS, MONUMENTS, TREES, AND OTHER FEATURES TO REMAIN. DO NOT BEGIN EXCAVATION UNTIL THE STAKED ALIGNMENT HAS BEEN APPROVED BY THE CITY REPRESENTATIVE.

CONNECT NEW IRRIGATION SYSTEM TO EXISTING METER AND BACKFLOW PREVENTER AT APPROXIMATE LOCATION SHOWN. FIELD VERIFY EXACT LOCATION, SIZE, AND CONDITIONS PRIOR TO CONSTRUCTION. SUBMIT FIELD-VERIFIED POINT OF CONNECTION WITH STATIC PRESSURE READING, SIZES OF METER, BACKFLOW, AND ANY PIPE STUBS ALONG WITH PIPE CLASS/TYPE TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO COMMENCING INSTALLATION.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

RECYCLED WATER MAIN ALIGNMENT, PER CIVIL PLANS.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

50-FOOT WELL BUFFER, SEE WELL BUFFER NOTE BELOW ON THIS SHEET

LITTLE LAKE ST

FORD ST

KASTEN ST

IRRIGATION PIPING, HEADS, VALVES, AND OTHER EQUIPMENT SHOWN OUTSIDE PROPERTY BOUNDARY ARE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION COMPONENTS WITHIN THE PROPERTY BOUNDARY.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

50-FOOT WELL BUFFER

CONTRACTOR SHALL FIELD VERIFY ALL WELL LOCATIONS ADJACENT THE PROJECT AREA AND ESTABLISH 50-FT WELL BUFFER ZONES PRIOR TO BEGINNING IRRIGATION WORK. ADJUST SPRAY HEAD LOCATIONS AND ARC/RADIUS AS REQUIRED TO PREVENT OVERSPRAY WITHIN BUFFER ZONES, TO THE SATISFACTION OF THE CITY.

IRRIGATION SCHEDULE HEIDER

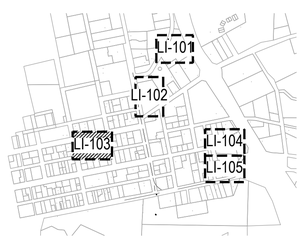
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
10	RAIN BIRD 8005-NP 10 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	8
18	RAIN BIRD 8005-NP 18 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	18
22	RAIN BIRD 8005-NP 22 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	3

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PESB-R-PRS-D 1IN. DURABLE CHLORINE-RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, PURPLE FLOW CONTROL HANDLE, AND PRESSURE REGULATOR MODULE.	9
	1" BRASS QUICK-COUPLING VALVE RAIN BIRD MODEL: 5-NP, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 1-PIECE BODY.	8
MV	MASTER VALVE 2" RAIN BIRD PESBR, DURABLE CHLORINE-RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, AND PURPLE FLOW CONTROL HANDLE. INSTALL WITH RECYCLED WATER TAGS. SIZE AS SHOWN ON PLANS.	1
C	SMART CONTROLLER 12 STATION COMMERCIAL OUTDOOR CONTROLLER IN AN OUTDOOR STAINLESS STEEL PEDESTAL. CONTROLLER TO HAVE FLOW SENSING, RAIN SENSING, AND MASTER VALVE SHUT OFF BUILT-IN CAPABILITIES. ADD ADDITIONAL STATION MODULES AS NEEDED. RAINBIRD MODEL ESP-12LXMEF CONTROLLER WITH LXMMSS OR EQUAL. SEE DETAIL FOR PEDESTAL AND CONTROLLER INSTALLATION.	1
FS	FLOW SENSOR 1.5" BRASS IMPELLER FLOW SENSOR THAT IS COMPATIBLE WITH CONTROLLER. FLOW SENSOR SHALL HAVE A MINIMUM SUGGESTED OPERATING RANGE OF 4GPM - 80GPM. RAINBIRD MODEL FS150B OR EQUAL.	1
POC 3	POINT OF CONNECTION 3" POC FOR HEIDER FIELD IRRIGATION, SEE CIVIL PLANS FOR PRESSURE REDUCER, BACKFLOW, AND RW MAIN ROUTING.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	1,198 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	827.5 LF

Valve Callout
- # — Valve Number
- # — Valve Flow
- #" — Valve Size

IRRIGATION CONTROLLER NOTE:

CONTRACTOR SHALL COORDINATE AND PROVIDE ELECTRICAL CONNECTIONS TO IRRIGATION CONTROLLERS SERVING THE HEIDER FIELD AND MCCSD PROPERTY IRRIGATION SYSTEMS. COORDINATE POWER SOURCE AND CONNECTION REQUIREMENTS WITH THE ELECTRICAL WORK PRIOR TO INSTALLATION. FINAL CONTROLLER PEDESTAL LOCATIONS SHALL BE CONFIRMED IN THE FIELD WITH THE CITY PRIOR TO INSTALLATION.



HEIDER FIELD

SCALE: 1" = 20"

N

0 10' 20' 40'

No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet
0 1"

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Drawn	L. GOLLER	Designer	L. GOLLER
Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title HEIDER FIELD IRRIGATION PLAN LAYOUT
Project No. 12619547
Original Size ANSI D
Drawing No. LI-103
Sheet 26 of 31

Plot Date: 5 November 2026 - 4:55 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-103.dwg

100-FOOT WELL BUFFER

50-FOOT WELL BUFFER

CONTRACTOR SHALL FIELD VERIFY ALL WELL LOCATIONS ADJACENT THE PROJECT AREA AND ESTABLISH 50-FT AND 100-FT WELL BUFFER ZONES PRIOR TO BEGINNING IRRIGATION WORK.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

IRRIGATION MAINLINE ROUTING SHOWN IS DIAGRAMMATIC. PRIOR TO TRENCHING, CONTRACTOR SHALL FIELD-STAKE THE COMPLETE PROPOSED ALIGNMENT AND COORDINATE THE FINAL ROUTING WITH THE CITY REPRESENTATIVE TO AVOID CONFLICTS WITH EXISTING UTILITIES, IMPROVEMENTS, BURIAL PLOTS, MONUMENTS, TREES, AND OTHER FEATURES TO REMAIN. DO NOT BEGIN EXCAVATION UNTIL THE STAKED ALIGNMENT HAS BEEN APPROVED BY THE CITY REPRESENTATIVE.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

EVERGREEN ST

2"

2"

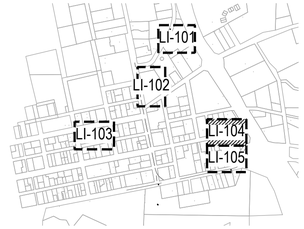
2"

2"

MATCHLINE SEE DRAWING LI-105

IRRIGATION SCHEDULE EVERGREEN N

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
◪	1" BRASS QUICK-COUPLING VALVE RAIN BIRD MODEL: 5-NP, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 1-PIECE BODY.	7
▬ ▬ ▬	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	534.4 LF



EVERGREEN CEMETERY

SCALE: 1" = 20"

0 10' 20' 40'

N

No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet

0 1"

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Drawn	L. GOLLER	Designer	L. GOLLER
Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title EVERGREEN CEMETERY IRRIGATION PLAN LAYOUT
Project No. 12619547
Original Size ANSI D
Drawing No. LI-104
Sheet 27 of 31

Plot Date: 5 November 2026 - 4:57 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-104.dwg

MATCHLINE SEE DRAWING LI-104

50-FOOT WELL BUFFER

CONTRACTOR SHALL FIELD VERIFY ALL WELL LOCATIONS ADJACENT THE PROJECT AREA AND ESTABLISH 50-FT WELL BUFFER ZONES PRIOR TO BEGINNING IRRIGATION WORK.

INSTALL RECYCLED WATER POST MOUNTED WARNING SIGN IN GENERAL LOCATION. SEE RECYCLED WATER NOTES AND SIGN DETAIL SHEET L-502

RECYCLED WATER MAIN ALIGNMENT, PER CIVIL PLANS.

EVERGREEN ST

MAIN ST

POC 4

53+00

53+16

52+00

IRRIGATION SCHEDULE EVERGREEN S

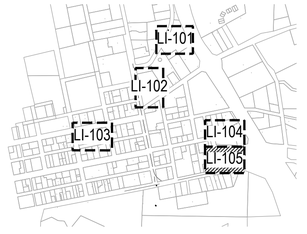
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	1" BRASS QUICK-COUPLING VALVE RAIN BIRD MODEL: 5-NP, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 1-PIECE BODY.	9
	GATE VALVE NIBCO T-113, CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3". PROVIDE RECYCLED WATER TAG, SEE DETAIL	1
POC 4	POINT OF CONNECTION 2" POC FOR EVERGREEN CEMETERY IRRIGATION SYSTEM. SEE CIVIL PLANS FOR PRESSURE REDUCER, BACKFLOW, AND RW MAIN ROUTING.	1
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	968.0 LF

EVERGREEN CEMETERY

SCALE: 1" = 20"

0 10' 20' 40'

N



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Bar is one inch on original size sheet

0 1"

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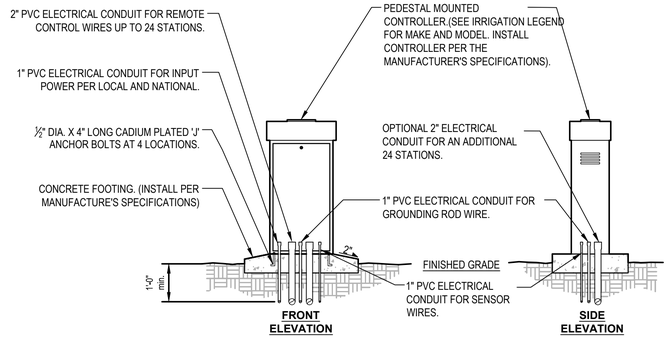
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Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title EVERGREEN CEMETERY IRRIGATION PLAN LAYOUT

Project No. 12619547
Original Size ANSI D
Drawing No. LI-105
Sheet 28 of 31

Plot Date: 5 November 2026 - 4:58 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-105.dwg



NOTES:

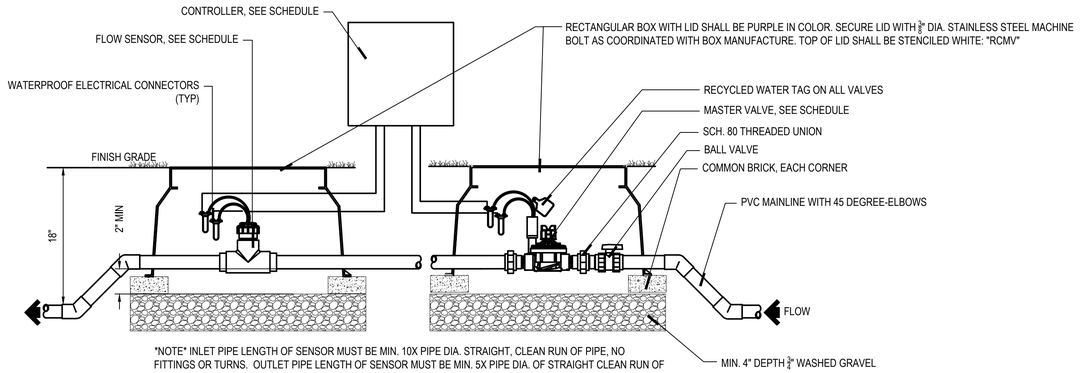
1- COMMON AND CONTROLLER WIRE TO BE BUNDLED USING ELECTRICAL TAPE AT 10'-0" ON CENTER.

2- GROUNDING RODS SHALL BE LOCATED BETWEEN 8'-0" AND 12'-0" AWAY FROM THE CONTROLLER. GROUNDING RODS SHALL BE ⅝" IN DIAMETER X 8' IN LENGTH. CONNECT THE GROUNDING ROD TO THE CONTROLLER USING 6 GAUGE BARE COPPER WIRE OR PER THE MANUFACTURER'S SPECIFICATIONS.SEE GROUNDING ROD DETAIL.

3- RAINGAUGE TO BE INSTALLED NO FURTHER THAN 90' AWAY FROM THE CONTROLLER AND A MINIMUM OF 15' OFF OF THE GROUND, OUT FROM UNDER ANY OVERHEAD OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO BUILDING OVERHANGS, TREES, OR UTILITIES.

1 PEDESTAL CONTROLLER

1/2" = 1'-0" P-MC-09

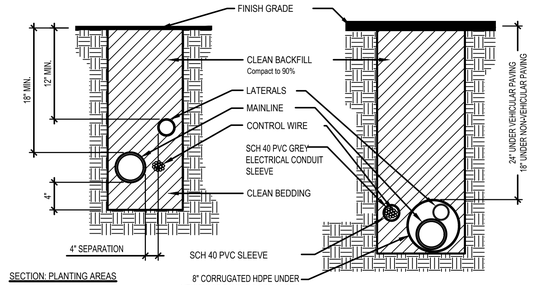


NOTE INLET PIPE LENGTH OF SENSOR MUST BE MIN. 10X PIPE DIA. STRAIGHT, CLEAN RUN OF PIPE, NO FITTINGS OR TURNS. OUTLET PIPE LENGTH OF SENSOR MUST BE MIN. 5X PIPE DIA. OF STRAIGHT CLEAN RUN OF PIPE, NO FITTINGS OR TURNS.

IF TWO WIRE SYSTEM - CONNECT PER MANUFACTURE'S SPECIFICATIONS AND DETAILS.

2 MASTER VALVE AND FLOW SENSOR ASSEMBLY

1 1/2" = 1'-0" P-MC-06



NOTES:

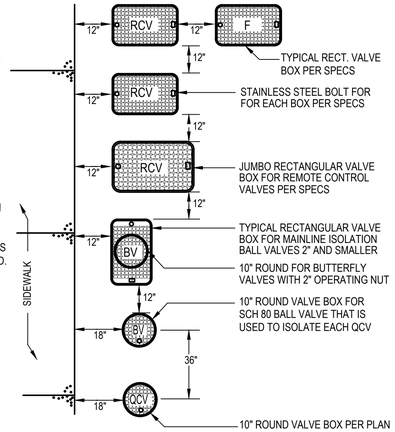
1. COORDINATE ROADWAY/SIDEWALK IMPROVEMENTS SO THAT SLEEVE(S) ARE INSTALLED PRIOR TO PAVING.
2. ALL "2-WIRE" CONDUCTORS TO BE INSTALLED IN A 1" GRAY CONDUIT OR SLEEVE AT ALL TIMES.
3. ALL "STANDARD" WIRE CONDUCTORS TO BE BUNDLED AND TAPED AT 10' INTERVALS, TAPE TO MAINLINE AT 20' INTERVALS. PLACE WIRE IN GREY CONDUIT WHEN UNDER PAVING (SIZE CONDUIT TO FIT WIRE BUNDLE)
4. WHEN INSTALLED UNDER VEHICULAR PAVING, ELECTRICAL CONDUIT MAY BE PLACED IN 8" CORRUGATED HDPE SLEEVE WITH IRRIGATION PIPE(S)
4. SLEEVES SHALL EXTEND 12" BEYOND BACK OF CURB/PAVING INTO PLANTER AREA.
4. PROVIDE A 2' LOOP OF WIRE AT CHANGES IN DIRECTION OF 30 DEG. OR GREATER.
5. INSTALL LOCATOR WIRE ALONGSIDE MAINLINE WHERE THERE IS NO CONTROL WIRE.

3 IRRIGATION PIPE AND CONTROL WIRE TRENCHING

NOT TO SCALE P-MC-11

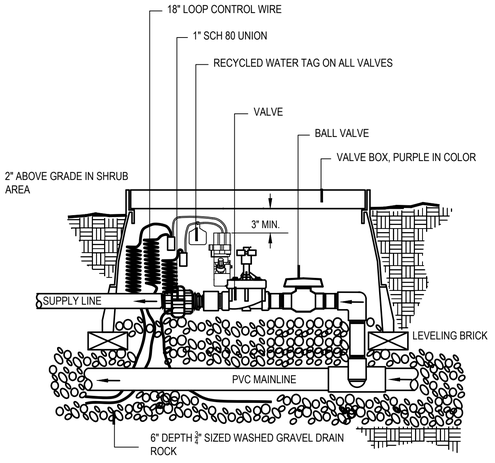
NOTES:

1. INSTALL VALVE BOXES IN PLANTER AREAS WHENEVER POSSIBLE
2. ALL VALVE BOXES MUST BE PERPENDICULAR TO SIDEWALKS
3. ALL VALVES MUST BE CENTERED AND INSTALLED PLUMB INSIDE VALVE BOX
4. IDENTIFY VALVE NUMBER ON LID.
5. USE PURPLE BOXES AND LIDS FOR RECYCLED WATER USED.



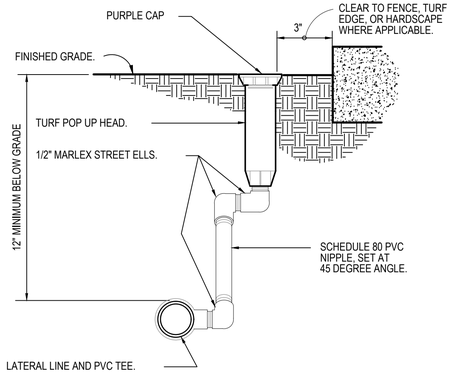
4 VALVE BOX LAYOUT

NOT TO SCALE



5 REMOTE CONTROL VALVE WITH UNION

NOT TO SCALE



6 TURF ROTOR POP-UP ASSEMBLY

3" = 1'-0" P-MC-08

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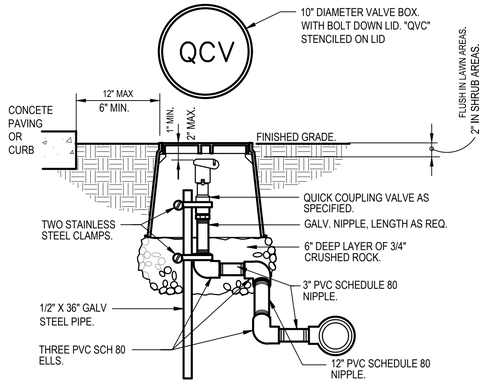
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Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

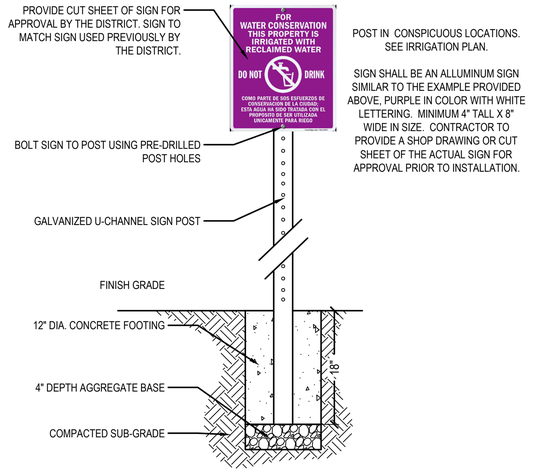
Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title IRRIGATION DETAILS
Project No. 12619547
Original Size ANSI D
Drawing No. LI-501
Sheet 29 of 31

Plot Date: 5 November 2026 - 4:59 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-501.dwg



1 QUICK COUPLING VALVE

1 1/2" = 1'-0" P-MC-02



2 RECYCLED WATER ADVISORY SIGN

1" = 1'-0"

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Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title **IRRIGATION DETAILS CONT.**
Project No. 12619547
Original Size ANSI D
Drawing No. **LI-502**
Sheet 30 of 31

Plot Date: 6 November 2026 - 3:39 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-502.dwg

RECYCLED WATER NOTES

1. Recycled water is provided by the Mendocino City Community Services District (District) Recycled Water Program. Recycled water is disinfected tertiary treated. Contractor shall contact the District at (707) 937-5790 or (707) 937-5751 prior to start of work and verify that all use requirements have been met and work may proceed.

2. Ordinances, requirements, and applicable standards of governmental agencies having jurisdiction within the District's service area shall be observed in the design and construction of recycled water systems. Such requirements include but are not limited to current revisions of the following:

   - The Uniform Plumbing Code as amended by the County of El Dorado.
   - Local Municipal Code, as applicable.
   - State of California Department of Public Health, Title 22.
   - Regional Water Quality Control Board Regulations.
   - Administrative Regulations and Board Policies.

3. The onsite installation of all recycled water and drinking water systems shall be accomplished under the approval, inspection, and to the satisfaction of the District.

4. The contractor or site supervisor shall call (707) 937-5790 to schedule a pre-construction meeting with the District prior to the installation of any recycled water and drinking water piping.

5. The District shall be notified two (2) days prior to the start of construction at (707) 937-5790.

6. The contractor approved shall be responsible for providing access to and cooperation with a District inspector to perform all testing and inspections.

7. Connections to the existing recycled water facilities shall be done by a licensed contractor in accordance with District connection procedures. Service connection per Civil Plans, irrigation contractor work begins downstream of backflow prevention device.

8. There shall be no connections between the potable and recycled water systems.

9. Recycled water shall not be used for any purpose other than as shown on these plans.

10. Hose bibs are prohibited on the recycled water system.

11. Water used in hose bibs shall be potable water and all hose bibs shall be attached to the building. Proposed deviations to comply with city or county ordinances shall be submitted in writing in conjunction with the plan review submittal.

12. A minimum of four (4) feet horizontal separation must be maintained at all times between the constant pressure recycled and potable water lines. A minimum of one (1) foot vertical separation must be maintained at all times between constant pressure recycled and potable water line crossings with the recycled waterline below the potable.

13. Approved blue warning tape shall be installed above all constant pressure potable main line piping.

14. Approved purple warning tape shall be installed above all constant pressure recycled water main line piping.

15. Recycled water piping shall be purple and identified as recycled water pipes by continuous marking on both sides. The markings shall include the following: “WARNING RECYCLED WATER – DO NOT DRINK”.

16. All recycled water sprinkler control valves, isolation valves, quick couplers, regulators, ARVs, and devices shall be tagged. Identification shall be weatherproof purple plastic, 3-inches by 4-inches with the words “WARNING RECYCLED WATER – DO NOT DRINK”. Imprinting shall be permanent. Use tags manufactured by T. Christy Enterprises or approved equal.

17. All areas where recycled water is used shall be posted approved with signage. Each sign shall state “RECYCLED WATER – DO NOT DRINK” and display the international “Do Not Drink” symbol.

18. All spray heads shall be adjusted to minimize overspray onto adjacent hardscapes.

19. Before occupation, a cross-connection shutdown test and inspection will be performed by a District inspector.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
10	RAIN BIRD 8005-NP 10 TURF ROTOR, 5.0" POP-UP, PLASTIC RISER, STANDARD NOZZLE. WITH SEAL-A-MATIC CHECK VALVE, ADJUSTABLE 50-330 ARC, AND 360 NON-REVERSING FULL-CIRCLE. 1" (26/34) NPT. EXTENDED RADIUS IS IDEAL FOR LARGE TURF APPLICATIONS. NON-POTABLE PURPLE CAP.	8
12	RAIN BIRD 8005-NP 12 See above	11
16	RAIN BIRD 8005-NP 16 See above	5
18	RAIN BIRD 8005-NP 18 See above	18
22	RAIN BIRD 8005-NP 22 See above	19
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PESB-R-PRS-D 1IN. DURABLE CHLORINE-RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, PURPLE FLOW CONTROL HANDLE, AND PRESSURE REGULATOR MODULE.	23
	1" BRASS QUICK-COUPLING VALVE RAIN BIRD MODEL: 5-NP, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 1-PIECE BODY.	48
	GATE VALVE NIBCO T-113, CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3". PROVIDE RECYCLED WATER TAG, SEE DETAIL	2
MV	MASTER VALVE 2" RAIN BIRD PESBR, DURABLE CHLORINE-RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, AND PURPLE FLOW CONTROL HANDLE. INSTALL WITH RECYCLED WATER TAGS. SIZE AS SHOWN ON PLANS.	2
C	SMART CONTROLLER 12 STATION COMMERCIAL OUTDOOR CONTROLLER IN AN OUTDOOR STAINLESS STEEL PEDESTAL. CONTROLLER TO HAVE FLOW SENSING, RAIN SENSING, AND MASTER VALVE SHUT OFF BUILT-IN CAPABILITIES. ADD ADDITIONAL STATION MODULES AS NEEDED. RAINBIRD MODEL ESP-12LXMEF CONTROLLER WITH LXMMSS OR EQUAL. SEE DETAIL FOR PEDESTAL AND CONTROLLER INSTALLATION.	2
FS	FLOW SENSOR 1.5" BRASS IMPELLER FLOW SENSOR THAT IS COMPATIBLE WITH CONTROLLER. FLOW SENSOR SHALL HAVE A MINIMUM SUGGESTED OPERATING RANGE OF 4GPM - 80GPM. RAINBIRD MODEL FS150B OR EQUAL.	2

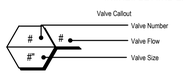
VALVE SCHEDULE MCCSD

NUMBER	POC	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
C1	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	55.2	61.5	2.08 in/h
C2	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	33.3	56.9	62.8	0.46 in/h
C3	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	54.2	60.8	0.87 in/h
C4	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	54.4	61.3	1.57 in/h
C5	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	54.8	62.1	1.25 in/h
C6	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	55.3	62.6	0.56 in/h
C7	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	55.9	63.3	0.6 in/h
C8	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	55.0	62.8	1.83 in/h
C9	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	41.4	55.2	62.9	1.61 in/h
C10	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	28.6	54.5	60.2	1.18 in/h
C11	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	33.3	56.3	61.8	1.34 in/h
C12	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	33.3	55.7	61.2	1.55 in/h
C13	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	22.2	56.2	61.2	0.67 in/h
C14	1	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	42.9	54.5	60.1	0.97 in/h

VALVE SCHEDULE HEIDER

NUMBER	POC	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
A1	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	48.3	54.8	60.5	0.92 in/h
A2	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	48.3	55.5	61.3	0.45 in/h
A3	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	32.2	55.0	60.3	1.33 in/h
A4	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	37.2	55.6	61.7	0.92 in/h
A5	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	37.2	55.8	61.9	0.92 in/h
A6	3	RAIN BIRD PESB-R-PRS-D	2"	TURF ROTOR	62.1	56.4	64.0	1.1 in/h
A7	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	48.3	55.8	62.4	0.44 in/h
A8	3	RAIN BIRD PESB-R-PRS-D	2"	TURF ROTOR	64.4	56.0	62.2	0.86 in/h
A9	3	RAIN BIRD PESB-R-PRS-D	1-1/2"	TURF ROTOR	48.3	55.3	60.9	1.75 in/h

	IRRIGATION LATERAL LINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	2,585 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP SIZE LINE AS SHOWN. NON-POTABLE PURPLE PIPE. SEE RECYCLED WATER NOES AND SPECS.	4,668 LF
	PIPE SLEEVE: PVC CLASS 200 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	188.0 LF



CRITICAL ANALYSIS

Generated: 2026-10-08 15:14

P.O.C. NUMBER: 01
Water Source Information: POC for MCCSD Property Irrigation, See Civil Plans for Pressure Reducer, Backflow, and RW Main Routing.

FLOW AVAILABLE
Point of Connection Size: 3"
Flow Available 155.34 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 70 PSI
Pressure Available: 70 PSI

DESIGN ANALYSIS
Flow Velocity: 3.5 Ft.sec.
Maximum Station Flow: 42.9 GPM
Flow Available at POC: 155.34 GPM
Residual Flow Available: 112.44 GPM

Critical Station: C2
Design Pressure: 50 PSI
Friction Loss: 2.99 PSI
Fittings Loss: 0.3 PSI
Elevation Loss: 0 PSI
Loss through Valve: 3.57 PSI
Pressure Req. at Critical Station: 56.9 PSI
Loss for Fittings: 0.05 PSI
Loss for Main Line: 0.54 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 0 PSI
Loss for Master Valve: 4.8 PSI
Critical Station Pressure at POC: 62.2 PSI
Pressure Available: 70 PSI
Residual Pressure Available: 7.75 PSI

CRITICAL ANALYSIS

Generated: 2026-10-08 15:14

P.O.C. NUMBER: 03
Water Source Information: POC for Heider Field Irrigation, See Civil Plans for Pressure Reducer, Backflow, and RW Main Routing.

FLOW AVAILABLE
Point of Connection Size: 3"
Flow Available 155.34 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 70 PSI
Pressure Available: 70 PSI

DESIGN ANALYSIS
Flow Velocity: 3.5 Ft.sec.
Maximum Station Flow: 64.4 GPM
Flow Available at POC: 155.34 GPM
Residual Flow Available: 90.94 GPM

Critical Station: A6
Design Pressure: 50 PSI
Friction Loss: 1.61 PSI
Fittings Loss: 0.16 PSI
Elevation Loss: 0 PSI
Loss through Valve: 4.65 PSI
Pressure Req. at Critical Station: 56.4 PSI
Loss for Fittings: 0.13 PSI
Loss for Main Line: 1.26 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 0 PSI
Loss for Master Valve: 4.65 PSI
Critical Station Pressure at POC: 62.5 PSI
Pressure Available: 70 PSI
Residual Pressure Available: 7.53 PSI

GENERAL IRRIGATION NOTES

1. Irrigation Point of Connection (POC) is as identified on the plan. Water source is recycled water provided by Mendocino Community Service District.
2. Reclaimed irrigation meter and backflow set by others per Civil Engineering plans.
4. Plan is diagrammatic and not intended to show exact locations of piping and valves, except where noted and specifically shown on the drawings. All main line, and valves shall be installed within the planting areas, whether shown there or not.
5. Irrigation mainline pipe size to be as shown dia. sch 40 pvc.
6. Control Wire: Route irrigation control wire to be placed in a 1" diameter SCH. 40 gray electrical conduit from controller to valve locations.
7. Flow Sensor: Place flow sensor data cable from controller to master valve/flow sensor in its own 1" diameter SCH. 40 gray electrical conduit.
8. Sleeving: Coordinate sleeve installation with roadway / sidewalk paving improvements. SCH. 40 pvc sleeves to be used under all aisle pavement and concrete walks. Sleeve size to be twice the size of the line it is protecting. See details. Irrigation sleeves to extend a minimum of 12" beyond back of curb/walk. Irrigation Mainline to be placed in its own separate sleeve.
9. State Model Water Efficient Landscape Ordinance: The irrigation system is designed to comply with the State Model Water Efficient Landscape Ordinance.
10. Installation Scheduling: Irrigation system shall not be installed until landscape grading is complete, and approved by Owner.
11. Code Conformance: Irrigation system shall be installed in accordance with all local and State codes and regulations. All materials shall be in new perfect condition and commercial grade. Deviations from the specified must be "or equal" or approved by the Landscape Architect or Owner.
12. Flow Control: Adjust flow controls on all remote control valves to correct operating pressure at all rotors.
13. Rotor Heads: Rotor heads are located on the drawings to achieve head to head spacing. Contractor to ensure that heads are placed at locations shown and adhere to this requirement.





EXAMPLE RECYCLED WATER STICKERS AND TAGS

Include Recycle Water tags on all Irrigation Items. See Reclaimed Water Notes this sheet.

Water Efficient Landscape Worksheet

ETWU (Estimated Total Water Use) Calculation (Eto x .62 x ETAF x Area)

REGULAR LANDSCAPE AREAS

Hydro Zone	Valve Zones	PF	Irr Method	IE	ETAF (PF/IE)	Landscape Area	ETAF x Area	ETWU (gal/yr)
Water Features	na	1	NA	1	1.00	0	0.00	0.00
Very Low	na	0.1	NA	0.81	0.12	0	0.00	0.00
Low (Shrubs & GC)	na	0.3	Drip	0.81	0.37	0	0.00	0.00
Medium (Trees)	na	0.6	Bubbler	0.81	0.74	0	0.00	0.00
High	na	0.8	MP Rotator	0.75	1.07	0	0.00	0.00
					Totals	0.00	0.00	

SPECIAL LANDSCAPE AREAS - HEIDER FIELD AND MCCSD PROPERTY

Pool and Spa					1	0	0.00	0.00
Turf Areas					1	99,920	99,920.00	2,800,158.08
					Totals	99,920.00	99,920.00	
							ETWU Total	2,800,158.08
							MAWA	2,800,158.08

(ETWU should be less than MAWA)

ETAF Calculations

Total Sitewide (ETAF x Area) / Total Area #DIV/0!

Average ETAF should be below 0.55 for residential areas
Average ETAF should be below 0.45 for non-residential areas

REFERENCE FACTORS

ET o Rate	(Evaporation transporation rate for area)	**45.20** in / yr
ETAF	(factor from state for residential - used for MAWA)	**0.45**
CF (Conversion Factor)	(used to convert acre-inches/year to gal/sf per year)	**0.62**
IE (Irrigation Efficiency)	(from state - efficency for drip)	**0.81**
IE (Irrigation Efficiency)	(from state - efficency for spray)	**0.75**
PF (Plant Factor) High	(factor from state or jurisdiction)	**.7-1.0**
PF (Plant Factor) Medium	(factor from state or jurisdiction)	**.4-.6**
PF (Plant Factor) Low	(factor from state or jurisdiction)	**.1-.3**
PF (Plant Factor) Very Low	(factor from state or jurisdiction)	**0-.1**

Water Efficient Landscape Worksheet

MAWA (Maximum Allowed Water Allowance) Calculation

Formula per State = **(Eto)(0.62)[(ETAF*RLA) +(1.0*SLA)]**

Annual Gallons Allowed = **2,800,158.08**

MAWA Criteria
Eto = **45.20**
ETAF = ***0.45***
RLA = 0.00
SLA = 99,920.00

No.	Issue	Drawn	Approved	Date

Bar is one inch on original size sheet
0 1"

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This document shall not be used for construction unless signed and sealed for construction.

Drawn	L. GOLLER	Designer	L. GOLLER
Drafting Check	L. PIPER	Design Check	N. OAKLEY
Project Manager	M. KENNEDY	Date	NOVEMBER 2026
		Scale	AS SHOWN

Client MENDOCINO CITY COMMUNITY SERVICES DISTRICT
Project RECYCLED WATER EXPANSION PROJECT
Title IRRIGATION SCHEDULES AND RECYCLED WATER NOTES
Project No. 12619547
Original Size ANSI D
Drawing No. LI-601
Sheet 31 of 31

Plot Date: 5 November 2026 - 5:01 PM Plotted By: Chris Bach Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\12619547 - MCCSD RW Project\Project Files\01 WIP\Civil\ACAD-RCWE\Sheets\12619547-GHD-RCWE-DWG-LI-601.dwg