

# **SHEET INDEX**

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4.B - Plant Profile Line B Q.B.



Record Drawing

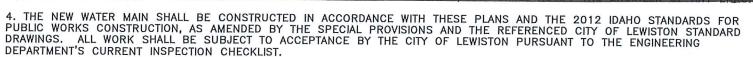
PLAN & VICINITY MAP

|                             |          | LEC   | GEND     |   |  |
|-----------------------------|----------|---|----------|---|--|
| EXISTING                    | PROPOSED | ITEM  | EXISTING | PROPOSED                                | ІТЕМ   |
| 0                           |          | Deciduous Tree<br>Shrub   | — P —    |   | Power Telephone  |
| д                           |          |   |          |   | The section of the se |
| пт                          |          | Traffic Sign Telephone Riser  | — SD —   |   | Storm Drain Sanitary Sewer   |
| -0-                         |          | Utility Pole  | Δ        |   | Survey Control Point   |
| ←                           | *        | Utility Pole Anchor   | ⊕        |   | Monument   |
| 88                          |          | Gas Meter or Gas Valve  | x        |   | Wire Fence   |
| В                           |          | Catch Basin   |          |   | Right—of—Way or Property Line  |
| 0                           |          | Storm Drain Manhole   |          |   |  |
| 0                           |          | Sanitary Sewer Manhole  |          |   | Edge of Pavement   |
| B                           | . 23     | Water Meter Setting   |          |   | Curb & Gutter  |
| M                           | н        | Water Valve   |          |   |  |
| Д                           | -        | Fire Hydrant  |          |   | ,1   |
|                             |          |   |          |   | ,  |
| — W —<br>— GAS —<br>— CTV — | PRV      | Pressure Reducing Valve (PRV) Station  Remove & Replace (Fire Hydrant, Water Meter Setting, or Valve)  Remove (Fire Hydrant, Water Meter Setting, or Valve)  Water  Gas  Cable TV |          | <ul><li>♠</li><li>₩</li><li>⋈</li></ul> | - Detail or Section Designation<br>- Sheet Number on Which<br>Detail Appears<br>Component Location Reference<br>Thrust Block Bearing Area  |

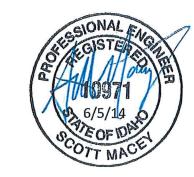
### **CONSTRUCTION NOTES**

- 1. UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS IN FIELD PRIOR TO EXCAVATION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR OR UTILITY COMPANY, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE UTILITY COMPANY. CONTRACTORS SHALL BE RESPONSIBLE TO CONTACT THE LOCAL ONE—CALL SYSTEM AT 811 AT LEAST TWO DAYS PRIOR TO ANY DIGGING.
- 2. UTILITY FORCES MAY ENGAGE IN MOVING, RECONSTRUCTING OR INSTALLING, OR MAINTAINING UTILITY FACILITIES, AND THE CONTRACTOR SHALL COOPERATE WITH THESE FORCES AND CONDUCT OPERATIONS IN SUCH A MANNER AS TO AVOID ANY DELAY TO WORK BEING PERFORMED BY OTHER FORCES. THE CONTRACTOR SHALL JOIN HIS WORK WITH THE WORK OF THE OTHERS AND PERFORM THE WORK IN PROPER SEQUENCE AND WITH JUDICIOUS HANDLING OF FORCES AND EQUIPMENT.

3. SURVEYING AND CONSTRUCTION STAKING FOR SEWER AND WATER MAIN CONSTRUCTION WILL BE PERFORMED BY THE CITY LEWISTON. CONTRACTOR SHALL RETAIN AND PROTECT CONSTRUCTION STAKING, AND SHALL NOTIFY THE ENGINEER OF ANY ER



- 5. THE NEW WATER MAIN SHALL BE CONSTRUCTED IN THE SEQUENCE INDICATED BY THE PHASING PLAN, UNLESS OTHERWISE DIRECTED.
- 6. ALL WATER AND SEWER PIPELINES SHALL BE INSTALLED USING CLASS A-1 BEDDING SYSTEM. ALL TRENCHES AND EXCAVATED AREAS SHALL BE BACKFILLED TO FINISH GRADE WITH CRUSHED AGGREGATE BACKFILL IN ACCORDANCE WITH CITY OF LEWISTON STANDARD DRAWING 1-7. EXCESS AGGREGATE SHALL BE REMOVED PRIOR TO PAVEMENT REPLACEMENT. RESTORATION OF PAVEMENT SURFACING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF ISPWC SECTION 801 FOR HOT MIX PAVEMENT CLASS I (⅓" OR ¾").
- 7. ALL WATER MAINS SHALL BE INSTALLED WITH MINIMUM HORIZONTAL SEPARATION OF 10' BETWEEN THE WATER AND THE SANITARY OR STORM SEWER MAINS AND IN COMPLIANCE WITH CITY OF LEWISTON STANDARD DRAWING 4-1.
- 8. THRUST BLOCKS SHALL BE INSTALLED AT ALL FITTING LOCATIONS SPECIFIED BY CITY STANDARD DRAWING 4-4. THRUST BLOCKS SHALL BE CONSTRUCTED TO SIZES BASED ON ALLOWABLE SOIL STRESS OF 2000 PSI. ALL MECHANICAL JOINTS 10" AND SMALLER SHALL BE EQUIPPED WITH RING-TYPE GRIP RESTRAINT DEVICES AS REQUIRED BY THE SPECIFICATIONS.
- 9. REMOVAL OF CURB FOR HYDRANT INSTALLATION SHALL BE INCIDENTAL TO THAT ITEM. PAY LENGTH FOR REPLACEMENT OF CURB AND GUTTER OVER HYDRANT LEADS SHALL BE AS DIRECTED BY THE ENGINEER. WHEN WATER SERVICES ARE REQUIRED BENEATH EXISTING CURBS, THE CONTRACTOR SHALL RETAIN AND PROTECT EXISTING CURBS.
- 10. THE CONTRACTOR SHALL PRESSURE TEST THE NEW WATER MAIN IN ACCORDANCE WITH THE SPECIFICATIONS AND AWWA C600.
- 11. EXCEPT AS REQUIRED IN THE SPECIFICATIONS, THE CONTRACTOR WILL NOT BE REQUIRED TO DISINFECT NEW WATER MAINS; THE CONTRACTOR SHALL INSTALL FITTINGS AND APPURTENANCES AS REQUIRED BY THE OWNER FOR DISINFECTION. THE CITY OF LEWISTON WATER DEPARTMENT WILL THEN PERFORM SYSTEM DISINFECTION AND ALL THE BACTERIOLOGICAL TESTING AS INDICATED BY THE PHASING PLAN.
- 12. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. ALL RESTORATION OF PAVEMENT, SIDEWALK, CURB, AND GUTTER SHALL BE IN CONFORMANCE WITH THE CITY OF LEWISTON STANDARD DRAWINGS AND THE SPECIFICATIONS OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION. ALL RESTORATION SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



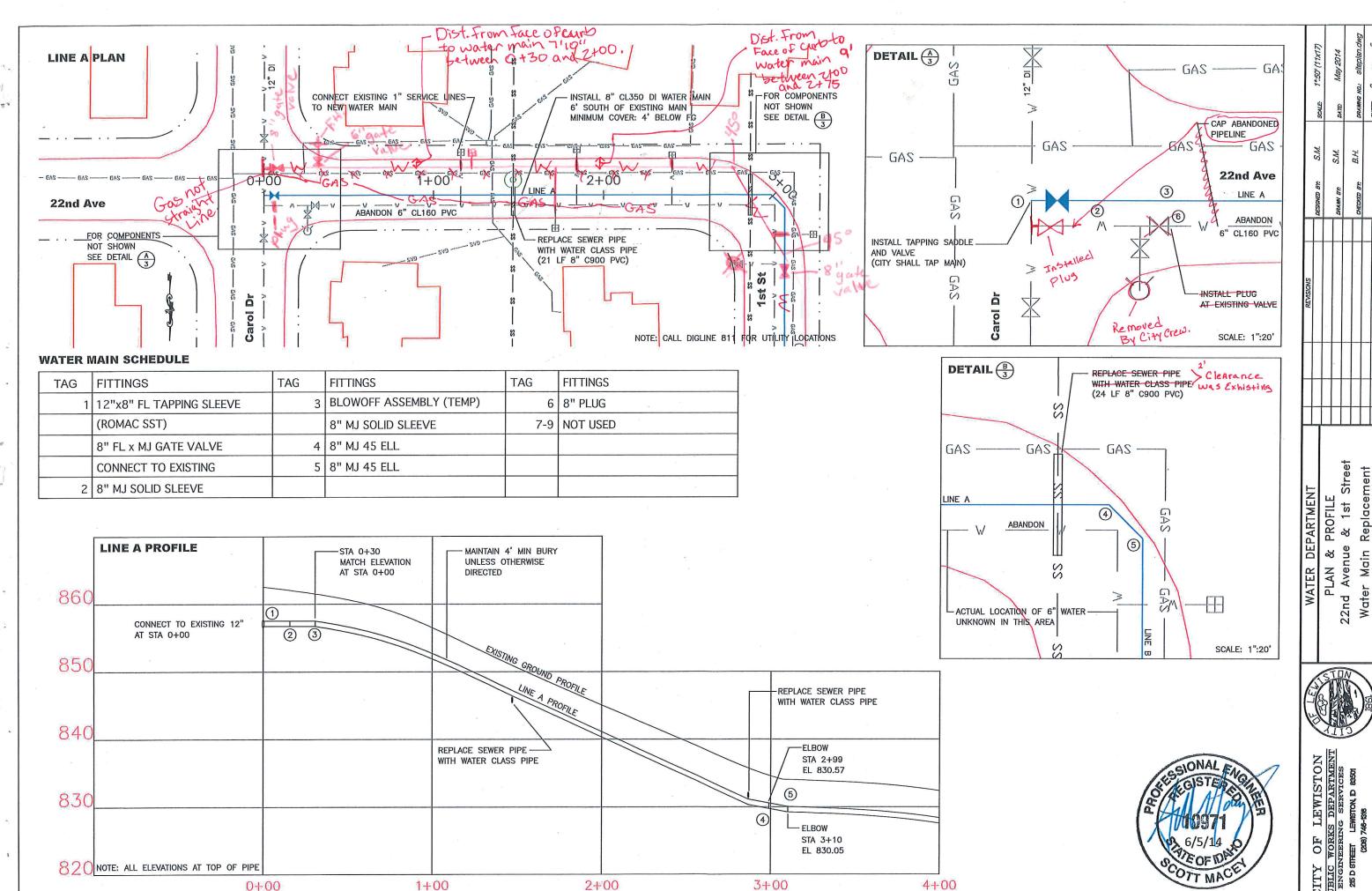
S.M. NOTES

LEGEND & CONSTRUCTION NOTE



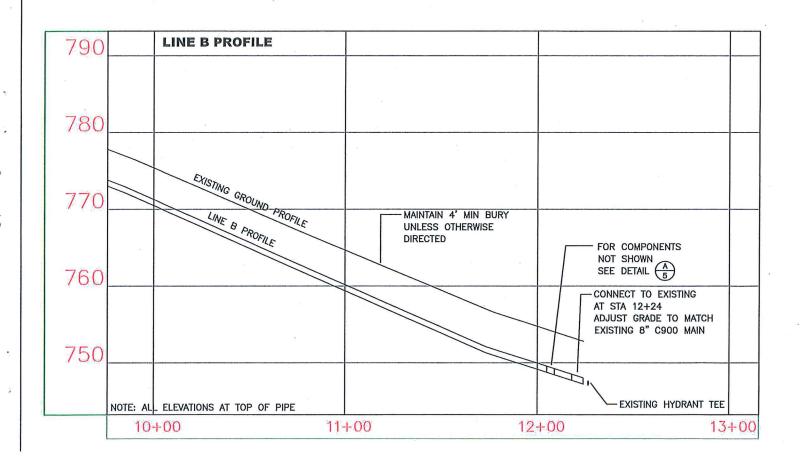
ITY OF LEWISTON
BLIC WORKS DEPARTMENT
ENGINEERING SERVICES
ZED SHEET LEWISON, D 88501
(PRO) 748-888

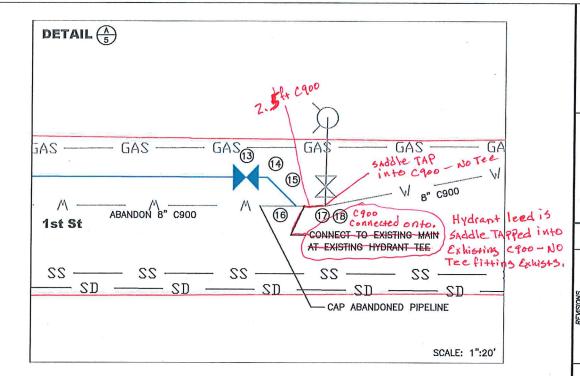
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## **WATER MAIN SCHEDULE**

| TAG | FITTINGS                | TAG | FITTINGS                |
|-----|-------------------------|-----|-------------------------|
|     | 8" MJ GATE VALVE        | 18  | 8" x 2" TAPPING SADDLE  |
|     | 8" MJ 45 ELL            |     | (ROMAC 202S)            |
| 15  | BLOWOFF ASSEMBLY (TEMP) |     | 2" CORPORATION STOP     |
|     | 8" MJ SOLID SLEEVE      |     | BLOWOFF ASSEMBLY (TEMP) |
|     | 8" MJ 45 ELL            |     |                         |
| 17  | CONNECT TO EXISTING     |     |                         |





WATER DEPARTMENT

#### SEQUENCE OF CONSTRUCTION

THE SEQUENCE OF CONSTRUCTION APPEARING IN THE CONTRACT PLANS SHOWS THE ANTICIPATED METHOD OF CONSTRUCTING THE PLANNED PROJECT WITH THE FEWEST SERVICE INTERRUPTIONS AND PUBLIC INCONVENIENCE. THE CONTRACTOR SHALL CONDUCT THE PROJECT IN THE MANNER PRESENTED UNLESS OTHERWISE AUTHORIZED. IF THE CONTRACTOR'S PROPOSED METHODS DIFFER FROM THE PLANNED SEQUENCE OF CONSTRUCTION, THE CONTRACTOR MUST SUBMIT THE PROPOSED MODIFICATION OF THE PROJECT SEQUENCE TO THE ENGINEER AT LEAST TEN CALENDAR DAYS IN ADVANCE OF THE REQUESTED CHANGE. THE CONTRACTOR SHALL ALSO PRESENT THE REQUIRED CHANGES IN THE PROJECT'S TRAFFIC CONTROL PLANS BY SHOWING THE NECESSARY CONSTRUCTION SIGNS, FLAGGERS, AND OTHER TRAFFIC CONTROL DEVICES REQUIRED FOR THE CHANGE.

#### HYDROSTATIC TEST

MAKE PRESSURE AND LEAKAGE TESTS ON ALL NEWLY LAID PIPE AND VALVED SECTIONS OF IT. FURNISH ALL NECESSARY EQUIPMENT AND MATERIAL, MAKE ALL TAPS, AND FURNISH ALL CLOSURE PIECES IN THE PIPE AS REQUIRED. THE CITY WILL MONITOR AND APPROVE A SATISFACTORY TEST. PRESSURE TEST PROCEDURES SHALL CONFORM TO AWWA C600 AS HEREINAFTER MODIFIED OR EXPANDED, AND THE REQUIREMENTS OF ANY GOVERNING AGENCY HAVING JURISDICTION. CONDUCT TESTS AFTER THE TRENCH HAS BEEN PARTIALLY BACK—FILLED WITH THE JOINTS LEFT EXPOSED FOR INSPECTION, OR WHEN COMPLETELY BACK—FILLED, AS PERMITTED BY THE CITY. WHERE ANY SECTION OF PIPE IS PROVIDED WITH CONCRETE THRUST BLOCKING, DO NOT CONDUCT PRESSURE TEST UNTIL AT LEAST 2 DAYS HAVE ELAPSED AFTER THE CONCRETE THRUST BLOCKING WAS INSTALLED. IF HIGH—EARLY CEMENT IS USED FOR THE CONCRETE THRUST BLOCKING, THE TIME MAY BE REDUCED TO 1 DAY. AFTER THE PIPE HAS BEEN BACK—FILLED OR PARTIALLY BACK—FILLED, AS HEREIN SPECIFIED, FILL THE PIPE WITH WATER, EXPELLING AIR DURING FILLING, AND PERMIT IT TO STAND FOR A 24—HOUR PERIOD TO ALLOW NATURAL ABSORPTION TO TAKE PLACE. THE PRESSURE TO BE USED IN THE TEST SHALL BE THE GREATER OF 1.5 TIMES THE WORKING PRESSURE OR 150 PSI. BEFORE DISINFECTING, FLUSH ALL FOREIGN MATTER FROM THE PIPELINE. PROVIDE HOSES, PUMPS, TEMPORARY PIPES, DITCHES, ETC., AS REQUIRED TO DISPOSE OF FLUSHING WATER WITHOUT DAMAGE TO ADJACENT PROPERTIES. FLUSHING VELOCITIES SHALL BE AT LEAST 2.5 FPS. FOR LARGE DIAMETER PIPE WHERE IT IS IMPRACTICAL OR IMPOSSIBLE TO FLUSH THE PIPE AT 2.5 FPS VELOCITY, CLEAN THE PIPELINE IN PLACE FROM THE INSIDE BY BRUSHING AND SWEEPING, THEN FLUSH THE LINE AT A LOWER VELOCITY.

#### DISINFECTION

PIPELINES INTENDED TO CARRY POTABLE WATER SHALL BE DISINFECTED AND TESTED BY THE CITY BEFORE PLACING IN SERVICE. DISINFECTION PROCEDURES SHALL CONFORM TO AWWA C651 AS HEREINAFTER MODIFIED OR EXPANDED, AND THE REQUIREMENTS OF ANY GOVERNING AGENCY HAVING JURISDICTION. TREATED WATER SHALL BE RETAINED IN THE PIPELINE LONG ENOUGH TO DESTROY ALL NONSPORE—FORMING BACTERIA, OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE TO OPERATE ALL NEW VALVES, HYDRANTS AND OTHER APPURTENANCES DURING DISINFECTION TO ASSURE THAT THE DISINFECTING MIXTURE IS DISPERSED INTO ALL PARTS OF THE LINE, INCLUDING DEAD ENDS, NEW SERVICES AND SIMILAR AREAS THAT OTHERWISE MAY NOT RECEIVE THE TREATED WATER. AFTER THE APPLICABLE RETENTION PERIOD, HEAVILY CHLORINATED WATER WILL BE FLUSHED FROM THE NEW WATER MAIN. AFTER FINAL FLUSHING AND BEFORE THE NEW MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN AT LEAST 24 HOURS APART, SHALL BE COLLECTED FROM THE NEW MAIN.

THE CONTRACTOR SHALL PROVIDE TESTING LOCATIONS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. A COMBINATION BLOWOFF AND SAMPLING TAP IS RECOMMENDED, BUT SAMPLES MAY BE TAKEN AT TAPPED SADDLE LOCATIONS PROVIDED THAT THE SADDLE IS USED FOR A SERVICE CONNECTION AT THE COMPLETION OF THE PROJECT. NO HOSE OR FIRE HYDRANT MAY BE USED IN THE COLLECTION OF SAMPLES. ALL SAMPLES SHALL BE TESTED FOR BACTERIOLOGICAL QUALITY IN ACCORDANCE WITH STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS. EACH TEST REQUIRES A MINIMUM 24 HOUR PERIOD FOR RESULTS.

## **SEQUENCE OF WORK**

PHASE 1: RETROFIT SEWER
INSTALL SEWER BYPASS AS NECESSARY
INSTALL WATER-CLASS REPLACEMENT PIPE

PHASE 2: CONSTRUCT NEW WATER MAINS A&B
INSTALL TAPPING SADDLE AND VALVE AT 0+00
TAP EXISTING MAIN (BY CITY)
CONSTRUCT LINE A 0+00 TO 0+15
CONSTRUCT LINE A 0+30 TO 3+10
CONSTRUCT LINE B 3+10 TO 0+70. IZ + Z 4 (N. 6)
INSTALL BLOWOFF ASSEMBLY ON EXISTING MAIN
LEAK TEST AND DISINFECT LINES (1 DAY MIN)
BACTERIOLOGICAL TEST (2 DAYS MIN)
ACTIVATE LINE A @ 0+15
TRANSFER SERVICES TO LINES A & B
CONNECT LINE B @ 9+63
PLUG EXISTING VALVE
REMOVE HYDRANTS
CAP ABANDONED MAIN

PHASE 3: RETROFIT STORM
INSTALL WATER-CLASS REPLACEMENT PIPE

PHASE 4: RESTORE ROADWAY



|     | WATER DEPARTMENT         |     |      |                   | REMSIONS    |    |           |
|-----|--------------------------|-----|------|-------------------|-------------|----|-----------|
|     |                          |     |      |                   |             |    | DEGO      |
|     |                          |     |      |                   |             |    |           |
|     | DHANING DIAN             |     |      |                   |             |    |           |
| 7.  |                          |     |      |                   |             |    | DRAWN     |
| IAI | 22nd Avenue & 1st Street |     |      |                   |             |    |           |
| -   |                          |     |      |                   |             |    | OFF       |
|     | Water Main Replacement   |     |      | 1)                |             |    |           |
| ٦   |                          | NO. | DATE | NO. DATE FILENAME | DESCRIPTION | BY | BY JOB NO |
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OF

S.M.