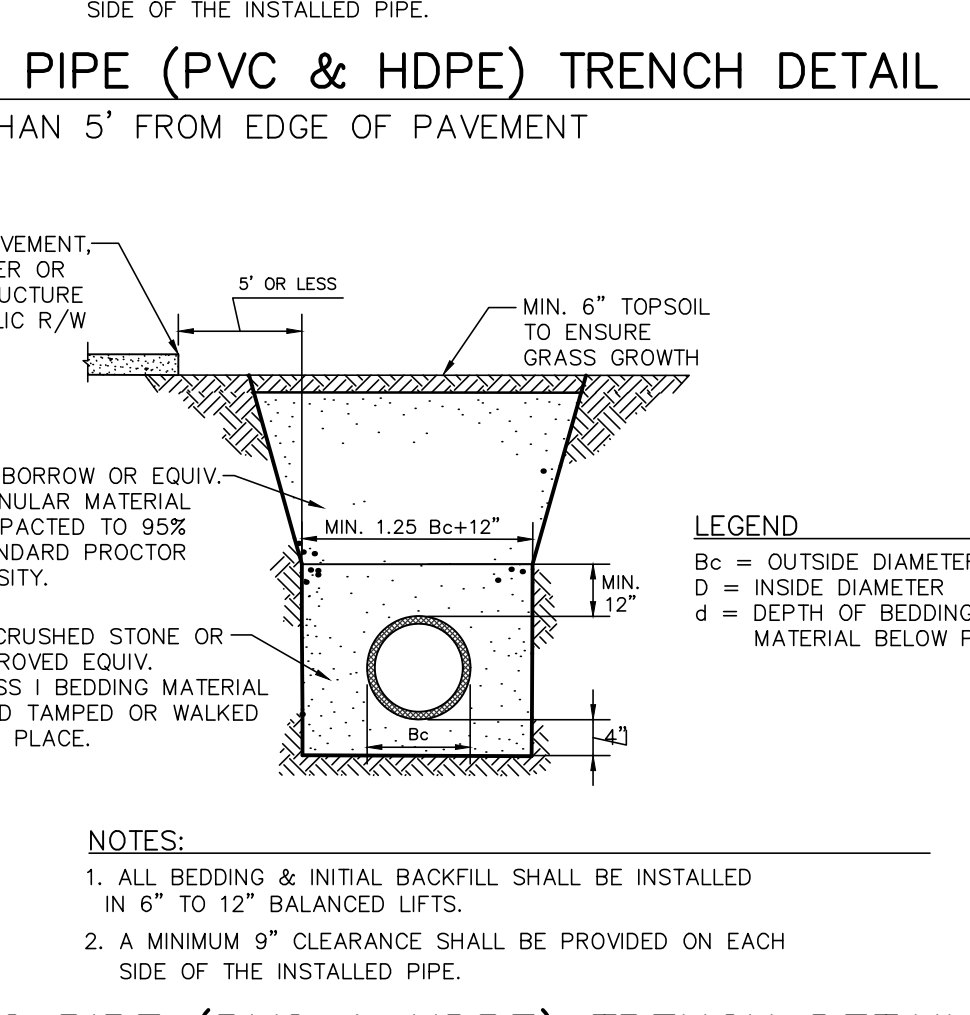
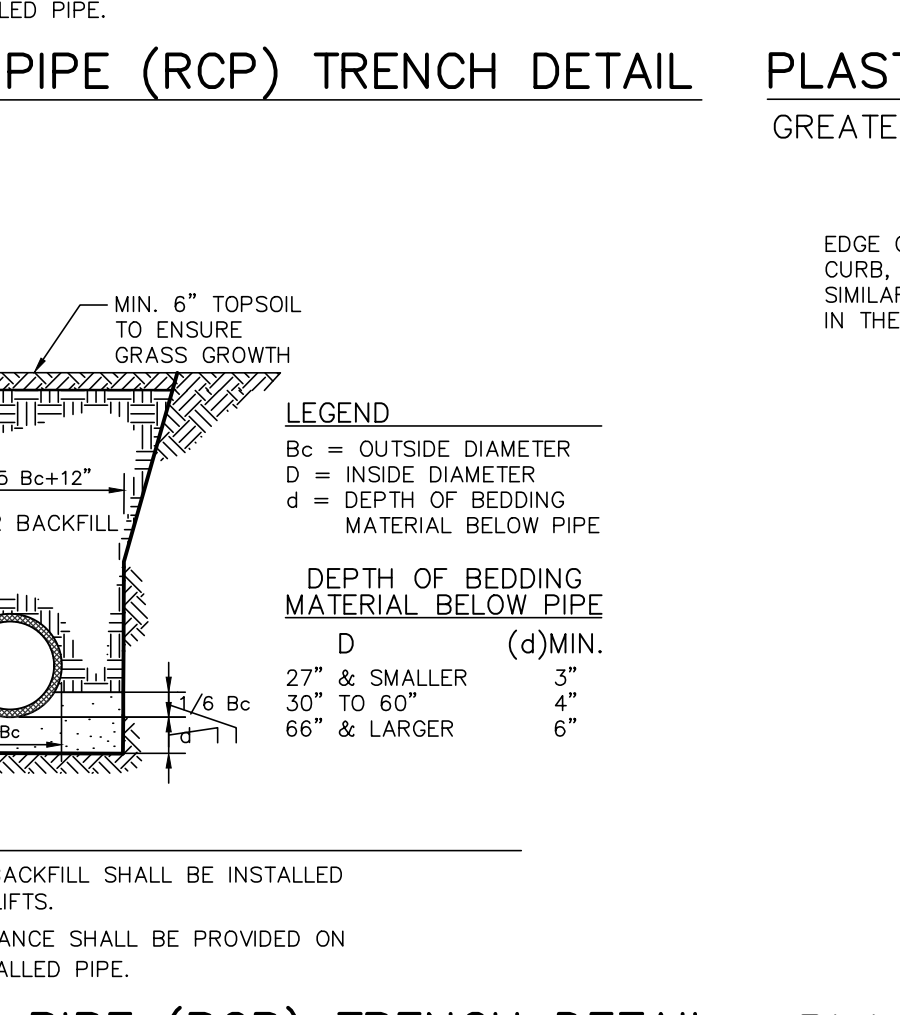
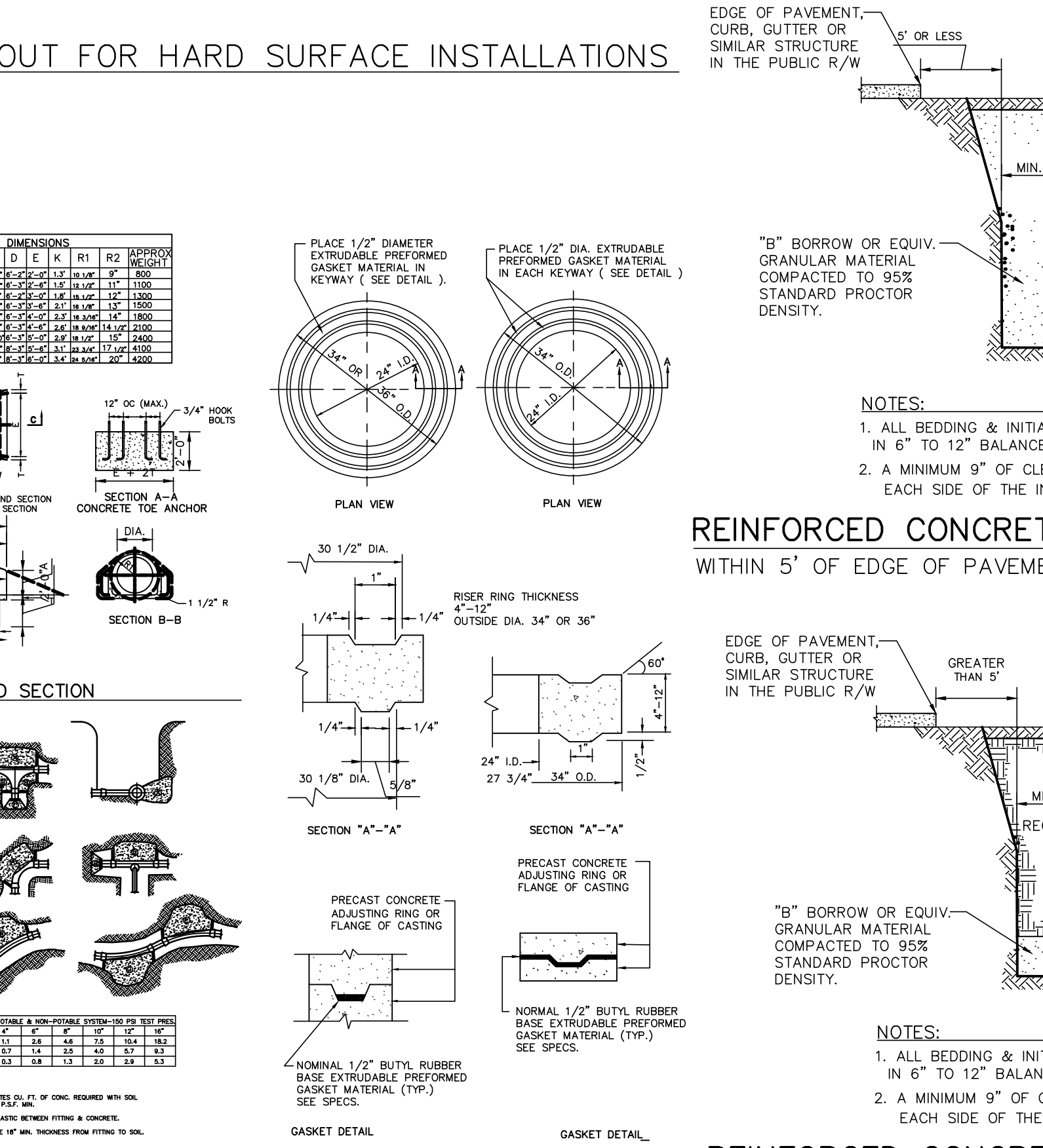


CITIZENS WATER STANDARD PRACTICE
 REVISION DATE: 11/22/2022 ISSUE DATE: 12/31/2019
STANDARD SERVICE LINE INSTALLATION AND SETTING FOR 5/8", 3/4", AND 1" METER IN SINGLE PIT

ITEM	5/8" & 3/4" METERS	1" METERS
METER PIT COVER	5/8" PLASTICS, INC. PART #0812 FOX-18A-18" W/ FORD METER BOX, INC. 20" x 24" METAL EXPANSION RING AND 24" FIT LINES OR APPROVED EQUAL. 4" DEPTH. 11.5" DIA. LID W/ LG. POINT OPENING N.E.	24x24" PLASTIC RISER, MEDIZOES PLASTIC, FRANKLINVILLE, TN (FRATCO) OR APPROVED EQUAL.
PIT	24x24" PLASTIC RISER, MEDIZOES PLASTIC, FRANKLINVILLE, TN (FRATCO) OR APPROVED EQUAL.	24x24" PLASTIC RISER, MEDIZOES PLASTIC, FRANKLINVILLE, TN (FRATCO) OR APPROVED EQUAL.
SUPPORT	FORD SOI-8 PRONGED YOKE FOR 5/8" METERS OR APPROVED EQUAL. FORD SOI-7 PRONGED YOKE FOR 3/4" METERS OR APPROVED EQUAL.	FORD SOI-8 PRONGED YOKE FOR 1" METERS OR APPROVED EQUAL.
YOKE	1 1/4" x 5/8" ANGLE VALVE W/ LOCK & 1/4" COMPRESSION CONNECTION FOR CTS POLY TUBING. FORD #898-318-G OR APPROVED EQUAL.	1 1/4" x 1" ANGLE VALVE W/ LOCK & 1/4" COMPRESSION CONNECTION FOR CTS POLY TUBING. FORD #898-318-G OR APPROVED EQUAL.
VALVES:	INLET SIDE (FROM MAIN)	OUTLET SIDE (TO CONSUMER)

NOTES:
 1. METER FURNISHED & SET BY CITIZENS.
 2. YOKE INCLUDING ANGLE & COMPRESSION VALVES FURNISHED TO PLUMBER BY CITIZENS.
 3. ALL SERVICE LINES MUST HAVE 4" 1/2" OF COVER REGARDLESS OF THE WATER MAIN DEPTH. AT LEAST 2" OF FLOW SAND OR PEA GRAVEL REQUIRED AT EACH TAP AND SERVICE LOCATION.
 4. LOCATE METER PIT WITHIN 1'-3" OF ROW LINE ON CUSTOMER PROPERTY. THE LOCATION MUST BE ACCESSIBLE AND IN A LEVEL PLACE. THE PIT SHALL NOT BE LOCATED IN DRIVEWAYS.
 5. SEE STANDARD PRACTICE DRAWING 2 - POLYETHYLENE SERVICE LINE METER SUPPORT (SINGLE METER SET) FOR METER SUPPORT INFORMATION.
 6. SERVICE LINE SIZE TO BE ONE SIZE LARGER THAN THE METER SIZE.



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 TERRE HAUTE, IN

SITE ADDRESS:
KARAM CONVENIENCE AND RETAIL
 1485 WEST NORTHFIELD DRIVE
 BROWNSBURG, INDIANA

SCALE: N.T.S. DATE: 1/29/26
 DESIGNED BY: DWF DRAWN BY: GM
 CHECKED BY: DWF FIELD BOOK #: N.A.
 FILE NAME: 2517
 DRAWING TITLE: **SITE DETAILS**

SHEET NO. **C802**

GENERAL NOTES

- 1. REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, LATEST EDITION, FOR BASIC MATERIALS AND CONSTRUCTION METHODS...
2. CONTRACTORS SHALL CHECK WITH ENGINEER PRIOR TO START OF CONSTRUCTION TO VERIFY DATE OF PLANS...
3. CONTRACTORS SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE ALL MAINS, CONDUITS, SERVICE LINES, ETC. IN THE AFFECTED CONSTRUCTION AREA...
4. BACKFILL AROUND ALL STRUCTURES AND IN ALL TRENCHES BENEATH PAVED AREAS SHALL BE COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH INDOT SECTION 211...
5. FILL MATERIAL SHALL CONSIST OF EARTH OBTAINED FROM CUT AREAS, BORROW PITS OR OTHER APPROVED SOURCES...

CLEARING AND GRUBBING

- 1. CLEARING AND GRUBBING SHALL CONSIST OF CUTTING, REMOVING AND SATISFACTORY DISPOSING OF ALL TREES, DOWNED TIMBER, BRUSH, PROJECTING ROOTS, STUMPS, RUBBISH, BOULDERS, BROKEN CONCRETE, FENCING (AS DESIGNATED), AND OTHER MATERIAL ON THE PROJECT SITE AND WITHIN THE BOUNDARY AS SHOWN ON THE CONSTRUCTION DOCUMENTS AND/OR AS DESIGNATED BY "CONSTRUCTION LIMITS"...
2. ALL "UNSATURABLE MATERIAL" FROM CLEARING OPERATIONS SHALL BE REMOVED TO DISPOSAL AREA(S) OFF OF THE PROJECT SITE...
3. MATERIALS SHALL NOT BE DISPOSED OF BY BURNING UNLESS APPROVED BY THE LOCAL FIRE MARSHAL.

TREE REMOVAL AND PROTECTION

- 1. TREES SHALL BE REMOVED FROM THE PROJECT ONLY WHERE THE AREA IS TO BE OCCUPIED BY ROAD AND SURFACED AREAS...
2. TREES SHALL BE REMOVED FROM THE PROJECT SITE AS DIRECTED BY THE DEVELOPER...
3. TREES SHALL BE REMOVED FROM THE PROJECT SITE WHERE THEY INTERFERE DIRECTLY WITH THE PLACEMENT OF STORM OR SANITARY SEWERS, AND THAT SUCH EXCAVATION IS OR WILL BE FATAL TO SUCH ADJACENT TREES...
4. THE CONTRACTOR SHALL ENDEAVOR TO SAVE AND PROTECT TREES OF VALUE AND WORTH WHICH DO NOT IMPAIR CONSTRUCTION OF IMPROVEMENTS AS DESIGNATED...
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE METHOD FOR PROTECTION OF TREES ON THE PROJECT SITE...

STRIPPING OF TOPSOIL

- 1. THE CONTRACTOR SHALL VERIFY THAT ALL TOPSOIL HAS BEEN REMOVED IN THE AREAS TO BE OCCUPIED BY ROAD, WALKS AND DESIGNATED BUILDING AREAS...
2. TOPSOIL SHALL BE KEPT SEPARATED FROM SUITABLE FILL MATERIALS AND SHALL NOT BE USED AS FILL UNDER PAVEMENT, BUILDING AREAS AND/OR FUTURE STRUCTURAL AREAS...
3. TOPSOIL SHALL BE STORED AT A LOCATION WHERE IT DOES NOT INTERFERE WITH CONSTRUCTION OPERATIONS...
4. TOPSOIL SHALL BE REASONABLY FREE FROM SUBSOIL DEBRIS AND STONES.

PAVEMENT CONSTRUCTION

- 1. THE INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST EDITION SHALL APPLY TO WORKMANSHIP AND MATERIALS IN CONSTRUCTION OF SUBGRADE, PAVEMENT, CURBS AND WALKS...
a. PREPARE THE SUBGRADE IN ACCORDANCE WITH INDOT SECTION 207...
b. BITUMINOUS PAVEMENT IN ACCORDANCE WITH INDOT SECTION 402...
c. FINISHING EARTH GRADED SHOULDERS, DITCHES AND SLOPES IN ACCORDANCE WITH INDOT SECTION 208.

CONCRETE CURB AND WALKS

- 1. SEE DETAIL SHEET FOR TYPE AND DETAILS...
2. CONCRETE SHALL BE READY MIXED PORTLAND CEMENT AND WATER CONFORMING TO A.S.T.M C-150...
3. ALL EXTERIOR CONCRETE SHALL CONTAIN 3% TO 6% AIR ENTRAINMENT...
4. APPLICATION
a. PLACE CONCRETE ONLY ON A MOIST, COMPACT SUBGRADE OR BASE FREE FROM LOOSE MATERIAL...
b. CONCRETE SHALL BE DEPOSITED SO AS TO REQUIRE AS LITTLE REHANDLING AS PRACTICAL...
c. EXCEPT AS OTHERWISE SPECIFIED, CURE ALL CONCRETE BY ONE OF THE METHODS DESCRIBED IN INDOT SECTION 501.17...
5. TOP OF CASTING ELEVATIONS REFER TO THE CASTING'S RIM OR TOP OF CURB...

DEMOLITION

- 1. THE CONTRACTOR SHALL EXCAVATE, DEMOLISH, REMOVE AND DISPOSE OF THE DEBRIS FROM THE AREAS SHOWN ON THE SITE DEVELOPMENT PLAN...
a. BUILDING WALLS
b. FOUNDATIONS
c. PAVEMENT (CONCRETE, ASPHALT AND BRICK)
d. CONCRETE SLABS...
2. ALL MATERIAL AS A RESULT OF THE GENERAL DEMOLITION SHALL BE THE PROPERTY OF THE CONTRACTOR'S LOW BID PRICE...
3. THE CONTRACTOR SHALL BE REQUIRED TO DEMOLISH AND REMOVE DESIGNATED FOUNDATION WALLS, RETAINING WALLS, CURBING, CONCRETE SLABS, PAVING, TANKS, STRUCTURES, PIPES, MANHOLES AS SHOWN ON THE CONTRACT DOCUMENTS...
4. THE CONTRACTOR SHALL OBTAIN FROM THE TOWN OF AVON, AND ALL OTHER APPLICABLE GOVERNMENTAL AUTHORITIES, NECESSARY PERMITS REQUIRED...

UTILITIES

- 1. ALL WATER LINES FROM CITIZENS ENERGY GROUP MAIN TO ANY LOT SHALL BE INSTALLED OF MATERIAL AND WORKMANSHIP AS APPROVED WITH THE CITIZENS ENERGY GROUP...
2. CONDUIT SHALL BE REQUIRED FOR ALL ELECTRICAL AND TELEPHONE LINES UNDER PAVED AREAS...
3. COMPACTED GRANULAR BACKFILL SHALL BE REQUIRED FOR ALL CROSSINGS OF PAVED AREAS PER TOWN OF AVON DEPARTMENT OF TRANSPORTATION SPECIFICATIONS...
4. THE CONTRACTOR SHALL FURNISH THE METER PIT(S) OF THE TYPE AS SHOWN ON THE CONTRACT PLANS AND SHALL INSTALL THE METER (WHICH SHALL BE FURNISHED BY THE CITIZENS ENERGY GROUP) ALONG WITH ALL NECESSARY QUICK-DISCONNECTS, VALVES AND APPURTENANCES...

SANITARY SEWER SPECIFICATIONS

- 1. STANDARDS SPECIFICATIONS PER WEST CENTRAL CONSERVATORY DISTRICT, INDIANA DEPARTMENT OF TRANSPORTATION, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT SHALL APPLY FOR ALL WORK AND MATERIALS...
2. SANITARY SEWER PIPE SHALL BE PVC TYPE 1, CONFORMING TO ASTM D-3034 OR PVC IN ACCORDANCE WITH ASTM D-3034 (S.D.R. 35) AND ASTM 2321...
3. ALL SANITARY SEWER MANHOLES SHALL BE "PRECAST CONCRETE" MANHOLES IN ACCORDANCE WITH ASTM C-478 AND 720...
4. THE TYPE OF NEW MANHOLE CASTING AND COVER SHALL BE NEENAH R-1712-B-SP...
5. THE CASTING ELEVATIONS ARE SET BY PLAN...
6. NEW MANHOLE RING AND COVER SHALL BE INSTALLED TO ESTABLISHED GRADE...
7. BACKFILL AROUND ALL STRUCTURES AND ALL CUTS UNDER PAVED AREAS WITH COMPACTED GRANULAR MATERIAL...
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL STATE HIGHWAYS, CITY AND COUNTY PERMITS HAVE BEEN OBTAINED...
9. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH THE ENGINEER WITH A SET OF PRINTS...
10. ALL SANITARY SEWER LINES UPON COMPLETION WILL BE REQUIRED TO PASS A LOW PRESSURE AIR TEST...

602.01 INTRODUCTION

THIS SECTION PROVIDES THE TESTING REQUIREMENTS SPECIFIC TO GRAVITY SANITARY SEWERS.

FOR TESTING REQUIREMENTS SPECIFIC TO FORCE MAINS REFER TO SECTION 603.

FOR TESTING REQUIREMENTS SPECIFIC TO MANHOLES REFER TO SECTION 604.

FOR TESTING REQUIREMENTS SPECIFIC TO LIFT STATIONS REFER TO SECTION 605.

FOR TESTING REQUIREMENTS COMMON TO ALL SANITARY SEWER FACILITIES REFER TO SECTION 601.

602.02 GENERAL REQUIREMENTS

ALL SANITARY SEWERS TWENTY-FOUR(24) INCHES AND LESS SHALL BE AIR TESTED BY MEANS OF A LOW-PRESSURE AIR TEST PER SECTION 602.03...

ALL SANITARY SEWERS CONSTRUCTED OF FLEXIBLE PIPE (PVC AND CENTRIFUGALLY CAST FIBERGLASS REINFORCED POLYMER MORTAR) SHALL BE TESTED FOR DEFLECTION BY MEANS OF A MANDREL TEST PER SECTION 602.06.

602.03 LOW PRESSURE AIR TEST
ALL SANITARY SEWERS TWENTY-FOUR(24) INCHES AND LESS SHALL BE AIR TESTED BY MEANS OF A LOW-PRESSURE AIR TEST TO DETECT DAMAGED PIPING AND/OR IMPROPER JOINTS...

THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THE TEST IS CONDUCTED IN A SAFE MANNER AND ALL APPLICABLE SAFETY PROCEDURES ARE FOLLOWED.

DO NOT ENTER, OR ALLOW ANYONE TO ENTER, THE MANHOLE DURING TESTING.

THE LOW PRESSURE AIR TEST SHALL BE AS FOLLOWS:

- 1. WAITING PERIOD
THE AIR TEST MAY BE DONE IMMEDIATELY AFTER FINAL BACKFILL IS PLACED IN THE TRENCH...
2. EQUIPMENT
AT A MINIMUM, THE FOLLOWING SHALL BE PROVIDED:
A. MECHANICAL OR PNEUMATIC PLUGS;
B. AIR CONTROL PANEL;
C. SHUT-OFF VALVE, PRESSURE REGULATIVE VALVE, PRESSURE RELIEF VALVE AND INPUT PRESSURE GAUGE...

CONTINUOUS MONITORING PRESSURE GAUGE HAVING A RANGE OF 0 TO AT LEAST 10 PSIG, THE GAUGE SHALL BE NO LESS THAN FOUR (4) INCHES IN DIAMETER WITH MINIMUM DIVISIONS OF 0.10 PSI AND AN ACCURACY OF ± 0.04 PSI.

TO REDUCE THE POTENTIAL FOR SEWER LINE OVER-PRESSURIZATION, TWO (2) SEPARATE HOSES SHALL BE USED TO:

- I. CONNECT THE CONTROL PANEL TO THE SEALED LINE FOR INTRODUCING LOW PRESSURE AIR; AND
II. CONSTANTLY MONITOR AIR PRESSURE BUILDUP IN THE LINE.

IF ALTERNATE PRESSURE PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE WITH A STANDARD DIMENSION RATIO OF SDR 21 OR AWWA C-900 WITH A SDR OF 21 (CLASS 200) AND BE DESIGNED FOR A RATED WORKING PRESSURE OF 200 PSI WATER PRESSURE...

THE TEST DATA SHEET PER APPENDIX B SHALL BE USED WHEN CONDUCTING THE AIR TEST.

THE PROCEDURES FOR THE LOW PRESSURE AIR TEST ARE AS FOLLOWS:

A. PLUG INSTALLATION
AFTER A SEGMENT OF PIPE HAS BEEN BACKFILLED TO FINAL GRADE, SECURELY PLACE AND BRACE SUITABLE TEST PLUGS IN THE ENDS OF THE SEWER SEGMENT AND IN ALL LATERAL STUBS INCLUDED IN THE TEST.

PLUGS SHALL BE SECURELY RESTRAINED AND BRACED PRIOR TO AND DURING THE TEST.

18. SANITARY SEWER CONSTRUCTION WILL NOT BE ALLOWED TO COMMENCE UNTIL A VALID 327 IAC ARTICLE 3 IS OBTAINED (WHEN REQUIRED).

19. THE MINIMUM CELL CLASSIFICATION FOR P.V.C. PIPE SHALL BE 12454-B OR 12454-C.

20. THE FLOW CHANNELS FOR THE SANITARY SEWER MANHOLES SHALL BE U-SHAPED WITH THE BENCH WALLS EXTENDING TO THE CROWN OF THE INCOMING AND OUTGOING PIPES.

B. LINE PRESSURIZATION:

AIR ADD SLOWLY TO THE TEST SECTION UNTIL THE PRESSURE INSIDE THE PIPE REACHES 4.0 PSIG PLUS THE NECESSARY ADJUSTMENT FOR GROUNDWATER (MAXIMUM 2.0 PSIG ADJUSTMENT FOR A 6.0 PSIG MAXIMUM TOTAL).

THE AIR PRESSURE ADJUSTMENT FOR GROUNDWATER SHALL BE DETERMINED BY THE FOLLOWING:

ADJUSTMENT = DEPTH OF GROUNDWATER X 0.43
WHERE: ADJUSTMENT = ADJUSTMENT ADDED TO THE STARTING PRESSURE OF THE LOW-PRESSURE AIR TEST, PSIG. THE MAXIMUM ADJUSTMENT SHALL BE 2.0 PSIG.

DEPTH OF GROUNDWATER = AS MEASURED ABOVE THE TOP OF PIPE, FEET.
0.43 = CONVERSION FACTOR
DO NOT EXCEED 6.0 PSIG AT ANY TIME DURING THE LOW-PRESSURE AIR TEST.

THE GROUNDWATER MONITORING WELLS INSTALLED PER SECTION 403.09 SHALL BE USED TO DETERMINE THE DEPTH OF GROUNDWATER. IF MORE THAN ONE WELL WAS INSTALLED, TAKE THE AVERAGE DEPTH OF THE NEAREST DOWNSTREAM AND NEAREST UPSTREAM MONITORING LOCATIONS.

C. PRESSURE STABILIZATION
AFTER A CONSTANT PRESSURE OF 4.0 PSIG (PLUS THE NECESSARY ADJUSTMENT FOR GROUNDWATER) IS REACHED, THE AIR SUPPLY SHALL BE THROTTLED TO MAINTAIN THAT INTERNAL PRESSURE FOR AT LEAST TWO (2) MINUTES.

TEMPERATURE OF THE ENTERING AIR TO EQUALIZE WITH THE TEMPERATURE OF THE PIPE WALL.

D. TIMING PRESSURE LOSS
WHEN TEMPERATURES HAVE BEEN EQUALIZED AND THE PRESSURE STABILIZED AT 4.0 PSIG (PLUS THE NECESSARY ADJUSTMENT FOR GROUNDWATER), THE AIR BAND IN FLANGE SHALL BE STAINLESS STEEL.

THE INTERNAL SEALS SHALL BE AS MANUFACTURED BY CRETEX SPECIALTY PRODUCTS, NIP SPECIALTY PRODUCTS, OR AN APPROVED EQUAL.

23. PER SECTION 604.05
ALL INTERNAL CHIMNEY SEALS SHALL BE TESTED USING A LEAKAGE TEST.

THE LEAKAGE TEST SHALL BE AS FOLLOWS:

1. WAITING PERIOD
THE LEAKAGE TEST SHALL BE DONE AFTER THE MANHOLE HAS PASSED THE VACUUM TEST.

TESTING PROCEDURES
A. INSTALL THE CHIMNEY SEAL AND ONLY THE BOTTOM EXPANSION BAND PER MANUFACTURER'S RECOMMENDATION.

24. THE CONTRACTOR SHALL CLEAN AND TELEVIEW ALL SANITARY SEWERS PRIOR TO ACCEPTANCE BY THE UTILITY.

STORM SEWER SPECIFICATIONS
1. STANDARD SPECIFICATIONS OF THE CITY OF INDIANAPOLIS AND INDIANA DEPARTMENT OF TRANSPORTATION SHALL APPLY FOR ALL WORK AND MATERIALS.

2. ALL REINFORCED CONCRETE STORM SEWER PIPE (RCP) SHALL CONFORM TO ASTM DESIGNATION C-76 CLASS III.

3. BACKFILL AROUND ALL STRUCTURES AND CUTS UNDER PAVED AREAS WITH COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH INDOT SECTION 21.1 AND 715.

4. SEE STANDARD DETAIL SHEET FOR CONSTRUCTION DIMENSIONS OF STORM STRUCTURES, MANHOLE, INLETS AND CATCH BASINS SHALL BE IN ACCORDANCE WITH INDOT SECTION 720.

5. STORM SEWER DISCHARGE AREAS AND INVERTS ARE TENTATIVE AND ARE SUBJECT TO FIELD MODIFICATIONS BY THE ENGINEER OR HIS REPRESENTATIVE.

6. THE CONTRACTOR SHALL PROVIDE AT LEAST 2' OF COVER OVER ALL STORM SEWERS, UNLESS OTHERWISE INDICATED BY PLANS.

7. RIP RAP SHALL BE A MINIMUM OF 1/3 CUBIC FOOT IN SIZE AND A MINIMUM 18" IN ONLY ACTUAL PLACEMENT OF RIP RAP SHALL BE DETERMINED BY FIELD DEPTH.

8. ALL DRAINAGE PIPE AND DITCH OUTFALLS TO RECEIVING STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS, SUBJECT HOWEVER, TO ANY MODIFICATION REQUIRED BY THE ENGINEER AT THE TIME INSTALLATION IS COMPLETED.

SOIL EROSION CONTROL SUMMARY
1. CONTRACTOR SHALL INSTALL SEDIMENT TRAPS AND STRAW BALE FILTERS AS SHOWN.

2. MASS GRADE THE SITE (SIDES OF SWALES, MOUNDS AND PONDS TO BE SODED OR SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION).

3. CONTRACTOR SHALL CONTROL MUD ACCUMULATION ON ALL STREETS SURROUNDING THE PROJECT BY INSTALLING STONE SURFACE AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC LEAVES THE SITE.

4. MAINTAIN ALL FILTERS AND TRAPS DURING CONSTRUCTION TO PREVENT ANY BLOCKAGES FROM ACCUMULATED SEDIMENT.

5. CONTRACTOR SHALL INSTALL ALL STORM SEWER INLET FILTERS AS STORM SEWER SYSTEM IS INSTALLED.

6. ALL PROPOSED STREET AREAS TO BE PAVED AS SOON AS POSSIBLE AFTER SUBGRADE IS PREPARED.

7. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONLY WHEN THERE IS A SUFFICIENT GROWTH OF GROUND COVER TO PREVENT FURTHER EROSION.

8. ALL SWALES SHALL BE SEEDED IMMEDIATELY AFTER FINAL GRADING.

21. MANHOLES LINED IN THEIR ENTIRETY SHALL BE VACUUM TESTED. ALL PIPES ENTERING THE MANHOLE SHOULD BE PLUGGED, TAKING CARE TO SECURELY PLACE THE PLUG FROM BEING DRAWN INTO THE MANHOLE.

A VACUUM PUMP OF TEN (10) INCHES OF MERCURY SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF. THE VALVES CLOSED, THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO NINE (9) INCHES.

Table with 4 columns: MANHOLE DEPTH (FEET), 48" DIAMETER, TIME (SECONDS), 72" DIAMETER. Values range from 4 to 24 feet depth and 4 to 8 seconds time.

NOTE: THESE NUMBERS HAVE BEEN TAKEN FROM ASTM C 1244-93 (REAPPROVED 2000) IF THE MANHOLE FAILS IN THE INITIAL TEST, REPAIRS AND ADJUSTMENTS NECESSARY DUE TO EXTENUATING CIRCUMSTANCES (IE. PIPE JOINT, LINER, PLUG SEALING) SHOULD BE MADE RE-TESTING SHALL PROCEED UNTIL A SATISFACTORY TEST IS OBTAINED.

22. MANHOLE CHIMNEY SEALS
INTERNAL MANHOLE CHIMNEY SEALS SHALL CONSIST OF A FLEXIBLE INTERNAL RUBBER SLEEVE, INTERLOCKING EXTENSIONS, AND STAINLESS STEEL COMPRESSION BANDS CONFORMING TO ASTM C 923.

THE SEAL SHALL REMAIN FLEXIBLE THROUGHOUT A 25-YEAR DESIGN LIFE, ALLOWING REPEATED VERTICAL MOVEMENT OF THE FRAME OF NOT LESS THAN TWO (2) INCHES AND REPEATED HORIZONTAL MOVEMENT OF THE FRAME OF NOT LESS THAN ONE-HALF (1/2) INCH.

THE AREA OF THE SEAL THAT COMPRESSES AGAINST THE MANHOLE FRAME/CASTING AND THE CHIMNEY/CONE SHALL PROVIDE A WATERTIGHT SEAL.

THE BANDS SHALL BE FABRICATED FROM 16 GAUGE STAINLESS STEEL WITH NO WELDED ATTACHMENTS AND SHALL HAVE A MINIMUM ADJUSTMENT RANGE OF TWO (2) DIAMETER INCHES.

23. PER SECTION 604.05
ALL INTERNAL CHIMNEY SEALS SHALL BE TESTED USING A LEAKAGE TEST.

THE LEAKAGE TEST SHALL BE AS FOLLOWS:

1. WAITING PERIOD
THE LEAKAGE TEST SHALL BE DONE AFTER THE MANHOLE HAS PASSED THE VACUUM TEST.

TESTING PROCEDURES
A. INSTALL THE CHIMNEY SEAL AND ONLY THE BOTTOM EXPANSION BAND PER MANUFACTURER'S RECOMMENDATION.

24. THE CONTRACTOR SHALL CLEAN AND TELEVIEW ALL SANITARY SEWERS PRIOR TO ACCEPTANCE BY THE UTILITY.

STORM SEWER SPECIFICATIONS
1. STANDARD SPECIFICATIONS OF THE CITY OF INDIANAPOLIS AND INDIANA DEPARTMENT OF TRANSPORTATION SHALL APPLY FOR ALL WORK AND MATERIALS.

2. ALL REINFORCED CONCRETE STORM SEWER PIPE (RCP) SHALL CONFORM TO ASTM DESIGNATION C-76 CLASS III.

3. BACKFILL AROUND ALL STRUCTURES AND CUTS UNDER PAVED AREAS WITH COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH INDOT SECTION 21.1 AND 715.

4. SEE STANDARD DETAIL SHEET FOR CONSTRUCTION DIMENSIONS OF STORM STRUCTURES, MANHOLE, INLETS AND CATCH BASINS SHALL BE IN ACCORDANCE WITH INDOT SECTION 720.

5. STORM SEWER DISCHARGE AREAS AND INVERTS ARE TENTATIVE AND ARE SUBJECT TO FIELD MODIFICATIONS BY THE ENGINEER OR HIS REPRESENTATIVE.

6. THE CONTRACTOR SHALL PROVIDE AT LEAST 2' OF COVER OVER ALL STORM SEWERS, UNLESS OTHERWISE INDICATED BY PLANS.

7. RIP RAP SHALL BE A MINIMUM OF 1/3 CUBIC FOOT IN SIZE AND A MINIMUM 18" IN ONLY ACTUAL PLACEMENT OF RIP RAP SHALL BE DETERMINED BY FIELD DEPTH.

8. ALL DRAINAGE PIPE AND DITCH OUTFALLS TO RECEIVING STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS, SUBJECT HOWEVER, TO ANY MODIFICATION REQUIRED BY THE ENGINEER AT THE TIME INSTALLATION IS COMPLETED.

SOIL EROSION CONTROL SUMMARY
1. CONTRACTOR SHALL INSTALL SEDIMENT TRAPS AND STRAW BALE FILTERS AS SHOWN.

2. MASS GRADE THE SITE (SIDES OF SWALES, MOUNDS AND PONDS TO BE SODED OR SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION).

3. CONTRACTOR SHALL CONTROL MUD ACCUMULATION ON ALL STREETS SURROUNDING THE PROJECT BY INSTALLING STONE SURFACE AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC LEAVES THE SITE.

4. MAINTAIN ALL FILTERS AND TRAPS DURING CONSTRUCTION TO PREVENT ANY BLOCKAGES FROM ACCUMULATED SEDIMENT.

5. CONTRACTOR SHALL INSTALL ALL STORM SEWER INLET FILTERS AS STORM SEWER SYSTEM IS INSTALLED.

6. ALL PROPOSED STREET AREAS TO BE PAVED AS SOON AS POSSIBLE AFTER SUBGRADE IS PREPARED.

7. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONLY WHEN THERE IS A SUFFICIENT GROWTH OF GROUND COVER TO PREVENT FURTHER EROSION.

8. ALL SWALES SHALL BE SEEDED IMMEDIATELY AFTER FINAL GRADING.

SEEDING SPECIFICATIONS

1. SWALES/GRASSED WATERWAYS: PERMANENT SEEDING SHALL TAKE PLACE BETWEEN MARCH 1 AND MAY 15 OR FROM AUGUST 10 TO OCTOBER 15 WITH THE FOLLOWING PER ACRE:

25 LBS. KENTUCKY 31 FESCUE
15 LBS. KENTUCKY BLUE GRASS
1000 LBS. 12-12-12 FERTILIZER
3000 LBS. MULCH (STRAW)

2. IF GRADES ARE ESTABLISHED BETWEEN MAY 15 AND AUGUST 10, A TEMPORARY SEEDING CONSISTING OF 40 LBS. OF ANNUAL RYEGRASS SHALL BE PLANTED PER ACRE.

3. IF GRADES ARE ESTABLISHED BETWEEN OCTOBER 15 AND DECEMBER 30, EITHER RYE (GRAIN) OR WHEAT MAY BE USED AT THE RATE OF 2 BUSHELS/AC. OATS MAY BE USED FOR EARLY SPRING PLANTING AT THE RATE OF 3 BUSHELS/AC.

4. IF TEMPORARY SEEDING IS ESTABLISHED PRIOR TO PERMANENT SEEDING, THE MULCH TO TAKE PLACE TILL SPRING PLANTING; HOWEVER, IT IS PERMISSIVE THAT ALL SEDIMENT FILTERS AND TRAPS ARE IN PLACE PRIOR TO BULK EARTH MOVING OR CLEARING.

5. IF GRADING OCCURS DURING DECEMBER, JANUARY OR FEBRUARY, NO SEEDING TO TAKE PLACE UNTIL SPRING PLANTING.

EROSION PROTECTION DURING CONSTRUCTION AND SEEDING

1. THE CONTRACTOR SHALL PROVIDE ADEQUATE EROSION PROTECTION MEASURE DURING CONSTRUCTION SUCH AS, BUT NOT LIMITED TO:

- A. SILTATION BASINS
B. SILT TRAPS
C. STRAW BALE DAMS
D. SOIL CEMENT
E. MULCH AND SEEDING
F. SOIL STABILIZATION FABRIC
G. JUTE NETTING

2. DETAILS AND PLACEMENT SPECIFICATION FOR THE ABOVE ITEMS ARE AVAILABLE ON REQUEST FROM THE ENGINEER.

3. ALL CONSTRUCTION AREAS ARE TO BE SEEDED IMMEDIATELY FOLLOWING GRADING.

4. SWALE AND LAKE SLOPE SEEDING: SEED AND FERTILIZE WITHIN CONSTRUCTION LIMITS IMMEDIATELY AFTER CONSTRUCTION WITH 5#/ACRE "RED TOP" GRASS, 20#/ACRE "RYE GRASS", 20#/ACRE "BLUE GRASS", 25#/ACRE "TALL FESCUE" GRASS AND 600#/ACRE 12/12/12 FERTILIZER.

5. WOOD CELLULOSE FIBER, STRAW OR MULCH SHALL BE APPLIED AT A RATE OF 3/4 TONS PER ACRE AND SHALL BE REQUIRED FOR ALL SWALE, LAKE SLOPE AND STREET SEEDING.

6. STONE RIP RAP (MINIMUM 1/3 CUBIC FOOT) IS TO BE UTILIZED IN AREAS OF HIGH VELOCITY STREAM FLOW.

PARKING LOT STRIPING
1. PAINT MATERIAL SHALL COMPLY WITH FEDERAL SPECIFICATION TT-P-115A FOR TRAFFIC PAINT WITHOUT GLASS SPHERES.

2. STRIPE PARKING LINES AS SHOWN ON DRAWINGS WITH STRIPING PAINT. SUBCONTRACTOR TO PERFORM ALL FIELD LAYOUT WORK NECESSARY TO ACHIEVE STRAIGHT AND TRUE LINES.

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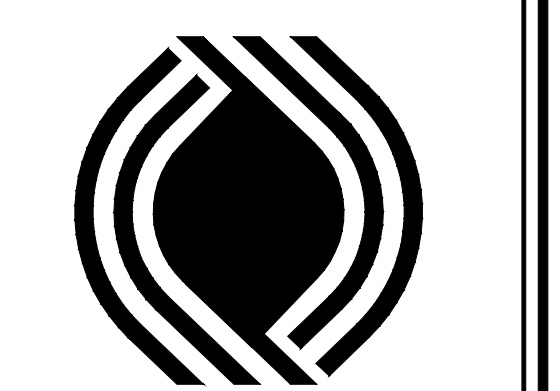


Table with 3 columns: NO., DATE, REVISION DESCRIPTION. Row 1: 7/17/24, CONSERVANCY DIST. SPECS.

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CHECKED BY: DWF FIELD BOOK #: N.A.

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