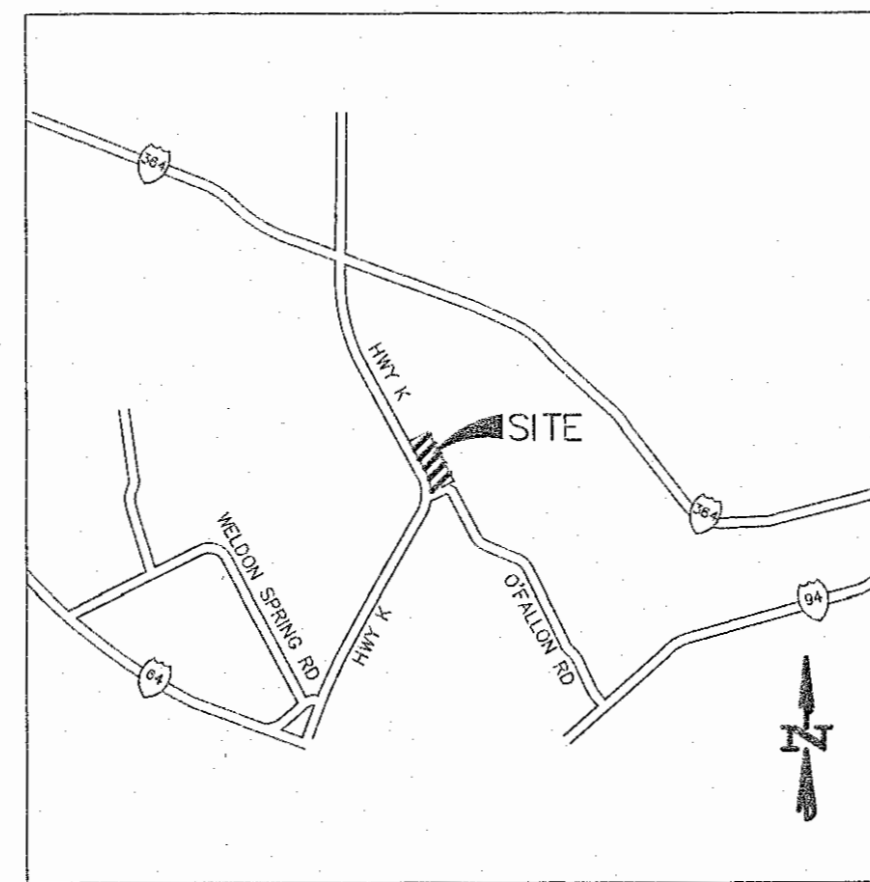
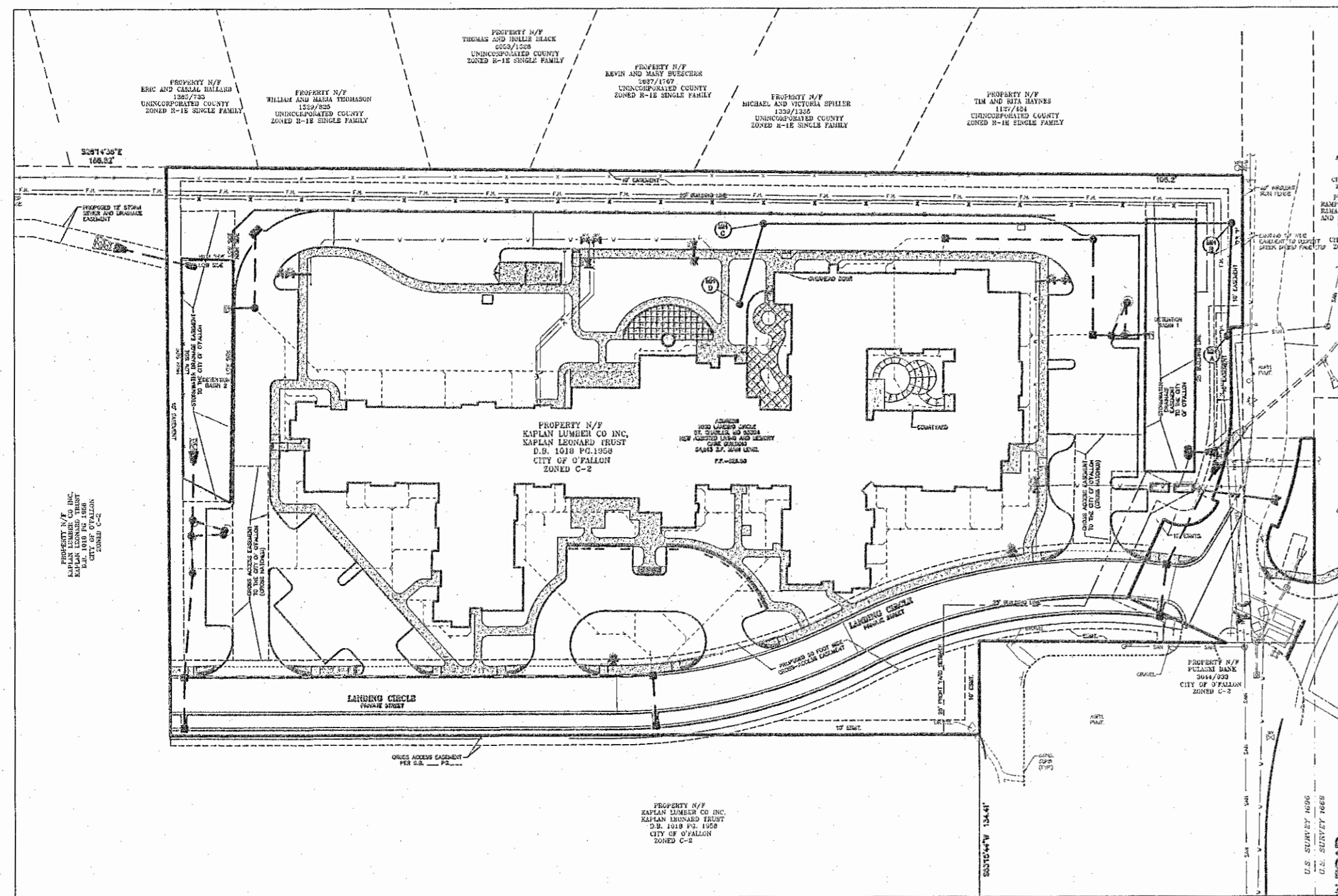


# A SET OF AS-BUILT PLANS FOR THE LANDING OF O'FALLON

A TRACT OF LAND IN U.S. SURVEY NO. 1696  
TOWNSHIP 46 NORTH, RANGE 3 EAST  
OF THE FIFTH PRINCIPAL MERIDIAN  
CITY OF O'FALLON  
ST. CHARLES COUNTY, MISSOURI



LOCATOR MAP  
NOT TO SCALE

## CONDITIONS OF APPROVAL FROM PLANNING AND ZONING

MUNICIPAL CODE REQUIREMENTS UNDER CASE NUMBER 20-16.02 SITE PLAN.

- THE SIDEWALK SHALL BE EXTENDED THROUGH THE LANDSCAPED FLAGPOLE AREA IN FRONT OF THE BUILDING.
- THE BARBWIRE ALONG THE EAST PROPERTY LINE SHALL BE REMOVED.

CONDITIONS UNDER CASE NUMBER 20-16.02 SITE PLAN.

- THE DWELLINGS IN THIS SENIOR COMMUNITY ARE SUBJECT TO AN AGE RESTRICTION DESCRIBED IN A DEED/DEED RIDER OR RESTRICTIVE COVENANT THAT NEEDS TO BE REVIEWED BY THE CITY ATTORNEY. THE AGE RESTRICTION LIMITS THE DWELLING UNITS TO OCCUPANCY BY SENIORS AGE FIFTY-FIVE (55) OR OLDER; OR THEIR SPOUSES OF ANY AGE; OR OTHER PERSONS IF MEDICAL NEED CAN BE ESTABLISHED TO THE SATISFACTION OF THE ASSOCIATION. THE CONDITIONAL USE PERMIT AND THE AGE RESTRICTIONS DESCRIBED ABOVE SHALL RUN WITH THE LAND AND SHALL BE ENFORCEABLE BY ANY OWNER(S) OF DWELLING UNITS IN THE SENIOR COMMUNITY.
- THE FUTURE DEVELOPMENT OF LOT 2 MAY NECESSITATE THE ROAD WIDENING BY THE DEVELOPER AS REVIEWED AND APPROVED PENDING THE EXTENT OF THIS DEVELOPMENT.
- THE DEVELOPER SHALL ADDRESS THE MUNICIPAL CODE REQUIREMENTS LISTED ABOVE.
- THE ENGINEERING FIRM SHALL MEET WITH THE ADJOINING PROPERTIES TO THE EAST TO DISCUSS OPTIONS IN ORDER TO ADDRESS STORM WATER DRAINAGE CONCERNS.
- PROVIDE CCR'S FOR REVIEW AND SUBMITTAL.

### UTILITY CONTACTS

DUCKETT CREEK SANITARY DISTRICT  
3550 HIGHWAY K  
O'FALLON, MO 63368  
636-441-1244  
MIKE MERKT  
merkt@duckett creek.com

MISSOURI AMERICAN WATER CO.  
1290 MOTHERHEAD RD.  
ST. CHARLES MO 63304  
636-922-9164  
KEVIN WESSEL  
Kevin.Wessel@amwater.com

STORM SEWER  
CITY OF O'FALLON  
100 N. MAIN ST.  
O'FALLON, MO 63366  
636-379-5491  
JEFF SCHUEPFER  
jschuepfer@ofallon.mo.us

AMEREN UE ELECTRIC  
200 N. CALLAHAN ROAD  
WENTZVILLE, MO 63385  
636-639-8308  
TARA RINEY  
Triney@ameren.com

GAS  
LACLEDE GAS COMPANY  
1999 TRADE CENTER DRIVE  
ST. PETERS, MO 63376  
314-575-4831  
MICHAEL LANGAN  
Michael.Langan@spireenergy.com

TELEPHONE/CABLE  
CHARTER COMMUNICATIONS  
941 CHARTER COMMONS  
TOWN & COUNTRY, MO 63017  
636-387-6633  
RUSSELL STARK  
Russell.Stark@charter.com

COTTLEVILLE FIRE PROTECTION DISTRICT  
1385 MOTHERHEAD RD.  
COTTLEVILLE, MO. 63304  
636-447-6655  
MARK BOEHLE FIRE MARSHAL  
maboehle@cottlevillefd.org

### DEVELOPMENT NOTES:

- AREA TO BE DISTURBED ONSITE: 5.952 ACRES  
AREA TO BE DISTURBED OFFSITE: 0.938 ACRES  
TOTAL SITE TO BE PURCHASED: 6.416 ACRES  
THIS SITE PLAN IS PART OF A 24.341 ACRE PARCEL
- CURRENT ZONING: "C-2 GENERAL BUSINESS" (CITY OF O'FALLON)  
SETBACKS: FRONT YARD 25 FEET  
SIDE YARD 0 FEET (SAME ZONING)  
REAR YARD 10 FEET  
MAX BUILDING HEIGHT 50 FEET  
EAST PROPERTY LINE 20 FEET BUFFERYARD TO RESIDENTIAL
- PROPOSED USE: ASSISTED LIVING AND MEMORY CARE  
(SENIOR COMMUNITY OVERLAY DISTRICT PER SECTION 400.162)
- AREA OF PROPOSED BUILDINGS: 54,613 S.F. (FIRST FLOOR)  
38,952 S.F. (SECOND FLOOR)  
93,565 S.F. (TOTAL)
- THE REQUIRED HEIGHT AND BUILDING SETBACKS ARE AS FOLLOWS:  
MINIMUM FRONT YARD: 25 FEET  
MINIMUM SIDE YARD: NONE  
MINIMUM REAR YARD: NONE  
BUILDING HEIGHT: 50 FEET OR 3 STORES  
(PROPOSED BLDG HEIGHT MAX AT 31 FEET AND 2-1/2 INCHES)
- THIS PROPERTY IS SERVED BY THE FOLLOWING UTILITIES:  
AMERENUE ELECTRIC COMPANY  
AT&T TELEPHONE  
CENTURYLINK TELEPHONE  
LACLEDE GAS COMPANY  
PUBLIC WATER SUPPLY DISTRICT NO.2  
DUCKETT CREEK SANITARY DISTRICT  
COTTLEVILLE FIRE PROTECTION DISTRICT
- FLOOD NOTE: ACCORDING TO THE FLOOD INSURANCE RATE MAP OF ST. CHARLES, MISSOURI AND INCORPORATED AREAS (MAP NUMBER 29183004300, COMMUNITY PANEL NUMBER (CITY OF O'FALLON 290316 0430 G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2016). PART OF THIS TRACT LIES WITHIN ZONES "AE", "X", AND "AE (FLOODWAY)". ZONE "AE" IS DEFINED AS SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD WITH BASE FLOOD ELEVATIONS DETERMINED. ZONE "AE" (FLOODWAY) IS DEFINED AS FLOODWAY AREAS WITHIN ZONE "AE". ZONE "X" IS DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- PARKING REQUIREMENTS:  
0.2 SPACES PER ASSISTED LIVING UNITS @ 111 UNITS = 22.2 ~ 23 REQUIRED  
1 SPACE PER EVERY 2 EMPLOYEES (ON MAXIMUM SHIFT) MAX SHIFT = 24 EMPLOYEES = 12 REQUIRED  
1 SPACE PER EVERY VEHICLE CUSTOMARILY USED IN THE OPERATION OF THE USE = 1 REQUIRED  
TOTAL REQUIRED = 36 SPACES  
PROPOSED = 4 ACCESSIBLE SPACES  
66 OPEN SPACES  
1 FACILITY VAN SPACE  
71 SPACES TOTAL

- LANDSCAPING: SEE ATTACHED PLANS AND CALCULATIONS BY OTHERS.
- PROPERTY OWNER: KAPLAN LUMBER COMPANY & LEONARD KAPLAN TRUST
- MAXIMUM SLOPES ALLOWED ARE 3:1.
- ALL UTILITIES SHALL BE UNDERGROUND.
- ALL ACCESSIBLE SIDEWALKS, CURB RAMPS, RAMP AND PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE.
- THIS PLAN IS PRELIMINARY AND NOT FOR CONSTRUCTION.
- PRIOR TO CONSTRUCTION SITE PLAN APPROVAL, A PHOTOMETRIC LIGHTING PLAN IN ACCORDANCE WITH THE CITY'S EXTERIOR LIGHTING STANDARDS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL FOR ALL PROPOSED EXTERIOR LIGHTING.
- ALL SIGNAGE SHALL BE APPROVED THROUGH PLANNING AND DEVELOPMENT VIA A SEPARATE PERMITTING PROCESS.
- SITE COVERAGE:  
BUILDING 1.25 ACRES (19.2% OF TOTAL ACREAGE)  
PAVING 2.16 ACRES (33.2% OF TOTAL ACREAGE)  
GREENSPACE 3.10 ACRES (47.6% OF TOTAL ACREAGE)  
TOTAL 6.51 ACRES
- ALL HVAC AND MECHANICAL UNITS ON SITE SHALL BE PROPERLY SCREENED AS REQUIRED BY CITY CODE. ROOFTOP UNITS SHALL BE SCREENED BY A PARAPET WALL THAT EXTENDS AROUND THE ENTIRE PERIMETER OF THE BUILDING; THE PARAPET SHALL HAVE A MINIMUM HEIGHT THAT IS AT LEAST AS TALL AS THE TALLEST UNIT MOUNTED ON THE ROOF. GROUND MOUNTED HVAC AND MECHANICAL UNITS SHALL BE SCREENED BY FENCING, VEGETATION, OR SOME OTHER MEANS APPROVED BY THE PLANNING AND ZONING COMMISSION, THAT HAS A MINIMUM HEIGHT THAT IS AT LEAST AS TALL AS THE TALLEST UNIT BEING SCREENED.
- STORMWATER DETENTION AND WATER QUALITY ARE TO BE PROVIDED ONSITE AS NOTED ON THE PLAN.
- THE PROPOSED USE WILL REQUIRE A CONDITIONAL USE PERMIT THAT WILL ALLOW A SENIOR COMMUNITY OVERLAY TO OCCUR WITHIN A C-2 ZONING DISTRICT. A CONDITIONAL USE HAS BEEN APPLIED FOR THIS SITE.
- OPEN SPACE STANDARDS AND PASSIVE/ACTIVE RECREATIONAL STANDARDS 400.162.E.1  
OPEN SPACE STANDARD - A MINIMUM OF 30% OF THE LOT AREA AS PERMANENT, PROTECTED OPEN SPACE. (THIS SITE PROVIDES 47.6% OPEN SPACE)  
A MINIMUM OF 40% OF THE REQUIRED OPEN SPACE SHALL BE USED FOR PASSIVE/ACTIVE RECREATIONAL PURPOSES. (40% x 30% = 12% REQUIRED THIS SITE PROVIDED THIS SITE = 24% (AREA CALCULATION INCLUDES THE SIDEWALK LOOP AROUND THE BUILDING AND DRIVES AND ALL THE GREENSPACE/WALKS UP TO THE BUILDING)

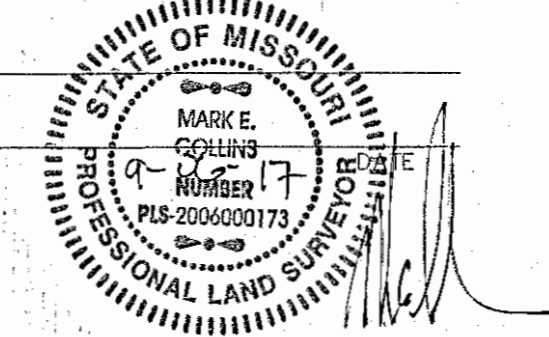
### AS-BUILT PUBLIC UTILITY FINAL MEASUREMENTS

THE FOLLOWING UTILITIES HAVE BEEN LOCATED AND MEASURED AND THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS:

- STORM SEWERS, STORM SEWER LENGTHS, STORM SEWER PIPE SIZES, STORM SEWER FLOWLINES AND DEPTHS OF STORM SEWER STRUCTURES.
- SANITARY SEWERS, SANITARY SEWER LENGTHS, SANITARY SEWER PIPE SIZES, SANITARY SEWER FLOWLINES AND DEPTHS OF SANITARY SEWER STRUCTURES.
- FIRE HYDRANTS
- WATER VALVES

ALL PUBLIC UTILITIES SHOWN HEREON AS BEING AS-BUILT ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS.

SIGNED:  
P.E./L.S.



### DRAWING INDEX

- CIVIL COVER SHEET
- SITE PLAN
- STORM/SANITARY PROFILES
- STORM DETAILS
- STORM DETAILS
- STORM DETAILS
- DUCKETT CREEK SANITARY DETAILS
- DUCKETT CREEK SANITARY DETAILS
- MISSOURI AMERICAN WATER DETAILS
- MISSOURI AMERICAN WATER DETAILS
- MISSOURI AMERICAN WATER DETAILS
- MISSOURI AMERICAN WATER DETAILS
- WATER QUALITY DETAILS
- WATER QUALITY DETAILS

### PLAN VIEW

NOT TO SCALE

### BENCHMARKS PROJECT

#### BENCHMARK:

PROJECT COORDINATES ARE MODIFIED MISSOURI STATE PLANE, EAST ZONE. COORDINATES PROJECT ELEVATIONS UTILIZE THE NAVD 83 VERTICAL DATUM AND ARE REFERENCED TO NGS MONUMENT "7-149" WITH A PID OF JC0547. SAID MONUMENT HAS A PUBLISHED ELEVATION OF 165.447M (542.80 FT). F-149 IS DESCRIBED AS: A STANDARD DISK, STAMPED F 149 1935 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 3 INCHES ABOVE GROUND. AT O'FALLON ST. CHARLES COUNTY, ON THE WABASH RAILROAD, IN THE SOUTHWEST CORNER OF THE O'FALLON CITY HALL PROPERTY (FORMERLY ST. MARY INSTITUTE YARD), 40' EAST OF MAIN STREET (HIGHWAY M) AND 45' NORTH OF THE CENTERLINE OF MAIN RAILROAD TRACK.

#### Site

#### BENCHMARK:

SITE BENCHMARK - "O" IN OPEN ON FIRE HYDRANT - ELEV=525.32  
DESCRIPTION: THE SITE BENCHMARK IS AN "O" IN OPEN ON A FIRE HYDRANT LOCATED ABOUT 100 FEET FROM THE INTERSECTION OF O'FALLON RD AND SUMMERSSET DRIVE.

| VEGETATION ESTABLISHMENT For Urban Development Sites APPENDIX A                   |  |
|---|--|
| <b>SEEDING RATES:</b>   |  |
| <b>PERMANENT:</b>   |  |
| Tall Fescue   | 150 lbs./ac.                                 |
| Smooth Brome  | 100 lbs./ac.                                 |
| Combined  | Fescue @ 75 lbs./ac. AND Brome @ 50 lbs./ac. |
| <b>TEMPORARY:</b>   |  |
| Wheat or Rye  | 150 lbs./ac. (3.5 lbs. per 1,000 s.f.)       |
| Oats  | 120 lbs./ac. (2.75 lbs. per 1,000 s.f.)      |
| <b>SEEDING PERIODS:</b>   |  |
| Fescue or Brome   | March 1 to June 1                            |
| Wheat or Rye  | March 15 to November 1                       |
| Oats  | March 15 to September 15                     |
| <b>MULCH RATES:</b>   |  |
| 100 lbs. per 1000 sq. ft. (4,356 lbs. per ac.)                                    |  |
| <b>FERTILIZER RATES:</b>  |  |
| Nitrogen  | 30 lbs./ac.                                  |
| Phosphate   | 30 lbs./ac.                                  |
| Potassium   | 30 lbs./ac.                                  |
| Lime  | 800 lbs./ac. ENM*                            |
| * ENM = effective neutralizing material as per State evaluation of quarried rock. |  |

#### GRADING QUANTITIES:

28,407 C.Y. CUT (INCLUDES SUBGRADES)  
35,757 C.Y. FILL (INCLUDES 8% SHRINKAGE)  
7,350 C.Y. SHORT IMPORT

THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.  
TOTAL INCLUDES ASPHALT PARKING LOT CALCULATIONS AND SOIL REMEDIATION AREAS UNDER THE BUILDING, ALL SIDEWALKS, HEAVY DUTY PAVED AREAS, LANDING CIRCLE STREET, AND BUILDING SLAB.

#### GRADING QUANTITIES:

27,523 C.Y. CUT (INCLUDES SUBGRADES)  
35,757 C.Y. FILL (INCLUDES 8% SHRINKAGE)  
8,234 C.Y. SHORT IMPORT

THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.  
TOTAL INCLUDES ALTERNATE PAVING SECTION AT PARKING LOT CALCULATIONS AND SOIL REMEDIATION AREAS UNDER THE BUILDING, ALL SIDEWALKS, HEAVY DUTY PAVED AREAS, LANDING CIRCLE STREET, AND BUILDING SLAB.

### LEGEND

|           |                               |   |                            |
|-----------|-------------------------------|---|----------------------------|
| 600.00    | EXISTING LABELS               | ⊗ | EXIST. SINGLE CURB INLET   |
| 600.00    | PROPOSED LABELS               | ⊗ | EXIST. AREA INLET          |
| CI        | SINGLE CURB INLET             | ⊗ | PROPOSED SINGLE CURB INLET |
| DCI       | DOUBLE CURB INLET             | ⊗ | PROPOSED AREA INLET        |
| AI        | AREA INLET                    | ⊗ | PROPOSED GRATE INLET       |
| DAI       | DOUBLE AREA INLET             | ⊗ | EXIST. SANITARY MANHOLE    |
| GI        | GRATE INLET                   | ⊗ | EXIST. STORM MANHOLE       |
| DGI       | DOUBLE GRATE INLET            | ⊗ | PROPOSED MANHOLE           |
| MH        | MANHOLE                       | ⊗ | POWER POLE                 |
| FE        | FLARED END SECTION            | ⊗ | GUY WIRE                   |
| EP        | END PIPE                      | ⊗ | LIGHT STANDARD             |
| CP        | CONCRETE PIPE                 | ⊗ | FIRE HYDRANT               |
| RCP       | REINFORCED CONCRETE PIPE      | ⊗ | WATER METER                |
| CMP       | CORRUGATED METAL PIPE         | ⊗ | WATER VALVE                |
| CPP       | CORRUGATED PLASTIC PIPE       | ⊗ | GAS VALVE                  |
| PVC       | POLY VINYL CHLORIDE (PLASTIC) | ⊗ | TELEPHONE PEDESTAL         |
| CO        | CLEAN OUT                     | ⊗ | SIGN                       |
| ~         | SLOPE LIMITS                  | ⊗ | TREE                       |
| ---       | DRAINAGE SWALE                |   |                            |
| ---STM--- | EXISTING STORM SEWER          |   |                            |
| ---SAN--- | EXISTING SANITARY SEWER       |   |                            |
| ---W---   | EXISTING WATER LINE           |   |                            |
| ---FO---  | EXISTING FIBER OPTIC LINE     |   |                            |
| ---GAS--- | EXISTING GAS LINE             |   |                            |
| ---UG---  | EXISTING UNDERGROUND ELECTRIC |   |                            |
| ---OHV--- | EXISTING OVERHEAD ELECTRIC    |   |                            |
| ---CTV--- | EXISTING CABLE TV LINE        |   |                            |
| ---T---   | EXISTING TELEPHONE LINE       |   |                            |
| ---       | PROPOSED STORM SEWER          |   |                            |
| ---       | PROPOSED SANITARY SEWER       |   |                            |
| ---X---   | FENCE LINE                    |   |                            |
| ---       | SAWCUT LINE                   |   |                            |

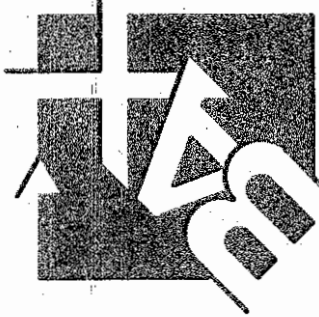
CITY APPROVAL OF ANY CONSTRUCTION SITE PLANS DOES NOT MEAN THAT ANY BUILDING CAN BE CONSTRUCTED ON THE LOTS WITHOUT MEETING THE BUILDING SETBACKS AS REQUIRED BY THE ZONING CODES. ALL INSTALLATIONS AND CONSTRUCTION SHALL CONFORM TO THE APPROVED ENGINEERING DRAWINGS. HOWEVER, IF THE DEVELOPER CHOOSES TO MAKE MINOR MODIFICATIONS IN DESIGN AND/OR SPECIFICATIONS DURING CONSTRUCTION, THEY SHALL MAKE SUCH CHANGES AT THEIR OWN RISK, WITHOUT ANY ASSURANCE THAT THE CITY ENGINEER WILL APPROVE THE COMPLETED INSTALLATION OR CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO NOTIFY THE CITY ENGINEER OF ANY CHANGES FROM THE APPROVED DRAWINGS. THE DEVELOPER MAY BE REQUIRED TO CORRECT THE INSTALLED IMPROVEMENT SO AS TO CONFORM TO THE APPROVED ENGINEERING DRAWINGS. THE DEVELOPER MAY REQUEST A LETTER FROM THE CONSTRUCTION INSPECTION DIVISION REGARDING ANY FIELD CHANGES APPROVED BY THE CITY INSPECTOR. LIGHTING VALUES WILL BE REVIEWED ON SITE PRIOR TO THE FINAL OCCUPANCY INSPECTION.

CITY OF O'FALLON  
COMMUNITY DEVELOPMENT DEPARTMENT  
ACCEPTED FOR CONSTRUCTION  
BY: Jamie Shadle DATE: 09/12/2017  
PROFESSIONAL ENGINEER'S SEAL  
INDICATES RESPONSIBILITY FOR DESIGN

PROJECT TITLE:  
AS-BUILT PLANS FOR  
THE LANDING OF O'FALLON

ENGINEERING  
PLANNING  
SURVEYING

231 Point West Blvd.  
St. Charles, MO 63301  
636-928-5658  
FAX 636-1718



DISCLAIMER OF RESPONSIBILITY  
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

CLIFFORD L. HEITMANN  
CIVIL ENGINEER  
E-29817

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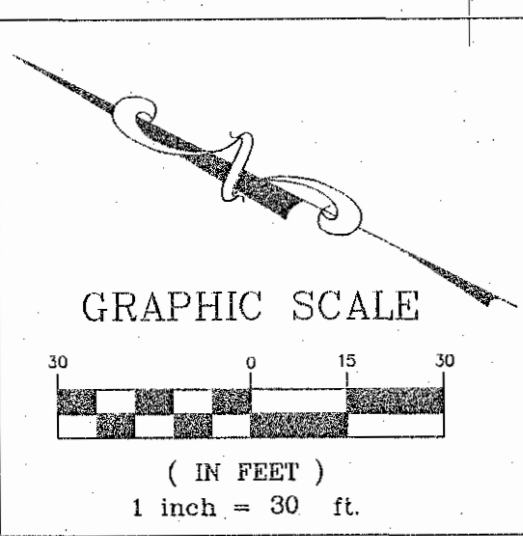
#### REVISIONS

| NO. | DESCRIPTION |
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|     |             |

Developer / Owner:  
WEGMANN O'FALLON, LLC  
560 LATONA ROAD, BUILDING A  
ROCHESTER, NEW YORK 14626  
1-585-563-1390

CIVIL COVER SHEET

P+Z No. 20-16.02  
City No. 16-010424  
Page No. 1 of 14



| Line # | Length | Direction   |
|--------|--------|-------------|
| L1     | 8.58'  | N27°27'54"W |
| L2     | 50.85' | S62°32'06"W |
| L3     | 4.50'  | S03°57'45"E |
| L4     | 60.00' | S88°08'48"W |
| L5     | 75.55' | S01°51'12"E |

| Curve # | Length | Radius  |
|---------|--------|---------|
| C1      | 71.78' | 175.00' |
| C2      | 41.82' | 26.00'  |

PROPERTY N/F  
THOMAS AND HOLLIE BLACK  
6053/1628  
UNINCORPORATED COUNTY  
ZONED R-1E SINGLE FAMILY

PROPERTY N/F  
KEVIN AND MARY BUESCHER  
2637/1767  
UNINCORPORATED COUNTY  
ZONED R-1E SINGLE FAMILY

PROPERTY N/F  
MICHAEL AND VICTORIA SPILLER  
1339/1336  
UNINCORPORATED COUNTY  
ZONED R-1E SINGLE FAMILY

PROPERTY N/F  
TIM AND RITA HAYNES  
1127/484  
UNINCORPORATED COUNTY  
ZONED R-1E SINGLE FAMILY

PROPERTY N/F  
ERIC AND CAROL BALLARD  
1385/733  
UNINCORPORATED COUNTY  
ZONED R-1E SINGLE FAMILY

PROPERTY N/F  
WILLIAM AND MARIA THOMASON  
1529/825  
UNINCORPORATED COUNTY  
ZONED R-1E SINGLE FAMILY

STA 27+50  
FL=5914.50  
EXISTING 30" PVC DUCKET  
CREEK FORCEMAIN

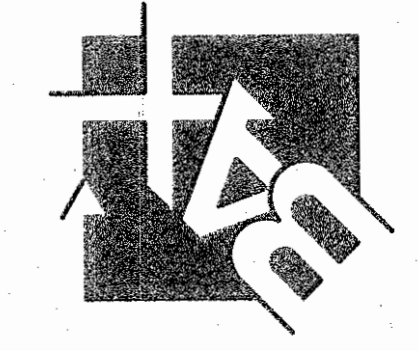
30" PVC FORCEMAIN FROM STA 27+50  
TO STA 29+45.85 IS LAD @ 0.00%  
EXISTING 30" FORCEMAIN  
3' FROM EXISTING EASEMENT LINE  
PLACEMENT FROM DUCKET CREEK  
PLANS DATED 1/24/99 - NO TRACER  
WIRE INSTALLED TO DETERMINE EXACT  
LOCATION IN FIELD

STA 29+45.85  
FL=5914.50  
EXISTING 30" PVC DUCKET  
CREEK FORCEMAIN

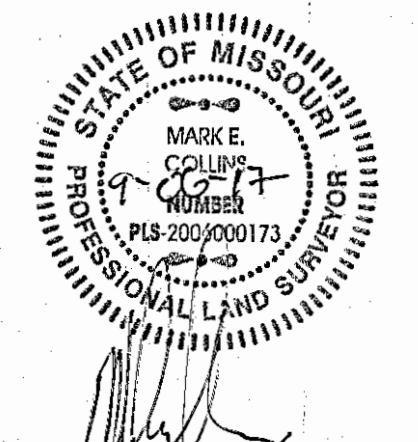
PROPERTY  
JAMES IIIA  
AND STEPH  
THOMAS  
4981/723  
CITY OF O'F  
ZONED R-2

PROPERTY  
RAMPRASATH S  
RAMALINGAM PH  
AND SUGANTHI  
GNANESWAR  
6301/64  
CITY OF O'F  
ZONED R-2

ENGINEERING  
PLANNING  
SURVEYING  
221 Point West Blvd.  
St. Charles, MO 63301  
636-926-5552  
FAX 636-926-1718



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I hereby certify that the documents intended to be  
authentic and true copies of the original documents  
and I hereby disclaim any responsibility for all other  
drawings, specifications, estimates, reports or other  
documents or instruments relating to or intended to  
be used for any part or parts of the architectural or  
engineering project or survey.



REVISIONS

| NO. | DATE | DESCRIPTION |
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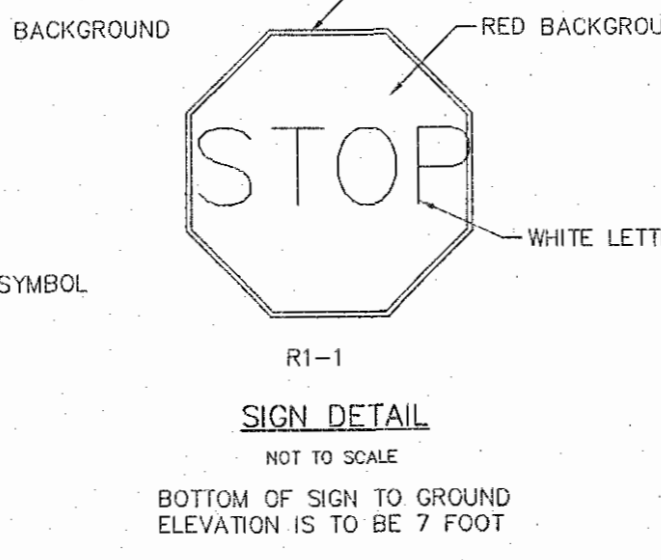
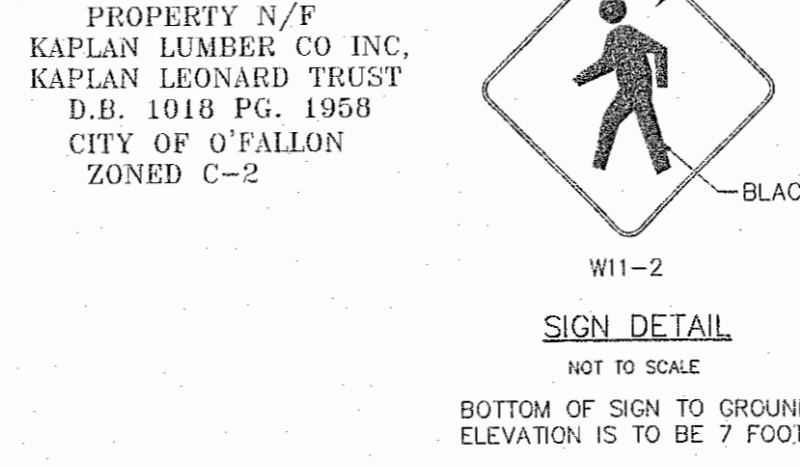
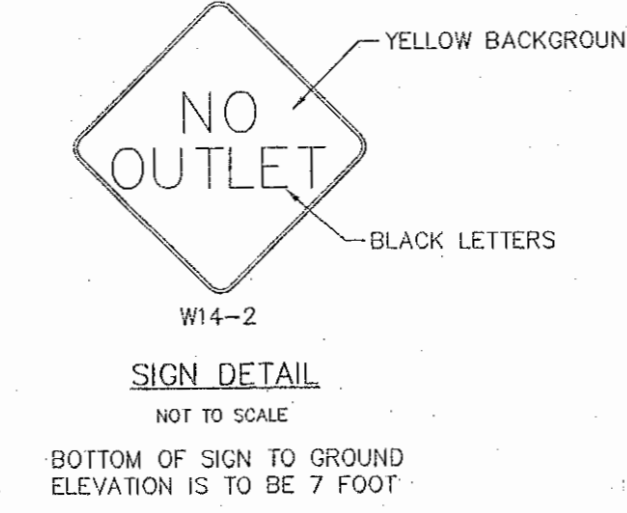
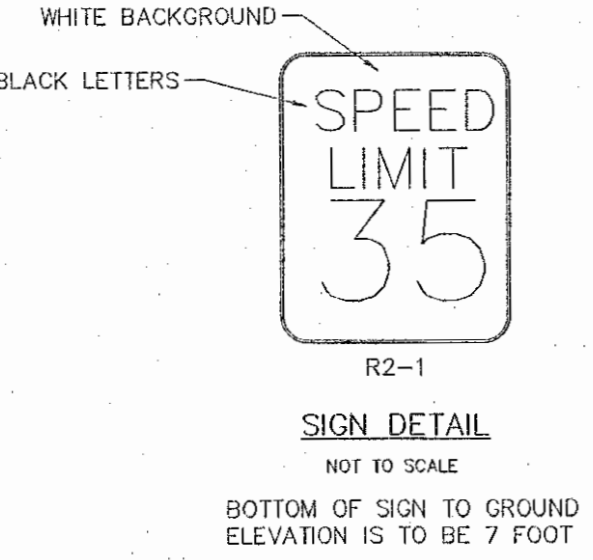
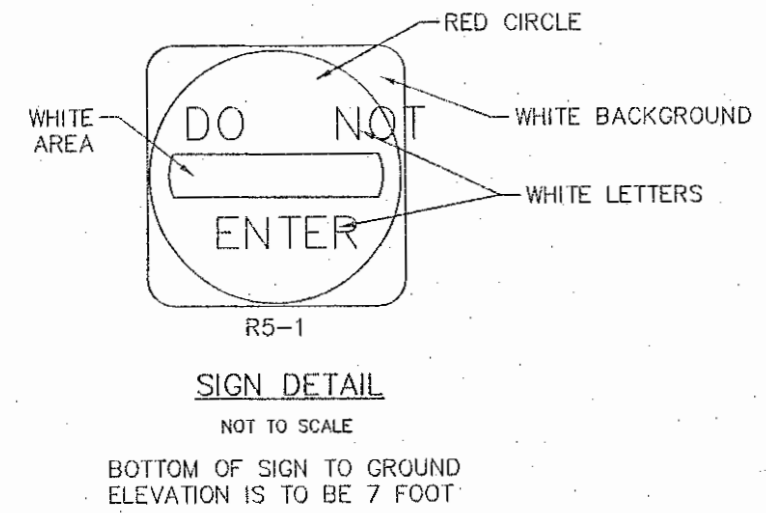
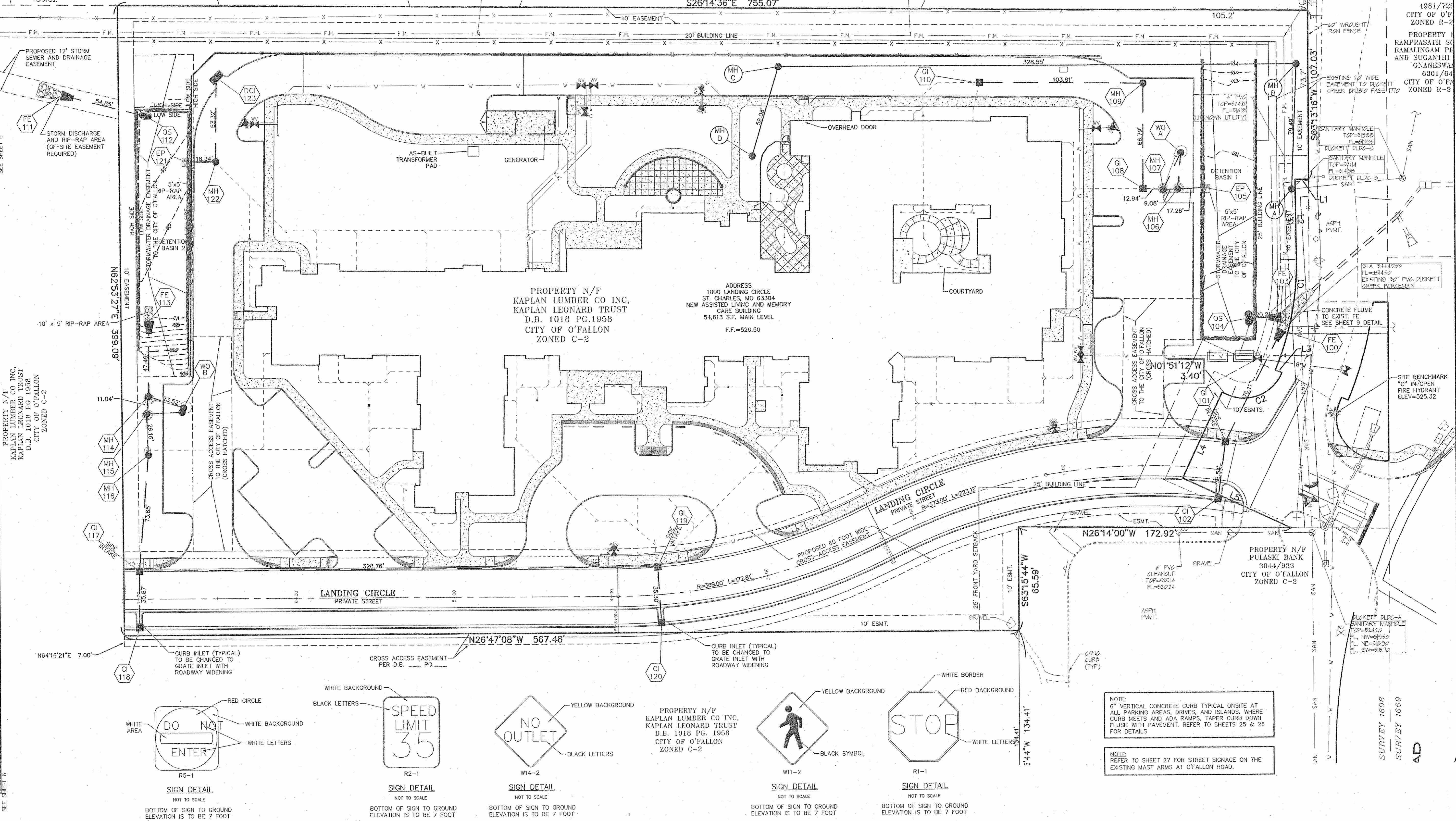
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P+Z No. 20-16.02  
City No. 16-010424

Page No. 2 of 14

SITE PLAN

Issue Date: 04/13/2017

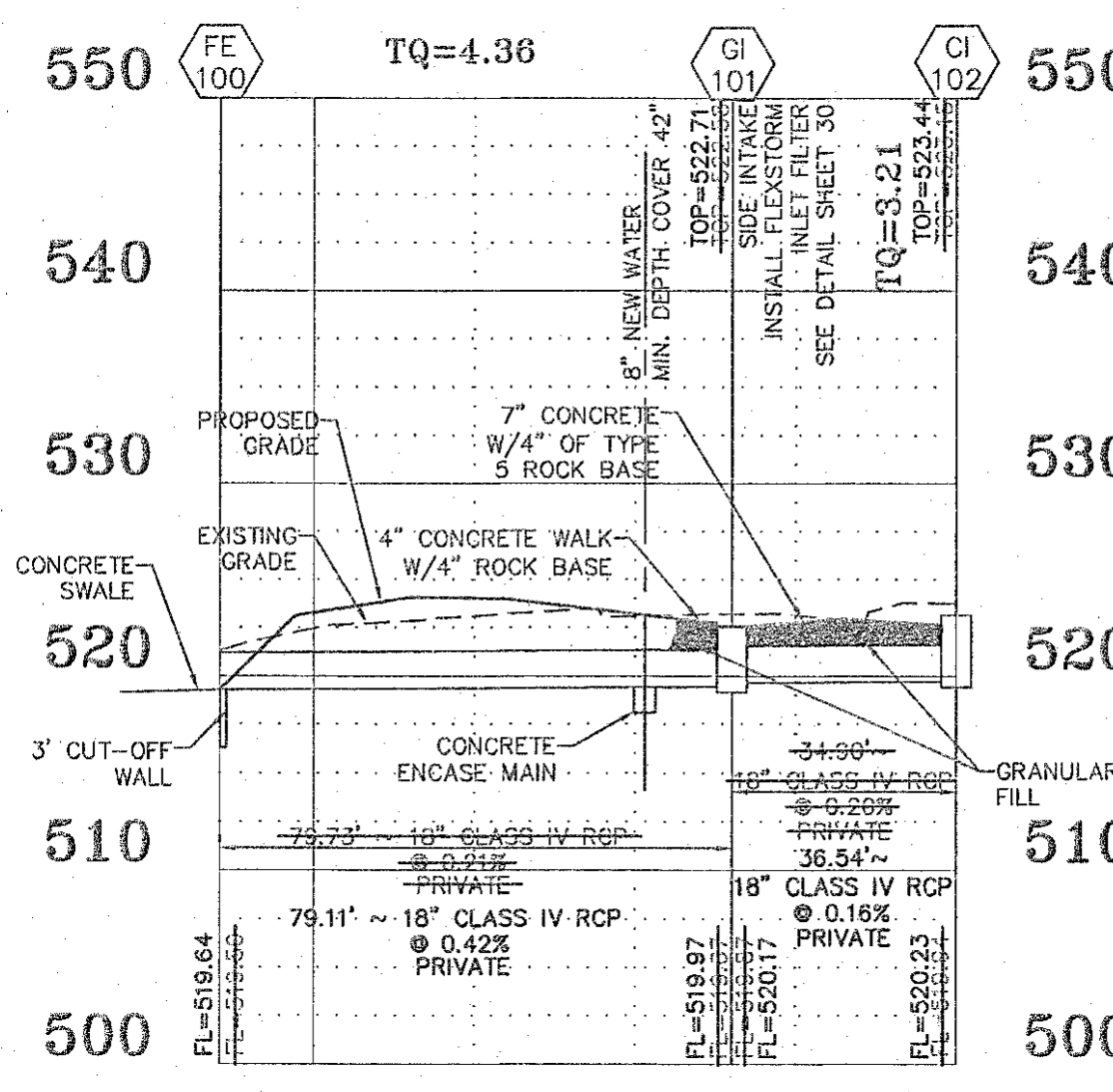


NOTE:  
6" VERTICAL CONCRETE CURB TYPICAL ON SITE AT  
ALL PARKING AREAS, DRIVES, AND ISLANDS WHERE  
CURB MEETS AND ADA RAMPS. TAPER CURB DOWN  
FLUSH WITH PAVEMENT. REFER TO SHEETS 25 & 26  
FOR DETAILS

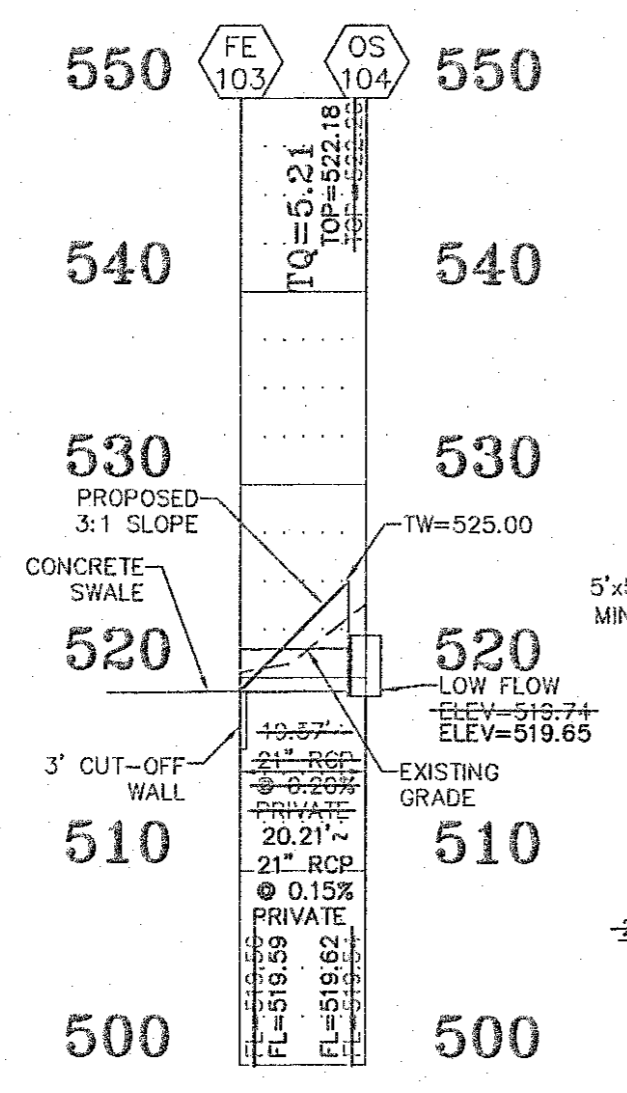
NOTE:  
REFER TO SHEET 27 FOR STREET SIGNAGE ON THE  
EXISTING MAST ARMS AT O'FALLON ROAD.

MATCHLINE  
SEE SHEET 6

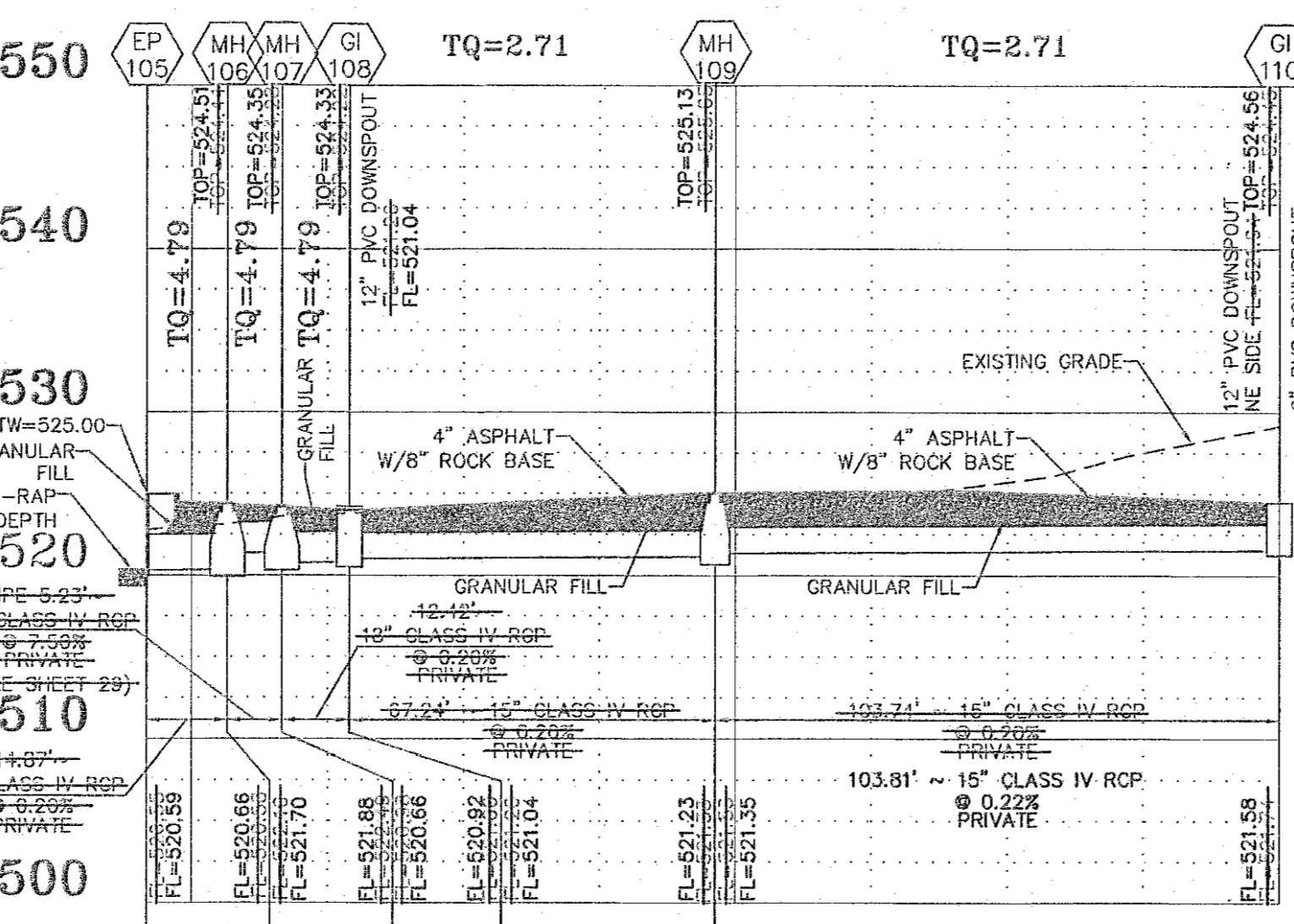
SURVEY 1696  
SURVEY 1669  
AD



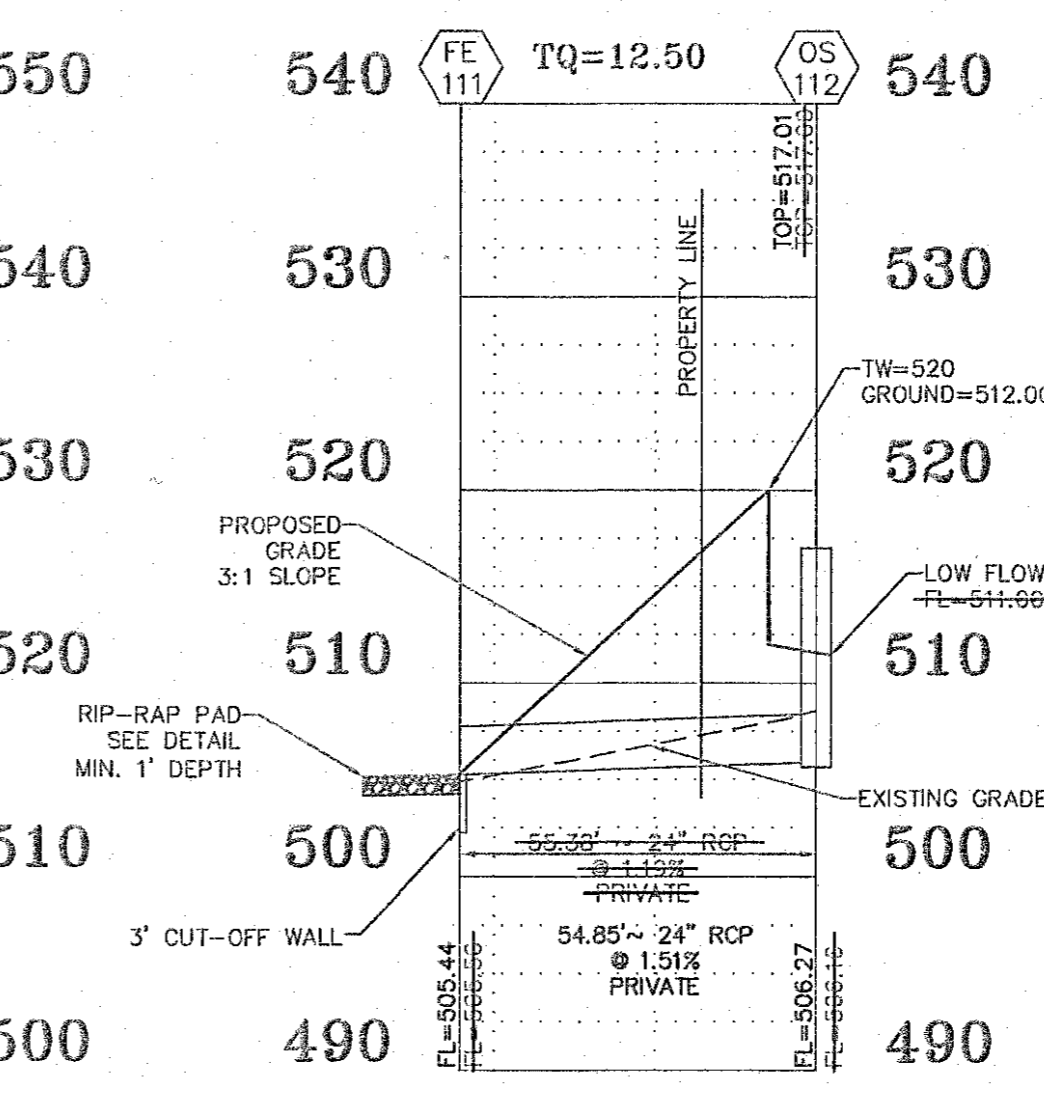
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



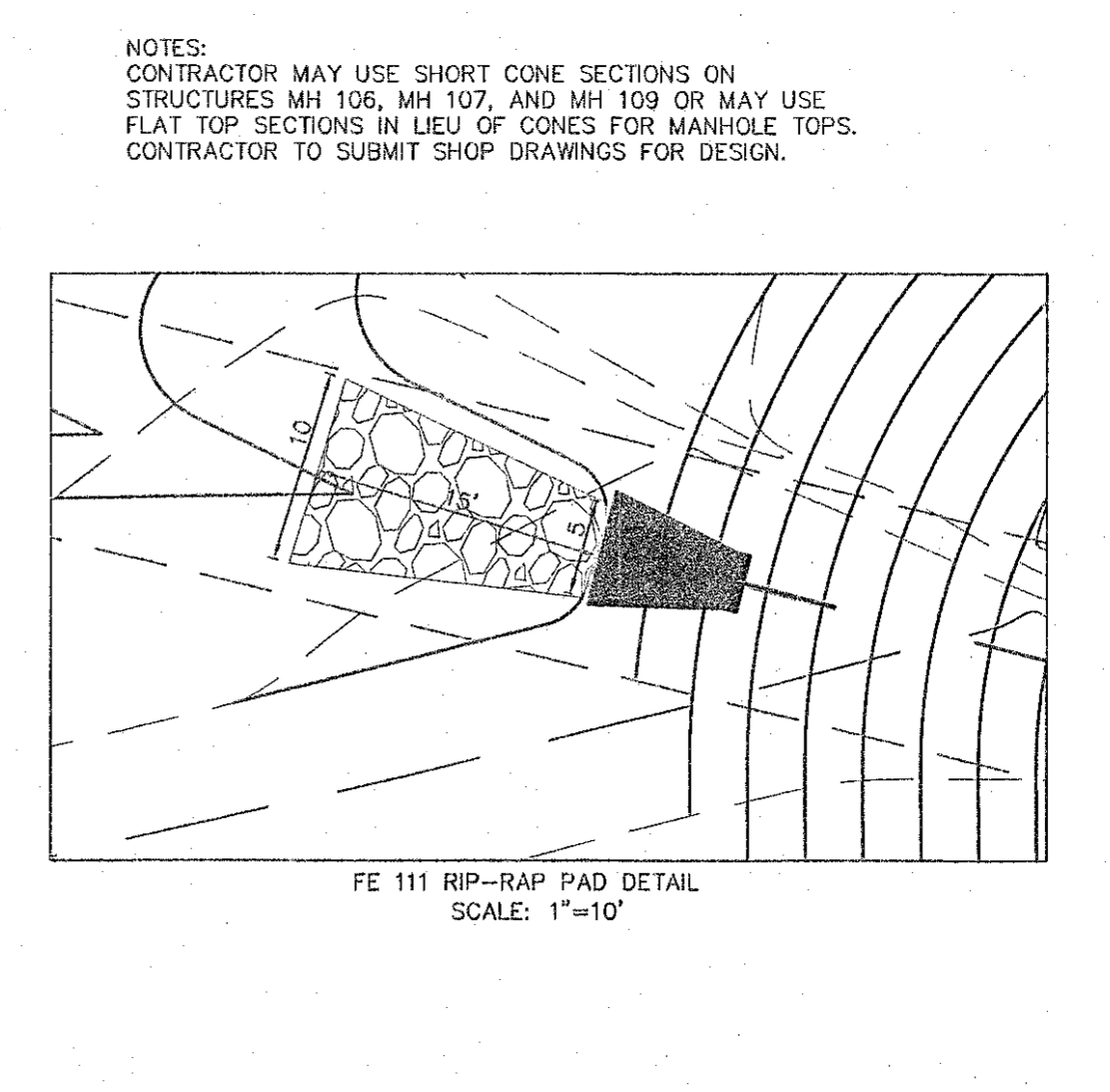
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



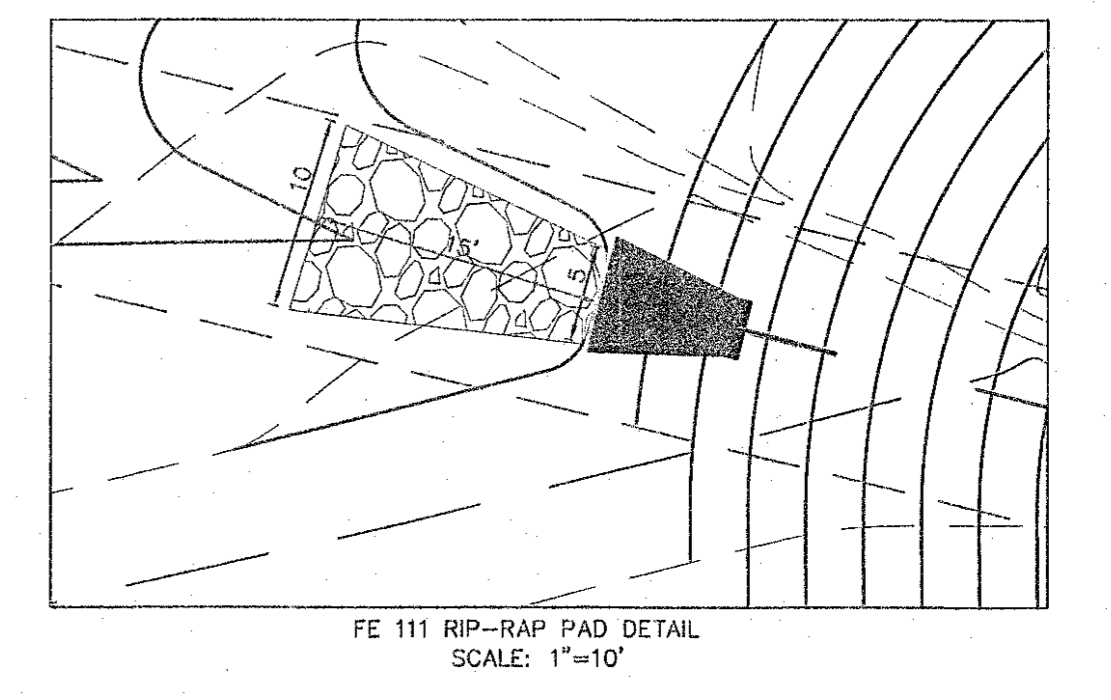
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



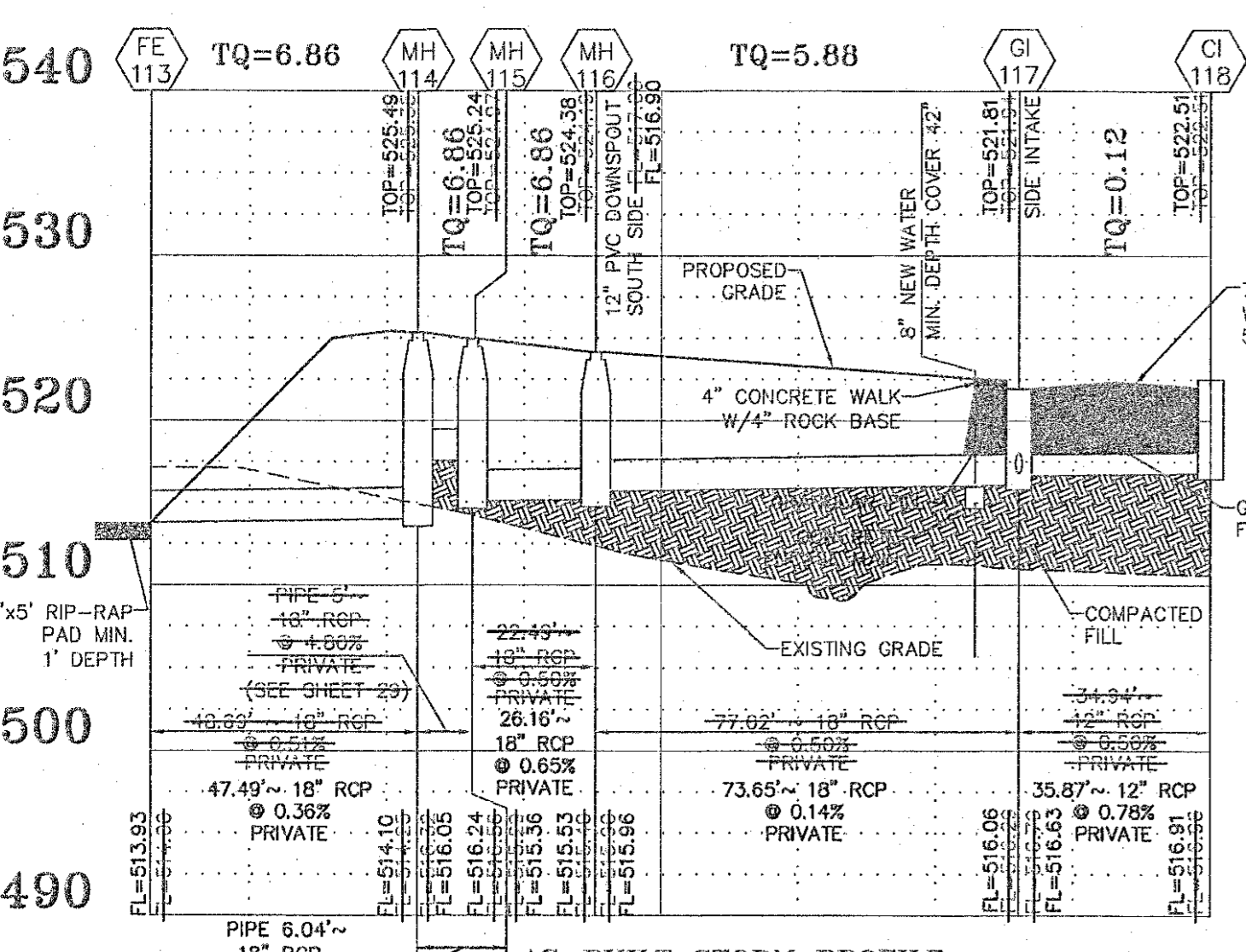
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



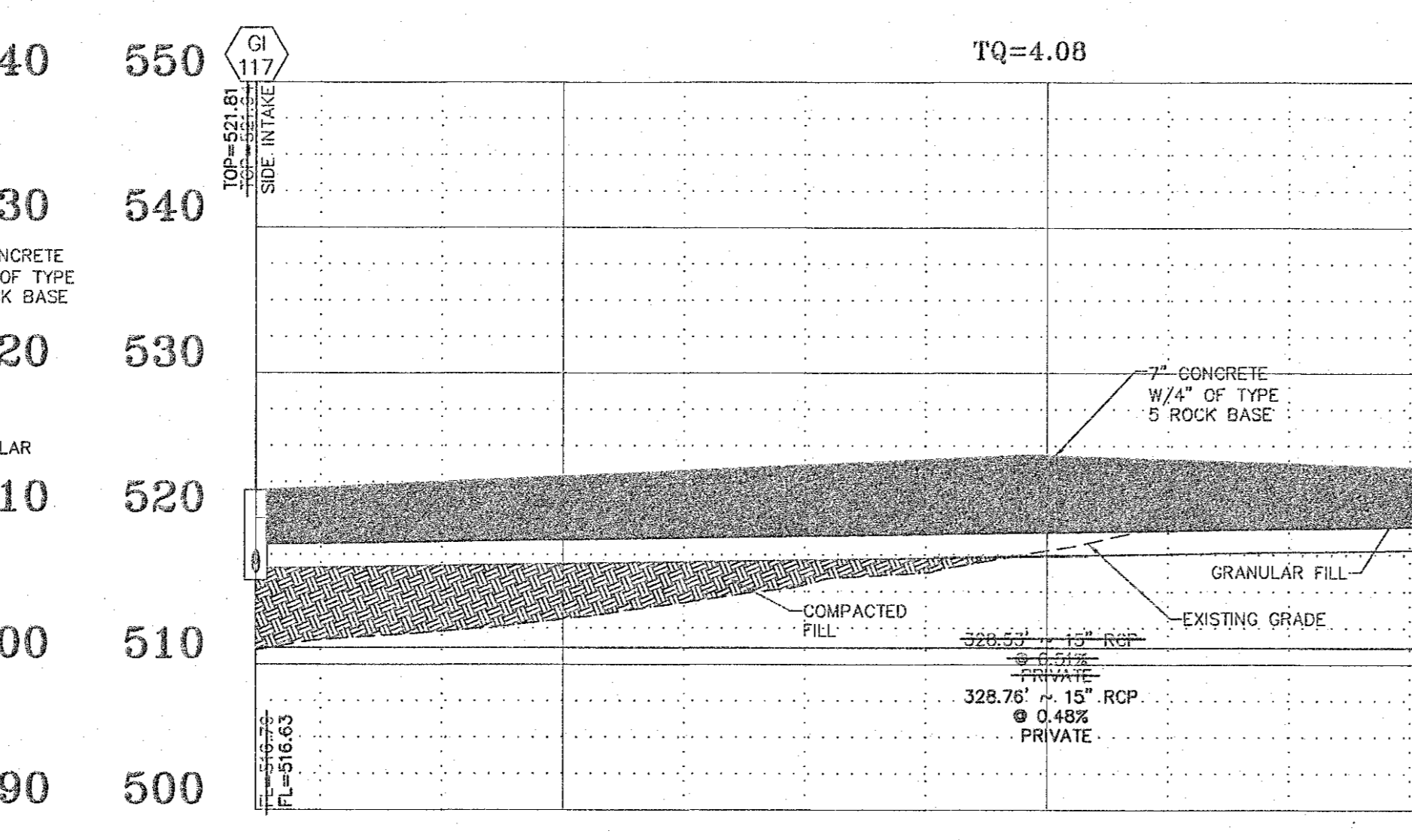
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



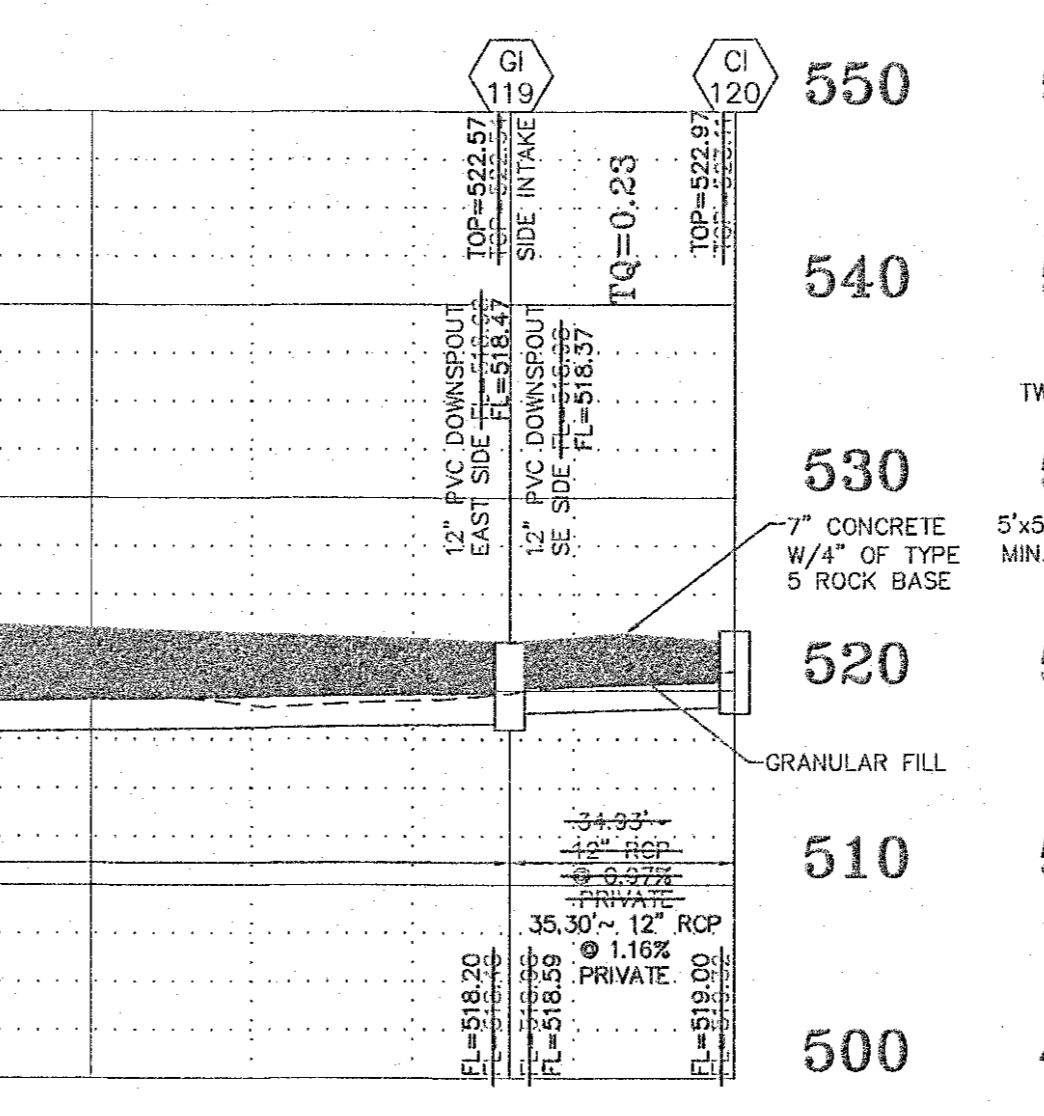
NOTES:  
CONTRACTOR MAY USE SHORT CONE SECTIONS ON STRUCTURES MH 106, MH 107, AND MH 109 OR MAY USE FLAT TOP SECTIONS IN LIEU OF CONES FOR MANHOLE TOPS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR DESIGN.



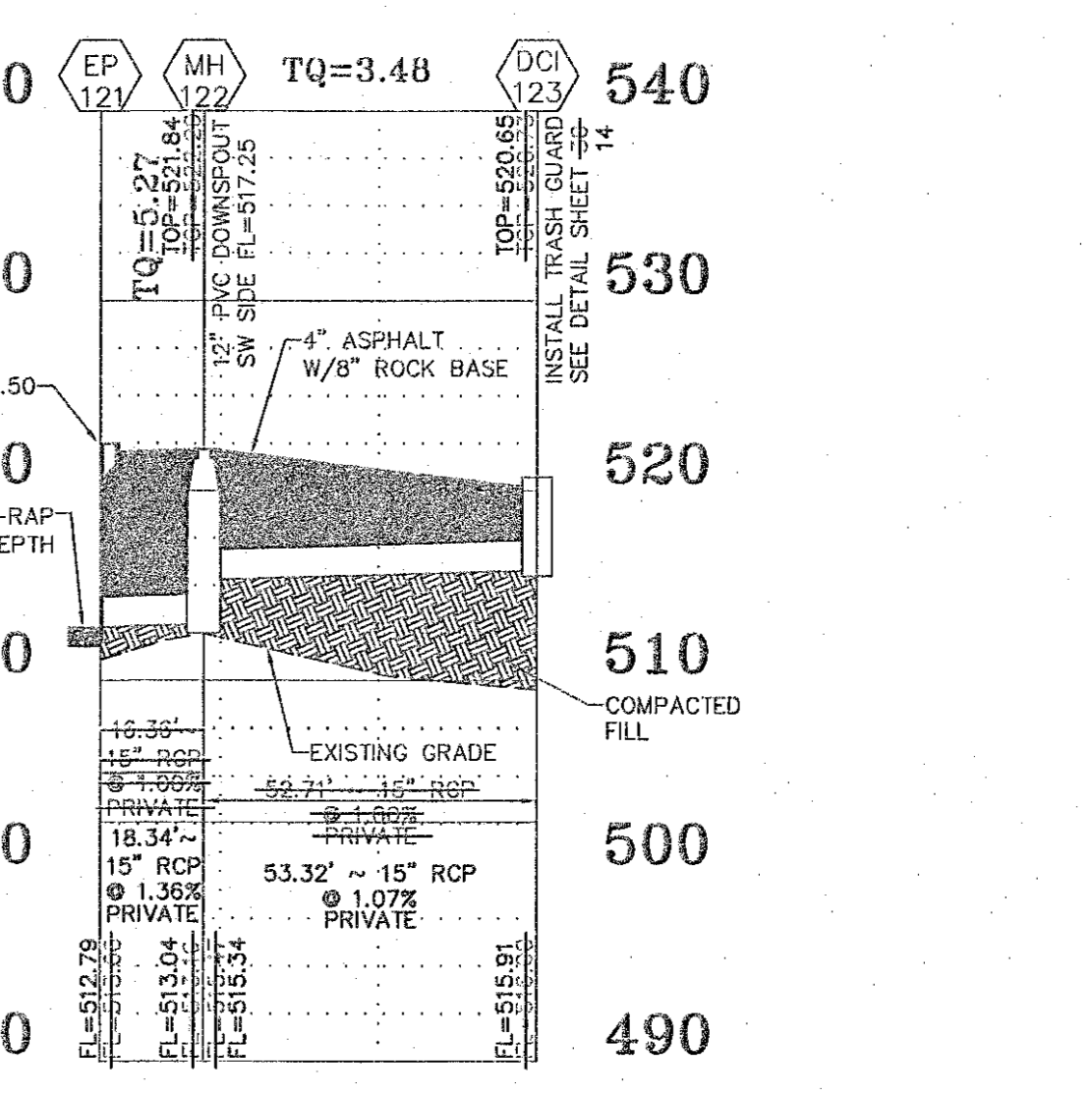
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



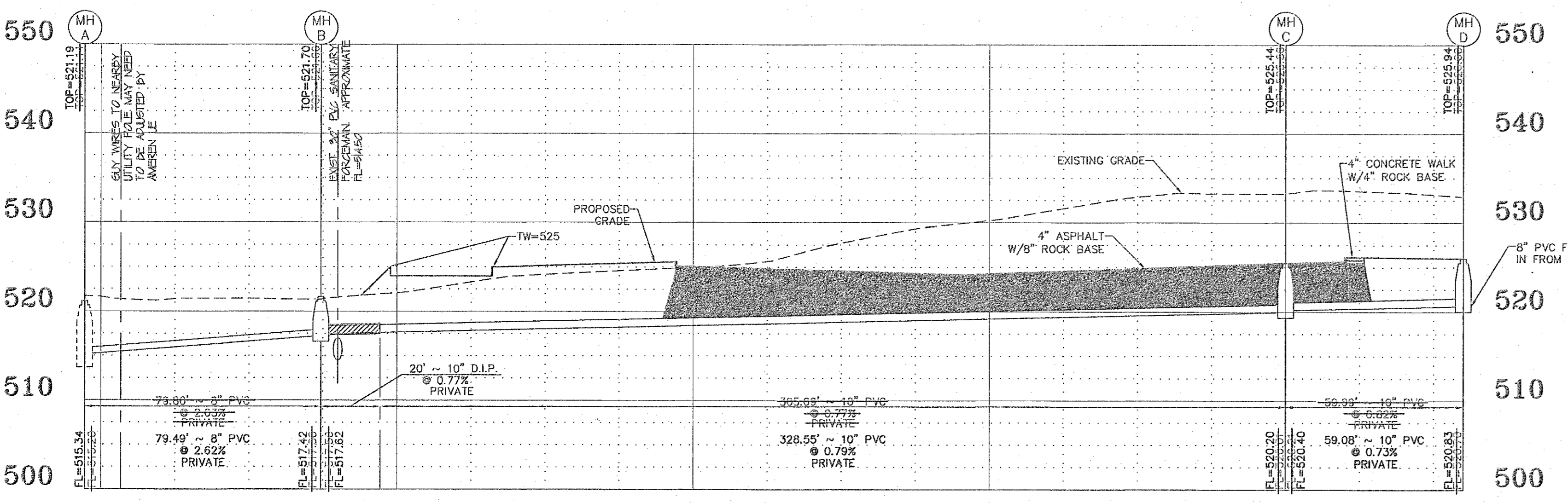
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



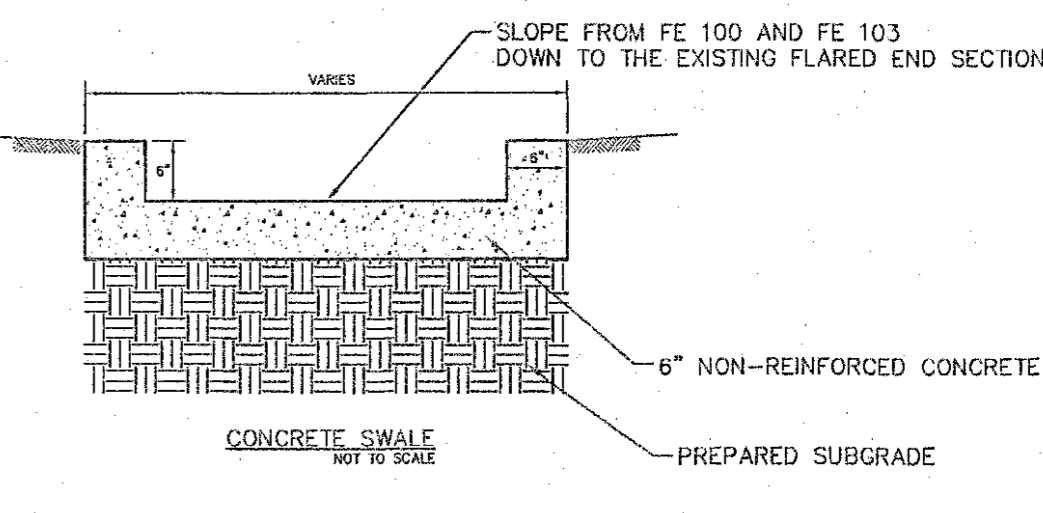
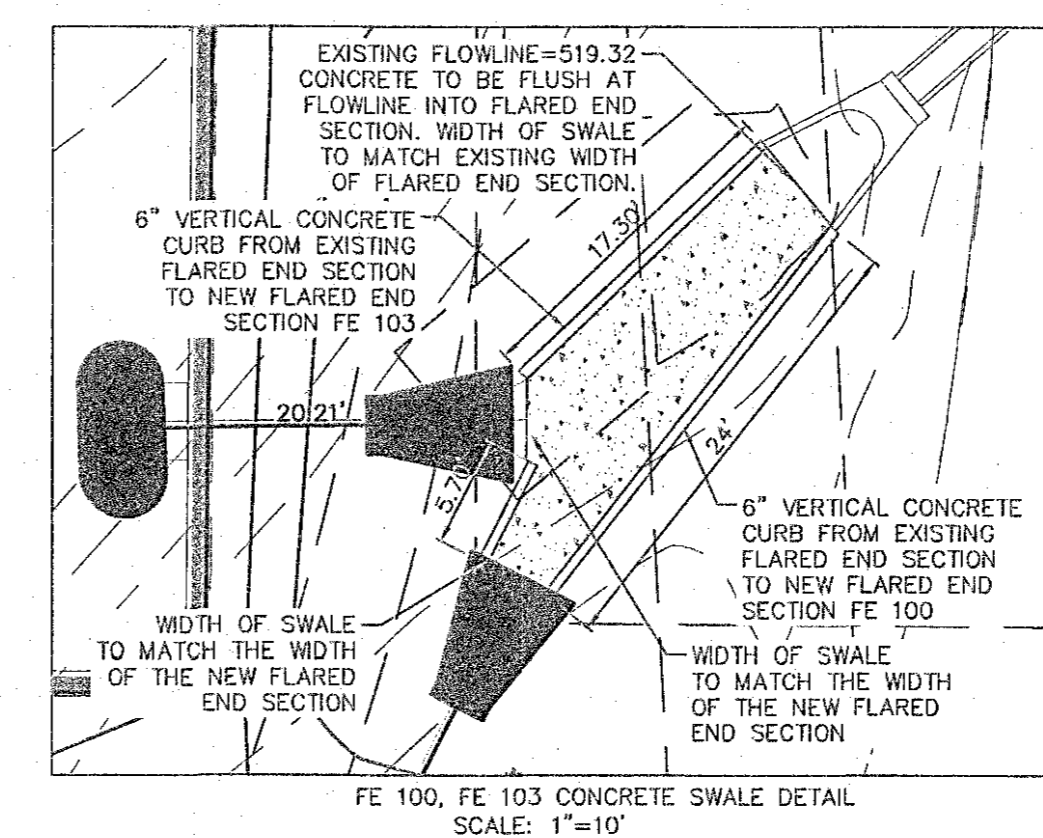
AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



AS-BUILT STORM PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



AS-BUILT SANITARY PROFILE  
HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'



**PROJECT TITLE:**  
AS-BUILT PLANS FOR THE LANDING OF OFALLON

**ENGINEERING**  
PLANNING  
SURVEYING

24 Point West Blvd.  
St. Charles, MO 63301  
636-928-5532  
FAX 636-928-1718

**DISCLAIMER OF RESPONSIBILITY:**  
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relative to or intended to be used for any part or parts of the architectural or engineering project.

**STATE OF MISSOURI**  
CLIFFORD L. HEIMANN  
CIVIL ENGINEER  
E-29817

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Engineering Authority No. 000655  
Surveying Authority No. 000144  
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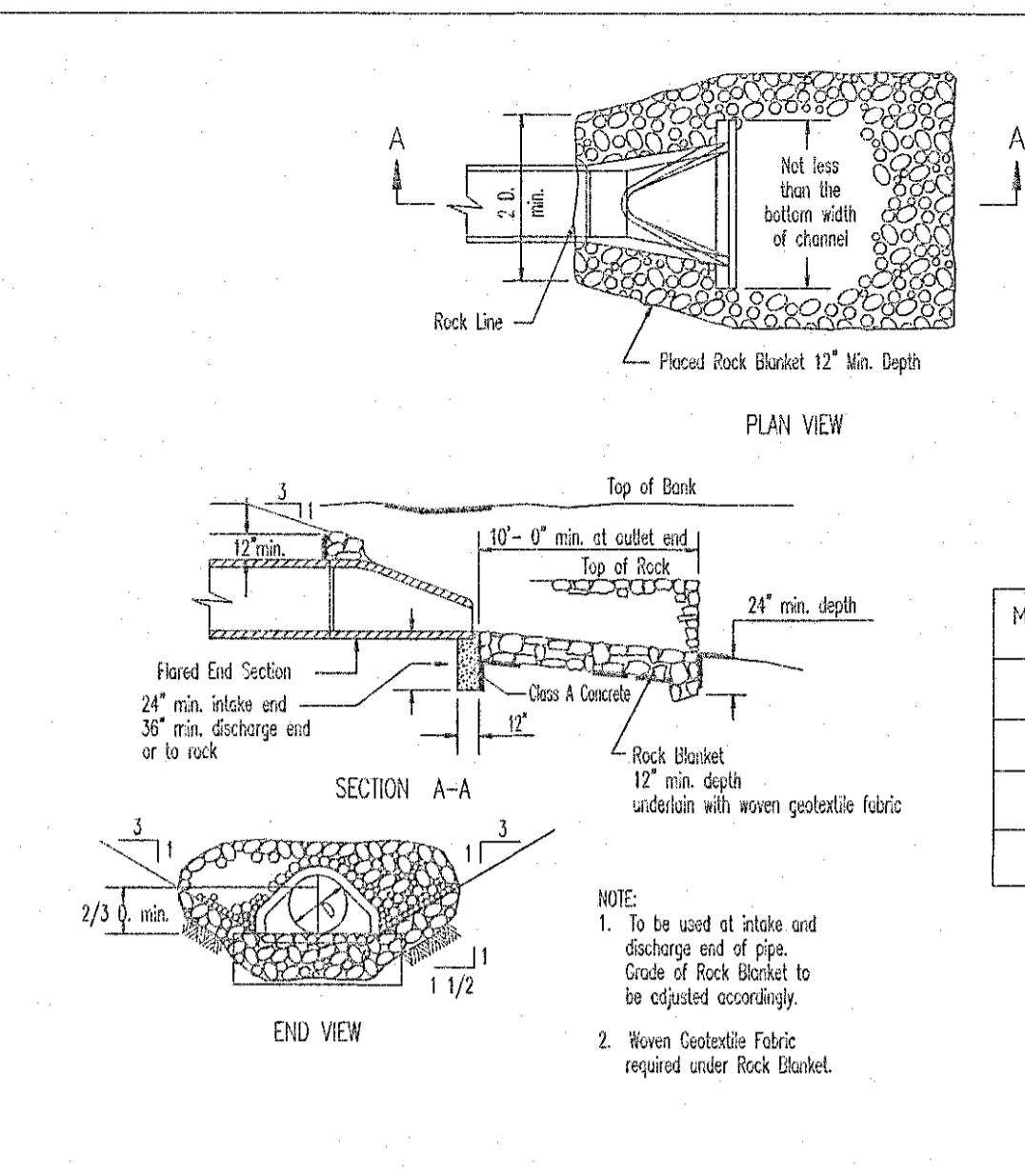
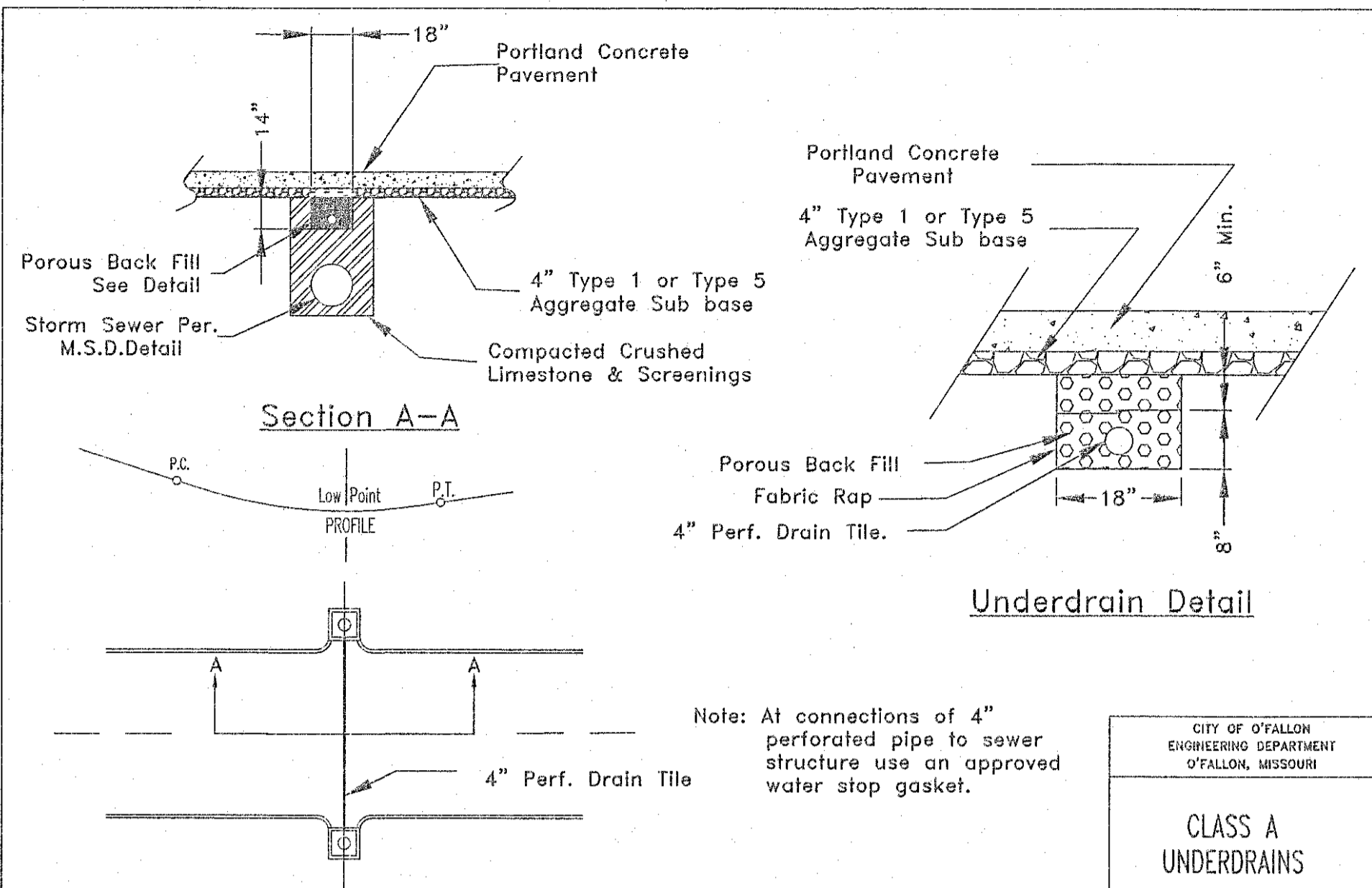
| REVISIONS |
|-----------|
|           |
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|           |
|           |

**Developer / Owner:**  
WEGMANN OF FALLON, LLC  
550 LATONA ROAD, BUILDING A  
ROCHESTER, NEW YORK 14626  
1-585-563-1930

**STORM/SANITARY PROFILES**

P+Z No. 20-16.02  
City No. 16-010424  
Page No. 3 of 14

Ex Project #06-130015E Issue Date: 04/19/2017



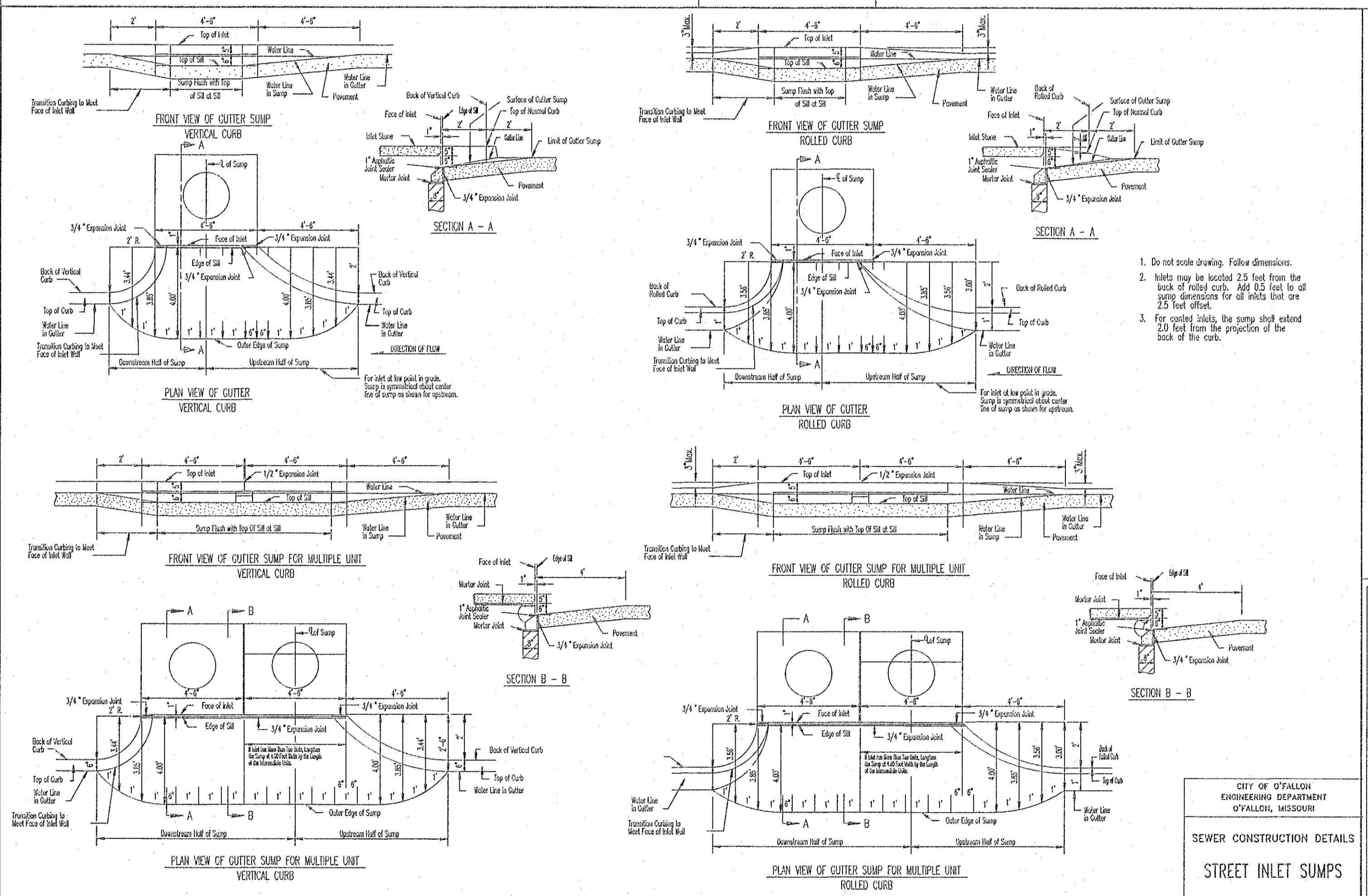
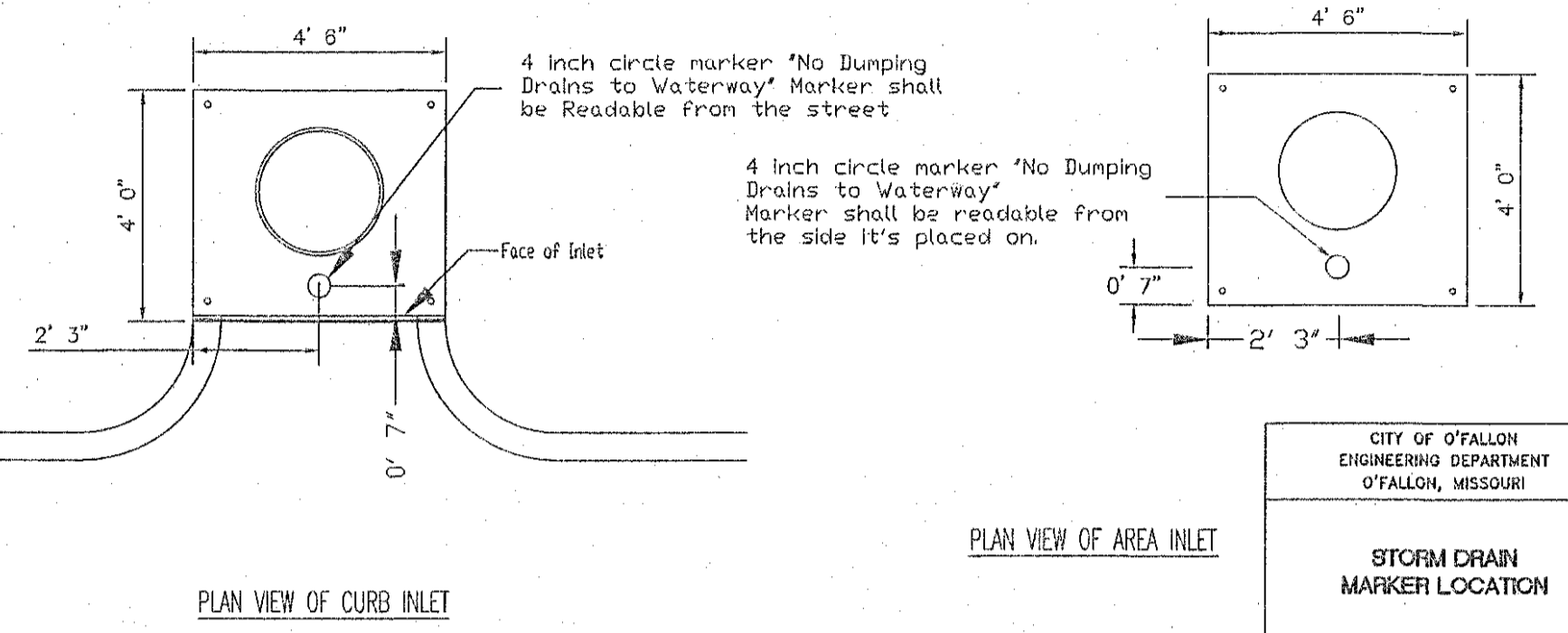
MSD Type 5 Rock Blanket (% By Weight Passing)

| Sieve    | Maximum | Minimum |
|----------|---------|---------|
| 12 inch  | 90      | 70      |
| 6 inch   | 30      | 10      |
| 1/2 inch | 5       | 0       |

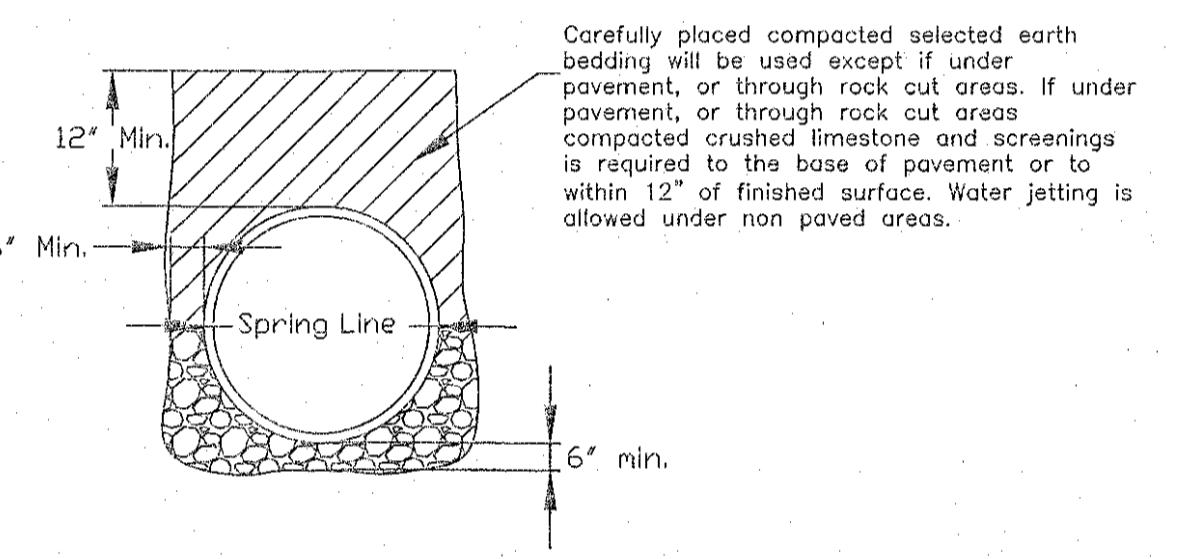
\* The discharge point of all flared end sections shall be protected by rip rap or other approved means.  
 \*\* Rip rap shown at flared end sections will be evaluated in the field by the Engineer, Contractor, and City Inspectors after installation for effectiveness and field modified, if necessary to reduce erosion on and off site.

\* The City of O'Fallon must be provided with a symbol/medallion for review and approval prior to installation. Contact the City if any information is needed.

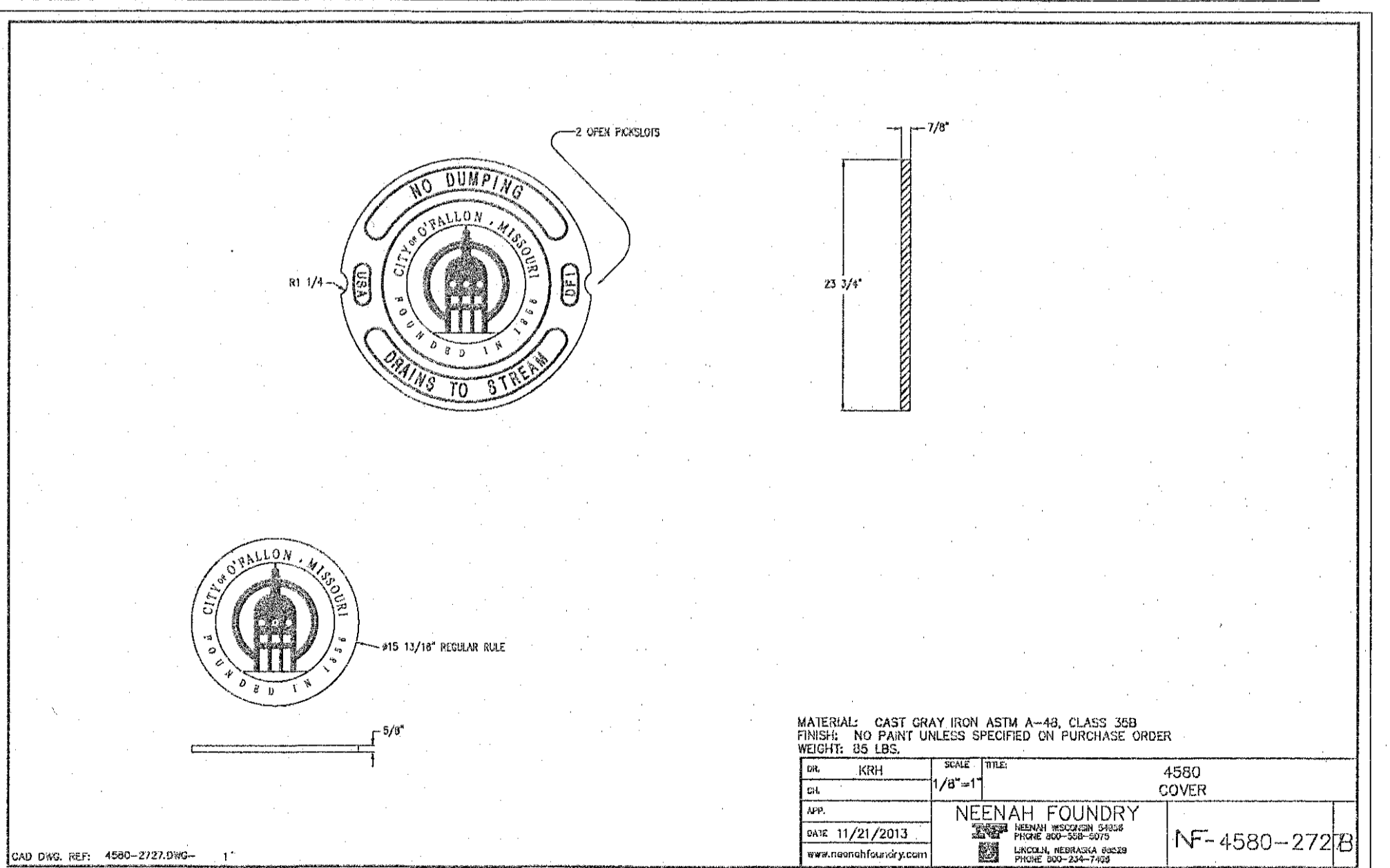
| Size         | Style                         | Adhesive | Message (Part B)              |
|--------------|-------------------------------|----------|-------------------------------|
| 3 7/8" TO 4" | Crystal Cap or Standard Style | Epoxy    | No Dumping Drains to Waterway |



- Do not scale drawing. Follow dimensions.
- Inlets may be located 2.5 feet from the back of rolled curb. Add 0.5 feet to all sump dimensions for all inlets that are 2.5 feet offset.
- For coated inlets, the sump shall extend 2.0 feet from the projection of the back of the curb.



Carefully placed compacted selected earth bedding will be used except if under pavement, or through rock cut areas. If under pavement, or through rock cut areas compacted crushed limestone and screenings is required to the base of pavement or to within 12" of finished surface. Water jetting is allowed under non paved areas.



MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 300  
 FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER  
 WEIGHT: 55 LBS.

| LINE | NOTE                  | SCALE   | ITEM           |
|------|-----------------------|---------|----------------|
| 01   |                       | 1/4"=1' | 4580 COVER     |
| APP  |                       |         | NEENAH FOUNDRY |
| DATE | 11/21/2013            |         |                |
| WWW  | www.neenahfoundry.com |         |                |

NF-4580-272B

PROJECT TITLE:  
**AS-BUILT PLANS FOR THE LANDING OF O'FALLON**

ENGINEERING SURVEYING  
 224 Point West Blvd.  
 St. Charles, MO 63301  
 636-928-5552  
 FAX 636-928-1718

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 I hereby specify that the documents intended to be submitted by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

REFERENCE DETAIL SHEET ONLY.  
 CONTRACTOR TO OBTAIN CURRENT DETAILS AND SPECIFICATIONS FROM THE CITY OF O'FALLON.

REVISIONS

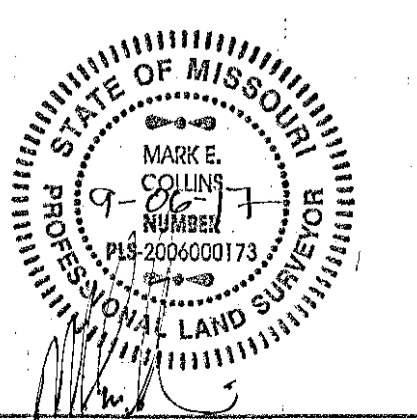
| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |
|     |             |
|     |             |
|     |             |

Developer / Owner:  
**WEGMANN O'FALLON, LLC**  
 560 LATONA ROAD, BUILDING A  
 ROCHESTER, NEW YORK 14626  
 1-585-563-1390

STORM SEWER DETAILS

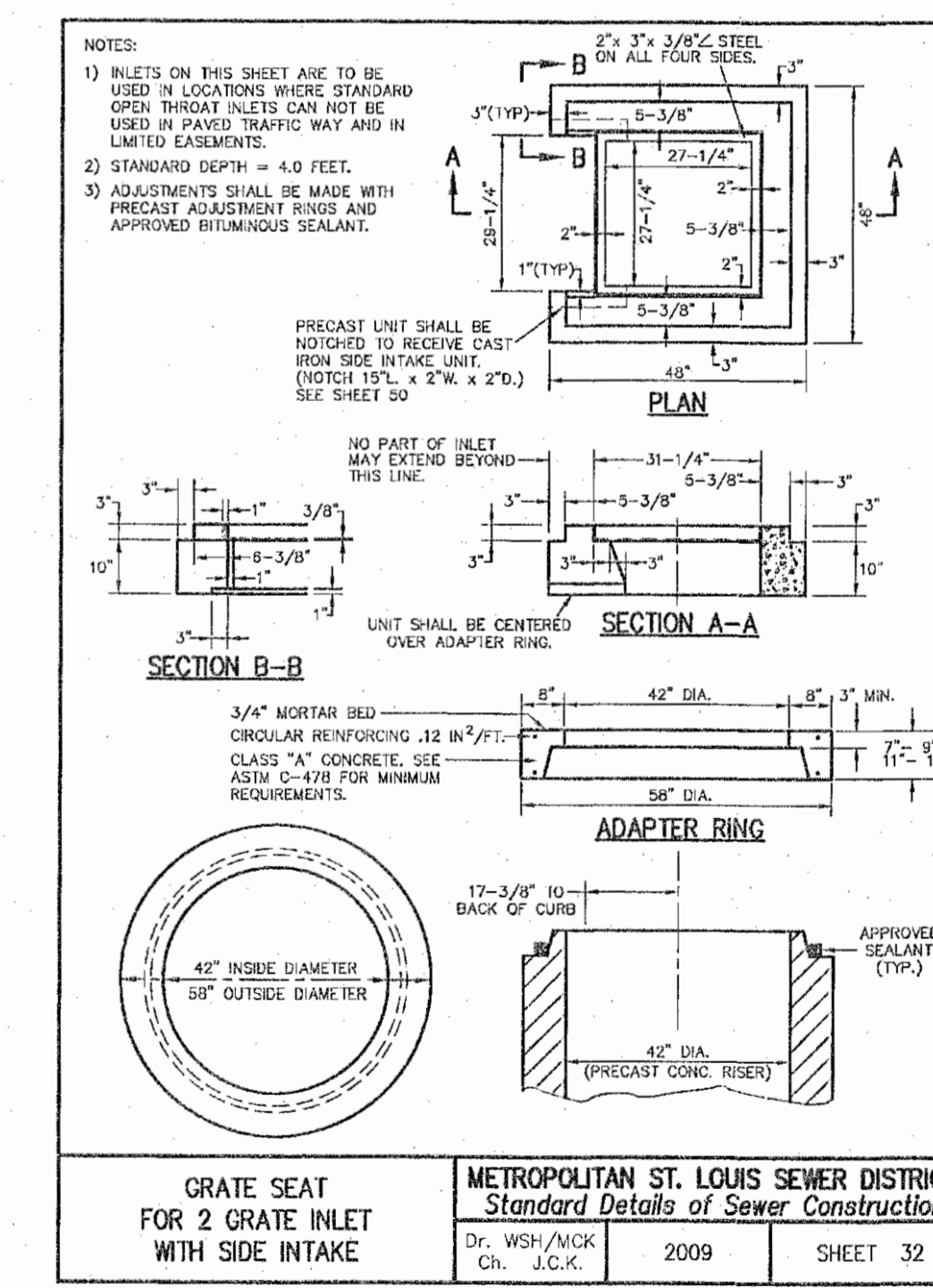
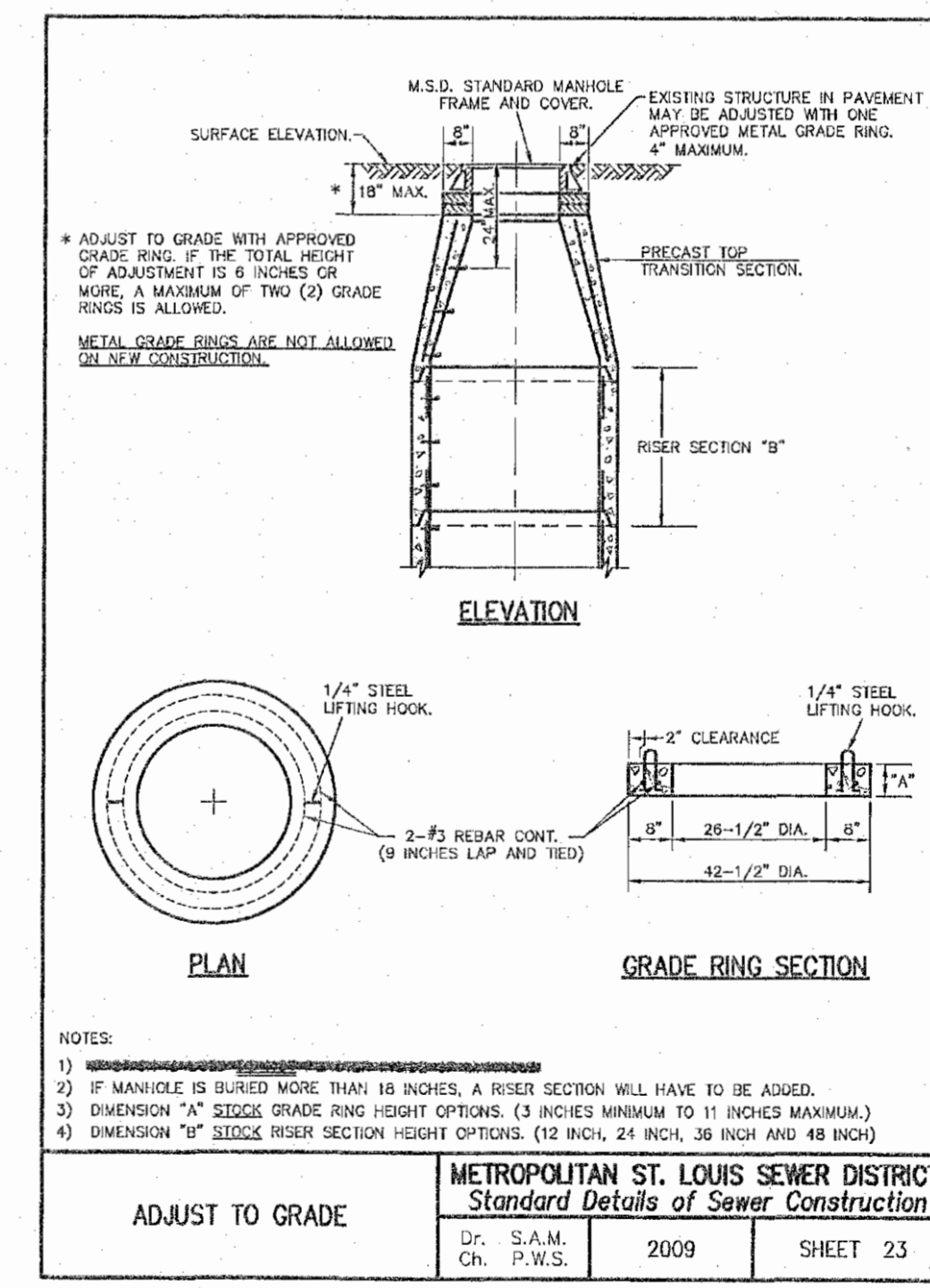
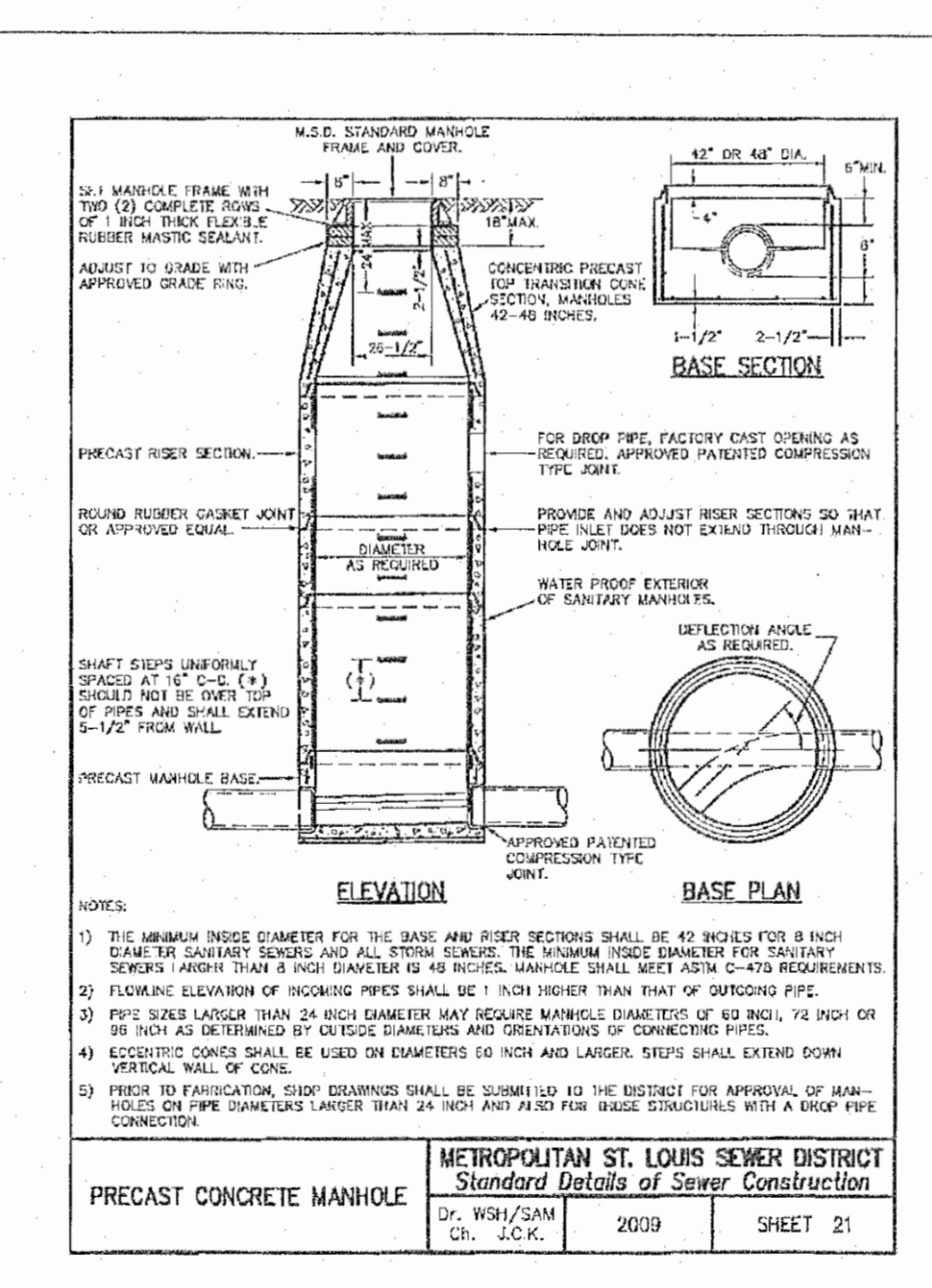
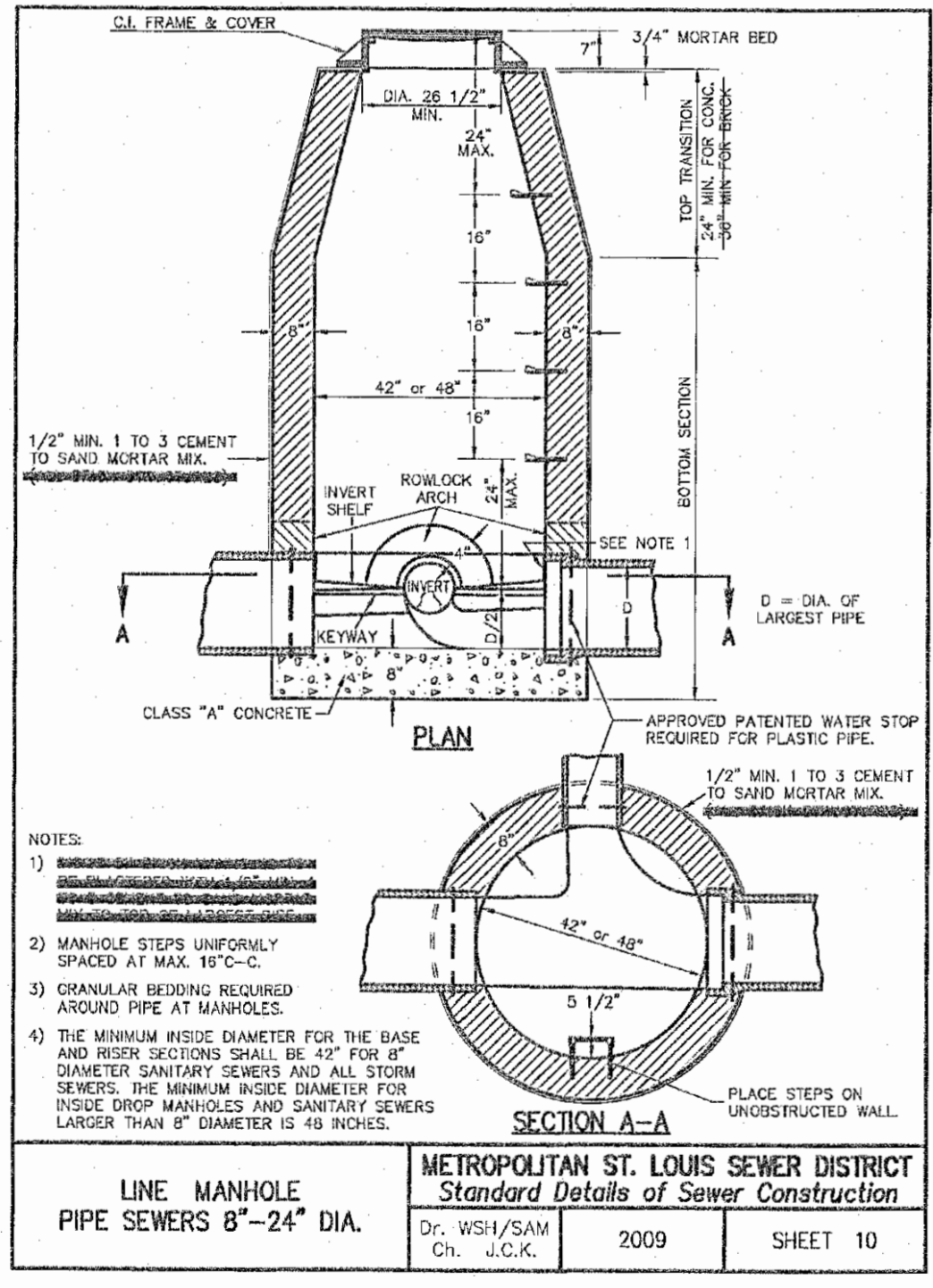
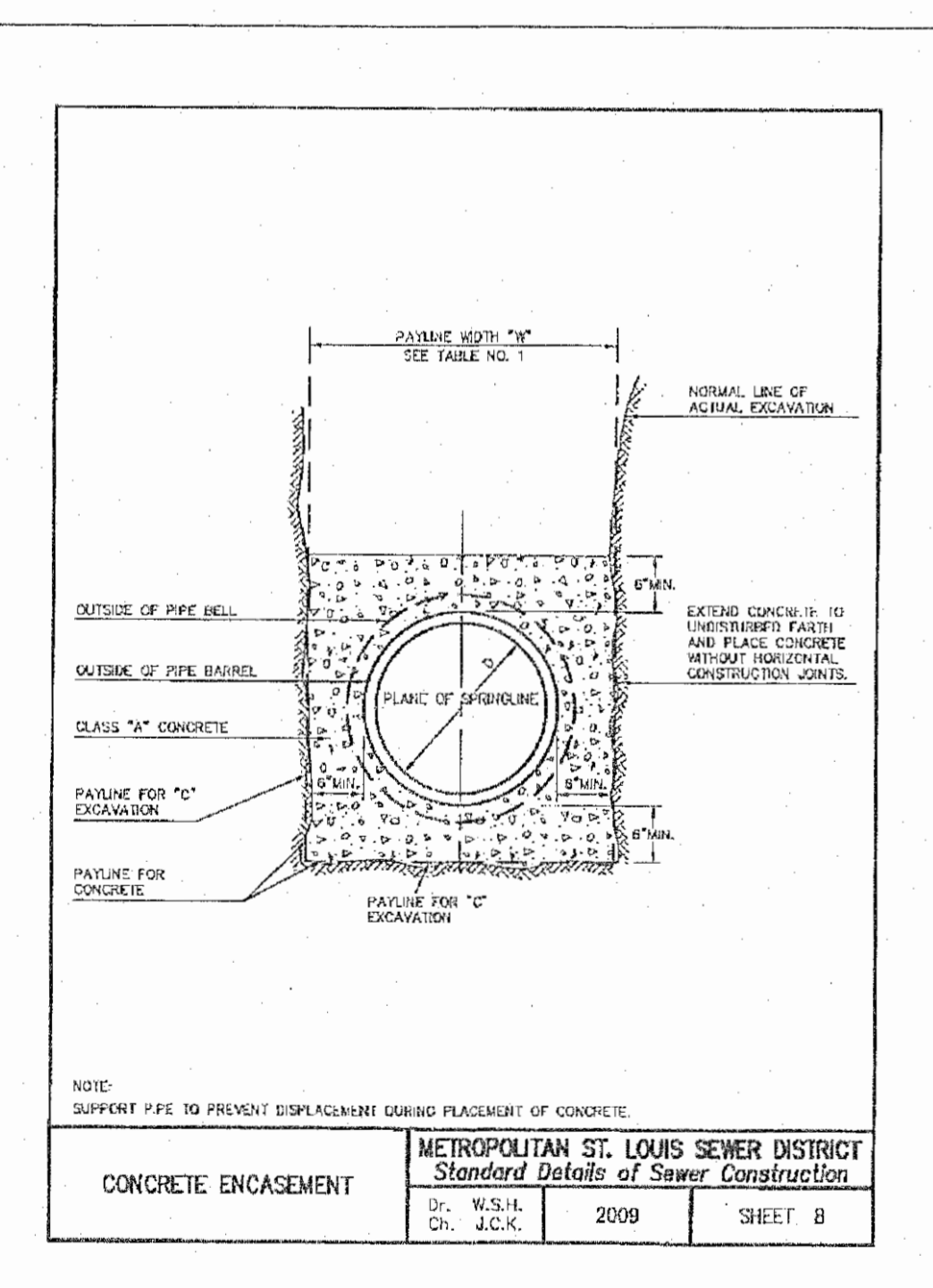
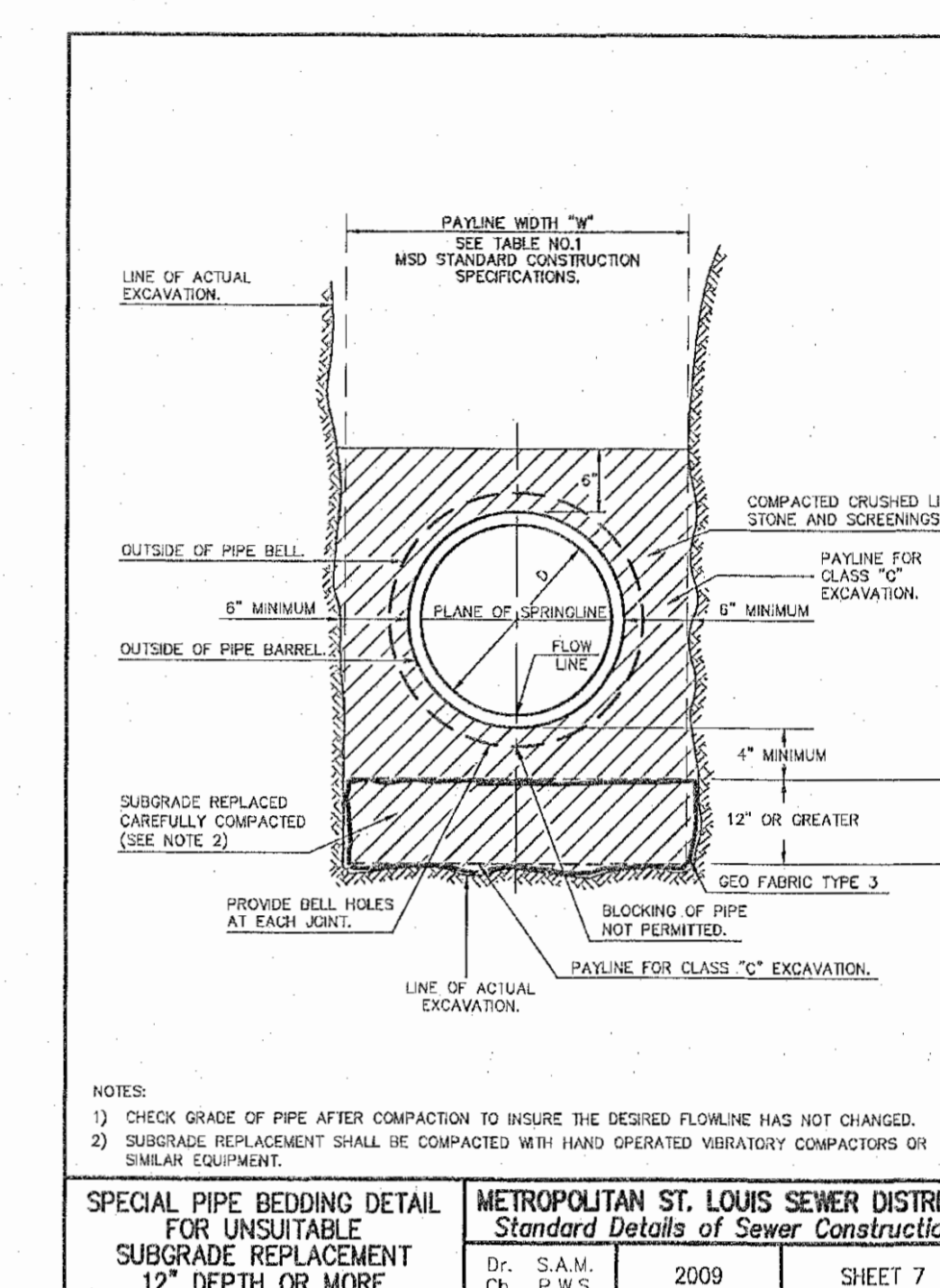
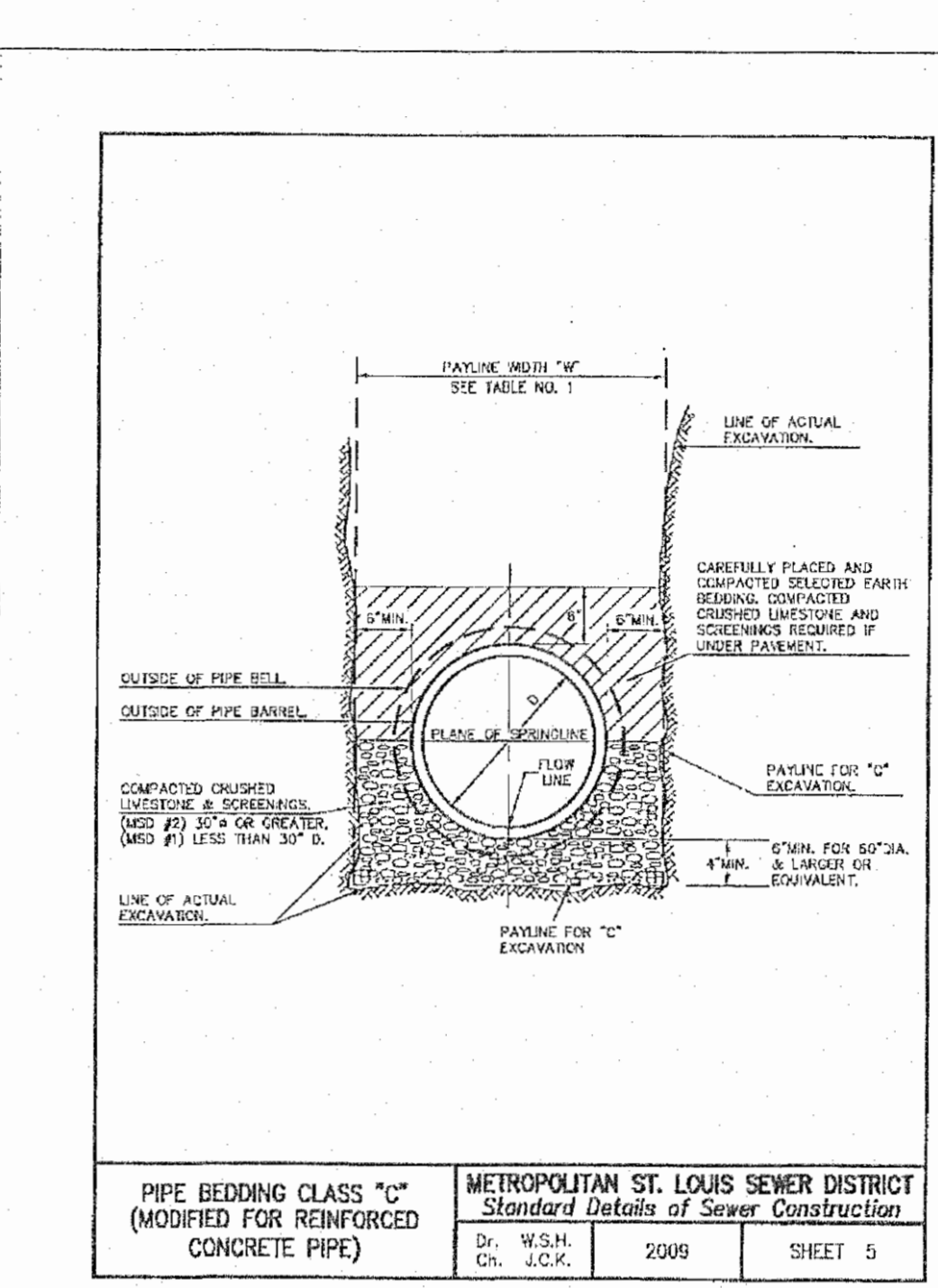
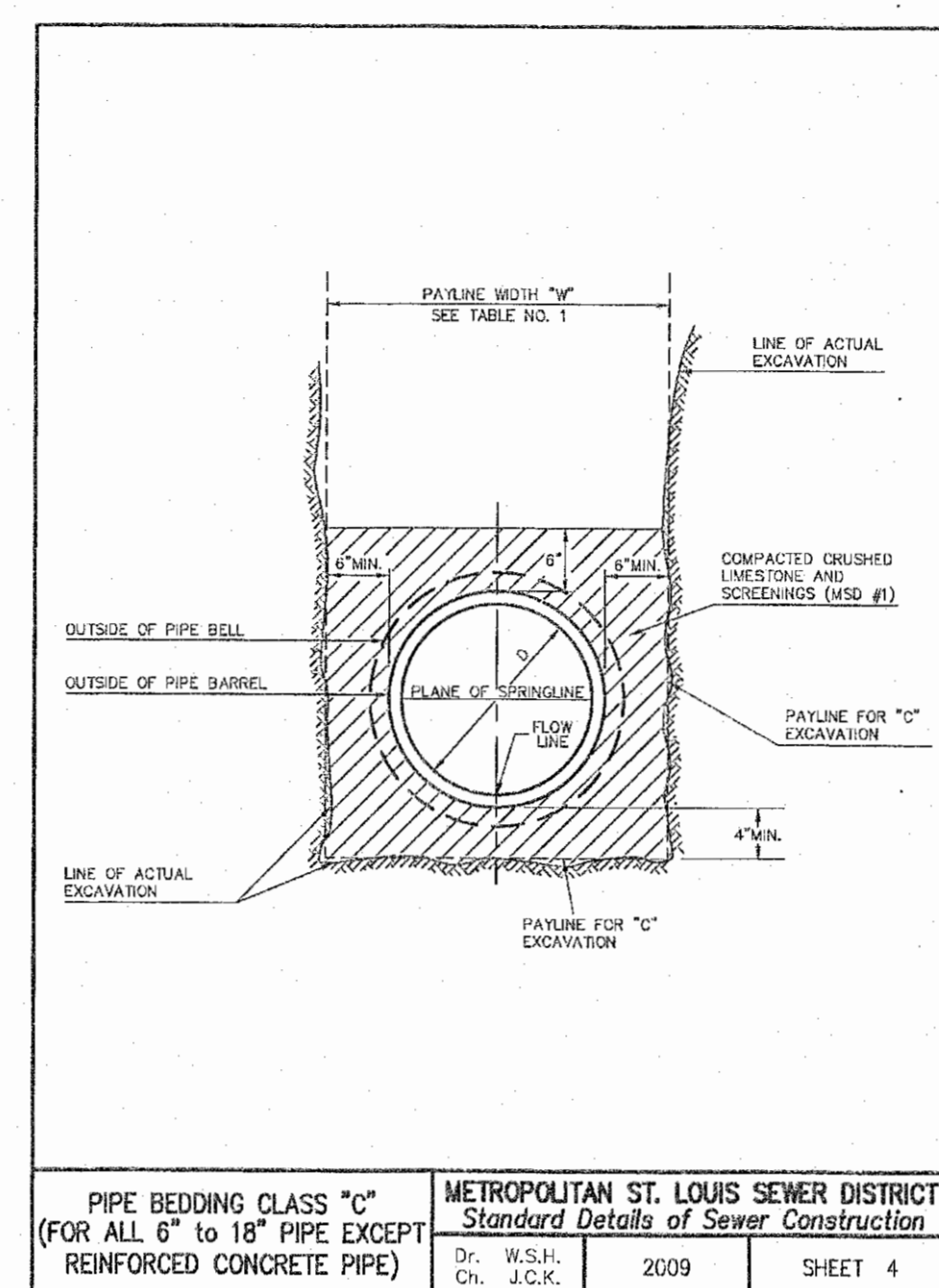
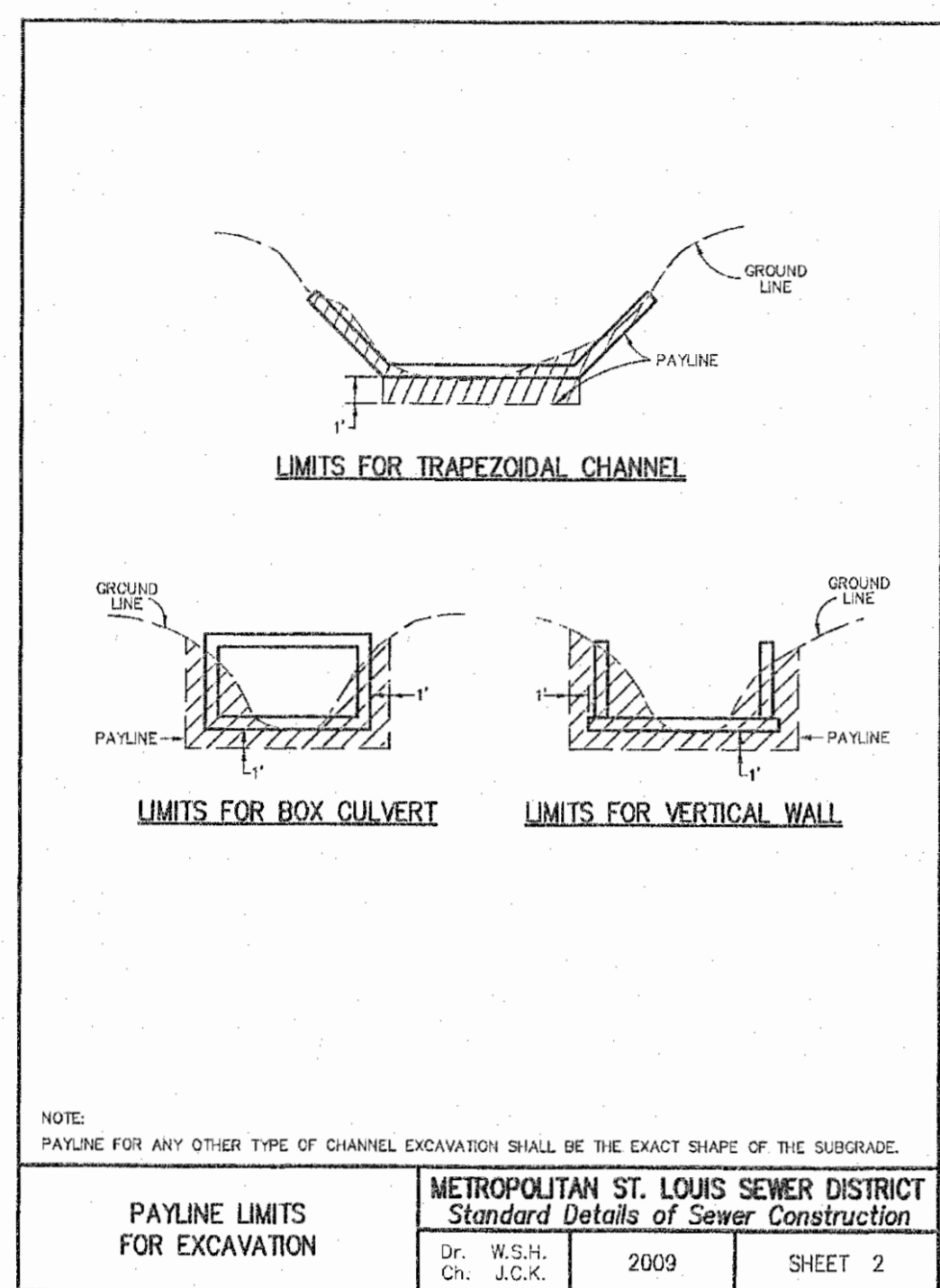
P-47 No. 20-16.02  
 City No. 16-010424

Page No. **4 of 14**



| ROUND PIPE                       |                                      |                                    |   | HORIZONTAL ELLIPTICAL PIPE         |                                      |                                    |   |
|----------------------------------|--------------------------------------|------------------------------------|---|------------------------------------|--------------------------------------|------------------------------------|---|
| INSIDE DIAMETER OF PIPE (INCHES) | "W" PAYLINE WIDTH OF TRENCH (INCHES) | "H" PAYLINE WIDTH OF TRENCH (FEET) | PAY-VOLUMES CO. FT. PER FT. OF TRENCH (CONCRETE ENCASEMENT) | INSIDE DIMENSIONS OF PIPE (INCHES) | "W" PAYLINE WIDTH OF TRENCH (INCHES) | "H" PAYLINE WIDTH OF TRENCH (FEET) | PAY-VOLUMES CO. FT. PER FT. OF TRENCH (CONCRETE ENCASEMENT) |
| 4                                | 30                                   | 2.50                               | 3.28  |                                    |                                      |                                    |   |
| 6                                | 30                                   | 2.50                               | 3.59  |                                    |                                      |                                    |   |
| 8                                | 30                                   | 2.50                               | 3.87  |                                    |                                      |                                    |   |
| 10                               | 30                                   | 2.50                               | 4.09  |                                    |                                      |                                    |   |
| 12                               | 30                                   | 2.50                               | 4.25  |                                    |                                      |                                    |   |
| 15                               | 36                                   | 3.00                               | 5.55  |                                    |                                      |                                    |   |
| 18                               | 36                                   | 3.00                               | 5.77  | 14 x 23                            | 41                                   | 3.42                               | 5.94  |
| 21                               | 39                                   | 3.25                               | 6.61  |                                    |                                      |                                    |   |
| 24                               | 42                                   | 3.50                               | 7.39  | 19 x 30                            | 49                                   | 4.08                               | 7.68  |
| 27                               | 45                                   | 3.75                               | 8.18  | 22 x 34                            | 53                                   | 4.42                               | 8.61  |
| 30                               | 49                                   | 4.08                               | 9.30  | 24 x 39                            | 58                                   | 4.83                               | 9.70  |
| 33                               | 53                                   | 4.42                               | 10.53   | 27 x 42                            | 62                                   | 5.17                               | 10.71   |
| 36                               | 56                                   | 4.67                               | 11.43   | 29 x 45                            | 66                                   | 5.50                               | 11.72   |
| 39                               | DISCONTINUED                         |                                    |   | 32 x 49                            | 71                                   | 5.93                               | 13.14   |
| 42                               | 63                                   | 5.25                               | 13.38   | 34 x 53                            | 75                                   | 6.25                               | 14.05   |
| 48                               | 70                                   | 5.83                               | 15.67   | 39 x 60                            | 83                                   | 6.92                               | 16.18   |
| 54                               | 77                                   | 6.42                               | 18.15   | 43 x 68                            | 92                                   | 7.67                               | 18.81   |
| 60                               | 84                                   | 7.00                               | 20.73   | 48 x 76                            | 101                                  | 8.42                               | 21.59   |
| 66                               | 91                                   | 7.58                               | 23.45   | 53 x 83                            | 109                                  | 9.08                               | 24.35   |
| 72                               | 98                                   | 8.17                               | 26.37   | 59 x 91                            | 118                                  | 9.83                               | 27.45   |
| 78                               | 105                                  | 8.75                               | 29.39   | 63 x 98                            | 126                                  | 10.50                              | 30.50   |
| 84                               | 112                                  | 9.33                               | 32.57   | 68 x 109                           | 135                                  | 11.25                              | 33.91   |
| 90                               | 119                                  | 9.92                               | 35.90   | 72 x 115                           | 143                                  | 11.92                              | 36.99   |
| 96                               | 126                                  | 10.50                              | 39.37   | 77 x 121                           | 152                                  | 12.67                              | 40.69   |
| 102                              | 133                                  | 11.08                              | 42.99   | 82 x 128                           | 160                                  | 13.33                              | 44.45   |
| 108                              | 140                                  | 11.67                              | 46.75   | 87 x 135                           | 168                                  | 14.00                              | 47.79   |
| 114                              | 147                                  | 12.25                              | 50.66   | 92 x 143                           | 176                                  | 14.67                              | 51.70   |
| 120                              | 154                                  | 12.83                              | 54.73   | 97 x 151                           | 185                                  | 15.42                              | 56.01   |
| 126                              | 161                                  | 13.42                              | 58.92   |                                    |                                      |                                    |   |
| 132                              | 168                                  | 14.00                              | 63.27   | 106 x 166                          | 202                                  | 16.53                              | 64.48   |
| 144                              | 182                                  | 15.17                              | 72.40   | 116 x 180                          | 218                                  | 18.17                              | 73.99   |

NOTE: PAYLINE FOR ANY OTHER TYPE OF CHANNEL EXCAVATION SHALL BE THE EXACT SHAPE OF THE SUBGRADE.



**PROJECT TITLE:**  
AS-BUILT PLANS FOR THE LANDING OF OFALLON

**ENGINEERING PLANNING SURVEYING**  
221 Point West Blvd.  
St. Charles, MO 63301  
636-928-5552  
PAX 928-1718

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**REFERENCE DETAIL SHEET ONLY.**  
CONTRACTOR TO OBTAIN CURRENT DETAILS AND SPECIFICATIONS FROM THE CITY OF OFALLON AND MSD CURRENT EDITIONS.

**REVISIONS**

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
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|  |  |  |  |
|  |  |  |  |

**Developer / Owner:**  
WEGMANN OFALLON, LLC  
550 LATONA ROAD, BUILDING A  
ROCHESTER, NEW YORK 14626  
1-585-563-1930

**STORM SEWER DETAILS**

**P+Z No.** 20-16.02  
**City No.** 16-010424  
**Page No.** 5 of 14

STATE OF MISSOURI  
MARK E. COLLINS  
Professional Land Surveyor  
PLS-200600017

Box Project #06-133018B Issue Date: 04/13/2017

**PRECAST CONCRETE STORMWATER STRUCTURES**

MINIMUM DISTANCE FLOWLINE TO TOP OF STONE OR GRATE

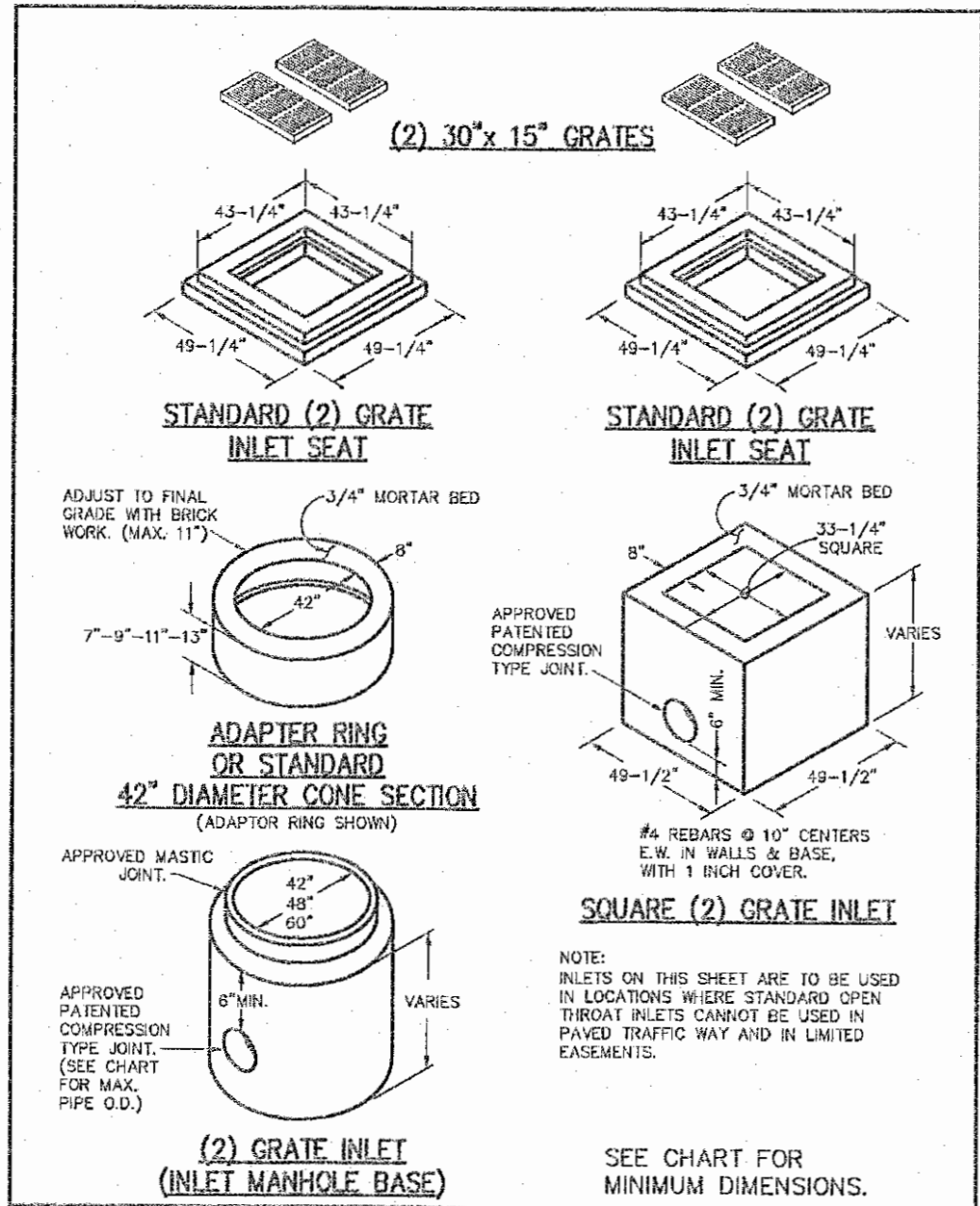
| PIPE I.D. NOMINAL INCHES | AREA INLET         |        |           | (2) GRADE INLET    |        |           | SINGLE STREET INLET |        |           |
|--------------------------|--------------------|--------|-----------|--------------------|--------|-----------|---------------------|--------|-----------|
|                          | CIRCULAR BASE DIA. | SQUARE | RECTANGLE | CIRCULAR BASE DIA. | SQUARE | RECTANGLE | CIRCULAR BASE DIA.  | SQUARE | RECTANGLE |
| 12"                      | 45"                | 45"    | 60"       | 38"                | 31"    | 48"       | 31"                 | 48"    | 41"       |
| 15"                      | 48"                | 48"    | 63"       | 41"                | 34"    | 51"       | 34"                 | 51"    | 44"       |
| 18"                      | 52"                | 52"    | 66"       | 44"                | 37"    | 54"       | 37"                 | 54"    | 48"       |
| 21"                      | 55"                | 55"    | 69"       | 47"                | 40"    | 57"       | 40"                 | 57"    | 51"       |
| 24"                      | 58"                | 58"    | 72"       | 51"                | 44"    | 61"       | 44"                 | 61"    | 54"       |
| 27"                      | 62"                | 62"    | 75"       | 54"                | 47"    | 64"       | 47"                 | 64"    | 57"       |
| 30"                      | 65"                | 65"    | 78"       | 57"                | 50"    | 67"       | 50"                 | 67"    | 60"       |
| 33"                      | 68"                | 68"    | 81"       | 60"                | 53"    | 70"       | 53"                 | 70"    | 63"       |

(SEE SHEET 34 FOR DETAIL) (SEE SHEET 35 FOR DETAIL) (SEE SHEET 36 FOR DETAIL)

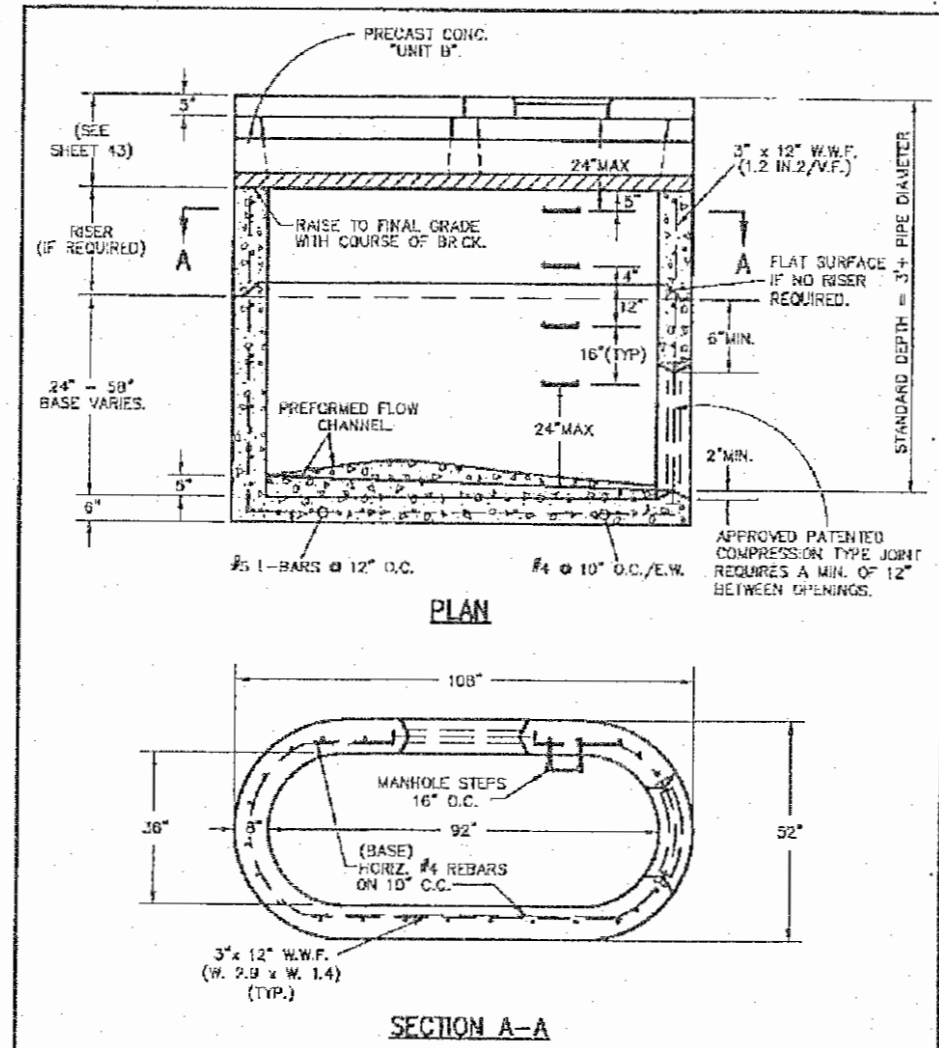
**NOTES:**

- 48" DIAMETER BASE REQUIRES 7" HIGH TRANSITION SECTION TO 42" DIAMETER, SIMILAR TO "ADAPTER RING" SHEET 34.
- 60" DIAMETER BASE REQUIRES 24" HIGH ECCENTRIC REDUCER TRANSITION TO 42" DIAMETER, SIMILAR TO "ADAPTER RING" SHEET 34.
- STANDARD DEPTH = 3/4" PIPE DIAMETER.

|  |   |                              |      |          |
|--|---|------------------------------|------|----------|
| PRECAST CONCRETE STORMWATER STRUCTURES | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. J.L.G./SAM<br>Ch. J.C.K. | 2009 | SHEET 33 |
|--|---|------------------------------|------|----------|

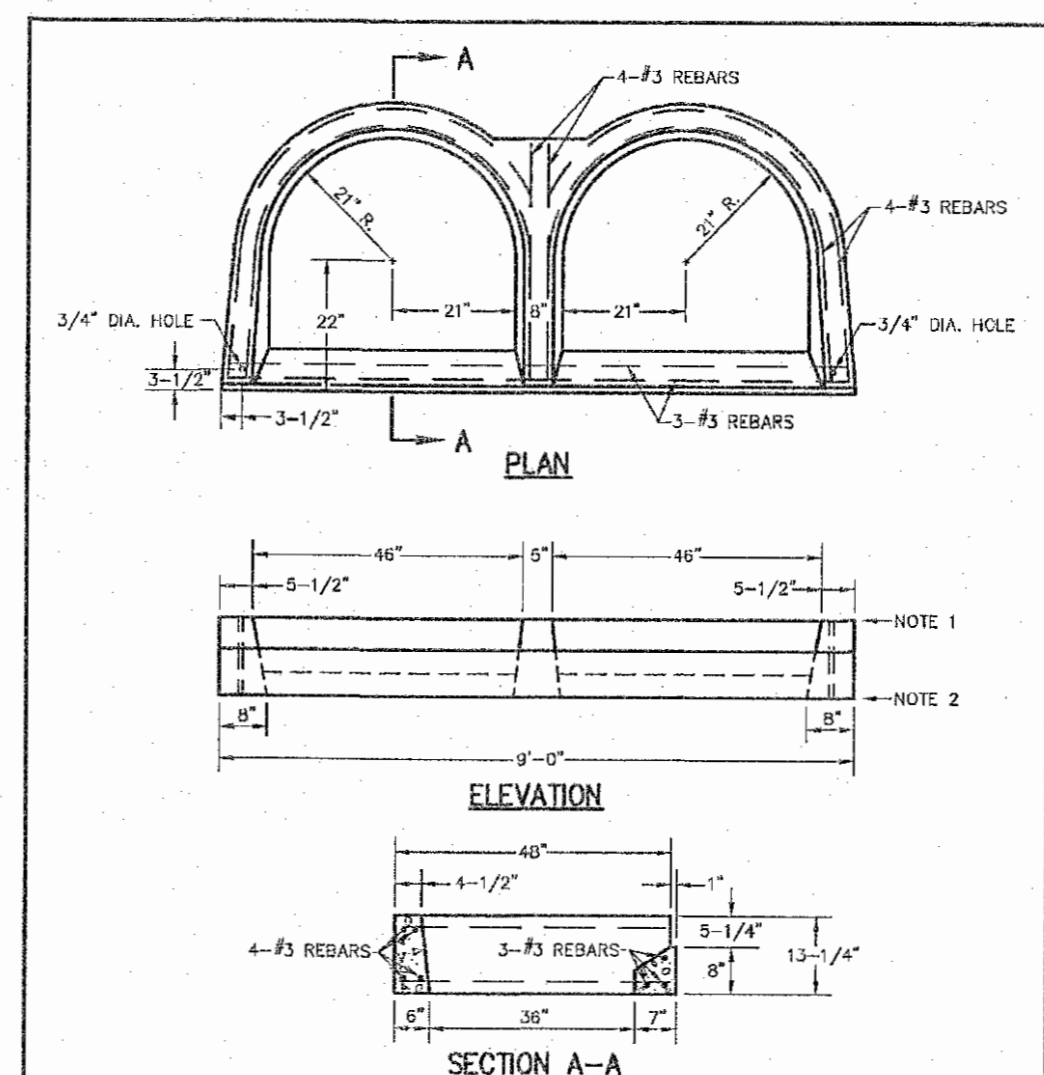


|                                 |   |                              |      |          |
|---------------------------------|---|------------------------------|------|----------|
| 2 GRATE INLETS PRECAST CONCRETE | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. J.L.G./SAM<br>Ch. J.C.K. | 2009 | SHEET 35 |
|---------------------------------|---|------------------------------|------|----------|



NOTE: 35 INCH R.C.P. MAXIMUM PIPES FRONT & BACK WALLS AND 24 INCH R.C.P. MAXIMUM PIPE FOR ENDS WITH A MINIMUM OF 12 INCHES BETWEEN PIPES.

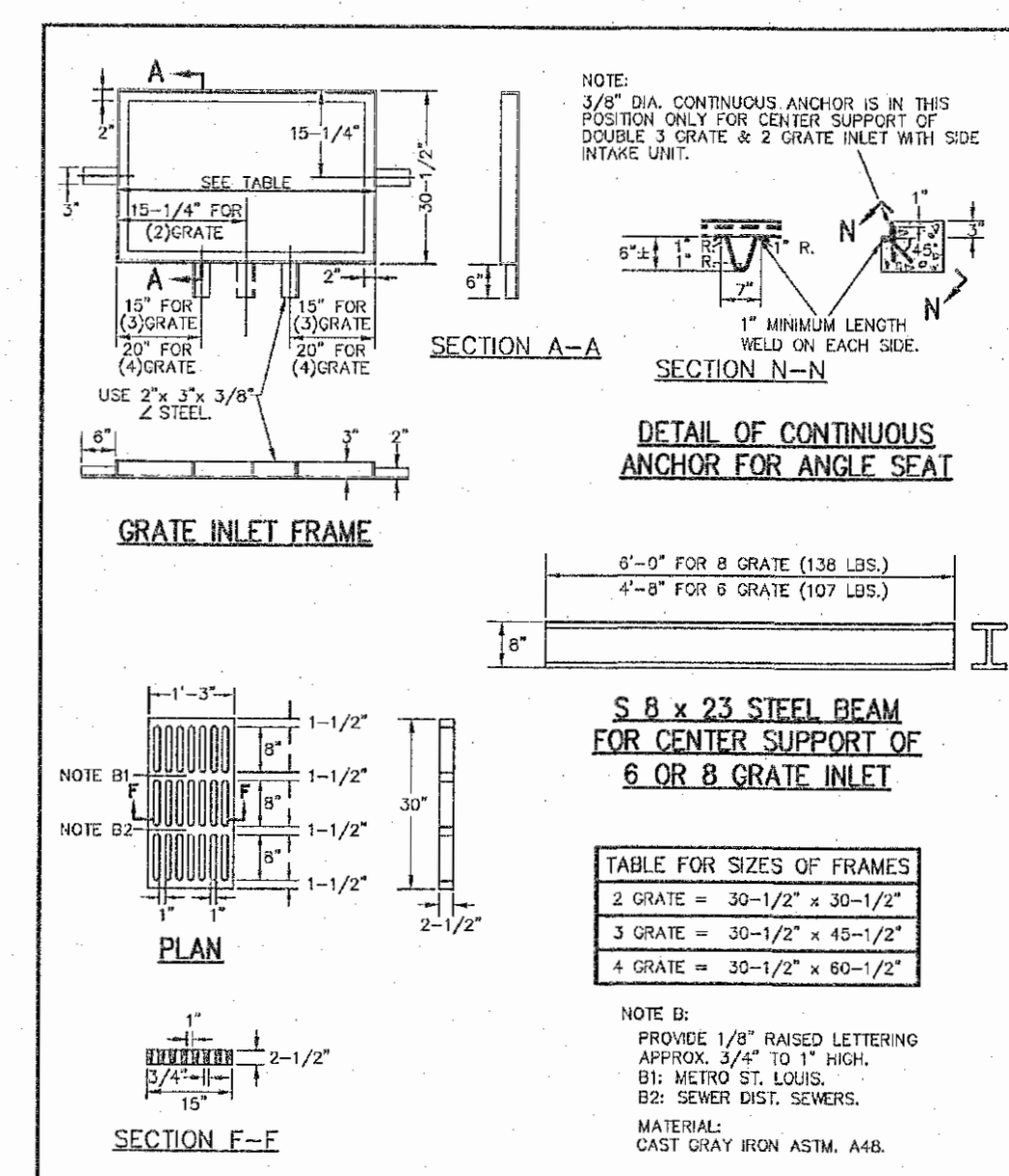
|  |   |                              |      |          |
|--|---|------------------------------|------|----------|
| DOUBLE UNTRAPPED STREET INLET PRECAST CONCRETE | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. R.G.W./SAM<br>Ch. J.C.K. | 2009 | SHEET 37 |
|--|---|------------------------------|------|----------|



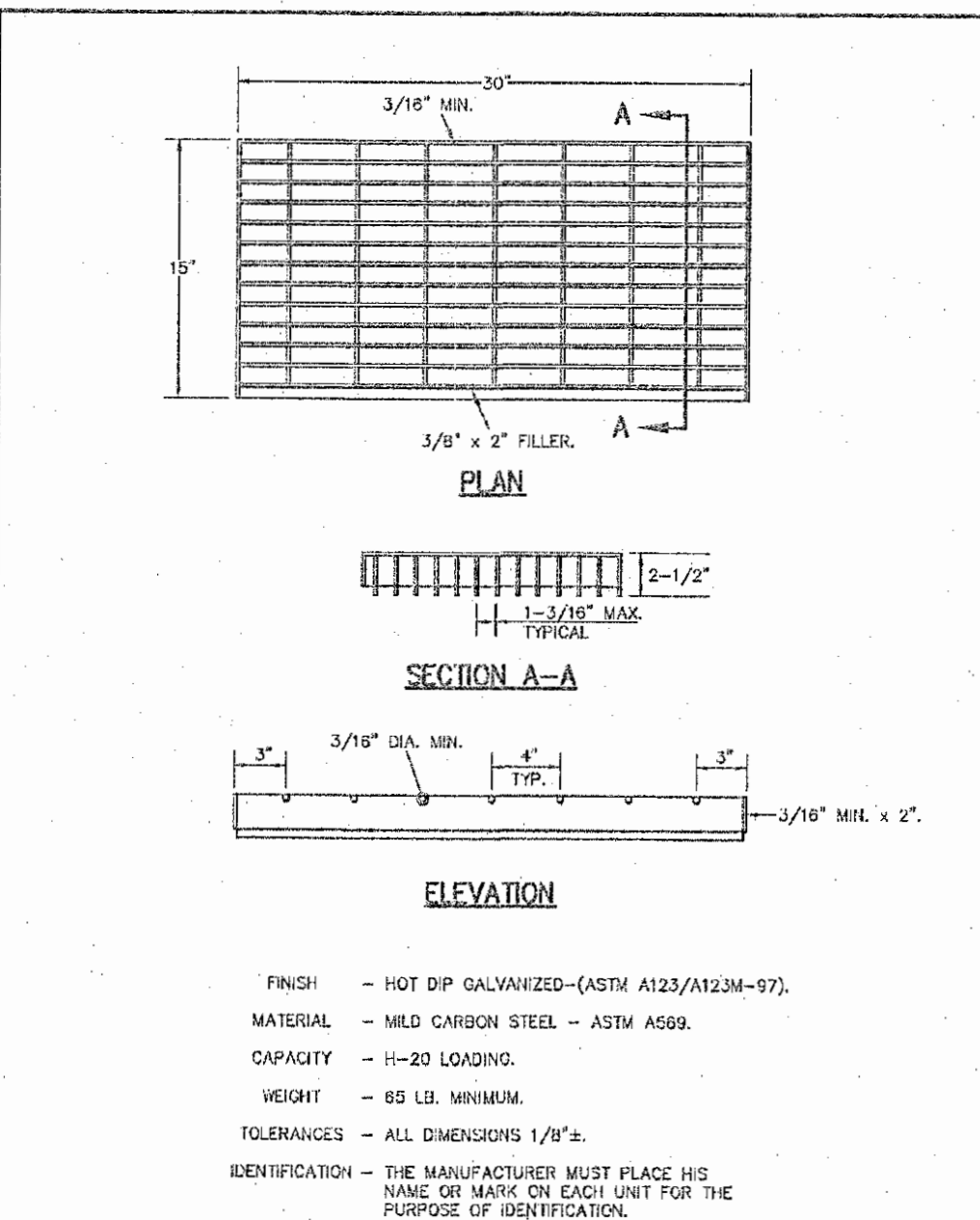
NOTES:

- SET TWO (2) STANDARD INLET STONES IN 3/4" MORTAR BED AND DOWEL WITH 5/8" DIA. 1'-0" LONG PINS AND GROUT.
- RAISE TO FINAL GRADE WITH COURSES OF BRICK AND SET THE UNIT TO BASE WITH 3/4" MORTAR BED.
- THIS UNIT IS TO BE USED WITH POURED-IN-PLACE CONCRETE BASE.
- 5000 P.S.I. CONCRETE REQUIRED.
- 1 INCH CLEARANCE, ALL REINFORCEMENT.

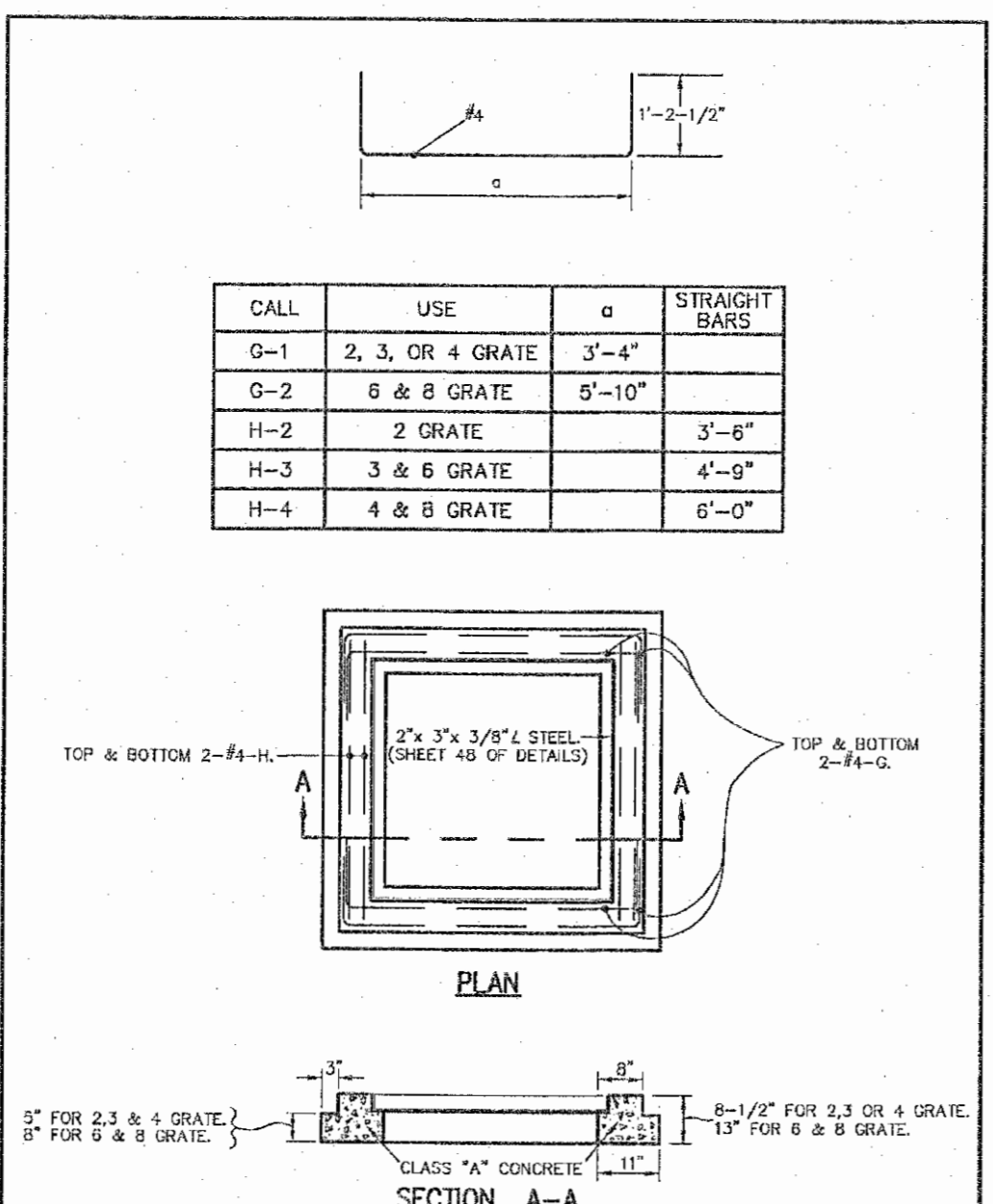
|   |   |                              |      |          |
|---|---|------------------------------|------|----------|
| PRECAST CONCRETE UNIT "A" FOR STREET DOUBLE INLET | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. R.G.W./SAM<br>Ch. J.C.K. | 2009 | SHEET 42 |
|---|---|------------------------------|------|----------|



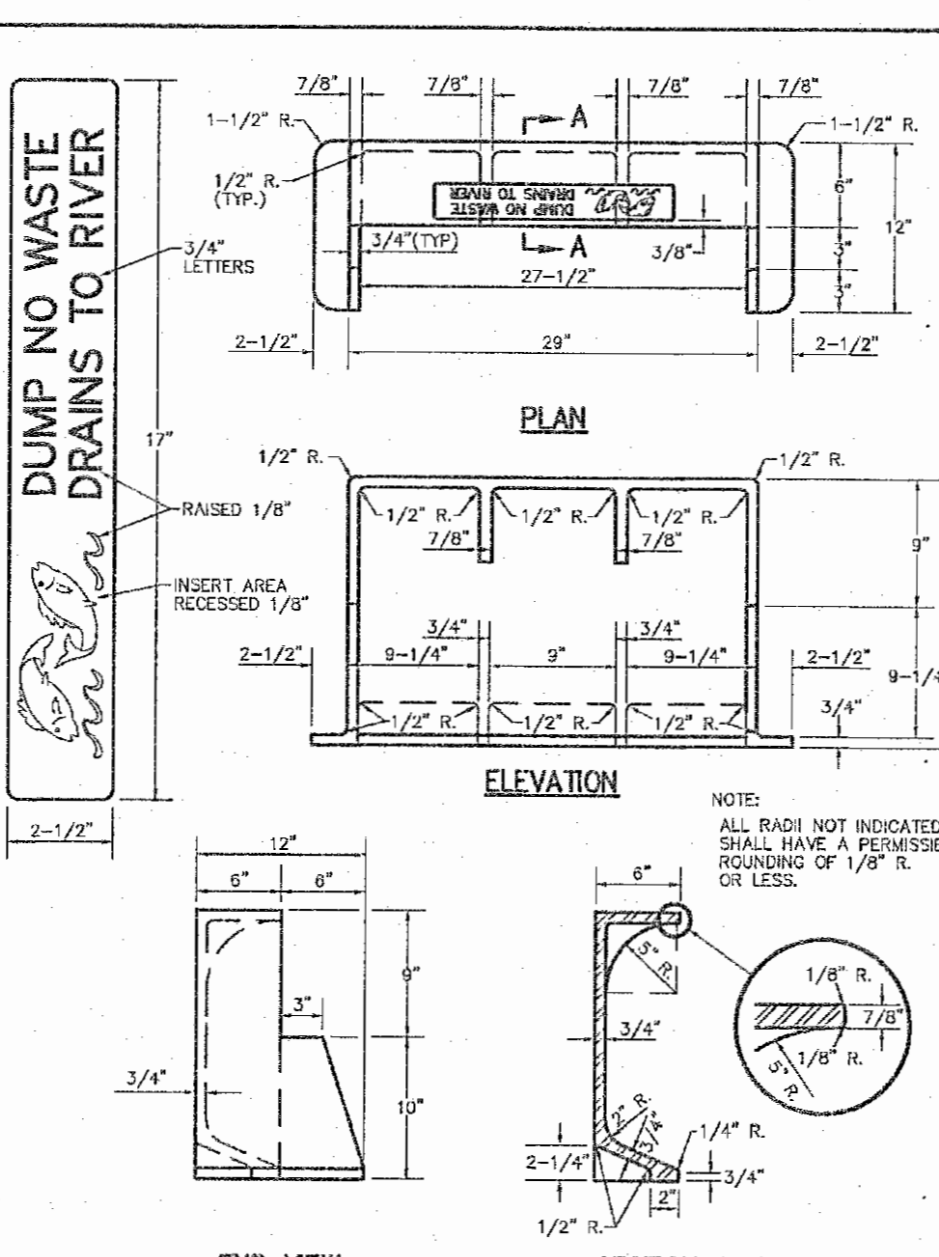
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| DETAILS OF INLET FRAME AND GRATES | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. R.G.W./SAM<br>Ch. J.C.K. | 2009 | SHEET 47 |
|-----------------------------------|---|------------------------------|------|----------|



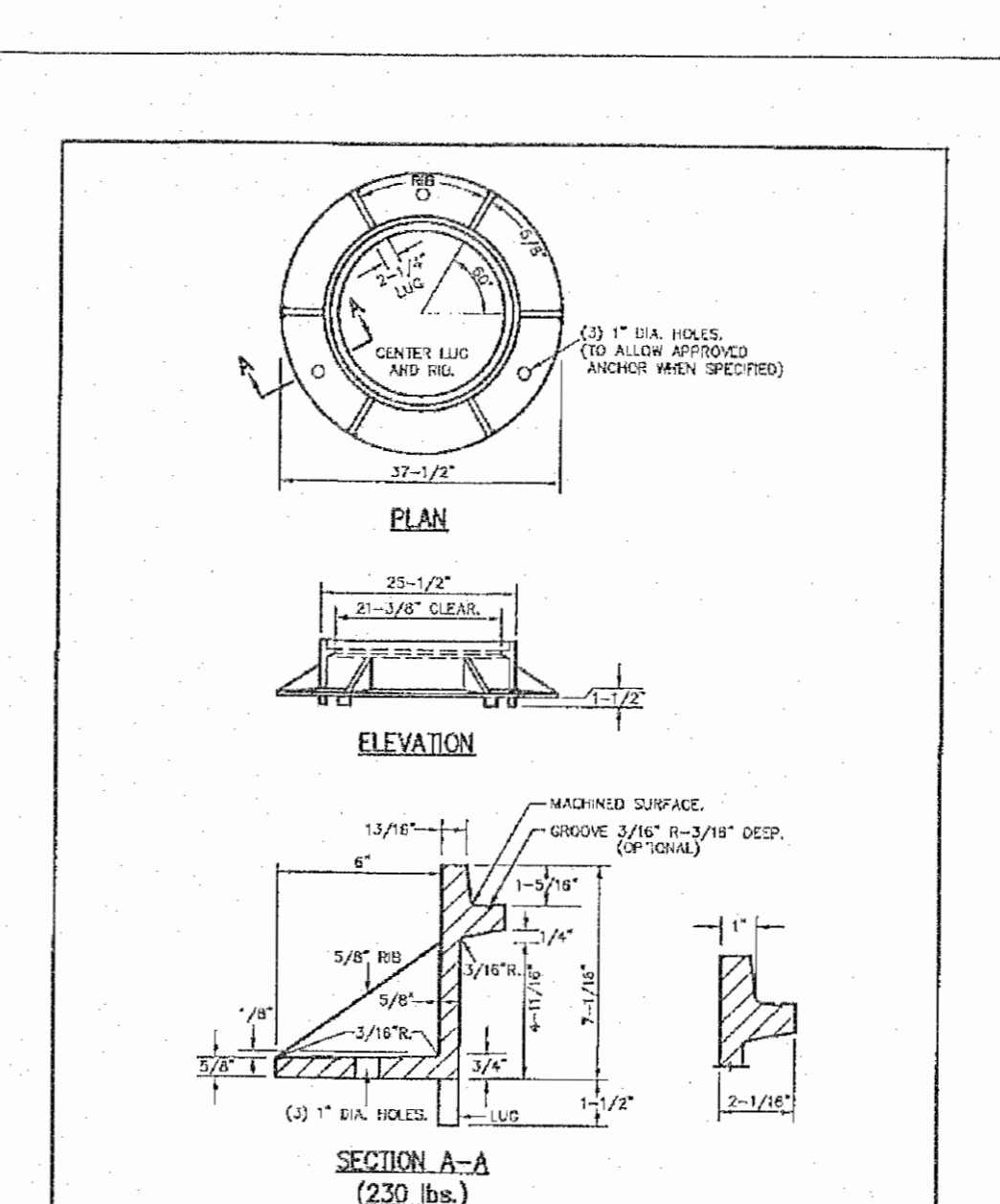
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| DETAIL OF STEEL GRATE | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. R.G.W./SAM<br>Ch. J.C.K. | 2009 | SHEET 48 |
|-----------------------|---|------------------------------|------|----------|



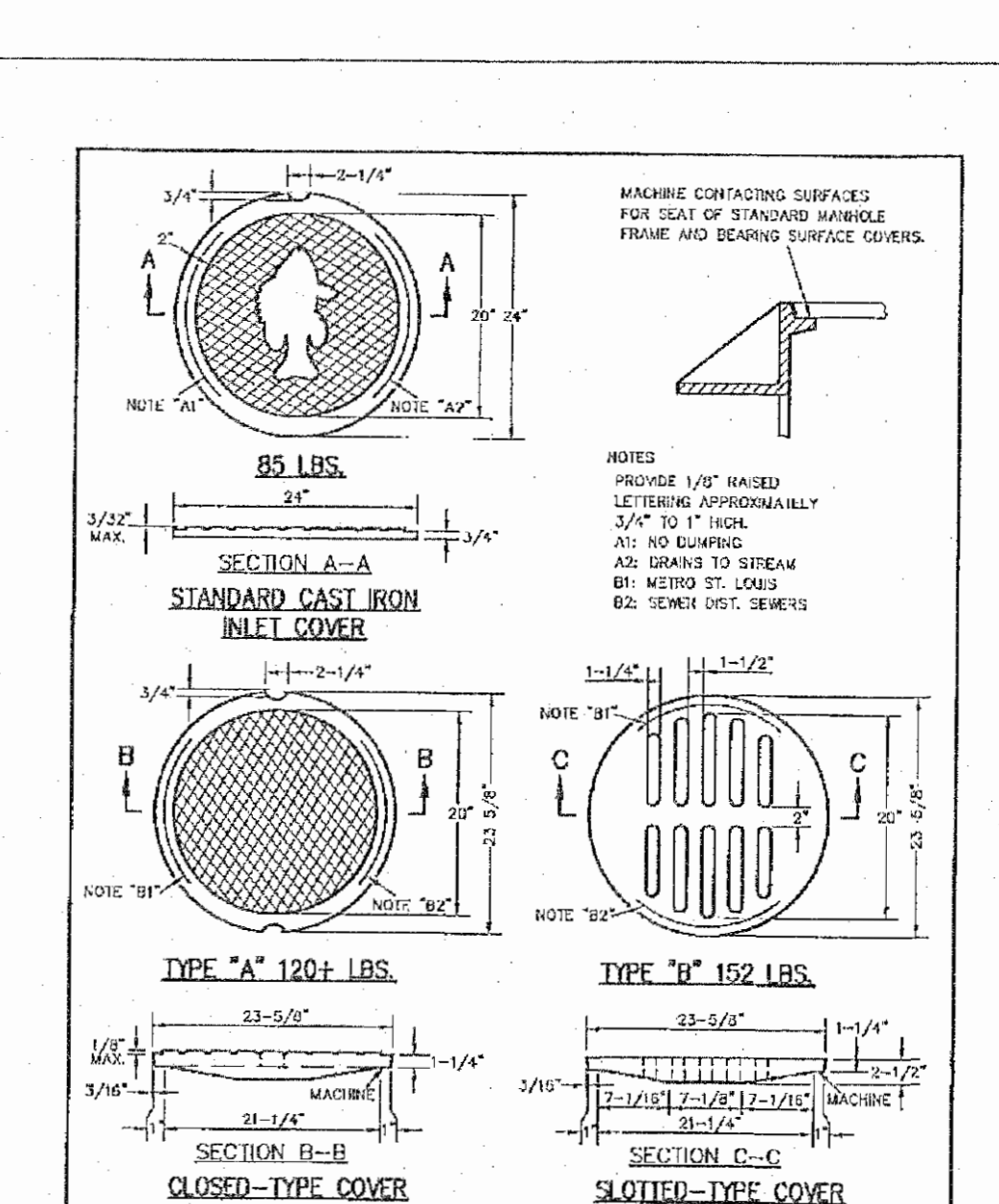
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| STEEL REQUIREMENTS FOR GRATE INLET SEAT | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. W.S.H./SAM<br>Ch. J.C.K. | 2009 | SHEET 50 |
|---|---|------------------------------|------|----------|



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|---|---|------------------------------|------|----------|
| CAST IRON SIDE INTAKE UNIT FOR GRATED INLETS 249 LBS. | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. R.G.W./SAM<br>Ch. J.C.K. | 2009 | SHEET 51 |
|---|---|------------------------------|------|----------|



|                         |   |                              |      |          |
|-------------------------|---|------------------------------|------|----------|
| CAST IRON MANHOLE FRAME | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. D.A.S./SAM<br>Ch. J.C.K. | 2009 | SHEET 52 |
|-------------------------|---|------------------------------|------|----------|



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| CAST IRON COVERS FOR MANHOLES AND INLETS | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction | Dr. R.G.W./SAM<br>Ch. J.C.K. | 2009 | SHEET 53 |
|--|---|------------------------------|------|----------|

**PROJECT TITLE:**  
AS-BUILT PLANS FOR THE LANDING OF O'FALLON

**ENGINEERING PLANNING SURVEYING**  
221 Point West Blvd.  
St. Charles, MO 63301  
636-824-6552  
FAX 636-824-1710

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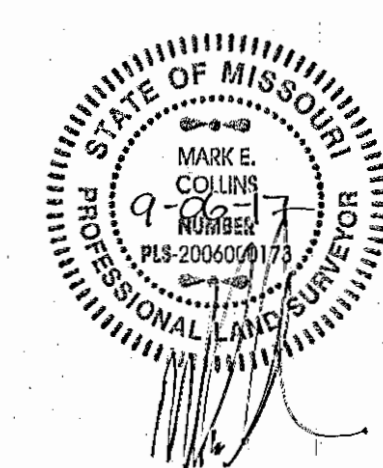
REFERENCE DETAIL SHEET ONLY. CONTRACTOR TO OBTAIN CURRENT DETAILS AND SPECIFICATIONS FROM THE CITY OF O'FALLON AND MSD CURRENT EDITIONS.

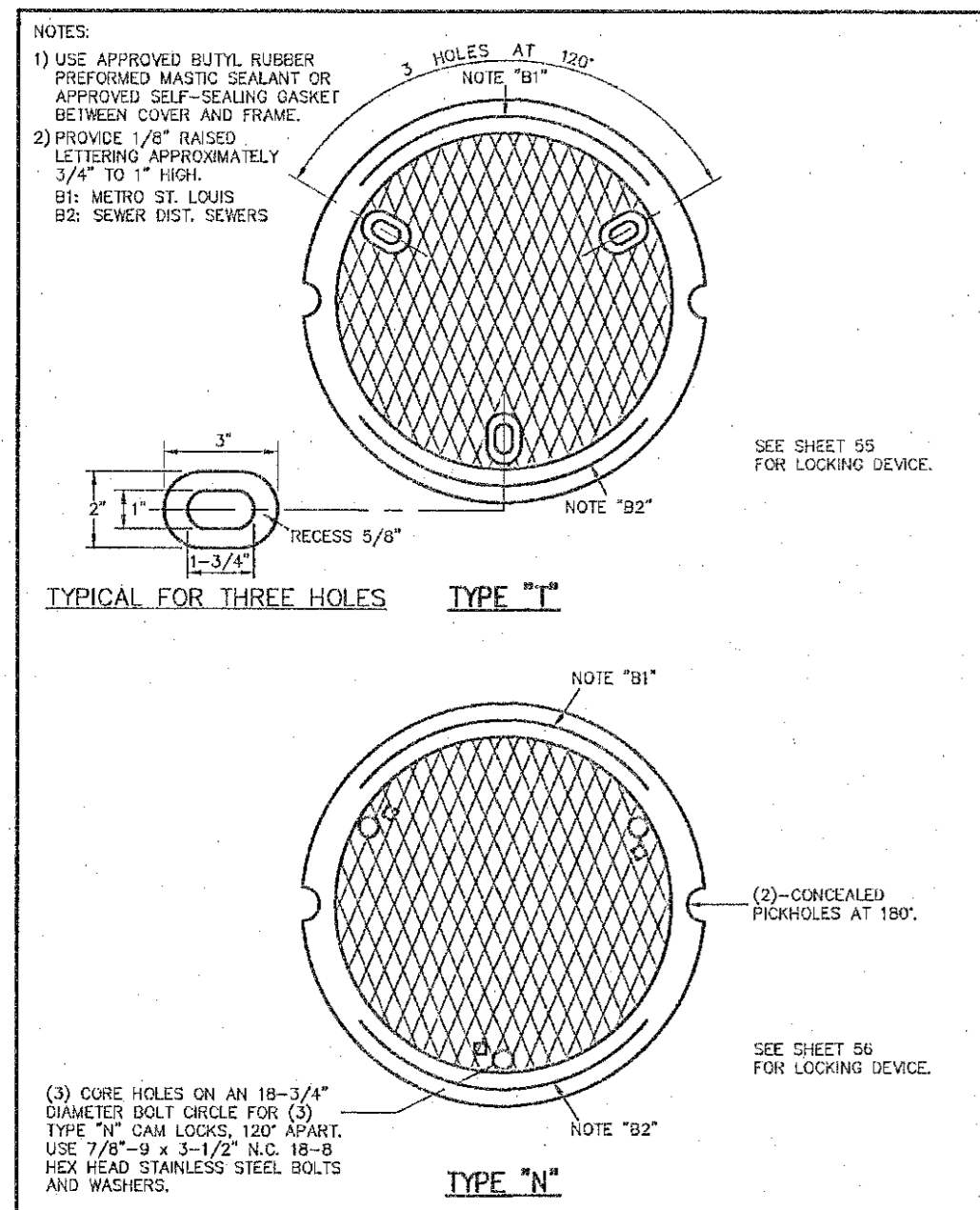
**REVISIONS**

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| 10-14-16 | CITY COMMENTS |
| 10-24-16 | CITY COMMENTS |

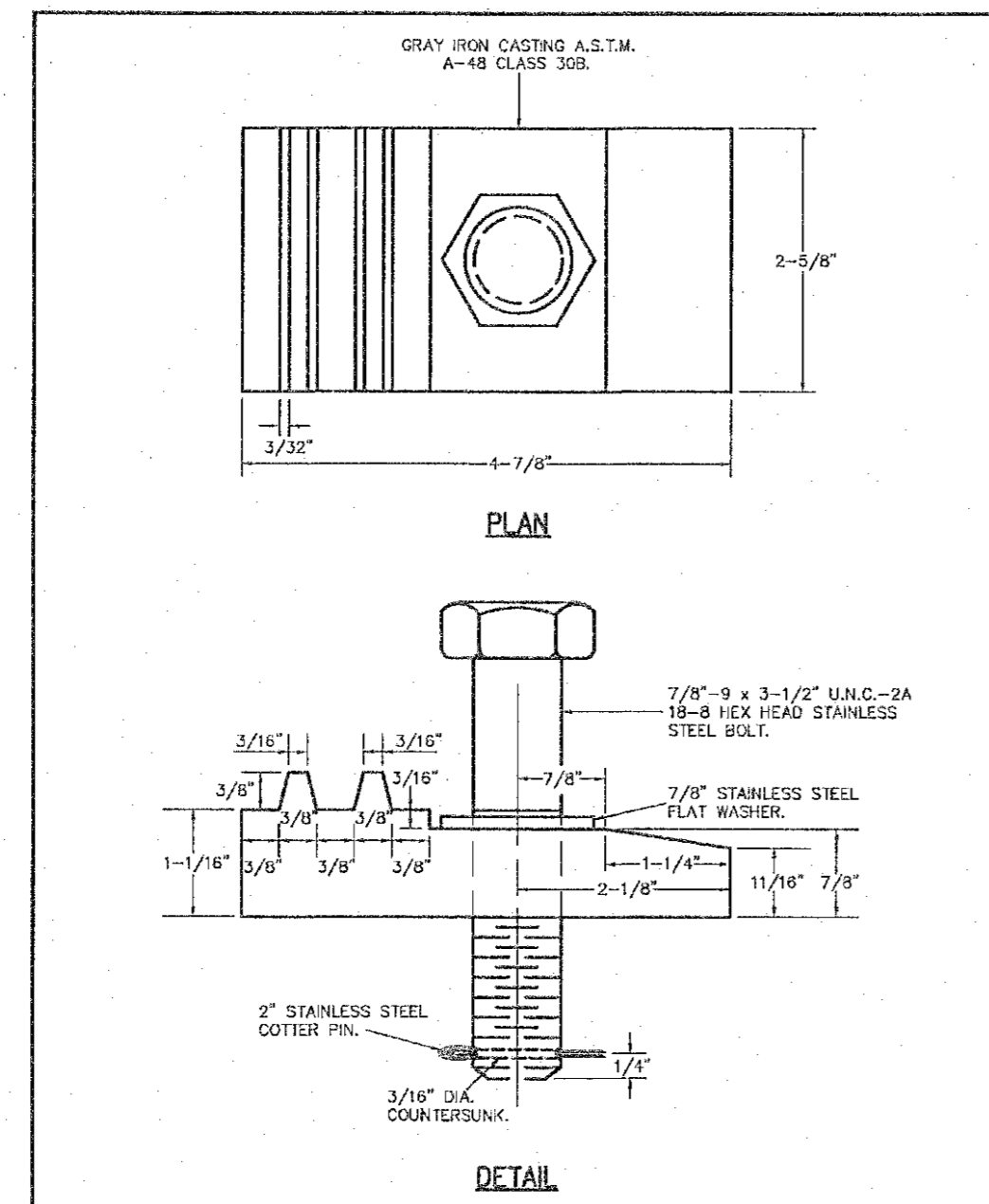
**Developer / Owner:**  
WEGMANN O'FALLON, LLC  
550 LATONA ROAD, BUILDING A  
ROCHESTER, NEW YORK 14626  
1-585-563-1390

**STORM SEWER DETAILS**

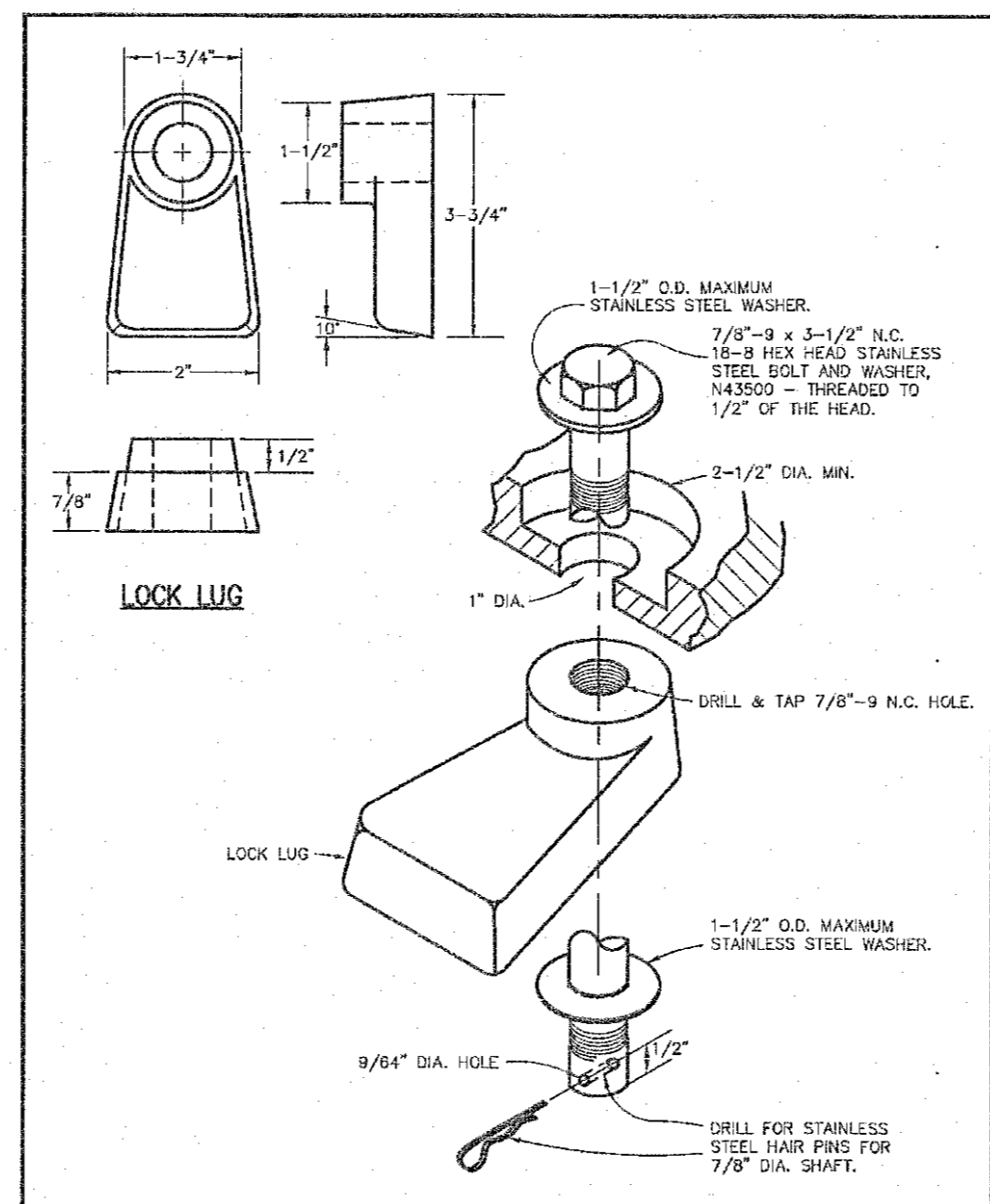




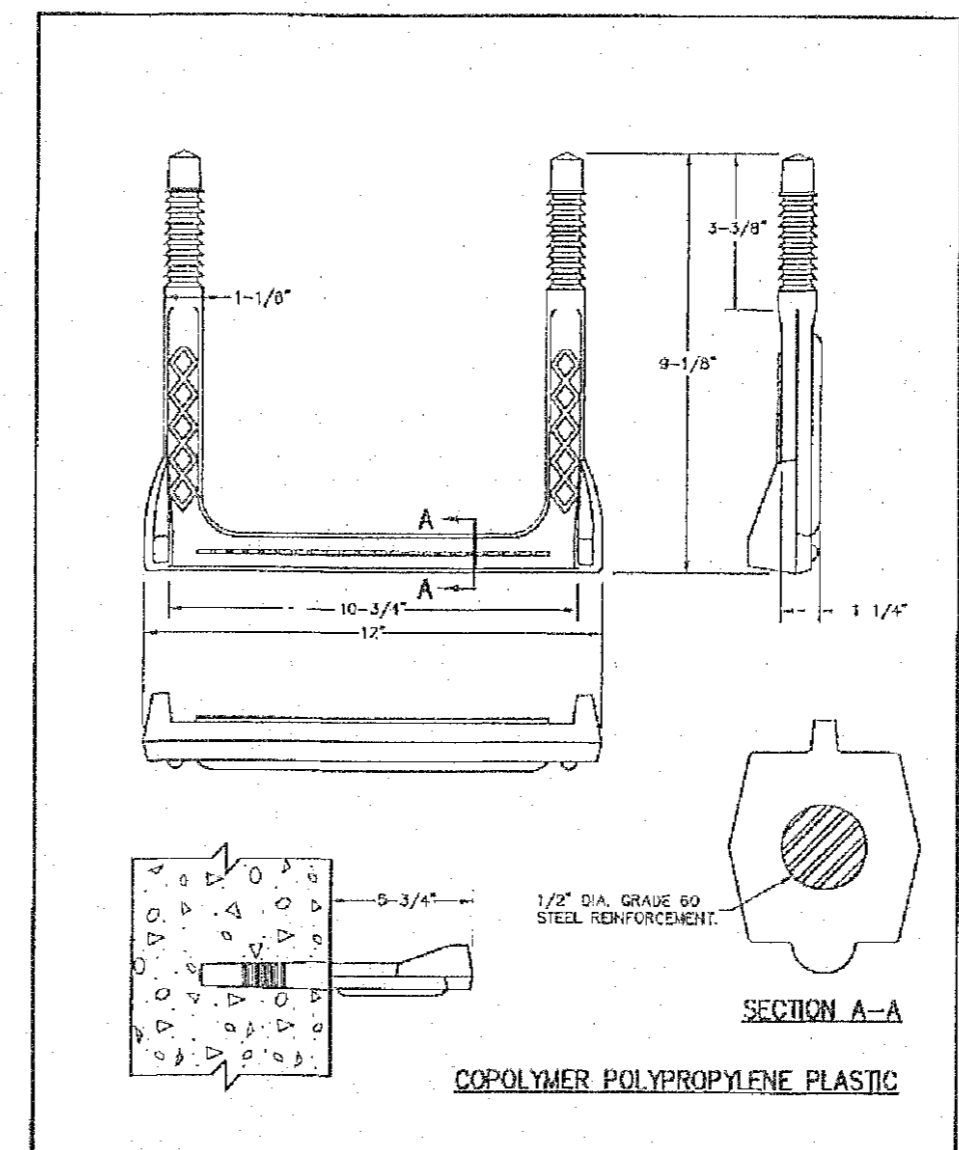
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|--------------------------------------|---|------|----------|
| CAST IRON MANHOLE COVERS (LOCK TYPE) | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction |      |          |
|                                      | Dr. WSH/SAM<br>Ch. J.C.K.   | 2009 | SHEET 54 |



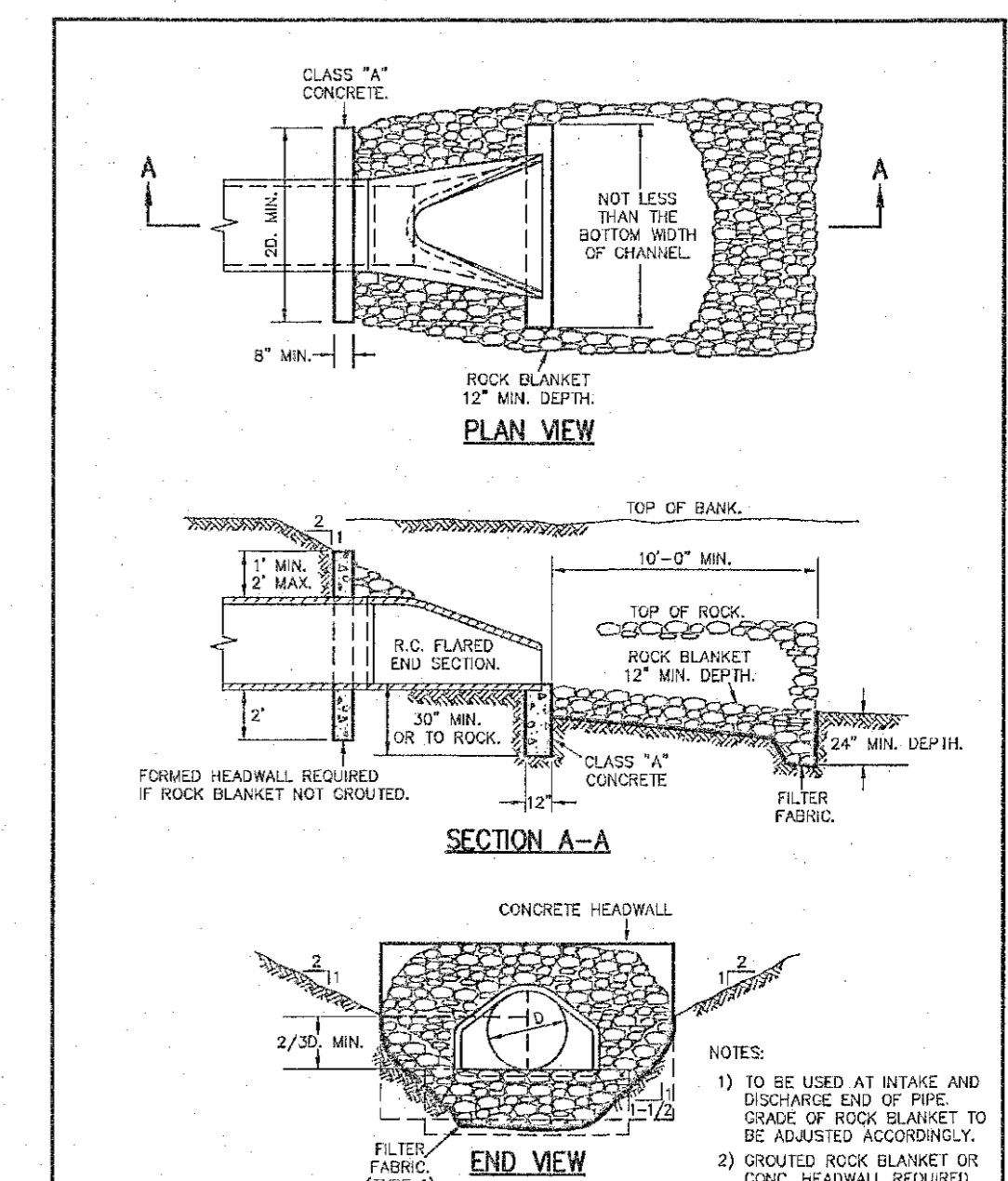
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| LOCKING DEVICE FOR TYPE "I" LOCK TYPE MANHOLE COVER | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction |      |          |
|   | Dr. RGW/SAM<br>Ch. J.C.K.   | 2009 | SHEET 55 |



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|---|---|------|----------|
| LOCKING DEVICE FOR TYPE "N" LOCK TYPE MANHOLE COVER | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction |      |          |
|   | Dr. JLG/SAM<br>Ch. J.C.K.   | 2009 | SHEET 56 |



|  |   |      |          |
|--|---|------|----------|
| MANHOLE STEP FOR PRECAST & CAST-IN-PLACE MANHOLE | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction |      |          |
|  | Dr. D.A.S.<br>Ch. J.C.K.  | 2009 | SHEET 58 |



|                    |   |      |          |
|--------------------|---|------|----------|
| FLARED END SECTION | METROPOLITAN ST. LOUIS SEWER DISTRICT<br>Standard Details of Sewer Construction |      |          |
|                    | Dr. WSH/SAM<br>Ch. J.C.K.   | 2009 | SHEET 61 |

PROJECT TITLE:  
**AS-BUILT PLANS FOR THE LANDING OF OFALLON**

ENGINEERING PLANNING SURVEYING  
 221 Point West Blvd.  
 St. Charles, MO 63301  
 636-928-5562  
 FAX 928-1718

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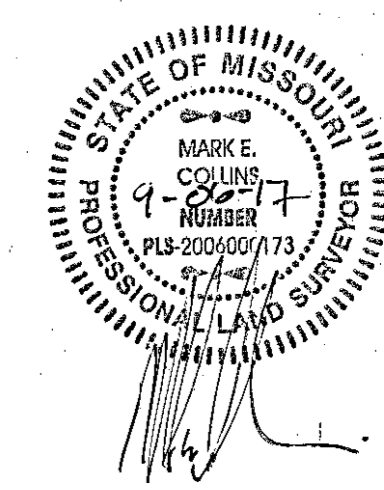
REVISIONS

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Developer / Owner:  
**WEGMANN OFALLON, LLC**  
 550 LATONA ROAD, BUILDING A  
 ROCHESTER, NEW YORK 14626  
 1-585-563-1890

STORM SEWER DETAILS

P+Z No. 20-16.02  
 City No. 16-010424  
 Page No. 7 of 14



Box Project #06-133018B Issue Date: 04/13/2017

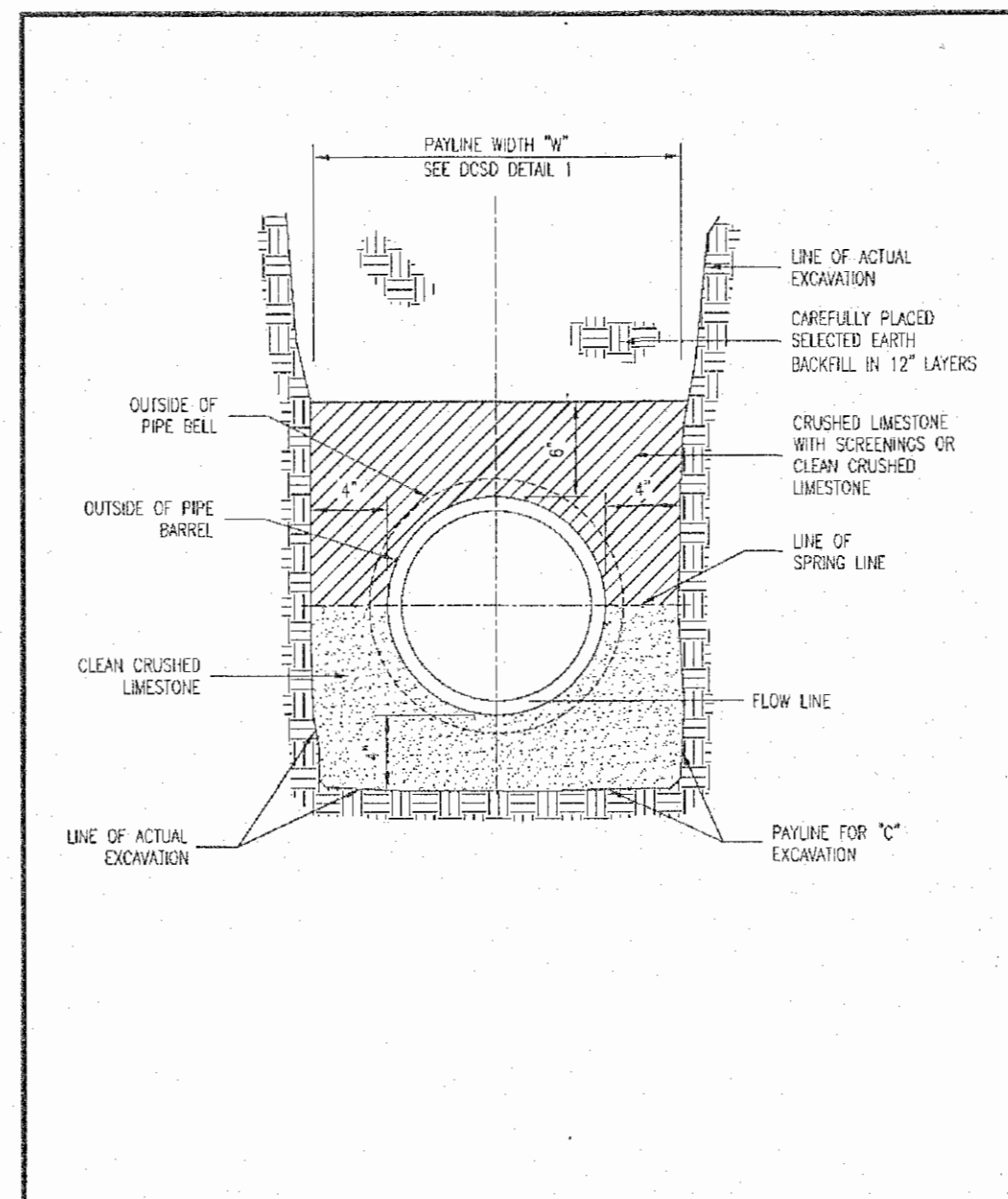
**DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION NOTES**

- Underground utilities have been plotted from available information and therefore location shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor and shall be located prior to any grading or construction of improvements.
- Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including house laterals.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- All fill including places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 92 percent of maximum density as determined by the Modified AASHTO T-99 Compaction Test (ASTM D1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proofrolling and compaction.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- All sanitary sewer flowlines and tees built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- It is the responsibility of the contractor to adjust all sanitary sewer manholes (that are affected by the development) to finish grade.
- Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.
- All sanitary sewer construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.
- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination of inspection.
- All sanitary sewer building connectors shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2 1/2 feet.
- All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources specification 10 CSR-8.120(7)(E).
- All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipe, SDR-35 or equal, with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe.
- All sanitary and storm sewer trench backfills shall be water jolted. Granular backfill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. Flat invert structures not allowed.
- Epoxy Coating shall be used on all sanitary sewer manholes that receive pressurized mains.
- All creek crossings shall be lined with rip-rap as directed by District inspectors.
- Brick shall not be used on sanitary sewer manholes.
- Existing sanitary sewer service shall not be interrupted.
- Maintain access to existing residential driveways and streets.
- Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber boot / Mission-type couplings will not be allowed.
- Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
- Type N Lock-Type Cover and Locking Device (Lock-Lug) shall be used where locktype covers are required.
- All sanitary sewer system work shall be conducted under the inspection of a representative of the District. All work may not require inspection but the District's representative may designate specific areas that must be inspected before the work is backfilled. All testing must be witnessed by the District's Inspector and the Contractor shall furnish all testing equipment as approved by the District. Testing shall include:
  - A mandrel test of all gravity sewers using a mandrel with a diameter that has a diameter 95% of the inside pipe diameter. If the mandrel test fails on any section of pipe, that section of pipe shall be uncovered and replaced. No expansion devices will be allowed to be used to "force" the pipe that is deformed back into round. Any string lines used in mandrel testing shall be removed after testing is completed.
  - An air pressure test of all gravity sewers to a pressure of 5 PSI with no observed drop in pressure during a test period of 5 minutes.
  - A vacuum test of all manholes for a period of 1 minute and the vacuum shall be 10" of mercury and may not drop below 9" of mercury at the end of the 1 minute test.

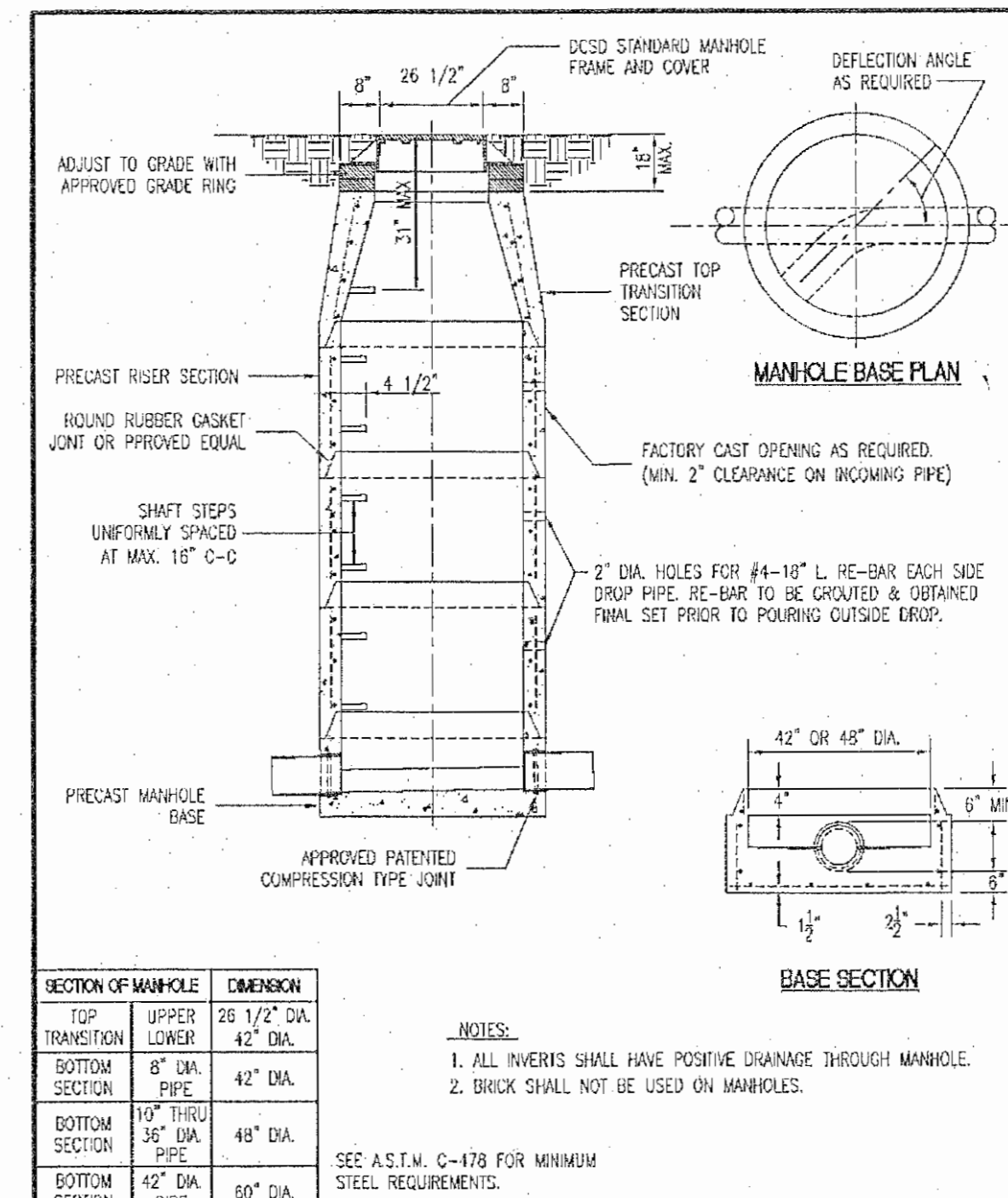
Revised August 2012

| ROUND PIPE                       |                                      |                                    |   | HORIZONTAL ELLIPTICAL PIPE       |                                      |                                    |   |
|----------------------------------|--------------------------------------|------------------------------------|---|----------------------------------|--------------------------------------|------------------------------------|---|
| INSIDE DIAMETER OF PIPE (INCHES) | "W" PAYLINE WIDTH OF TRENCH (INCHES) | "W" PAYLINE WIDTH OF TRENCH (FEET) | PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASUREMENT | INSIDE DIAMETER OF PIPE (INCHES) | "W" PAYLINE WIDTH OF TRENCH (INCHES) | "W" PAYLINE WIDTH OF TRENCH (FEET) | PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASUREMENT |
| 4                                | 30                                   | 2.50                               | 3.28  |                                  |                                      |                                    |   |
| 6                                | 30                                   | 2.50                               | 3.59  |                                  |                                      |                                    |   |
| 8                                | 30                                   | 2.50                               | 3.87  |                                  |                                      |                                    |   |
| 10                               | 30                                   | 2.50                               | 4.09  |                                  |                                      |                                    |   |
| 12                               | 30                                   | 2.50                               | 4.25  |                                  |                                      |                                    |   |
| 15                               | 36                                   | 3.00                               | 5.55  |                                  |                                      |                                    |   |
| 18                               | 36                                   | 3.00                               | 5.77  | 14 x 23                          | 41                                   | 3.42                               | 5.94  |
| 21                               | 39                                   | 3.25                               | 6.81  |                                  |                                      |                                    |   |
| 24                               | 42                                   | 3.50                               | 7.39  | 19 x 30                          | 49                                   | 4.08                               | 7.68  |
| 27                               | 45                                   | 3.75                               | 8.18  | 22 x 34                          | 53                                   | 4.42                               | 8.61  |
| 30                               | 49                                   | 4.08                               | 9.30  | 24 x 38                          | 58                                   | 4.83                               | 9.70  |
| 33                               | 53                                   | 4.42                               | 10.53   | 27 x 42                          | 62                                   | 5.17                               | 10.71   |
| 36                               | 56                                   | 4.67                               | 11.43   | 29 x 45                          | 66                                   | 5.50                               | 11.72   |
| 39                               | DISCONTINUED                         |                                    |   | 32 x 49                          | 71                                   | 5.92                               | 13.14   |
| 42                               | 63                                   | 5.25                               | 13.38   | 34 x 53                          | 75                                   | 6.25                               | 14.05   |
| 48                               | 70                                   | 5.83                               | 15.67   | 38 x 60                          | 83                                   | 6.92                               | 16.18   |
| 54                               | 77                                   | 6.42                               | 18.15   | 43 x 68                          | 92                                   | 7.67                               | 18.81   |
| 60                               | 84                                   | 7.00                               | 20.73   | 48 x 76                          | 101                                  | 8.42                               | 21.59   |
| 66                               | 91                                   | 7.58                               | 23.45   | 53 x 83                          | 109                                  | 9.08                               | 24.35   |
| 72                               | 98                                   | 8.17                               | 26.37   | 58 x 91                          | 118                                  | 9.83                               | 27.45   |
| 78                               | 105                                  | 8.75                               | 29.39   | 63 x 98                          | 126                                  | 10.50                              | 30.50   |
| 84                               | 112                                  | 9.33                               | 32.57   | 68 x 106                         | 135                                  | 11.25                              | 33.91   |
| 90                               | 119                                  | 9.92                               | 35.90   | 72 x 113                         | 143                                  | 11.92                              | 36.99   |
| 96                               | 126                                  | 10.50                              | 39.37   | 77 x 121                         | 152                                  | 12.67                              | 40.69   |
| 102                              | 133                                  | 11.08                              | 42.99   | 82 x 128                         | 160                                  | 13.33                              | 44.45   |
| 108                              | 140                                  | 11.67                              | 46.75   | 87 x 136                         | 168                                  | 14.00                              | 47.79   |
| 114                              | 147                                  | 12.25                              | 50.66   | 92 x 143                         | 176                                  | 14.67                              | 51.70   |
| 120                              | 154                                  | 12.83                              | 54.72   | 97 x 151                         | 185                                  | 15.42                              | 56.01   |
| 126                              | 161                                  | 13.42                              | 58.92   |                                  |                                      |                                    |   |
| 132                              | 168                                  | 14.00                              | 63.27   | 106 x 166                        | 202                                  | 16.83                              | 64.48   |
| 144                              | 182                                  | 15.17                              | 72.40   | 116 x 180                        | 218                                  | 18.17                              | 73.59   |

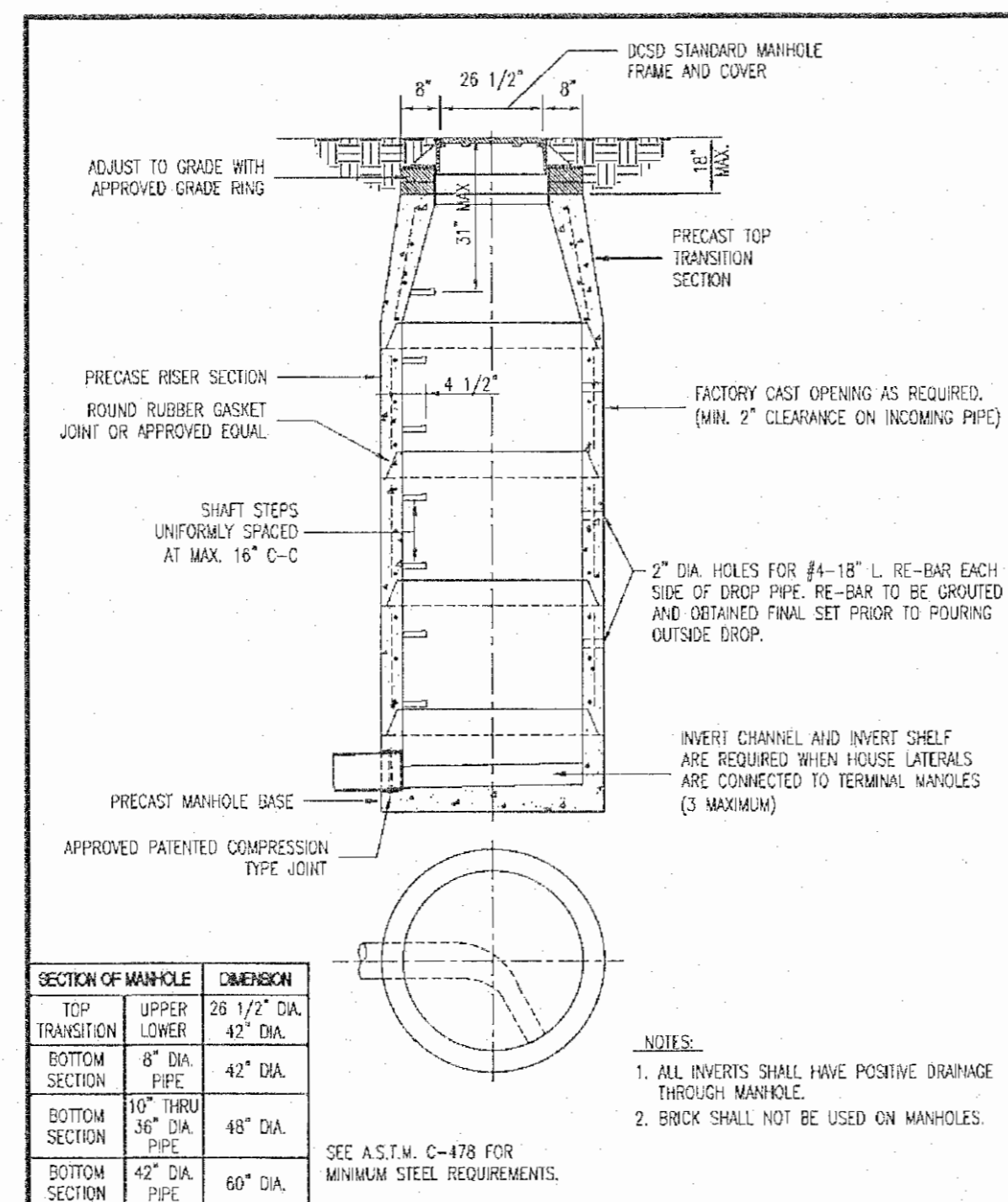
**Duckett Creek Sanitary District**  
 PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE  
 Drawn By: BSM App. By: KLA Detail No. 1  
 Date: MAR. 2015



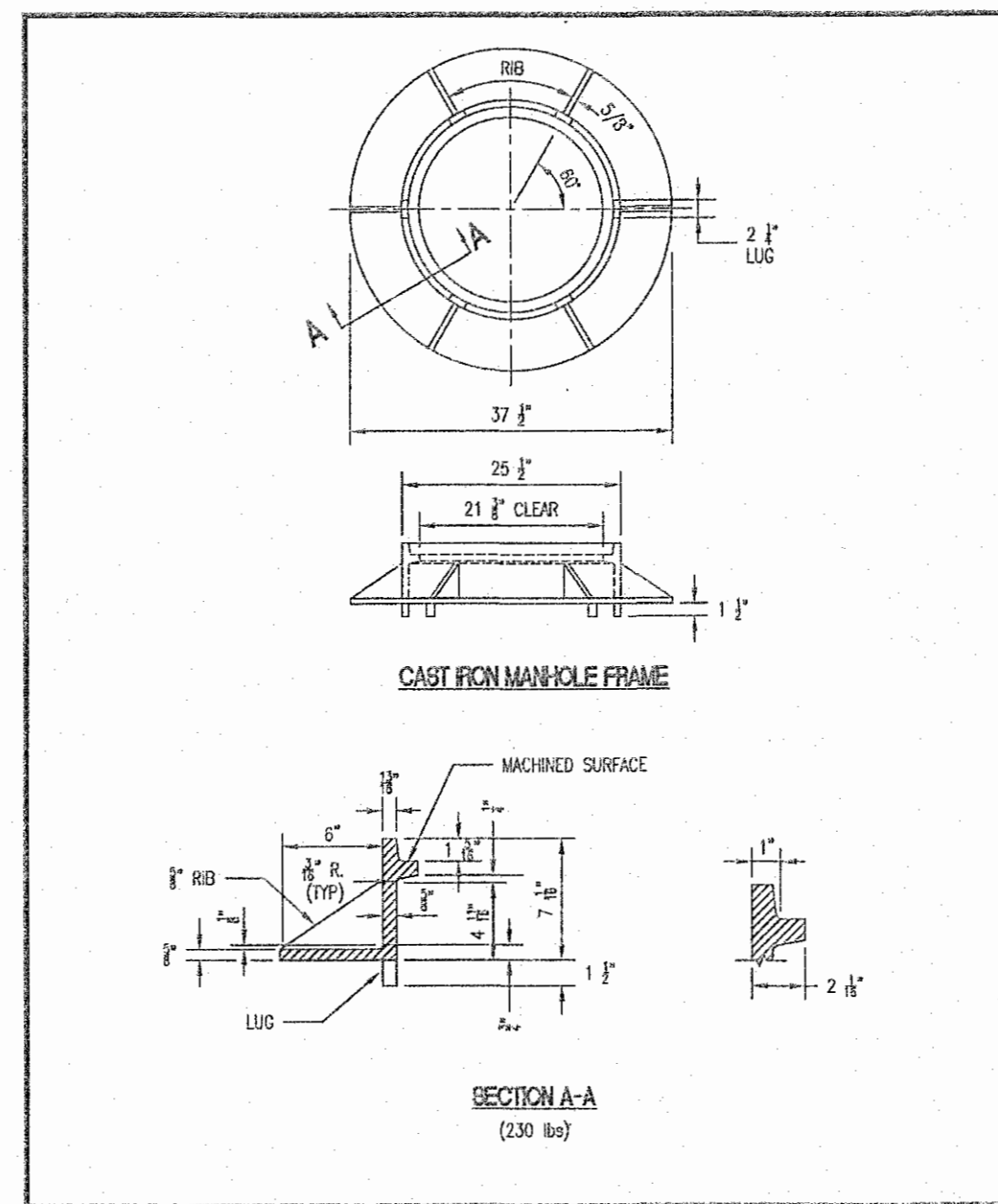
**Duckett Creek Sanitary District**  
 PIPE BEDDING CLASS 'C' (FOR ALL EXCEPT REINFORCED CONCRETE PIPE)  
 Drawn By: BSM App. By: KA Detail No. 3  
 Date: MAR. 2015



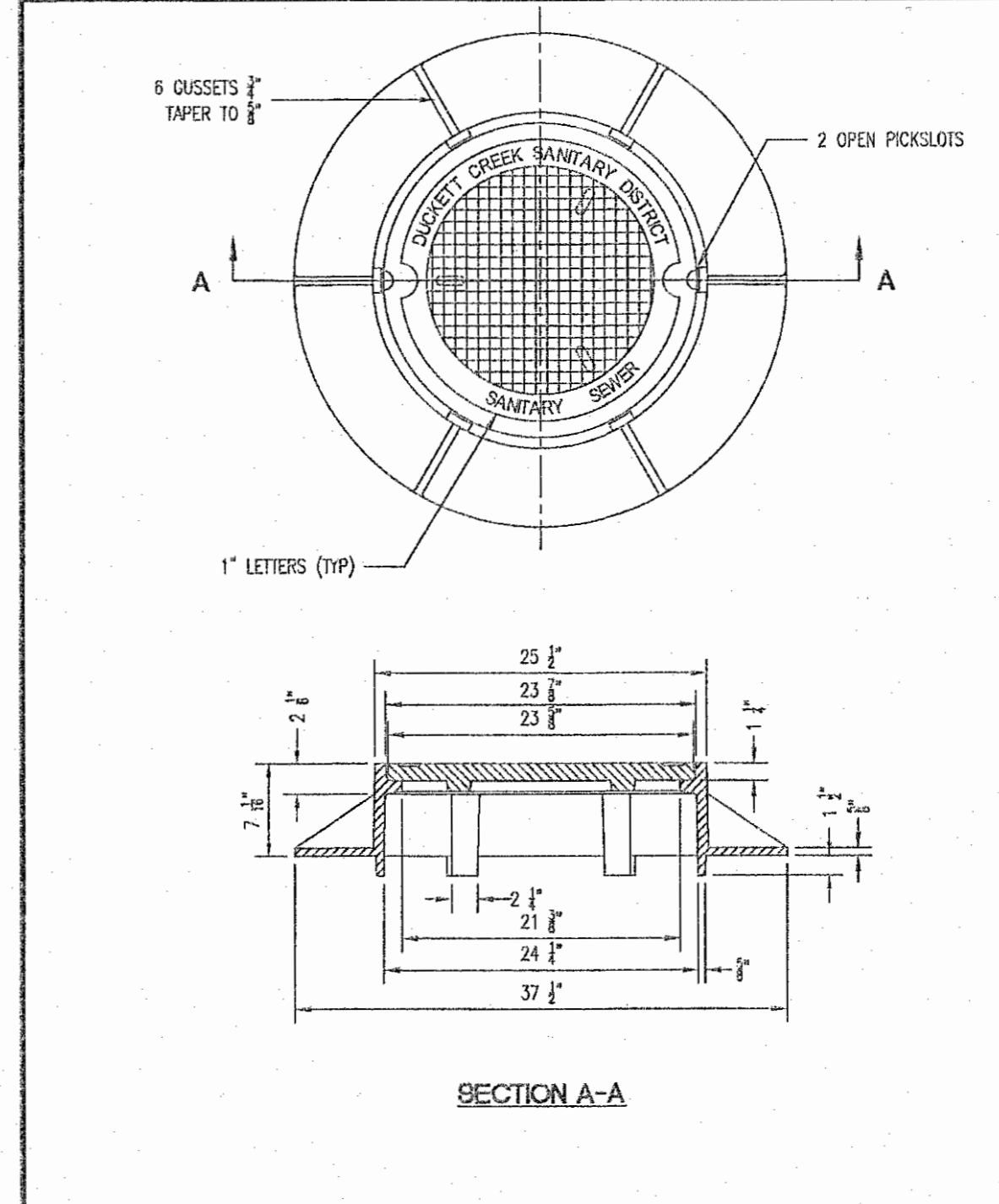
**Duckett Creek Sanitary District**  
 PRECAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 18" BSM  
 Drawn By: BSM App. By: KLA Detail No. 7  
 Date: DEC. 2015



**Duckett Creek Sanitary District**  
 TERMINAL MANHOLE FOR SEWERS 8" THROUGH 18"  
 Drawn By: BSM App. By: KLA Detail No. 8  
 Date: DEC. 2015



**Duckett Creek Sanitary District**  
 CAST IRON MANHOLE FRAME  
 Drawn By: BSM App. By: KLA Detail No. 11  
 Date: DEC. 2015



**Duckett Creek Sanitary District**  
 MANHOLE FRAME AND COVER  
 Drawn By: BSM App. By: KLA Detail No. 12  
 Date: 1/14/09

**PROJECT TITLE:**  
**AS-BUILT PLANS FOR THE LANDING OF OFALLON**

**ENGINEERING PLANNING SURVEYING**  
 221 Point West Blvd.  
 St. Charles, MO 63301  
 636-928-6552  
 FAX 636-928-1718

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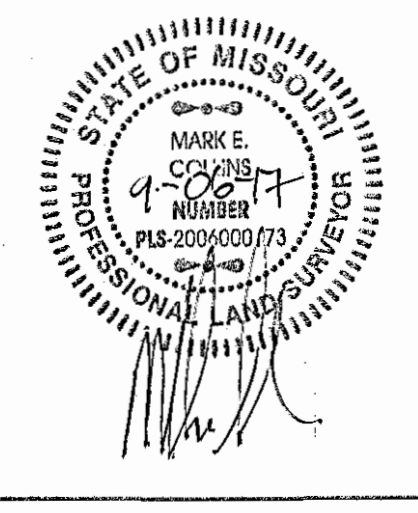
**REVISIONS**

| NO. | DESCRIPTION |
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**Developer / Owner:**  
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 550 LATONA ROAD, BUILDING A  
 ROCHESTER, NEW YORK 14626  
 1-585-563-1390

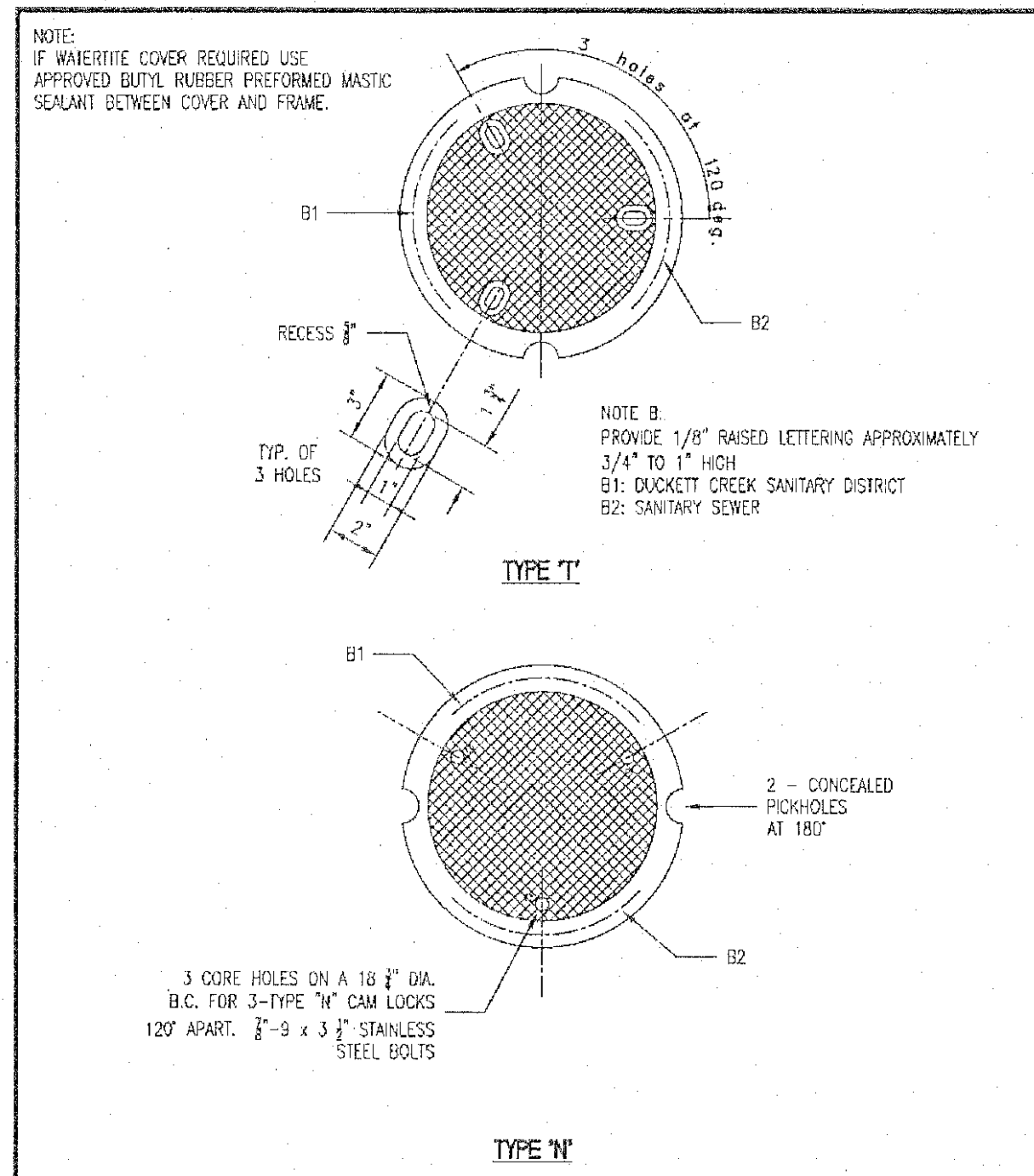
**DUCKETT CREEK DETAILS**

**P+Z No.** 20-16.02  
**City No.** 16-010424  
**Page No.** 8 of 14

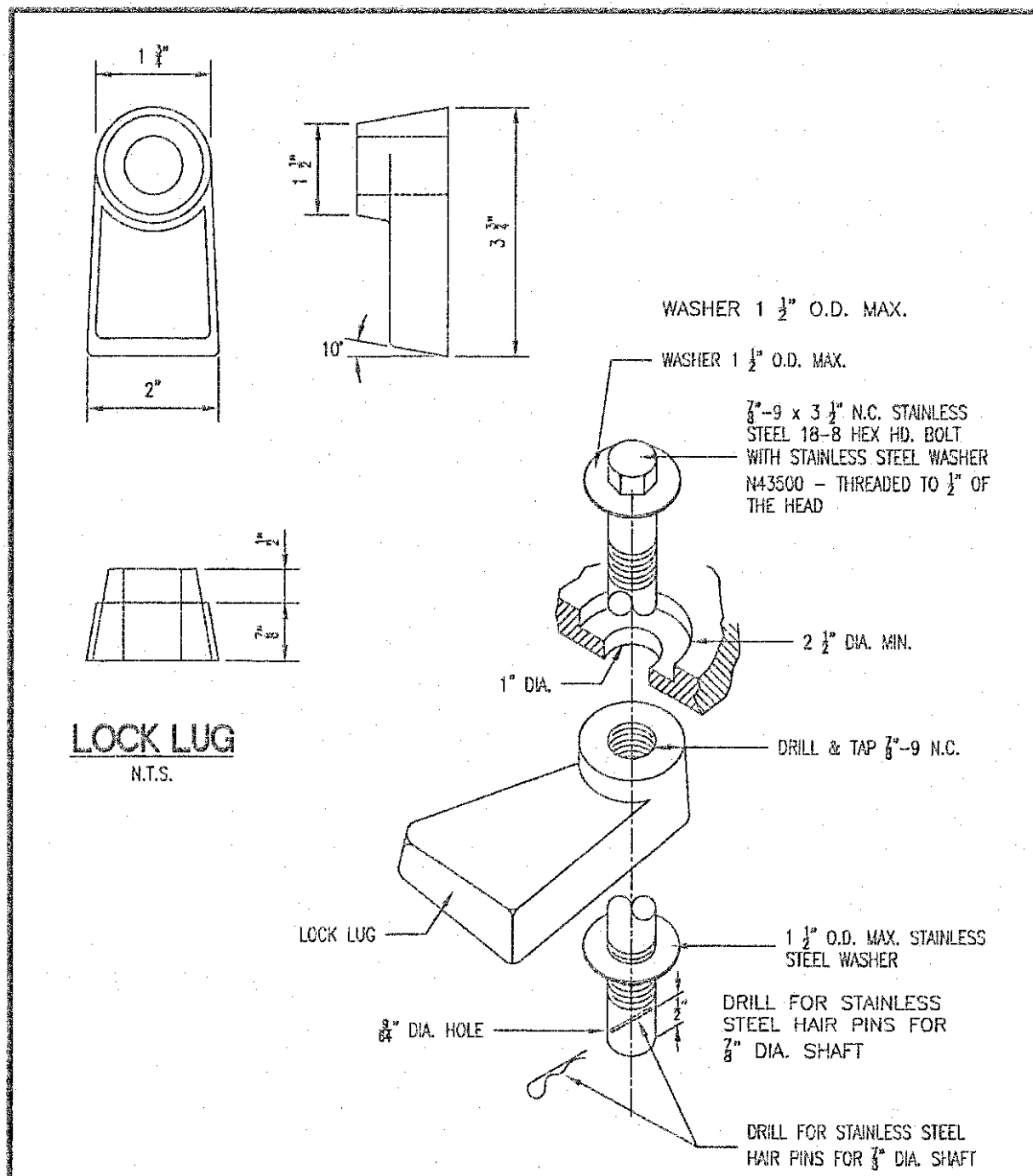


Box Project #06-13601BB Issue Date: 04/13/2017

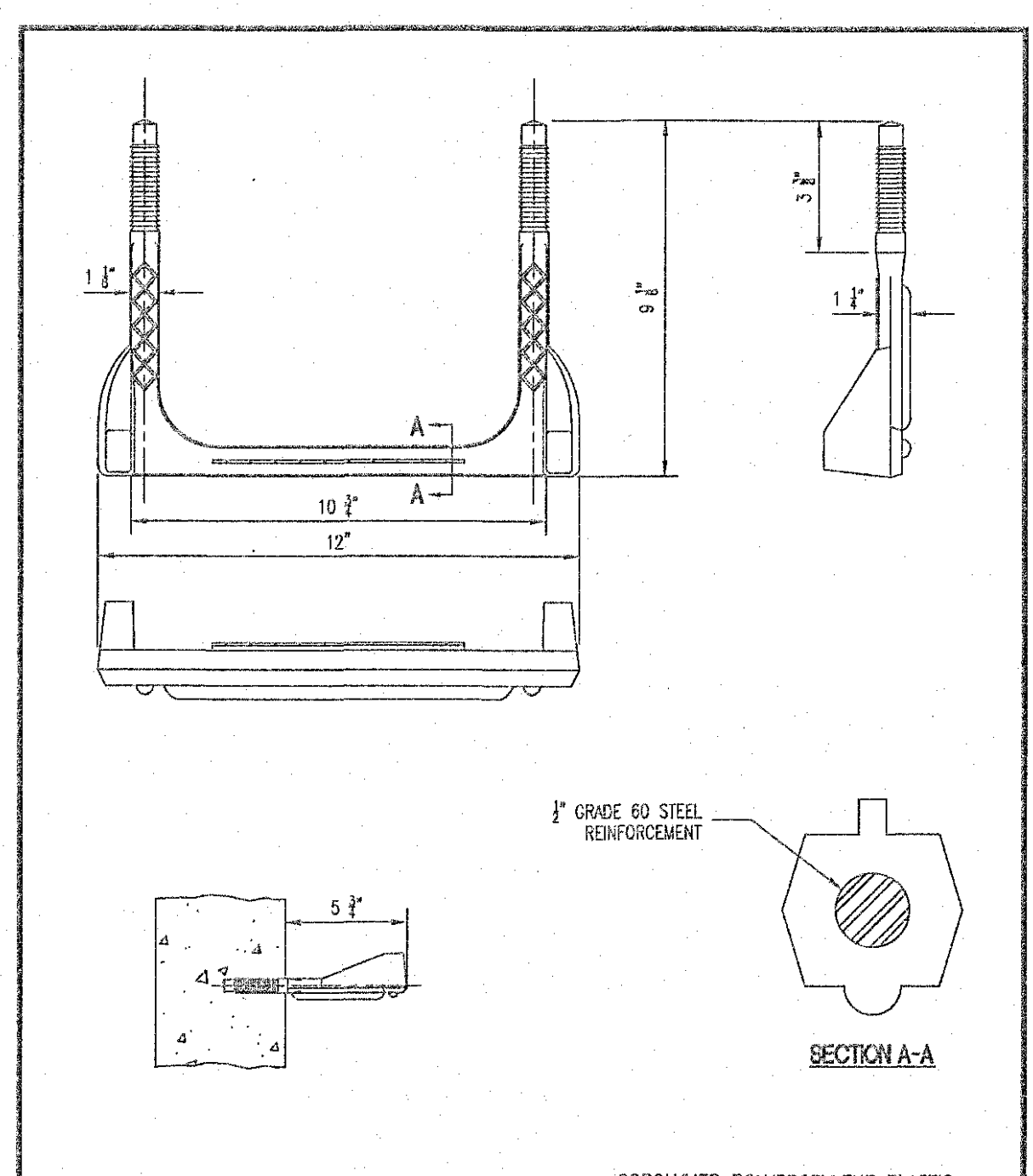




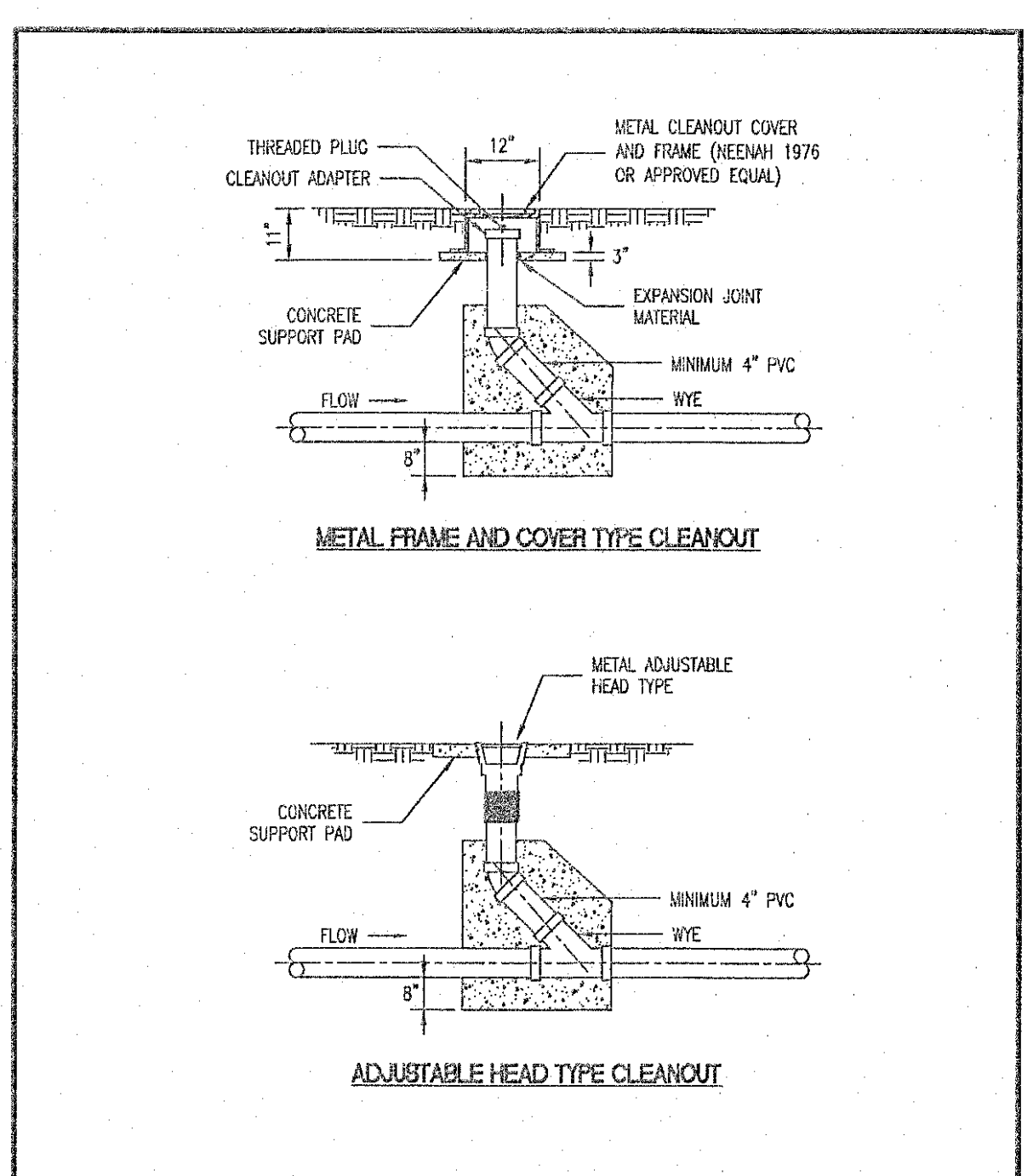
Duckett Creek Sanitary District  
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 Check By: MDOB Date: 12/27/14



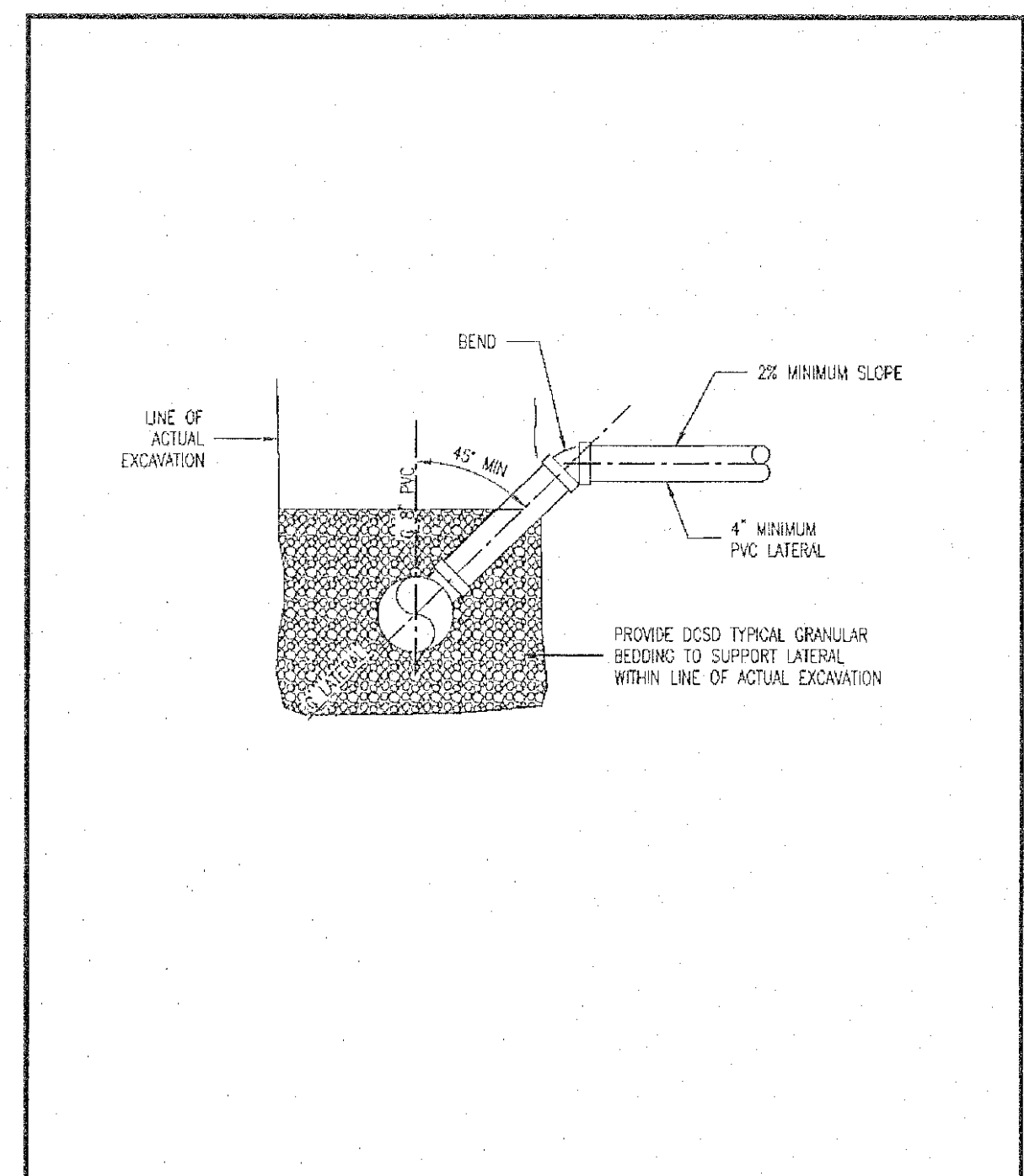
Duckett Creek Sanitary District  
 LOCKING DEVICE FOR TYPE "M" LOCK TYPEMAN HOLE COVER  
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 Check By: MDOB Date: 12/28/00



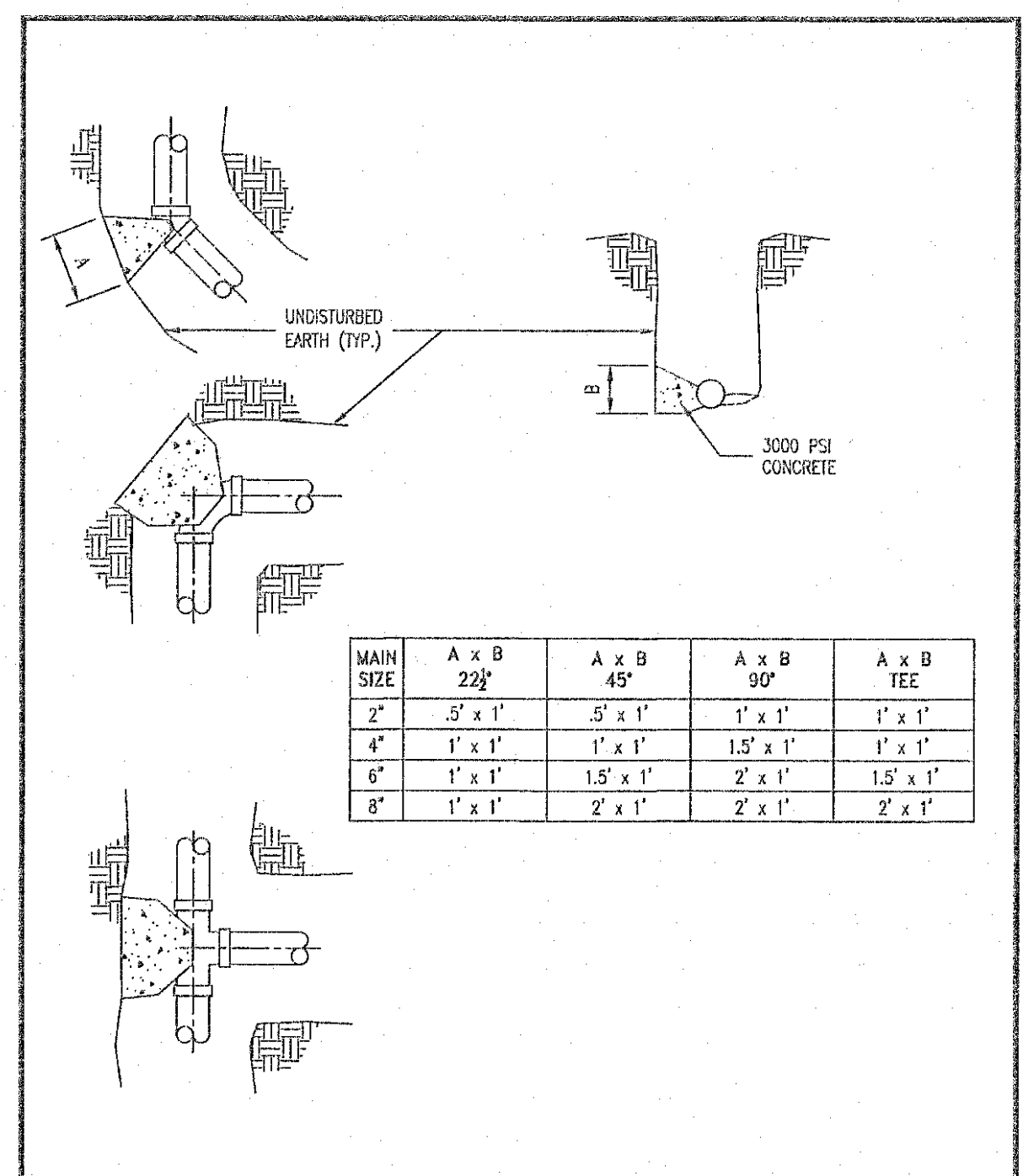
Duckett Creek Sanitary District  
 MANHOLE STEP FOR PRECAST MANHOLE  
 Drawn By: BSM App. By: KA Detail No. 18  
 Check By: MDOB Date: DEC. 2015



Duckett Creek Sanitary District  
 TYPICAL SEWER LATERAL CLEANOUT DETAIL  
 Drawn By: BSM App. By: KLA Detail No. 25  
 Check By: MDOB Date: DEC. 2015



Duckett Creek Sanitary District  
 SANITARY SEWER LATERAL RISER DETAIL  
 Drawn By: BSM App. By: KA Detail No. 27  
 Check By: MDOB Date: DEC. 2015



Duckett Creek Sanitary District  
 THRUST BLOCK DETAIL AND SIZE SCHEDULE  
 Drawn By: BSM App. By: KA Detail No. 29  
 Check By: MDOB Date: DEC. 2015

PROJECT TITLE:  
 AS-BUILT PLANS FOR  
 THE LANDING OF O'FALLON

ENGINEERING  
 PLANNING  
 SURVEYING

22 Point West Blvd.  
 St. Charles, MO 65001  
 636-920-5552  
 FAX 636-920-1718

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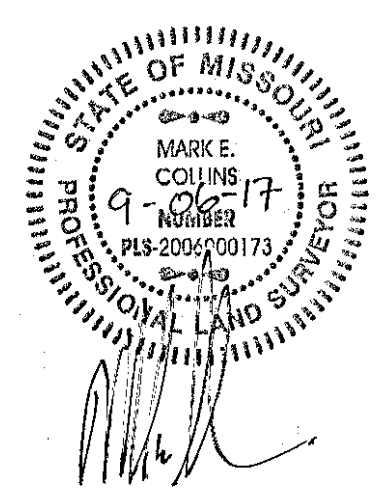
REVISIONS

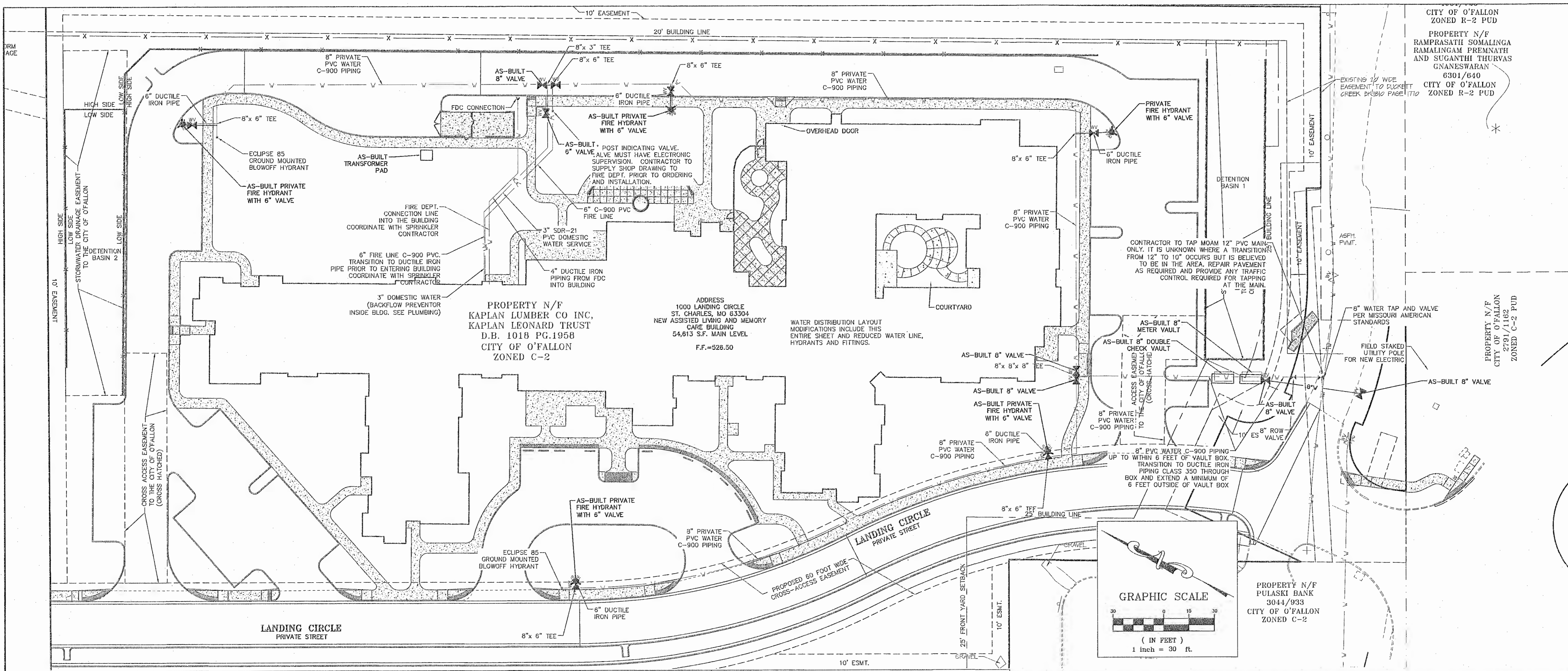
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Developer / Owner:  
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 550 LATONA ROAD, BUILDING A  
 ROCHESTER, NEW YORK 14626  
 1-585-563-1390

DUCKETT CREEK DETAILS

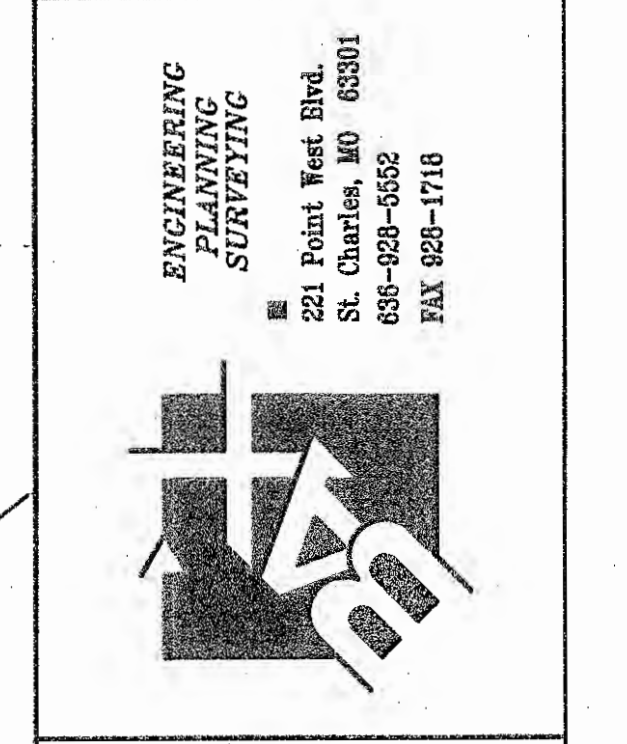
P+Z No. 20-16.02  
 City No. 16-010424  
 Page No.





**PROJECT TITLE:**  
AS-BUILT PLANS FOR THE LANDING OF O'FALLON

**ENGINEERING PLANNING SURVEYING**  
221 Point West Blvd.  
St. Charles, MO 63301  
636-929-5552  
FAX 636-929-1718

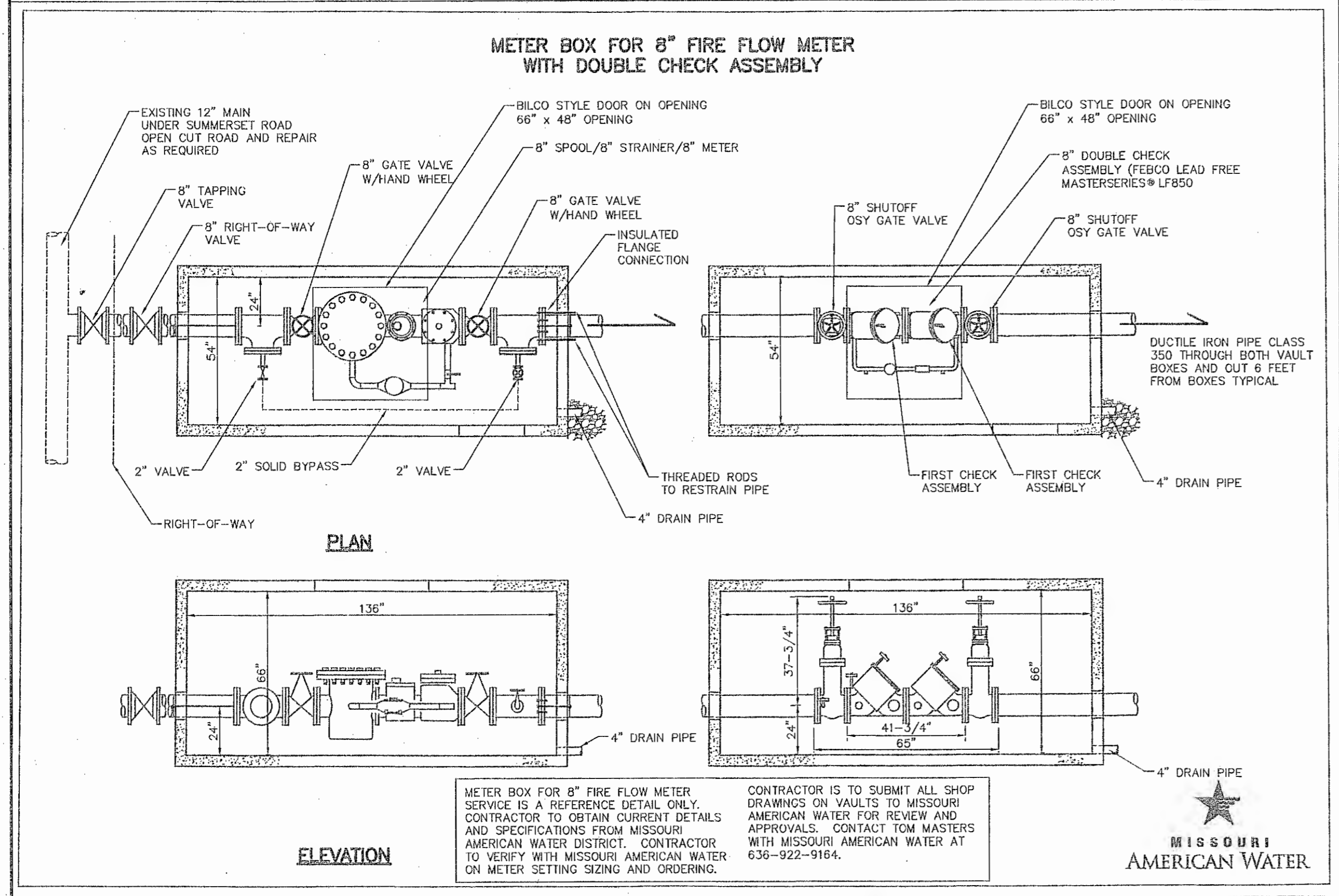


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**REVISIONS**

| No. | Description |
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Missouri American Water  
1290 Motherhead Road  
St. Charles, MO 63304

Meter Box For 3', 4", 6", 8", 10"

| Service Inches | Vault Dimensions |     |    |
|----------------|------------------|-----|----|
|                | A                | B   | C  |
| 3              | 48               | 102 | 54 |
| 4              | 48               | 102 | 54 |
| 6              | 48               | 124 | 60 |
| 8              | 54               | 136 | 66 |
| 10             | 54               | 136 | 72 |

- Length of Box "B" shall be distance "C" Plus Distance required to install fittings as shown.
- Vault walls to be of concrete.
- Vault Roof to be of reinforced concrete with open centered over the meter.
- Lid and frame of opening to be equal to or better than Bilco I-5AL 3'6"x3'6"
- Vault to be in green space.
- Drainage facilities must be provided, or box otherwise kept free of free water, no french drains allowed.
- Service to be run at right angles from meter box to street.
- Metal ladder to be provided if district allows box depth exceed 6 feet.
- Any deviation from pipe depth shown must be approved by District prior to construction.
- Box to be set with top of box at finish grade with no extension allowed.

**CROKER FIRE DEPT. INLET CONN. FREESTANDING TYPE 6510-6532 SERIES**

**DOUBLE CLAPPER TWO-WAY INLET**  
Brass Body \* Overall Height: 24"

500 G.P.M. minimum inlet capacity auxiliary inlet connection.

**STANDARD EQUIPMENT:** Cast brass bottom outlet body with double clappers, outlet and inlet sizes as selected by figure number, 18" high brass seamless tubing; brass branded plate; cast brass plugs and chains. Branding as selected.

**SPECIFY THREAD AND BRANDING.**  
BRANDING: "Standpipe," "Auto Spkr."

Special lettering available.

**OPTIONAL FINISHES:**  
PB - Polished Brass  
RC - Rough Chrome Plated  
PC - Polished Chrome Plated

**U/L LISTED**

| Figure No. | Size              |
|------------|-------------------|
| 6510       | 4 X 2 1/2 X 2 1/2 |
| 6512       | 6 X 2 1/2 X 2 1/2 |
| 6513       | 4 X 3 X 3         |
| 6514       | 5 X 3 X 3         |
| 6515       | 6 X 3 X 3         |

OVERALL HEIGHT: 24"  
BODY SWING RADIUS: 7 1/4"

CONTRACTOR TO VERIFY WITH SPRINKLER/PLUMBING DWGS ON PROPER SIZING OF FDC.  
CONTRACTOR TO SUBMIT SHOP DRAWINGS TO THE FIRE DEPT. FOR APPROVALS.

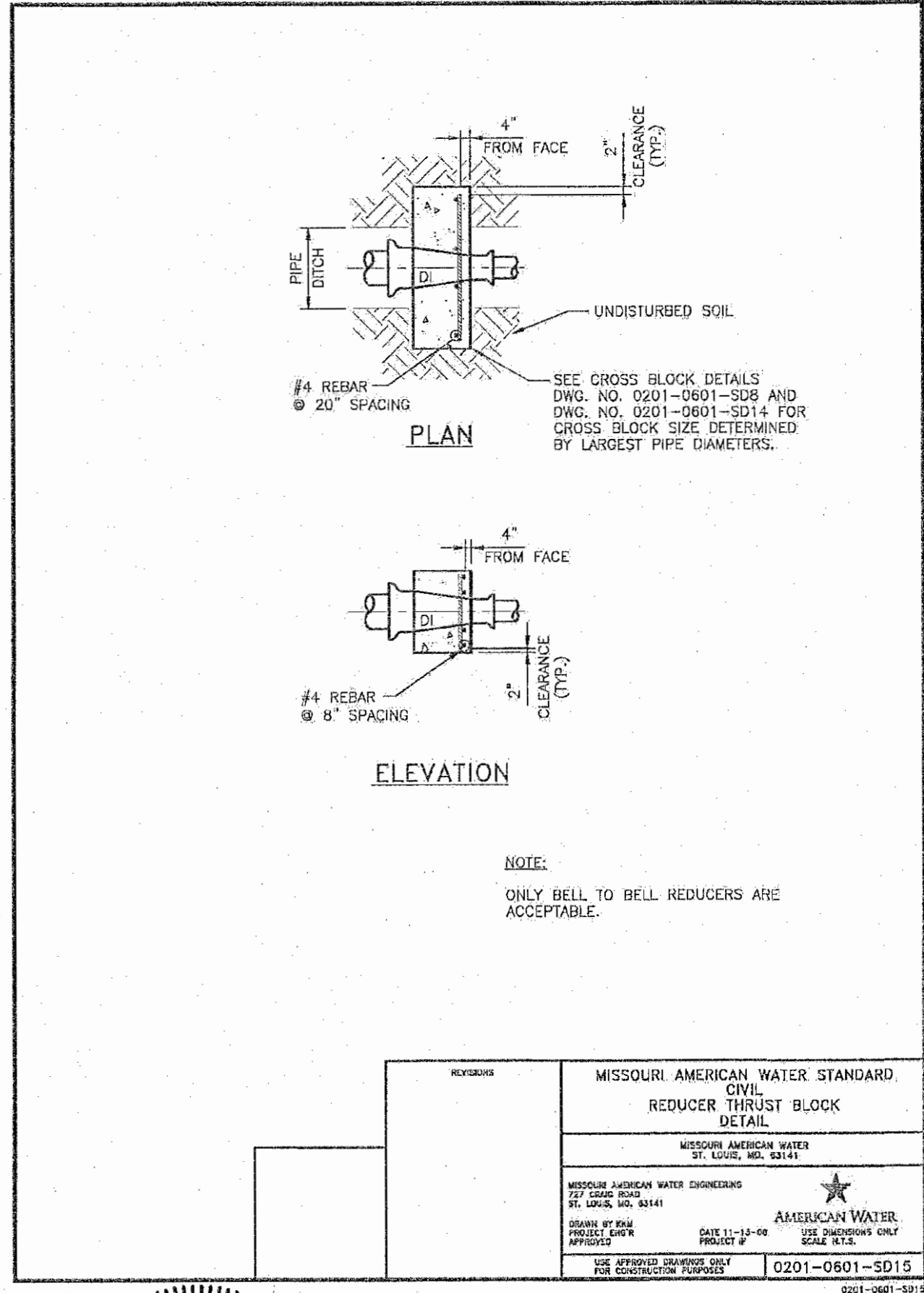
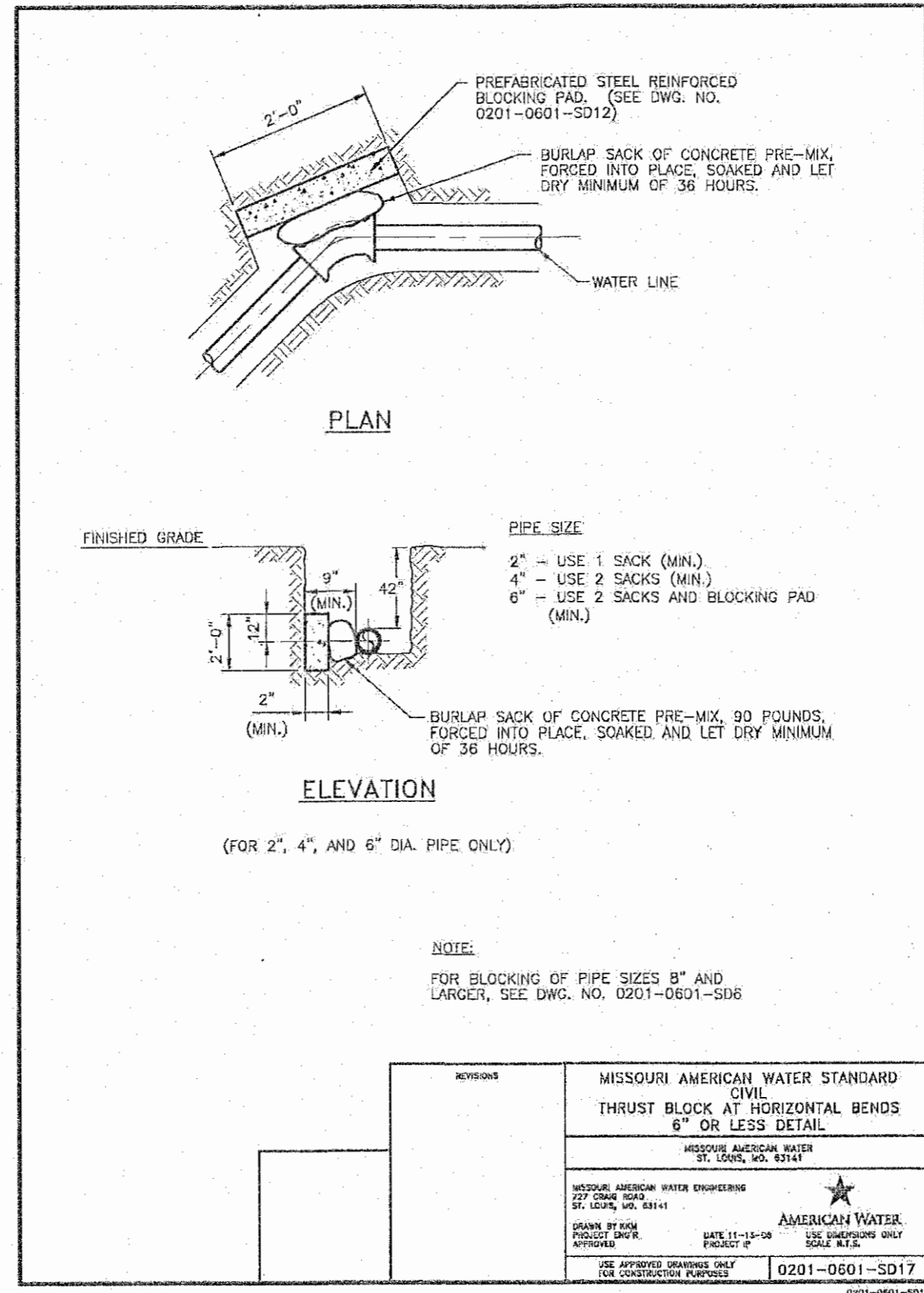
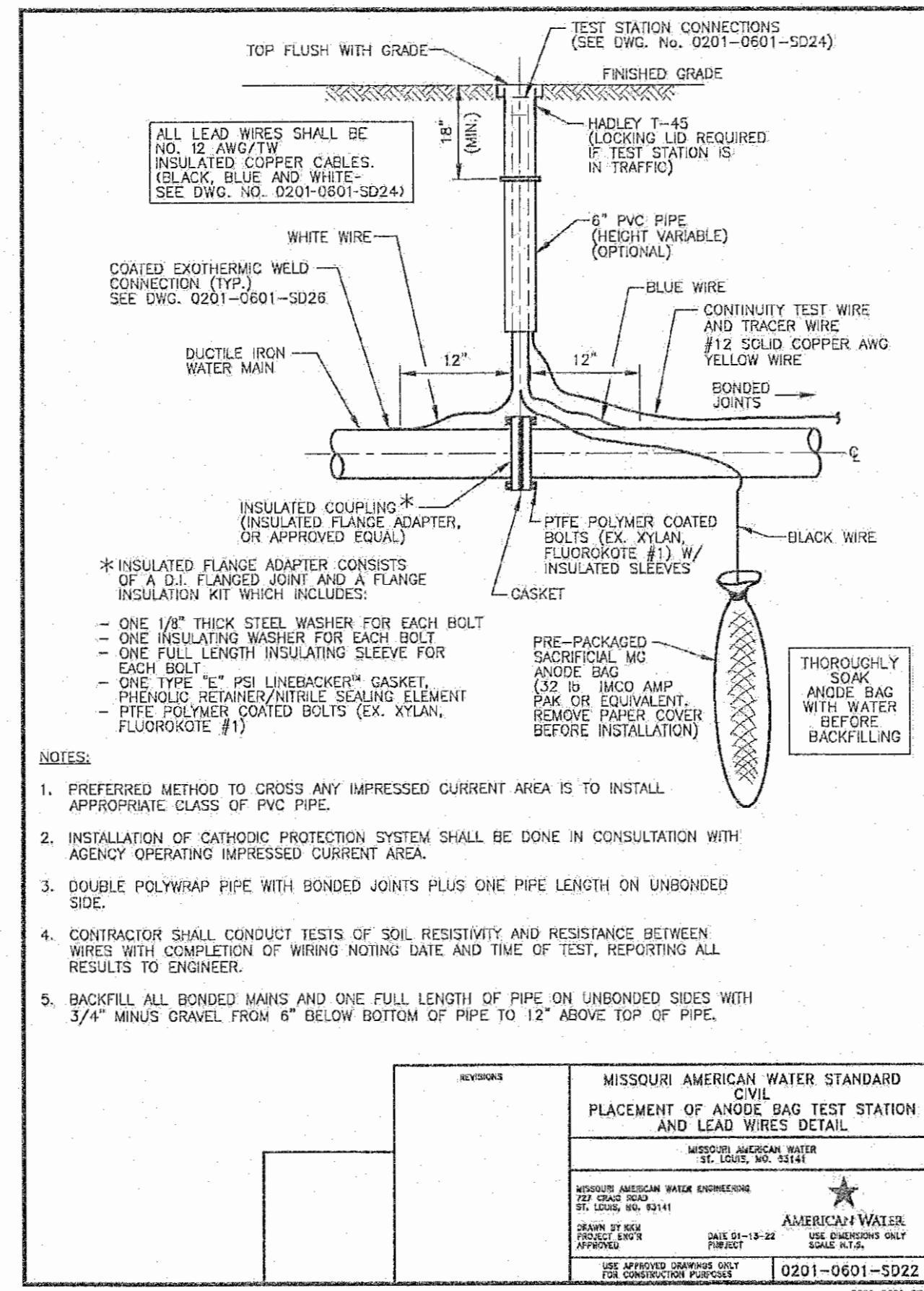
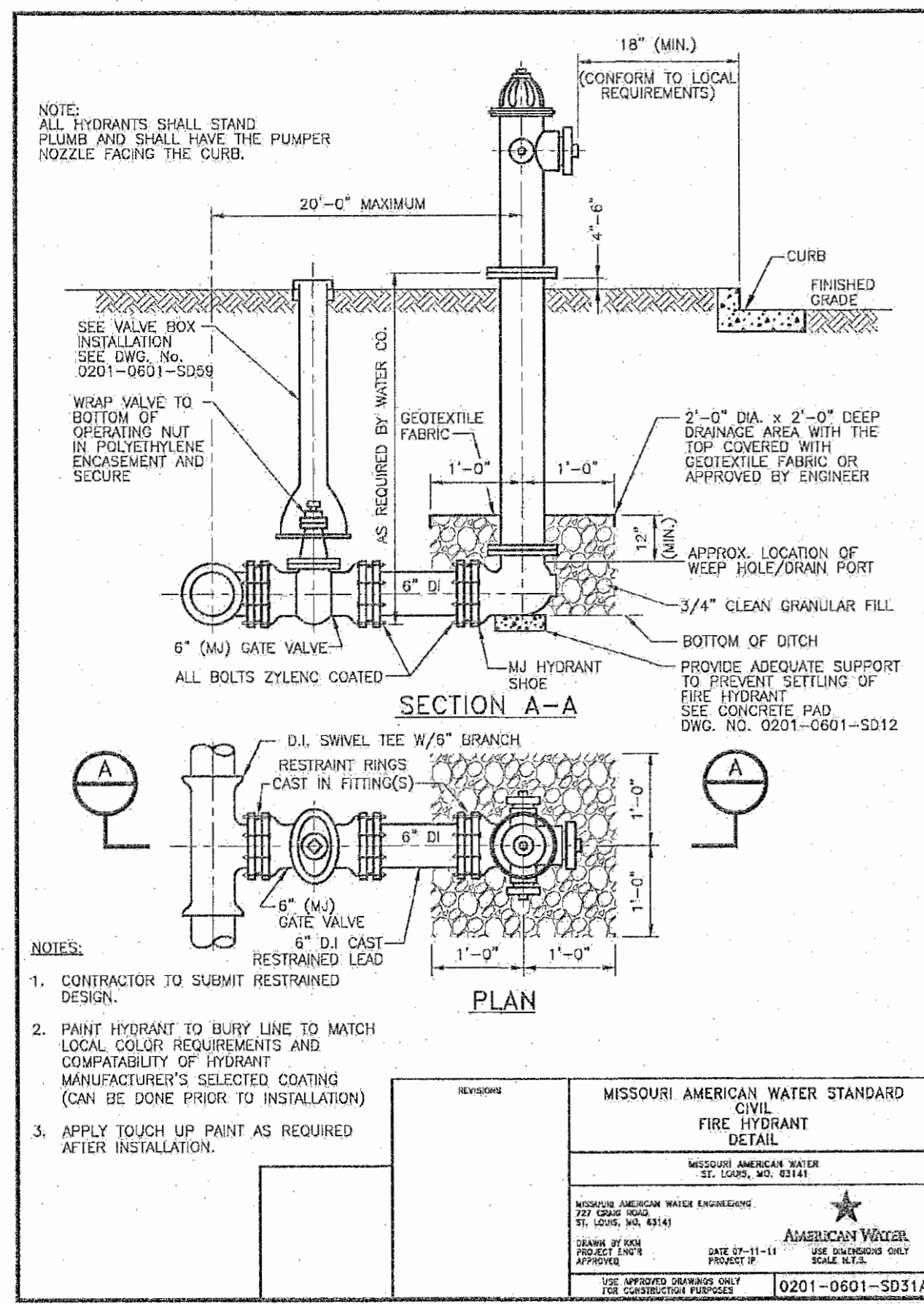
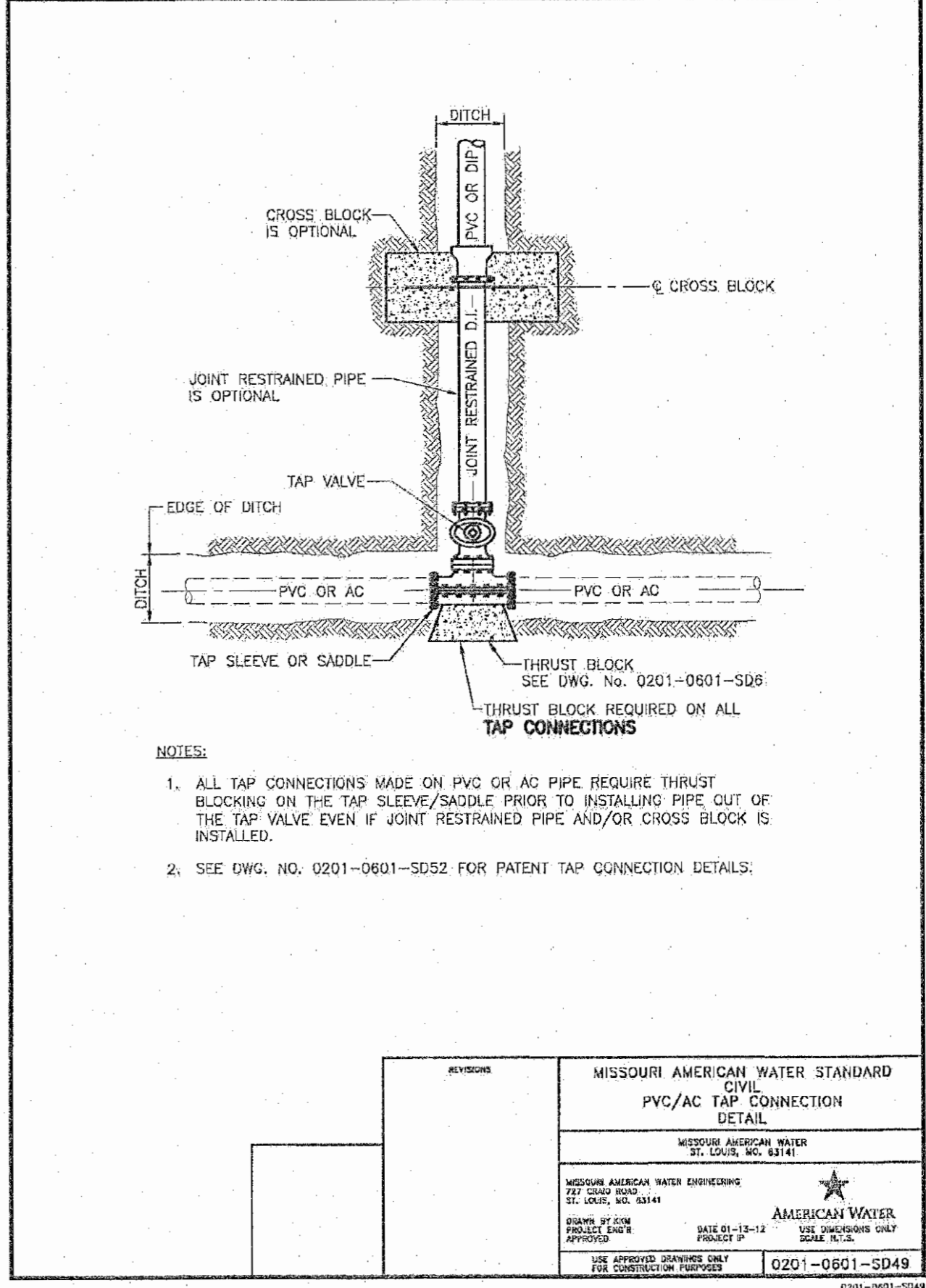
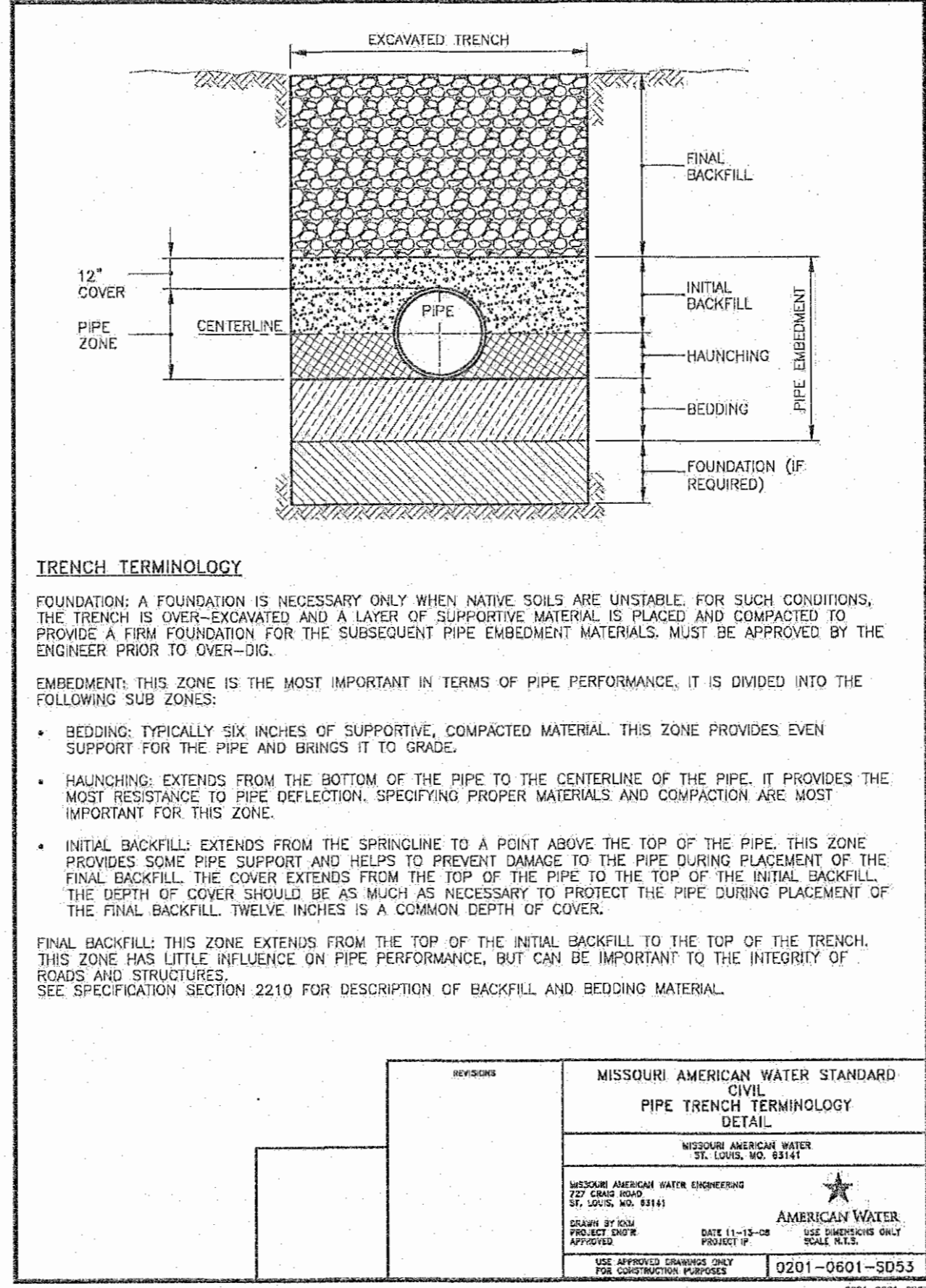
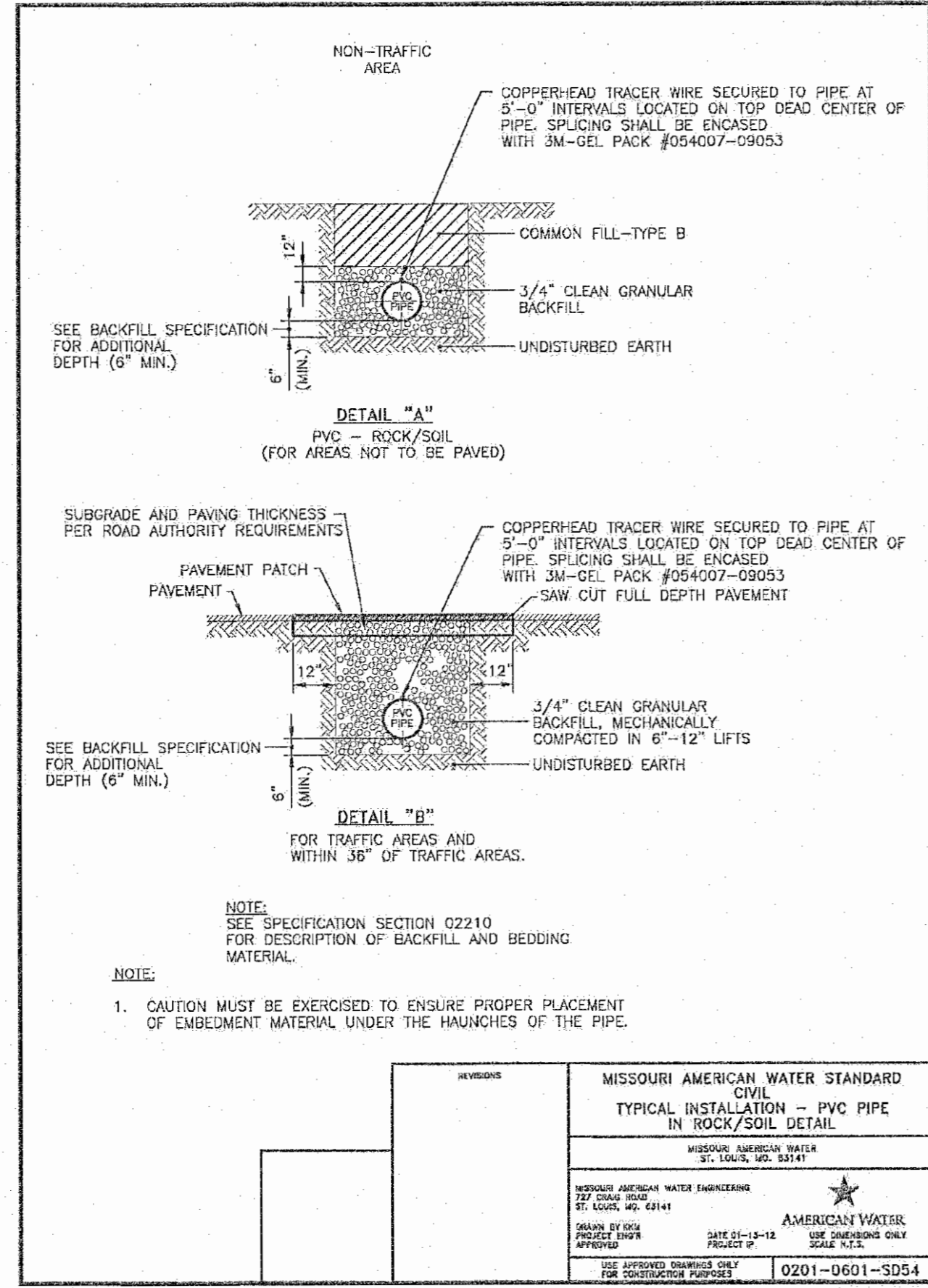
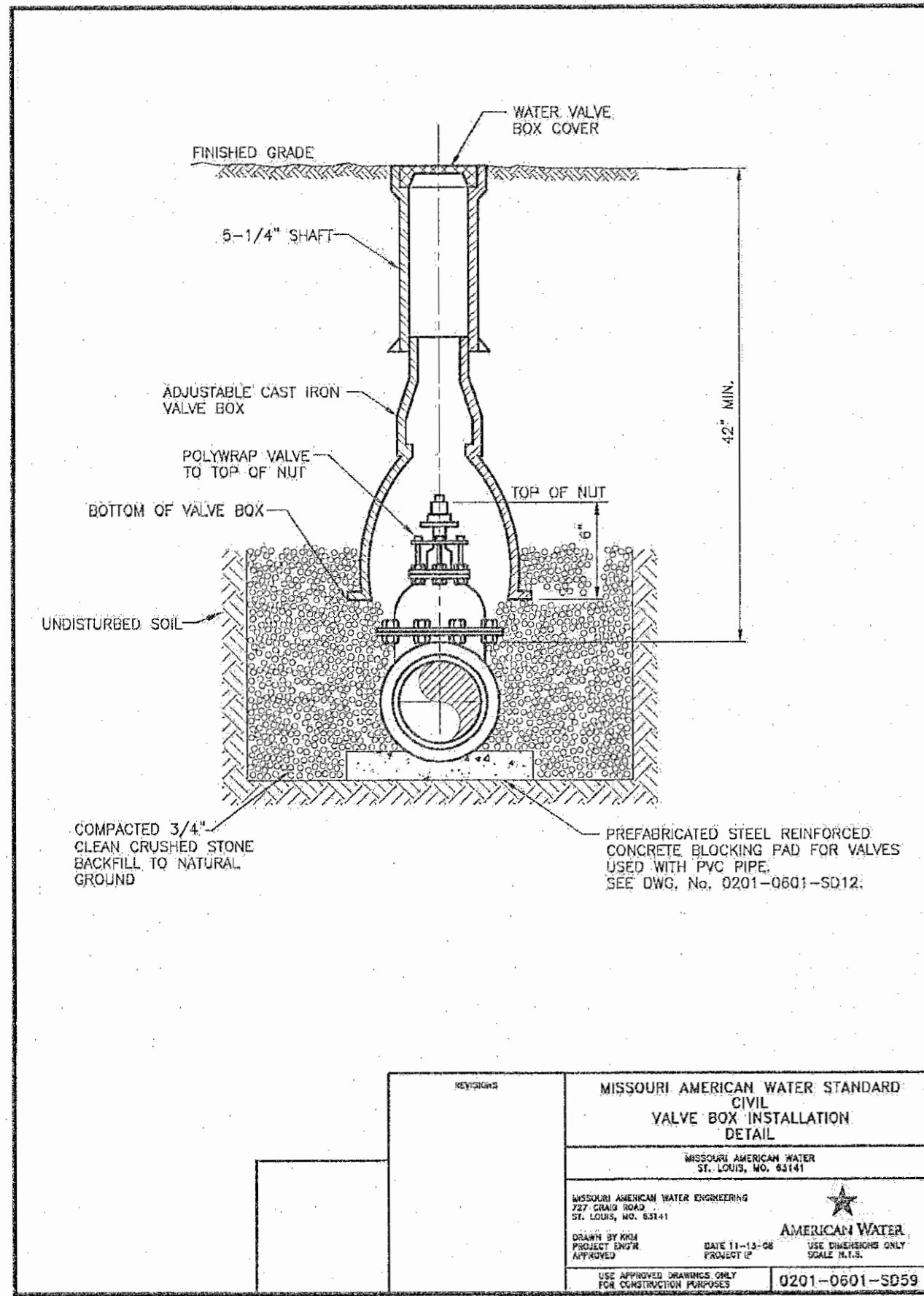
- ALL TEES, PLUGS, CAPS, BENDS, REDUCERS, VALVES, AND HYDRANT BRANCHES SHALL BE RESTRAINED AGAINST MOVEMENT BY USING THRUST BLOCKS IN ACCORDANCE WITH SECTION 10.8.2 OR RESTRAINED JOINT SYSTEMS IN ACCORDANCE WITH SECTION 10.8.3 OF NFPA 24.
- THE FLUSHING AND TESTING OF THE UNDERGROUND PIPING, ETC. FOR PRIVATE FIRE SERVICE MAINS SHALL COMPLY WITH SECTION 10.10.2.1 OF NFPA 24 AND SHALL BE WITNESSED BY A REPRESENTATIVE FROM THE FIRE DEPARTMENT.
- EVERY CONNECTION FROM THE PRIVATE FIRE SERVICE MAIN TO A BUILDING SHALL BE PROVIDED WITH A POST INDICATOR VALVE TO CONTROL ALL SOURCES OF WATER SUPPLY TO THE AUTOMATIC FIRE SUPPRESSION AND OR STANDPIPE SYSTEMS. POST INDICATOR SHALL ALSO HAVE ELECTRONIC SUPERVISION. CONTRACTOR TO SUPPLY SHOP DRAWINGS OF THE INDICATOR AND ELECTRONIC SUPERVISION TO THE FIRE DEPARTMENT FOR APPROVALS.
- ALL SHOP DRAWINGS SHALL BE SENT TO: COTTLEVILLE FIRE PROTECTION DISTRICT 1305 MOTHERHEAD ROAD COTTLEVILLE, MO 63304 ATTN: MARK BOEHLE - FIRE MARSHAL 636-447-6655

Issue Date: 04/18/2017

**Developer / Owner:**  
WEGMANN O'FALLON, LLC  
560 LATONA ROAD, BUILDING A  
ROCHESTER, NEW YORK 14626  
1-585-563-1390

**Water Details - MOAM WATER/COTTLEVILLE FIRE**

**P+Z No.** 20-16.02  
**City No.** 16-010424  
**Page No.** 10 of 14



PROJECT TITLE:  
AS-BUILT PLANS FOR THE LANDING OF OFALLON

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221 Point West Blvd.  
St. Charles, MO 63301  
636-928-5652  
FAX 636-1718

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REFERENCE DETAIL SHEET ONLY.  
CONTRACTOR TO OBTAIN CURRENT DETAILS AND SPECIFICATIONS FROM MISSOURI AMERICAN WATER DISTRICT. CONTRACTOR TO VERIFY WITH MISSOURI AMERICAN WATER ON METER SETTING SIZING AND ORDERING.

REVISIONS

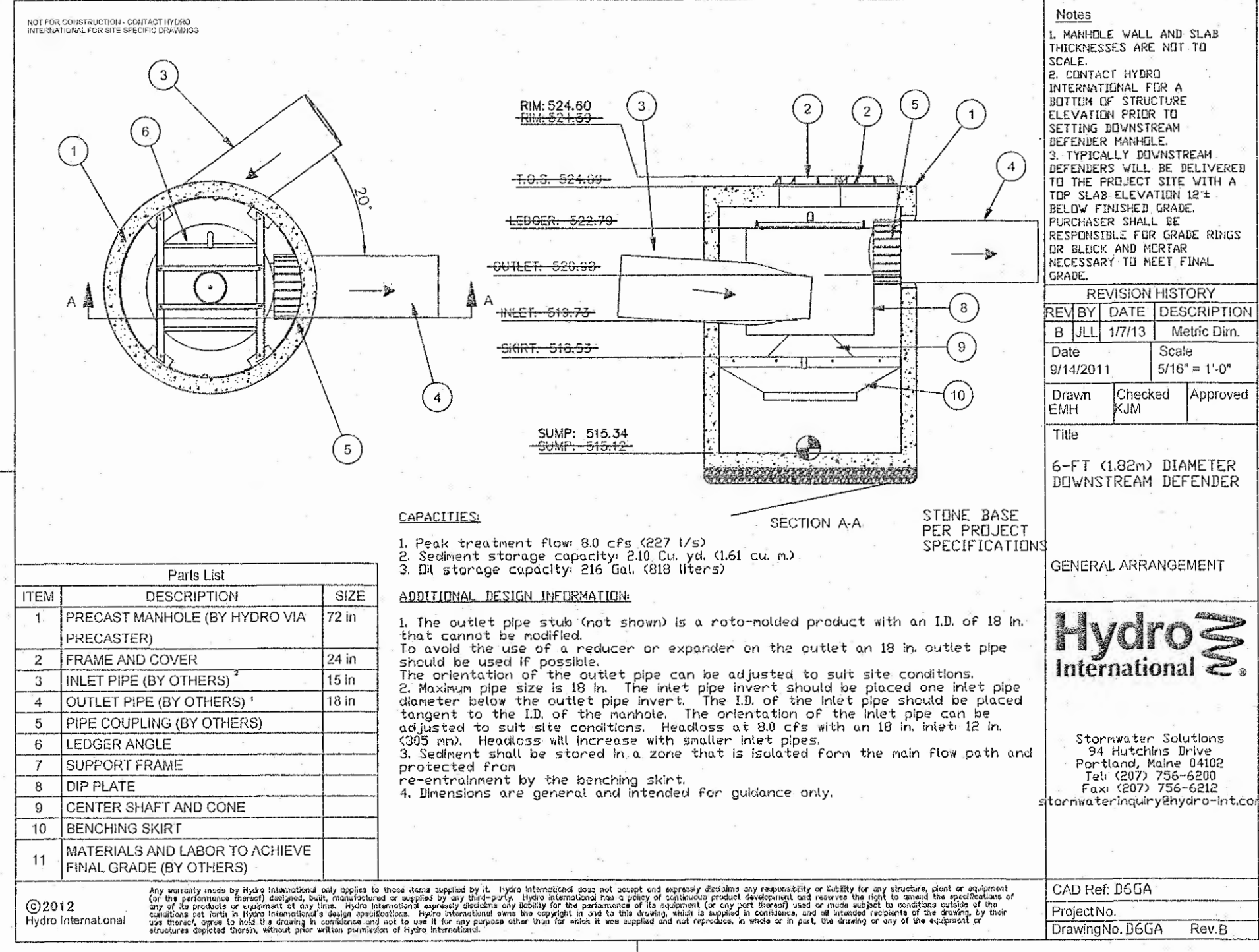
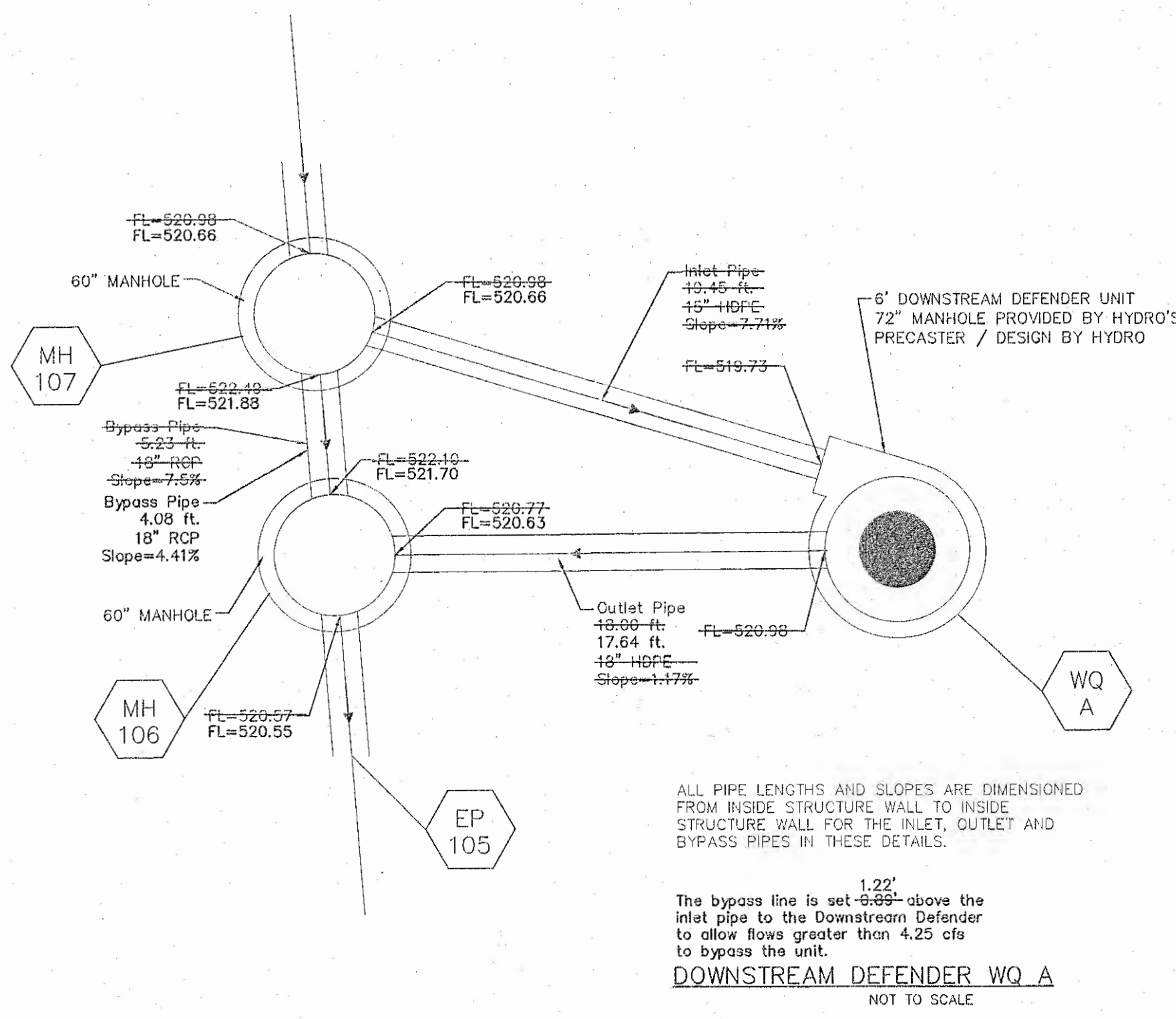
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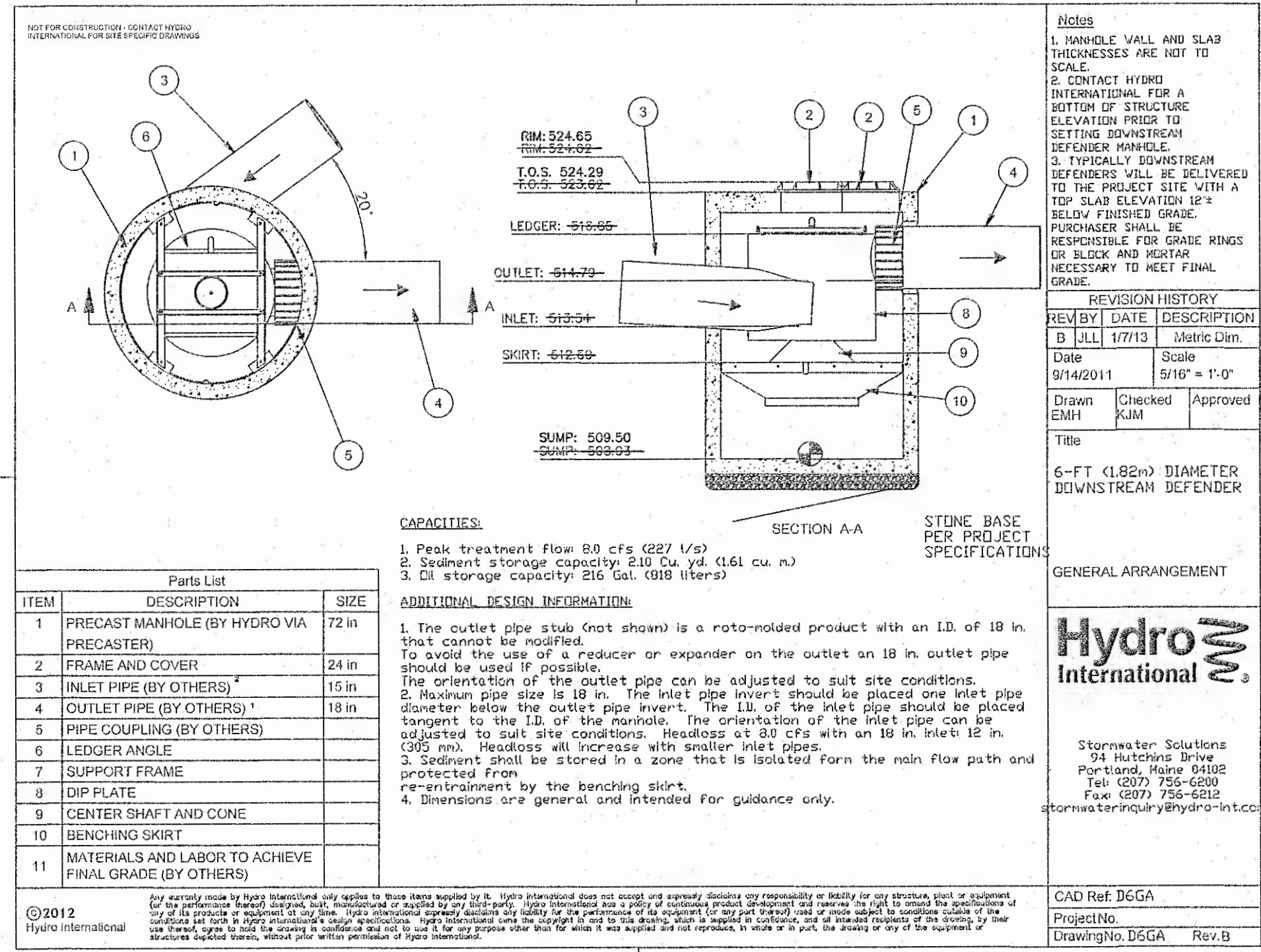
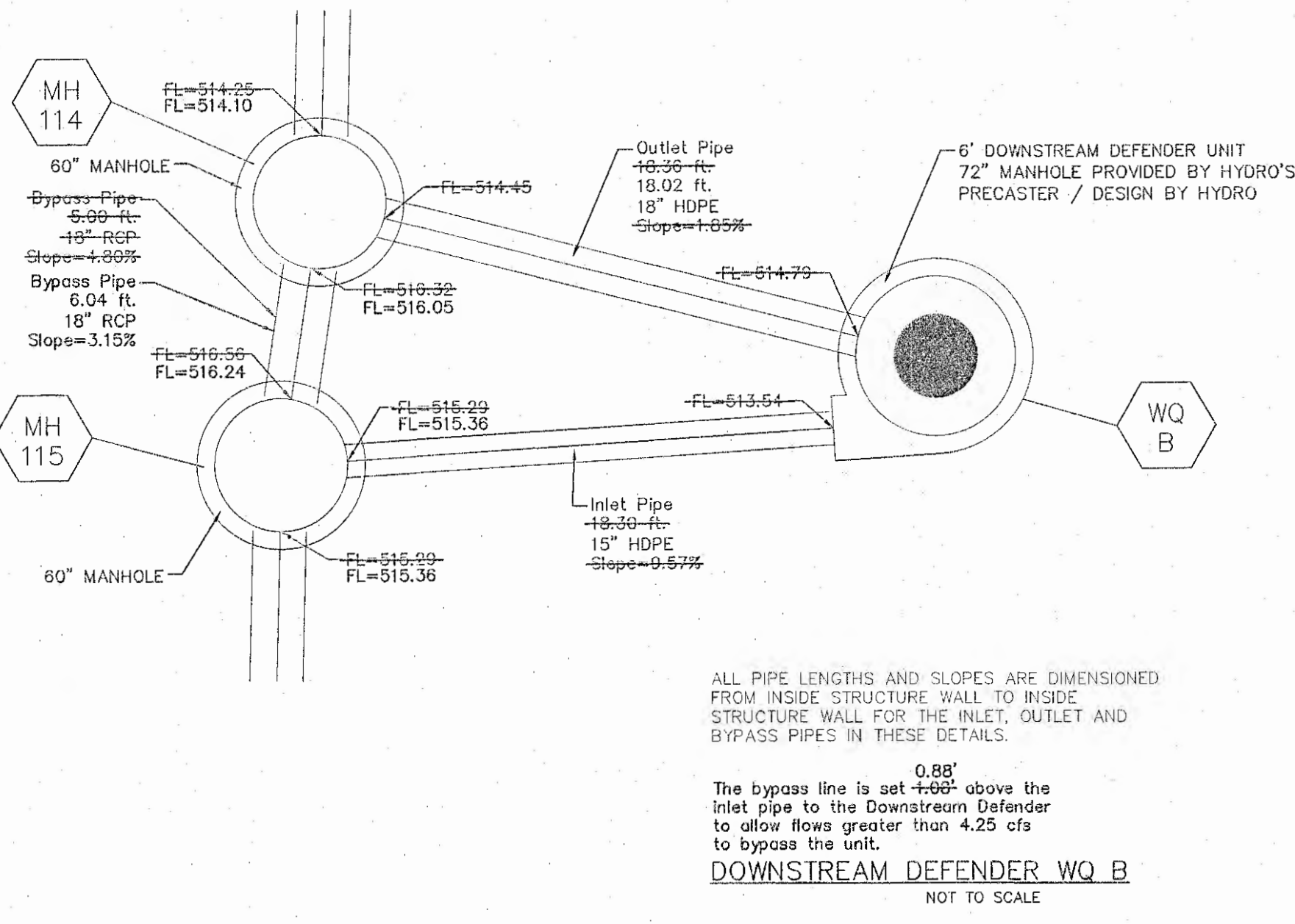
WATER DETAILS - MISSOURI AMERICAN WATER

P+Z No. 20-16.02  
City No. 16-010424  
Page No. 11 of 14





**DOWNSTREAM DEFENDER A**  
NOT TO SCALE



**DOWNSTREAM DEFENDER B**  
NOT TO SCALE

**PROJECT TITLE:**  
AS-BUILT PLANS FOR THE LANDING OF O'FALLON

**ENGINEERING FIRM:**  
WEGMANN O'FALLON, LLC  
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CLIFFORD L. HEITMANN  
CIVIL ENGINEER  
E-29817  
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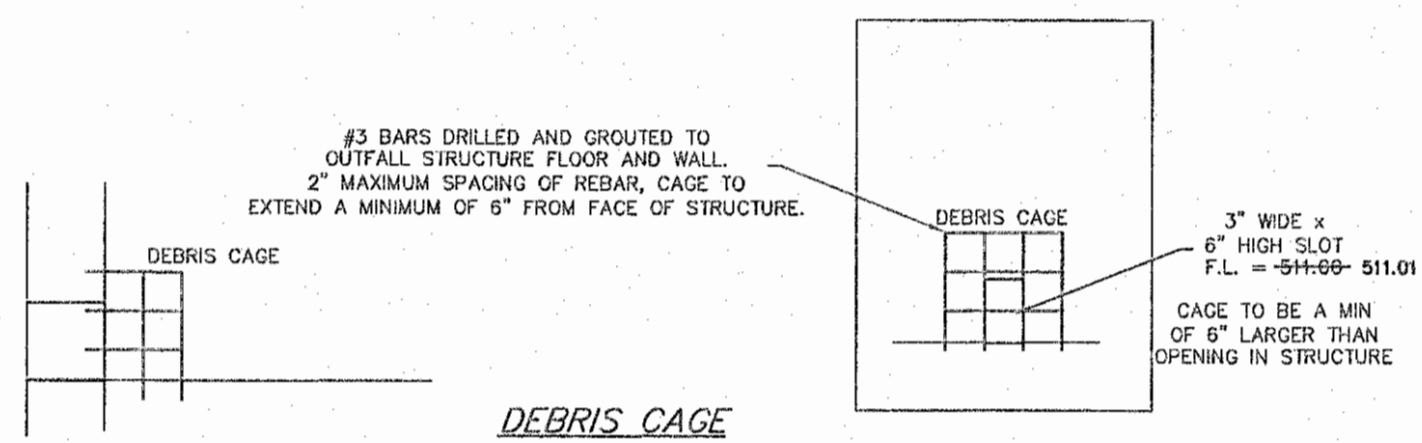
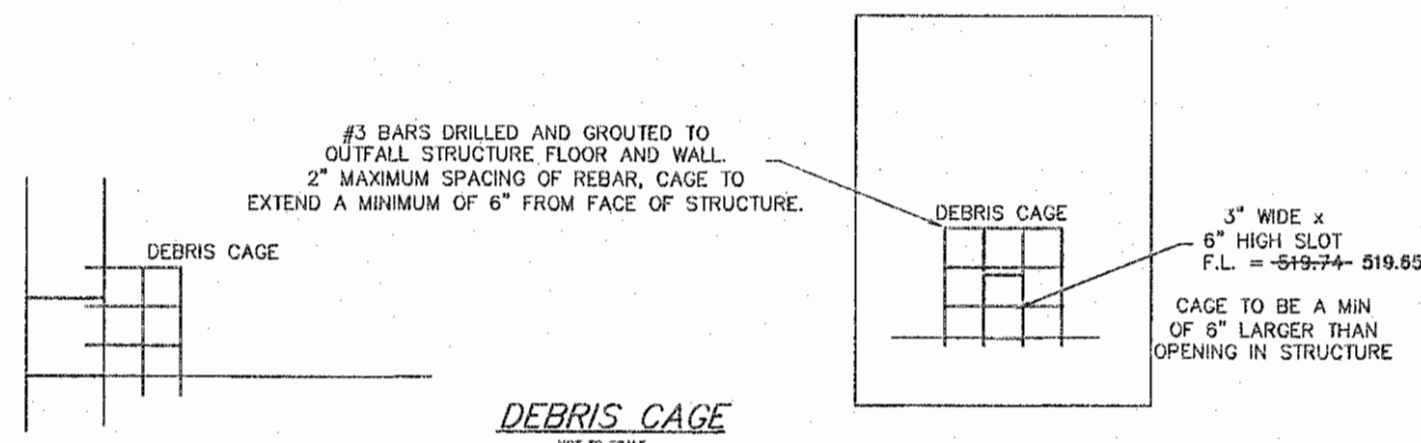
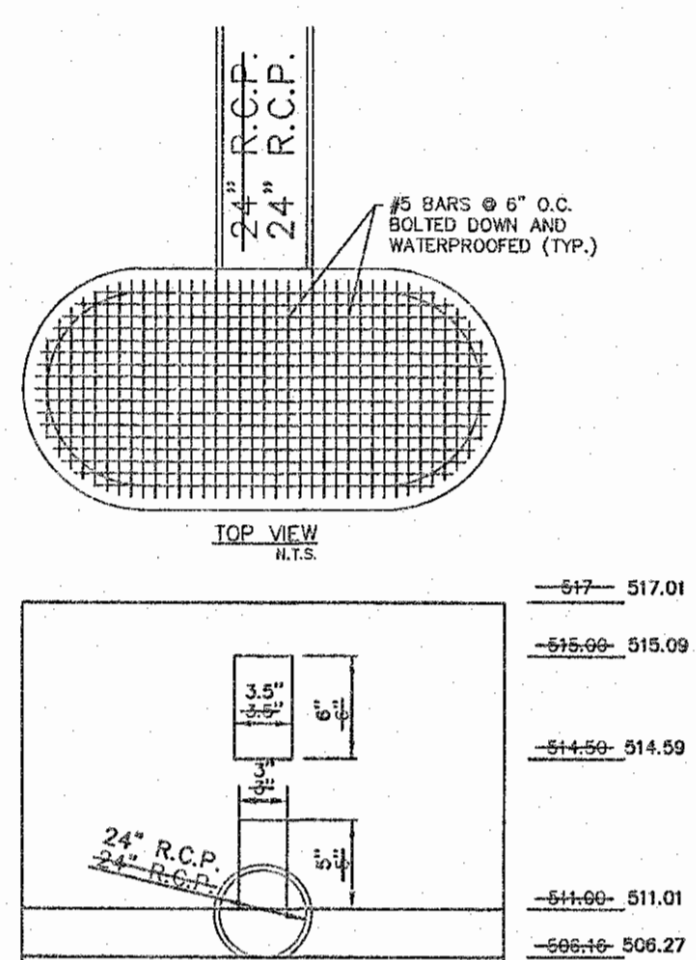
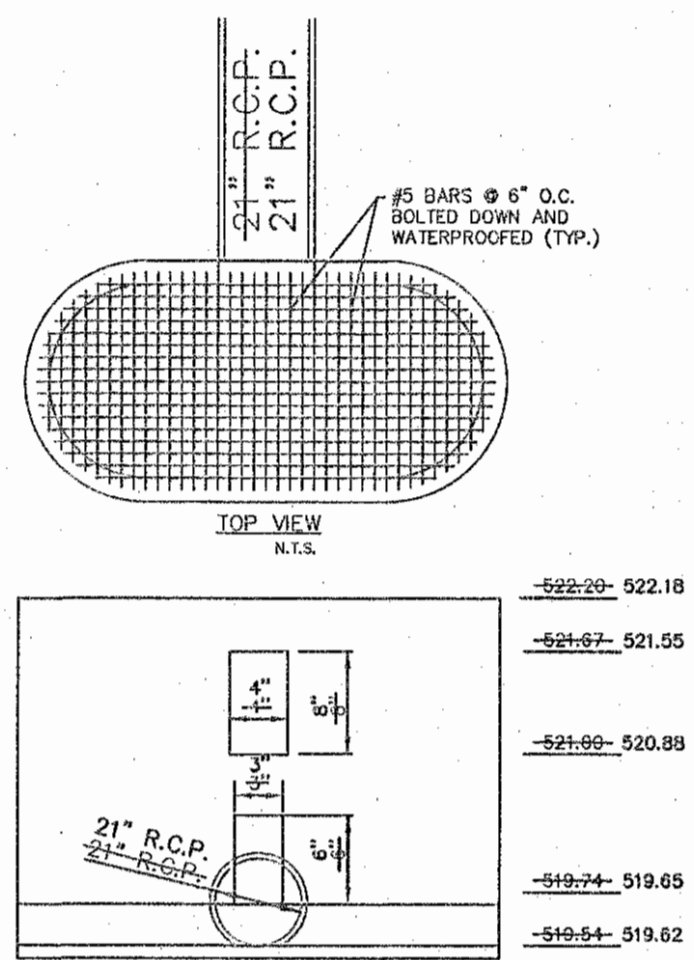
**WATER QUALITY DETAILS**

**P+Z No.**  
20-16.02

**City No.**  
16-010424

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**FLEXSTORM P/NS 62LHDPC & 62LHDPC**  
HD4 INLET TYPE: SQUARE/RECT PRECAST OPENING WITH 4 SEAT GRATE SUPPORT

| Part Name | Part No.   | Part Description                               | Material | Weight (LBS) | Volume (CU YD) | Notes |
|-----------|------------|--|----------|--------------|----------------|-------|
| 62LHDPC   | 62LHDPC-01 | 62" x 62" x 8" HD4 Inlet                       | Concrete | 120          | 0.5            |       |
| 62LHDPC   | 62LHDPC-02 | 62" x 62" x 8" HD4 Inlet with Grate            | Concrete | 130          | 0.5            |       |
| 62LHDPC   | 62LHDPC-03 | 62" x 62" x 8" HD4 Inlet with 4 Grate Supports | Concrete | 140          | 0.5            |       |

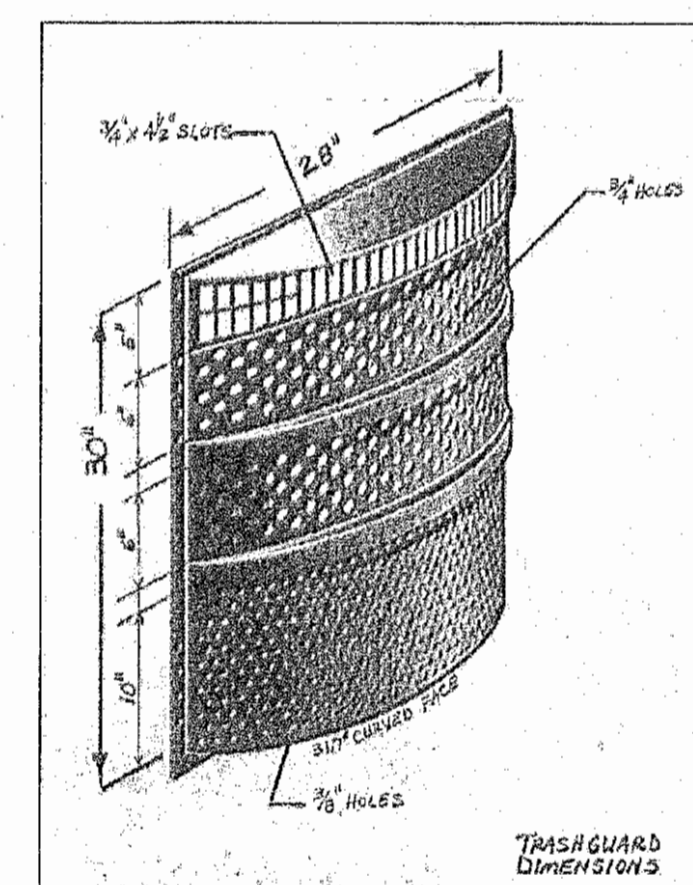
**NOTES:**

- RATINGS SHOWN ARE FOR STANDARD 82" BAG DEPTH. "SHORT" 12" DEPTH BASS ARE AVAILABLE WITH -S SUFFICIENCY RATINGS REDUCED BY -50%.
- THE FOLLOWING REQUIRES ADDITIONAL REVIEW

- GRATES WITH EXTENDED BOTTOMS
- ANY OBSTRUCTED INLET OPENINGS

**FLEXSTORM PURE**  
ALL PRODUCTS MANUFACTURED BY FLEXSTORM INLET & PIPE PROTECTION, INC. 221 Point West Blvd., St. Charles, MO 63301. 636-958-5562. FAX 636-958-1718

CONTRACTOR TO VERIFY FILTER IS CORRECTLY SIZED FOR THE INLETS ON SITE PRIOR TO PURCHASING AND INSTALLATION.  
USE AT STORM SEWER STRUCTURE GI 101



**Trash Guard® Installation Instructions**

Trash Guard® can be installed in a variety of catch basin configurations (for field conditions). In general the Trash Guard® is mounted on the catch basin wall, centered over the outlet pipe.

Before installing Trash Guard®, a hydraulic calculation should be performed to determine maximum flow rate based on depth of the catch basin and size of Trash Guard® used. This calculated model will determine maximum flow rate with no obstructions or varying amounts of trash build up, and determine drainage area required to support the calculated flow rate. Allowable trash build up and drainage area required for trash build up will determine maintenance frequency.

If catch basin conditions allow and increased flow rate and additional vertical capacity are desired, a model can be calculated to determine flow rate when extending Trash Guard® from one inch to seven inches from the catch basin wall. As above, this calculated model will determine maximum flow rate with no obstructions or varying amounts of trash build up. Contact Trash Guard® for assistance in determining flow rate and drainage areas under varying field conditions.

The following instructions are organized in sections described as follows:

- Section 1 - Trash Guard® installed on a flat perpendicular wall with a flat bottom
- Section 2 - Bottom Plate installed on an inverted bottom
- Section 3 - Trash Guard® installed on a flat perpendicular wall with an inverted bottom
- Section 4 - Trash Guard® installed on a tiered brick wall escalating width from top to bottom with an inverted or flat bottom.
- Section 5 - Trash Guard® installed on a concave wall reasonable flat at top and bottom with an inverted or flat bottom.
- Section 6 - Trash Guard® installed extended from wall to increase flow capacity with an inverted or flat bottom.

**EXAMPLES OF FLAT AND INVERTED BOTTOMS**

**WARNING:** Improper installation of the Trash Guard® or failure to keep the area around the Trash Guard® free from sediment, debris and litter after installation may result in clogging of the storm water drainage system and increase the risk of flooding during times of heavy rainfall. It is important to clean sediment, debris and litter from around the Trash Guard® at least four (4) times a year and more frequently in areas with large amounts of vegetation or litter. Please contact your local Trash Guard® distributor with any questions regarding the installation or regular maintenance requirements of the Trash Guard®.

**Section 1 (Diagram I)**

**Items Included:**

- Trash Guard® (Chosen Size)
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws

**Tools Needed:**

- Cordless Hammer Drill
- 3/16" Masonry Drill Bit
- Phillips Screwdriver

**Installation Instructions**  
Can be attached with or without retaining cells.

- Place Trash Guard over outlet pipe.
- Drill 3/16" hole top and bottom each side.
- Insert plastic anchor and attach washer and phillips screws as shown in diagram.

**Section 2 (Diagram A & B)**

**Items Included for A:**

- Bottom Plate with plastic netting attached
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws

**Tools Needed:**

- Cordless Hammer Drill
- 3/16" Masonry Drill Bit
- Phillips Screwdriver

**Installation Instructions For A**

- Place bottom plate over inverted bottom with level sides (Front and Back)
- Drill 1/2" holes to accommodate expansion anchors.
- Insert plastic wall anchors as shown in diagram A.
- Attach with washer and screw as shown.

**Items Included for B:**

- Bottom Plate with plastic netting attached
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws
- Stainless Steel All Thread Rod Cut to Size
- Fourteen Hex Nuts & Flat Washers
- Four Expansion Anchors
- Plastic Netting (if excess amount on plate is not enough)
- Two Tie Wraps

**Tools Needed:**

- Cordless Hammer Drill
- 3/16" Masonry Drill Bit for Plastic Anchors
- 1/2" Masonry Drill Bit for Expansion Anchors
- Phillips Screwdriver

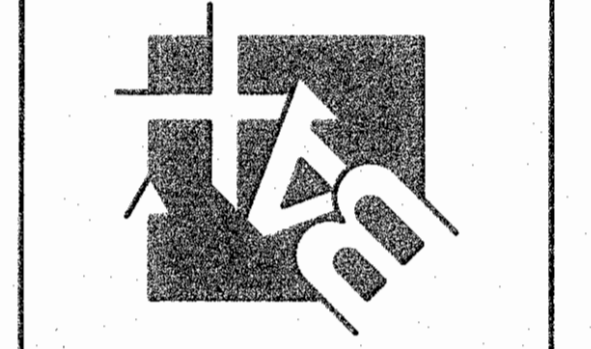
**Installation Instructions For B**

- Follow instructions A if one side is level.
- Drill 1/2" holes to accommodate expansion anchors.
- Cut stainless steel rod to desired length. Allow 1" inside expansion anchor and 1" through bottom plate.
- Attach washers and hex nuts as shown in diagram.
- Attach netting as shown in diagram.

USE AT STORM SEWER STRUCTURE DCI 123

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**MARK E. O'FALLON**  
REGISTERED PROFESSIONAL LAND SURVEYOR  
CLIFFORD L. WETTMANN  
CIVIL ENGINEER  
E-29817

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1-585-563-1390

**WATER QUALITY DETAILS**

**P+Z No.**  
20-16.02

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**Page No.**  
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Box Project #06-138018B Issue Date: 04/13/2017