2015 SANITARY AND STORM SEWER IMPROVEMENTS OSKALOOSA, IOWA

Materials and construction shall be in accordance with the SUDAS Standard Specifications, 2015 Edition, plus current Supplemental Specifications and Special Provisions.

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19	TOTAL SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION

LICENSED PROFESSIONAL ENGINEER
ROBERT A. NIELSEN, JR.
9945
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Robert A. Nielsen, Jr., P.E. Date
License number: 9945
My license renewal date is December 31, 2015
Pages or sheets covered by this seal:

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2015 SANITARY AND STORM SEWER IMPROVEMENTS OSKALOOSA, IOWA

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SHEET TITLE
TITLE SHEET

SCALE: NO SCALE
FIELD BOOK: NA
DRAWN BY: TRH/RAN/KJR
APPROVED: RAN

REVISIONS:

DATE: JUL. 27, 2015

PROJECT NO.: 3015033

SHEET NO.: A.01

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GENERAL SYMBOLS LEGEND

- = PROPERTY CORNER FOUND
- = SECTION CORNER FOUND
- 800 = EXISTING GROUND CONTOUR LINE
- W = EXISTING WATER LINE (SIZE VARIES)
- = EXISTING FIRE HYDRANT
- = EXISTING WATER VALVE
- = EXISTING WATER SERVICE SHUTOFF
- WM = EXISTING WATER METER PIT
- = WATER METER
- = MONITORING WELL
- ST = EXISTING STORM SEWER LINE (SIZE VARIES)
- = EXISTING STORM SEWER ACCESS
- ST = EXISTING SEPTIC TANK
- S = EXISTING SANITARY SEWER ACCESS
- SS = EXISTING SANITARY SEWER MAIN (SIZE VARIES)
- C = CLEANOUT
- E = ELECTRIC MANHOLE
- OE = OVERHEAD ELECTRIC LINE
- UE = UNDERGROUND ELECTRIC LINE
- EM = ELECTRIC METER
- FO = FIBEROPTIC LINE
- T = TELEPHONE MANHOLE
- TELE PED = TELEPHONE PEDESTAL
- UT = TELEPHONE LINE
- TV PED = TELEVISION PEDESTAL
- TV = TELEVISION LINE
- GM = GAS METER
- GV = GAS VALVE
- G = EXISTING GAS LINE
- = UTILITY POLE
- = GUY WIRE
- = LUMINAIRE
- T = TRANSFORMER
- = SIGN
- = BOLLARD
- = RAILROAD GATE OR SIGNAL
- MB = MAILBOX
- = FLAGPOLE
- DS = DOWNSPOUT
- = TREE OR SHRUB
- = STUMP
- X = FIELD FENCELINE
- = CHAIN LINK FENCELINE
- = WOOD FENCELINE
- = SILT FENCE
- = BENCHMARK OR ELEVATION MARKER
- = PROPERTY CORNER SET
- = SECTION CORNER SET
- W = PROPOSED WATER MAIN (SIZE VARIES)
- = PROPOSED FIRE HYDRANT
- = PROPOSED WATER VALVE
- = PROPOSED WATER SHUTOFF
- S = PROPOSED SANITARY SEWER MANHOLE
- C = PROPOSED SANITARY SEWER END LINE CLEANOUT
- C = PROPOSED SANITARY SEWER DOUBLE CLEANOUT
- = PROPOSED SANITARY SEWER MAIN (SIZE VARIES)
- LS = PROPOSED LIFT STATION
- FM = PROPOSED SANITARY SEWER FORCE MAIN
- D = PROPOSED STORM SEWER ACCESS
- = PROPOSED STORM SEWER MAIN
- SST = PROPOSED SECONDARY STORM SEWER
- 800 = PROPOSED GROUND CONTOUR LINE
- = SURFACING REMOVAL
- or = CONCRETE SURFACING REPLACEMENT
- = FLOW DIRECTION ARROW
- 1000.00 = FINISH GRADE ELEVATION MARKER

GENERAL ABBREVIATIONS LEGEND

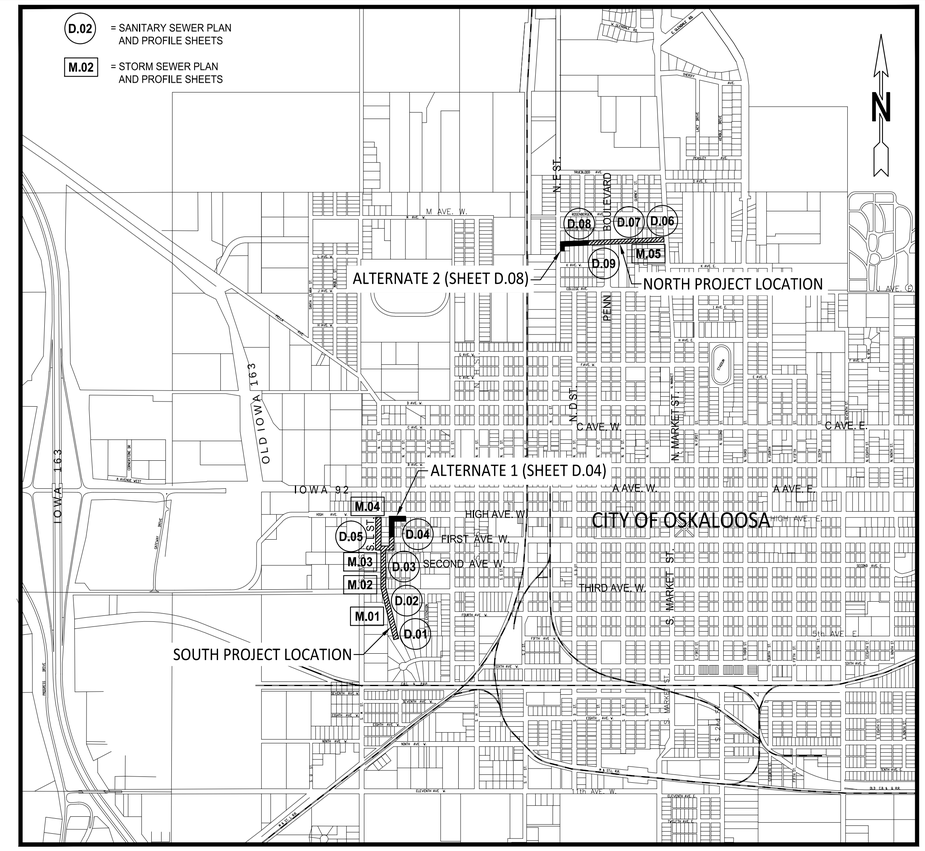
U.A.C.	USE AS CURRENTLY CONSTRUCTED	LF	LINEAR FOOT
R/W	RIGHT OF WAY	SY	SQUARE YARD
R.O.W.	RIGHT OF WAY	CY	CUBIC YARD
P.C.	POINT OF CURVATURE	MJ	MECHANICAL JOINT
P.I.	POINT OF INTERSECTION	PE	PLAIN END JOINT
P.T.	POINT OF TANGENCY	FE	FLANGED JOINT
℄	CENTERLINE	UT	UNION TITE JOINT
TC	TOP OF CURB	S.S.	STAINLESS STEEL
GU	GUTTER	O.C.	ON CENTER
FL	FLOW LINE	I.D.	INSIDE DIAMETER
SB	SOIL BORING	O.D.	OUTSIDE DIAMETER
R	RADIUS	ø	DIAMETER
BTM	BOTTOM	DIA.	DIAMETER
HWL	HIGH WATER LEVEL	#	NUMBER
LWL	LOW WATER LEVEL	TYP	TYPICAL
EA	EACH	INV	INVERT
GPM	GALLONS PER MINUTE	PVC	POLYVINYL CHLORIDE PIPE
IN.	INCHES	DIP	DUCTILE IRON PIPE
FT	FOOT OR FEET	CIP	CAST IRON PIPE
SF	SQUARE FEET	CMP	CORRUGATED METAL PIPE
P-1	STORM SEWER PIPE IDENTIFIER	RCP	REINFORCED CONCRETE PIPE
S-1	STORM SEWER STRUCTURE IDENTIFIER		
P-1	SANITARY SEWER PIPE IDENTIFIER		
S-1	SANITARY SEWER STRUCTURE IDENTIFIER		

PAVEMENT SURFACING LEGEND

- = 7" THICK PCC PAVEMENT AND PCC FULL DEPTH PATCH
- = 6" THICK GRANULAR RESURFACING
- = TWO COURSE SEAL COAT PAVEMENT
- = 6" THICK PCC SIDEWALKS AND DRIVEWAYS
- = 4" THICK PCC SIDEWALKS

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE SUDAS STANDARD SPECIFICATIONS, 2015 EDITION AND CURRENT SUPPLEMENTAL SPECIFICATIONS AND THE DETAILED SPECIFICATION REQUIREMENTS. SPECIFICATION MANUALS CAN BE ORDERED FROM THE INSTITUTE FOR TRANSPORTATION (FORMERLY CTRE) - ATTENTION: BETH RICHARDS, 2711 SOUTH LOOP DRIVE, SUITE 4700, AMES, IOWA 50010-8664, PHONE: 515-294-2869. SPECIFICATIONS CAN ALSO BE VIEWED AT THE SUDAS WEB SITE (WWW.IOWASUDAS.ORG). ALL WATER MAIN MATERIALS SHALL MEET THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION, OSKALOOSA MUNICIPAL WATER DEPARTMENT". CONTRACTOR SHALL HAVE A MINIMUM OF ONE SET OF PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
2. NOTIFY AKHILESH PAL, P.E., DIRECTOR OF PUBLIC WORKS, CITY OF OSKALOOSA AT 641-673-7472 TWO WEEKS PRIOR TO COMMENCING WORK ON THE PROJECT. COORDINATE ANY WORK ASSOCIATED WITH THE WATER SYSTEM WITH CHAD COON, GENERAL MANAGER; PHONE: (641)673-8476.
3. COORDINATE WORK AND COOPERATE WITH CITY PERSONNEL AND ENGINEER.
4. LOCATION OF EXISTING UTILITIES IS APPROXIMATE. VERIFY LOCATION OF EXISTING UTILITIES IN LINE OF CONSTRUCTION PRIOR TO BEGINNING CONSTRUCTION BY EXCAVATING AHEAD OF WORK. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES LOCATED IN THE WORK ZONE DURING CONSTRUCTION AT LEAST 48 HOURS PRIOR TO EXCAVATION.
5. PROTECT ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION UNLESS OTHERWISE SHOWN ON PLANS. ANY UTILITIES DAMAGED DUE TO CONTRACTOR'S NEGLIGENCE WILL BE REPAIRED AT CONTRACTOR'S EXPENSE.
6. THERE MAY BE BURIED UTILITIES NOT SHOWN ON PLANS THAT ARE IN LINE OF CONSTRUCTION.
7. NOTIFY PROPERTY OWNERS 48 HOURS IN ADVANCE IF ACCESS TO PROPERTY WILL BE INTERRUPTED. ACCESS TO PRIVATE PROPERTY SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY VEHICLES. PROVIDE PEDESTRIAN ACCESS TO RESIDENCES AND BUSINESSES DURING THE CONSTRUCTION PERIOD.
8. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE CITY OF OSKALOOSA REQUIREMENTS. TRAFFIC CONTROL SHALL CONSIST OF BARRICADES, SIGNAGE AND LIGHTS AS NECESSARY TO PROTECT VEHICLES AND PEDESTRIAN TRAFFIC. CONTRACTOR SHALL MAINTAIN, CLEAN AS NECESSARY AND REPLACE DAMAGED TRAFFIC CONTROL DEVICES THROUGHOUT DURATION OF THE PROJECT.
9. CONTRACTOR SHALL PRESERVE ALL MONUMENTS, STAKES, REFERENCE POINTS AND BENCHMARKS. IN CASE OF DESTRUCTION BY CONTRACTOR'S NEGLIGENCE OR CARELESSNESS, CONTRACTOR WILL BE RESPONSIBLE FOR COST OF REPLACEMENT, MISTAKES, AND/OR LOSS OF TIME.
10. CONTRACTOR SHALL MAINTAIN POSTAL SERVICE IN ACCORDANCE WITH SECTION 1070 2.14 OF THE SPECIFICATIONS. WORK IS INCIDENTAL TO CONSTRUCTION.
11. SIGNS AND SIGN POSTS IN LINE OF CONSTRUCTION SHALL BE REMOVED, SALVAGED, AND STORED BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, REPLACE SIGNS AT A LOCATION DETERMINED BY THE OWNER. SIGNS SHALL BE RESET IN A MINIMUM 4 FOOT DEEP BY 12 INCH DIAMETER GRAVEL PACKED HOLE. REMOVAL AND RESETTING OF SIGNS IS INCIDENTAL TO CONSTRUCTION. COORDINATE SIGN WORK WITH JURISDICTION.
12. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW SEWER AND EXISTING SEWERS. SHOULD MUD, DIRT, DEBRIS, OR OTHER MATERIAL ENTER THE NEW SEWER CONSTRUCTION OR EXISTING SEWERS, CONTRACTOR SHALL CLEAN AT NO COST TO OWNER.
13. REMOVE TREES AND STUMPS AS SHOWN ON PLANS. PROTECT TREES NOT SHOWN FOR REMOVAL. TRIM TREE CANOPIES ONLY WITH APPROVAL OF JURISDICTION. TRIMMING OF TREE CANOPIES IS INCIDENTAL TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL DEBRIS RESULTING FROM TREE/STUMP REMOVAL AND TRIMMING.
14. CONTRACTOR SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS, UNSUITABLE TRENCH BACKFILL MATERIAL AND EXCESS EXCAVATED MATERIAL. DISPOSAL SHALL MEET FEDERAL, STATE AND LOCAL SAFETY, HEALTH AND ENVIRONMENTAL REQUIREMENTS. WORK IS INCIDENTAL TO CONSTRUCTION.
15. CONTRACTOR RESPONSIBLE FOR MAINTAINING THE AS-BUILT LOCATION OF ALL UTILITIES.
16. RCP STORM SEWER PIPE SHALL BE MINIMUM 2000D. ALL RCP STORM SEWER PIPE SHALL HAVE GASKETED JOINTS PER SPECIFICATIONS. INSTALL SW-211 TYPE PC-2 CONCRETE COLLAR FOR CONNECTION BETWEEN EXISTING AND NEW PIPES AS NECESSARY AND WHERE SHOWN ON THE PLANS. INCLUDE COST OF PIPE CONNECTIONS IN UNIT PRICE FOR STORM SEWER. INSTALL FLARED END SECTION FOOTING ON ALL PIPE APRON OUTLETS IN ACCORDANCE WITH DETAIL. INCLUDE COST OF FLARED END SECTION FOOTINGS IN UNIT PRICE FOR APRON. INSTALL FABRICATED VERTICAL PIPE BENDS WHERE SHOWN ON THE PLANS. INCLUDE COST OF BENDS IN UNIT PRICE FOR STORM SEWER.
17. WATER SERVICES THAT ARE IN CONFLICT WITH THE NEW SANITARY AND STORM SEWER PIPES SHALL BE LOWERED AS REQUIRED. PAYMENT FOR LOWERING WATER SERVICE SHALL BE AT THE CONTRACT UNIT PRICE. ALL MATERIALS SHALL MEET THE REQUIREMENTS OF THE OSKALOOSA WATER DEPARTMENT.
18. CONCRETE MIX SHALL BE IDOT C-3WR-C OR C-4WR-C FOR ALL PAVEMENT, DRIVEWAYS AND SIDEWALKS. COARSE AGGREGATE SHALL BE CLASS 3 DURABILITY. USE OF FLY ASH AND GROUND GRANULATED BLAST FURNACE SLAG (GGBFS) SHALL BE IN ACCORDANCE WITH SECTION 7010 2.02 C OF THE SPECIFICATIONS.
19. COARSE AND FINE AGGREGATES SHALL BE FURNISHED FROM AN APPROVED SOURCE IN ACCORDANCE WITH THE SPECIFICATIONS. METHOD OF ACCEPTANCE FOR COARSE AND FINE AGGREGATES SHALL BE BY QUALITY CERTIFICATION FURNISHED BY THE CONTRACTOR. CERTIFIED PLANT INSPECTION IS NOT REQUIRED.
20. CONTRACTOR SHALL BE RESPONSIBLE PARTY FOR ALL TESTING AND RE-TESTING OF P.C. CONCRETE REQUIRED BY THE SPECIFICATIONS INCLUDING; AIR CONTENT, SLUMP, AND CYLINDERS.
21. USE TYPE "C" JOINTS FOR ALL TRANSVERSE PAVEMENT JOINTS UNLESS SHOWN OR NOTED OTHERWISE ON THE PLANS. ALL PAVEMENT SAW JOINTS SHALL BE SEALED. DO NOT SEAL DRIVEWAY OR SIDEWALK SAW JOINTS.
22. CONSTRUCT ALL NEW SIDEWALKS IN ACCORDANCE WITH ADA REQUIREMENTS UNLESS SHOWN OTHERWISE ON THE PLANS.
23. THE JURISDICTION WILL PROVIDE CONSTRUCTION STAKING ONE TIME ONLY FOR SANITARY AND STORM SEWER PIPING AND STRUCTURES. ADDITIONAL STAKING AND REPLACEMENT OF STAKES DAMAGED AS A RESULT OF CONTRACTOR'S NEGLIGENCE SHALL BE AT CONTRACTOR'S EXPENSE.
24. REMOVE AND ABANDON EXISTING MANHOLES AND INTAKES WHERE SHOWN ON THE PLANS. PLUG ABANDONED PIPES WITH CONCRETE. INCLUDE COST OF PLUGGING PIPES IN UNIT PRICE FOR REMOVAL AND ABANDONMENT OF STRUCTURES AND REMOVAL OF PIPE WHERE SHOWN ON THE PLANS.
25. REMOVE EXISTING SEWER LINES IN LINE OF CONSTRUCTION. INCLUDE COST OF REMOVAL IN UNIT PRICE FOR NEW PIPES IN PLACE. REMOVAL OF PIPES FOR CONNECTION OF EXISTING LINES TO NEW MANHOLES IS INCIDENTAL TO CONSTRUCTION.
26. REMOVE PIPE NOT IN LINE OF CONSTRUCTION WHERE NOTED ON THE PLANS. REMOVAL OF THESE PIPES WILL BE PAID FOR AT UNIT PRICE FOR PIPE REMOVAL.
27. NOT ALL ACTIVE SANITARY SEWER SERVICES MAY BE SHOWN ON THE PLANS. ALL EXISTING ACTIVE SEWER SERVICES SHALL BE CONNECTED TO THE NEW MAINS. THE CITY OF OSKALOOSA WILL ASSIST THE CONTRACTOR IN VERIFYING ACTIVE SERVICE LOCATIONS. INSTALL 4" OR 6" WYES AND SERVICE PIPE FOR CONNECTION TO EXISTING SERVICES. UNIT PRICE FOR 4" AND 6" SEWER SERVICE STUBS INCLUDE; WYES, SADDLES, PIPE, AND ALL FITTINGS NECESSARY TO MAKE CONNECTION TO EXISTING SERVICE LINES.
28. SANITARY SEWER GRAVITY MAIN PIPE MATERIAL SHALL BE SOLID WALL PVC (SDR 35) AS SPECIFIED IN SECTION 4010 2.01 A OR TRUSS TYPE PVC AS SPECIFIED IN SECTION 4010 2.01 E OR AS SHOWN ON PLANS. SANITARY SEWER SERVICE PIPE SHALL BE SOLID WALL PVC (SDR 23.5). INSTALL, BED AND BACKFILL IN ACCORDANCE WITH THE SPECIFICATIONS. USE CLASS F-3 BEDDING FOR SOLID WALL PVC (SDR 35) PIPE. USE CLASS F-2 OR CLASS F-3 BEDDING FOR TRUSS TYPE PVC AND SOLID WALL PVC (SDR 23.5).
29. TEST NEW SANITARY SEWERS IN ACCORDANCE WITH SPECIFICATIONS. REQUIRED TESTS:
    A) VISUAL INSPECTION (4060 3.02)
    B) VIDEO INSPECTION (4060 3.03)
    C) DEFLECTION TESTING (4060 3.05)
    D) SANITARY SEWER MANHOLE TESTING (6030 3.04)
30. ELEVATIONS SHOWN FOR MANHOLE TOPS ARE APPROXIMATE. MAKE FINAL ADJUSTMENTS IN FIELD AS DIRECTED BY JURISDICTION.
31. SANITARY AND STORM SEWER MANHOLE CASTINGS ARE TO BE ANCHORED AND BOLTED TO THE STRUCTURE IN ACCORDANCE WITH THE STANDARD DRAWINGS . SANITARY MANHOLES: USE SW-601 TYPE A CASTING FOR ALL MANHOLES IN NON PAVED SURFACES AND SW-601 TYPE B CASTING FOR MANHOLES IN PAVED SURFACES. USE BOLT DOWN COVERS (TYPE C OR D) ONLY WHERE SHOWN ON PLANS. STORM SEWER MANHOLES: USE SW-602 TYPE A CASTING FOR ALL MANHOLES IN NON PAVED SURFACES AND SW-602 TYPE B CASTING FOR MANHOLES IN PAVED SURFACES. INSTALL INFILTRATION BARRIER (INTERNAL CHIMNEY SEAL) ON ALL SANITARY SEWER MANHOLES; INCLUDE COST IN UNIT PRICE FOR MANHOLE.
32. FERTILIZE, SEED AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION. USE TYPE 1 LAWN MIXTURE.
33. BYPASSING OF UNTREATED WASTE WATER TO THE GROUND SURFACE OR DRAINAGE WAYS WILL NOT BE ALLOWED. PROVIDE TEMPORARY PIPING OR PUMPING AS REQUIRED TO KEEP THE EXISTING SANITARY SEWER SYSTEM IN OPERATION AT ALL TIMES DURING CONSTRUCTION. NO SEPARATE PAYMENT FOR TEMPORARY PIPING OR PUMPING WILL BE MADE. COST IS CONSIDERED INCIDENTAL TO CONSTRUCTION.



PROJECT LOCATION MAP
APPROX. SCALE: 1" = 500'

NOTE:
THE FIRST ORDER OF CONSTRUCTION FOR THIS PROJECT SHALL BE TO COMPLETE THE NORTH PROJECT - REPRESENTED BY SHEETS D.06-D.09 AND M.05 OF THESE PLANS.

UTILITY CONTACT INFORMATION

UTILITY	ORGANIZATION/REPRESENTATIVE	PHONE
SANITARY SEWER	CITY OF OSKALOOSA PUBLIC WORKS - AKHILESH PAL, P.E.	641-673-7472
STORM SEWER	CITY OF OSKALOOSA PUBLIC WORKS - AKHILESH PAL, P.E.	641-673-7472
WATER	OSKALOOSA MUNICIPAL WATER DEPARTMENT - CHAD COON	641-660-5555
NATURAL GAS (DISTRIBUTION)	MID AMERICAN ENERGY - JEFF FERGUSON	641-660-3068
ELECTRIC	MID AMERICAN ENERGY - JASON SANDIFER	641-660-7217
COMMUNICATIONS	MAHASKA COMMUNICATION GROUP - ANDY PADGETT	641-676-1000
COMMUNICATIONS	IOWA NETWORK SERVICES - CHRIS HARBOUR	515-238-2648
COMMUNICATIONS	WINDSTREAM - CLARK LUNDY	515-309-1172
TELEVISION	MEDIACOM - DARREN WALKER	319-753-6589
TELEPHONE	CENTURY LINK - DUSTIN WITHERS	515-263-7202

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SHEET TITLE
LEGEND, LOCATION MAP AND GENERAL NOTES

SCALE: AS NOTED
FIELD BOOK: NA
DRAWN BY: TRH/RAN/KJR
APPROVED: RAN

REVISIONS:

DATE: JUL. 27, 2015

PROJECT NO.: 3015033

SHEET NO.: A.02

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ESTIMATED PROJECT QUANTITIES - BASE BID

Bid Item	Item No.	Bid Item Description	Unit	Base Bid Quantity	Remarks
1	1090-105-D	Mobilization	LS	XXX	
2	2010-108-E-0	Excavation, Class 10, 12, or 13	CY	1,000	
3	2010-108-C-0	Clearing and Grubbing	LS	XXX	
4	2010-108-I-0	Subbase, Granular (8" Thick)	SY	115	Provide 8" thick granular subbase (IDOT 4120 Gradation No. 11 Class A Crushed Stone) compacted in place for two course seal coat surfacing.
5	3010-108-C-0	Trench Foundation	TON	200	Use only where authorized by the jurisdiction. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
6	3010-108-E-0	Special Pipe Embedment or Encasement (P.C.C. Encasement)	LF	15	
7	3010-108-F-0	Trench Compaction Testing - Sanitary and Storm Sewer	LS	XXX	Item is for testing trench backfill for sanitary and storm sewer construction.
8	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 8"	LF	256	
9	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 12"	LF	45	
10	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 15"	LF	865	
11	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 18"	LF	1,600	
12	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 24"	LF	10	
13	4010-108-A-2	Sanitary Sewer Gravity Main, Trenchless, RJ PVC, 15"	LF	200	
14	4010-108-E-0	Sanitary Sewer Service Stub, PVC, 4" or 6"	LF	465	Item is for replacement of existing sanitary sewer service lines where necessary. New pipe material shall be SDR 23.5 PVC with approved couplings. Unit price includes removal and disposal of existing pipe and connections to existing pipes. Use only where authorized by the Jurisdiction. The limitation for increase or decrease in work outlined in Specification Secion 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
15	4010-108-H-0	Removal of Sanitary Sewer, VCP, 15"	LF	310	
16	4010-108-H-0	Removal of Sanitary Sewer, VCP, 18"	LF	190	
17	4010-108-K-2	Sanitary Sewer Abandonment - Fill and Plug, 15"	LF	400	Lines noted to be filled and plugged on the plans shall be filled with flowable mortar as specified.
18	4020-108-A-1	Storm Sewer, Trenched, PVC or HDPE, 12"	LF	151	
19	4020-108-A-1	Storm Sewer, Trenched, RCP, 15"	LF	68	
20	4020-108-A-1	Storm Sewer, Trenched, RCP, 18"	LF	610	
21	4020-108-A-1	Storm Sewer, Trenched, RCP, 30"	LF	665	
22	4020-108-C-0	Removal of Storm Sewer, RCP, 30"	LF	25	
23	4020-108-E-2	Storm Sewer Abandonment - Fill and Plug, 12"	LF	300	Lines noted to be filled and plugged on the plans shall be filled with flowable mortar as specified.
24	4030-108-B-0	Pipe Apron, RCP, 30"	EA	1	Install 'RCP Apron Section Footing' (Flared End Section Footing) per SUDAS figure 4030.221. Include cost of footing in unit price for apron.
25	4030-108-B-0	PIpe Apron, Metal, 12"	EA	1	Install 'RCP Apron Section Footing' (Flared End Section Footing) per SUDAS figure 4030.221. Include cost of footing in unit price for apron.
26	4040-108-E-0	Storm Sewer Service Stub, PVC, 4"	LF	15	
27	XXXX-XXX-X-X	Lower Existing Water Main, 12"	EA	1	Use only where authorized by the jurisdiction. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
28	XXXX-XXX-X-X	Lower Existing Water Service	EA	1	Use only where authorized by the jurisdiction. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
29	6010-108-A-0	Manhole Type SW-301, 48" Dia.	EA	19	
30	6010-108-A-0	Manhole Type SW-301, 60" Dia.	EA	2	
31	6010-108-A-0	Manhole Type SW-401, 48" Dia.	EA	7	
32	6010-108-A-0	Manhole Type SW-401, 60" Dia.	EA	2	
33	6010-108-B-0	Intake Type SW-502, 48" Dia.	EA	1	
34	6010-108-B-0	Intake Type SW-507, Small Box	EA	2	
35	6010-108-B-0	Intake Type SW-512, Case 2, 24" Riser	EA	1	
36	6010-108-B-0	Intake Type SW-513, 4'x4'	EA	2	
37	6010-108-G-0	Connection to Existing Manhole	EA	1	
38	6010-108-G-0	Connection to Existing Intake	EA	4	
39	6010-108-H-0	Remove Manhole	EA	8	
40	XXXX-XXX-X-X	Abandon Manhole	EA	10	
41	6010-108-H-0	Remove Intake	EA	5	
42	7010-108-I-0	PCC Pavement Samples and Testing	LS	XXX	Contractor shall provide PCC pavement sampling and testing in accordance with the specifications for all PCC pavement patchting, driveways, and sidewalks.
43	7030-108-A-0	Removal of Sidewalk	SY	96	
44	7030-108-A-0	Removal of Driveway	SY	140	
45	7030-108-E-0	Sidewalk, PCC, 4" Thick	SY	67	
46	7030-108-E-0	Sidewalk, PCC, 6" Thick	SY	67	
47	7030-108-G-0	Detectable Warning	SF	48	Detectable warning panel type and material shall be as approved by the City of Oskaloosa.
48	7030-108-H-1	Driveway, Paved, PCC, 6" Thick	SY	105	
49	7030-108-H-2	Driveway, Granular	TON	120	Materail shall be IDOT 4120 Gradation No. 11, Class A Crushed Stone compacted in place.
50	7040-108-A-0	Full Depth Patches, 7" Thick P.C.C.	SY	925	Full Depth PCC (Repair) Patches shall be minimum 7" thick on a 6" thick compacted granular subbase (7040-108-B-0 Subbase Over-excavation). Unit price includes pavement jointing and joint reinforcement as required by figures 7040.101 and 7040.102 of the specifications and as directed by the Jurisdiction.
51	7040-108-A-0	Full Depth Patches, 10" Thick P.C.C.	SY	70	Full Depth PCC (Repair) Patches shall be minimum 10" thick on a 6" thick compacted granular subbase (7040-108-B-0 Subbase Over-excavation). Unit price includes pavement jointing and joint reinforcement as required by figures 7040.101 and 7040.102 of the specifications and as directed by the Jurisdiction.
52	7040-108-B-0	Subbase Over-excavation	TON	320	Materail shall be IDOT 4120 Gradation No. 11, Class A Crushed Stone compacted in place.
53	7060-108-A-0	Bituminous Seal Coat - Two Course Seal	SY	115	Unit price includes all materials including cover aggregate and binder bitumen for two course seal coat as specified in 7060 3.06. Unit price does not include granular subbase. The owner reserves the right to delete this item from the project.
54	8010	Install Detector Loop	LS	XXX	Item is for installation of Inductive Loop Vehicle Detector only in accordance with Specification Section 8010 2.02 A. and figure 8010.104. Detection wires shall be installed at same location as wires previously removed. Provide new wiring from existing handhole/access through location in pavement.
55	9010-108-A-0	Conventional Seeding; Seeding, Fertilizing and Mulching	LS	XXX	Use Type 1 Permanent Lawn Mixture
56	9040-108-J-0	Revetment, Class D	TON	40	
57	XXXX-XXX-X-X	Painted Pavement Markings	LS	XXX	Replace painted pavement markings on Highway 92 at South L Street where disturbed by construction.
58	9040-108-A-1	SWPPP Preparation	LS	XXX	
59	9040-108-A-2	SWPPP Management	LS	XXX	No separate payment will be made for installation, maintaining or removing structural controls required to meet the requirements of the Storm Water Pollution Prevention Plan. Installation of silt fence, filter socks, etc. to prevent sediment and pollutants from entering the storm sewer system and/or leaving the construction site is incidental to construction.
60	9040-108-A-3	Qualifying Rainfall Event Inspection	EA	10	
61	9040-108-E-0	Temporary RECP, Type 3.B (Extended Term)	SY	200	See plans for approximate installation locations. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
62	XXXX-XXX-X-X	Remove and Replace Existing Fence	LF	100	See Detailed Specifications and detail on sheet C.02 for more information.
63	XXXX-XXX-X-X	Inspection and Cleaning of Sanitary Sewer, 12" Dia.	LF	540	
64	XXXX-XXX-X-X	Cured-in-Place Pipe (CIPP), 12" Dia.	LF	540	
65	XXXX-XXX-X-X	Reinstatement of Services	EA	2	
66	XXXX-XXX-X-X	Post Inspection of CIPP Sewer, 12" Dia.	LF	540	

ESTIMATED PROJECT QUANTITIES - ALTERNATE 1

Bid Item	Item No.	Bid Item Description	Unit	Alternate 1 Quantity	Remarks
1	3010-108-C-0	Trench Foundation	TON	25	Use only where authorized by the jurisdiction. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
2	3010-108-F-0	Trench Compaction Testing - Sanitary Sewer	LS	XXX	Item is for testing trench backfill for sanitary and storm sewer construction.
3	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 18"	LF	407	
4	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 24"	LF	5	
5	4010-108-E-0	Sanitary Sewer Service Stub, PVC, 4" or 6"	LF	280	Item is for replacement of existing sanitary sewer service lines where necessary. New pipe material shall be SDR 23.5 PVC with approved couplings. Unit price includes removal and disposal of existing pipe and connections to existing pipes. Use only where authorized by the Jurisdiction. The limitation for increase or decrease in work outlined in Specification Secion 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
6	6010-108-A-0	Manhole Type SW-301, 48" Dia.	EA	2	
7	XXXX-XXX-X-X	Abandon Existing Manhole	EA	1	
8	7010-108-I-0	PCC Pavement Samples and Testing	LS	XXX	Contractor shall provide PCC pavement sampling and testing in accordance with the specifications for all PCC pavement patchting, driveways, and sidewalks. No PCC testing will be required for Alternate 2 construction.
9	7030-108-A-0	Removal of Sidewalk	SY	87	
10	7030-108-A-0	Removal of Driveway	SY	40	
11	7030-108-E-0	Sidewalk, PCC, 4" Thick	SY	65	
12	7030-108-E-0	Sidewalk, PCC, 6" Thick	SY	22	
13	7030-108-G-0	Detectable Warning	SF	24	Detectable warning panel type and material shall be as approved by the City of Oskaloosa.
14	7030-108-H-1	Driveway, Paved, PCC, 6" Thick	SY	40	
15	7030-108-H-2	Driveway, Granular	TON	125	Materail shall be IDOT 4120 Gradation No. 11, Class A Crushed Stone compacted in place.
16	7040-108-A-0	Full Depth Patches, 7" Thick P.C.C.	SY	65	Full Depth PCC (Repair) Patches shall be minimum 7" thick on a 6" thick compacted granular subbase (7040-108-B-0 Subbase Over-excavation). Unit price includes pavement jointing and joint reinforcement as shown on the plans.
17	7040-108-B-0	Subbase Over-excavation	TON	25	Materail shall be IDOT 4120 Gradation No. 11, Class A Crushed Stone compacted in place.
18	9010-108-A-0	Conventional Seeding; Seeding, Fertilizing and Mulching	LS	XXX	Use Type 1 Permanent Lawn Mixture

ESTIMATED PROJECT QUANTITIES - ALTERNATE 2

Bid Item	Item No.	Bid Item Description	Unit	Alternate 2 Quantity	Remarks
1	2010-108-C-0	Clearing and Grubbing	LS	XXX	
2	3010-108-C-0	Trench Foundation	TON	50	Use only where authorized by the jurisdiction. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
3	3010-108-F-0	Trench Compaction Testing - Sanitary Sewer	LS	XXX	Item is for testing trench backfill for sanitary and storm sewer construction.
4	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 8"	LF	70	
5	4010-108-A-1	Sanitary Sewer Gravity Main, Trenched, PVC or Truss, 15"	LF	520	
6	4010-108-E-0	Sanitary Sewer Service Stub, PVC, 4" or 6"	LF	65	Item is for replacement of existing sanitary sewer service lines where necessary. New pipe material shall be SDR 23.5 PVC with approved couplings. Unit price includes removal and disposal of existing pipe and connections to existing pipes. Use only where authorized by the Jurisdiction. The limitation for increase or decrease in work outlined in Specification Secion 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.
7	6010-108-A-0	Manhole Type SW-301, 48" Dia.	EA	5	
8	6010-108-H-0	Remove Manhole	EA	1	
9	XXXX-XXX-X-X	Abandon Existing Manhole	EA	1	
10	7030-108-A-0	Removal of Sidewalk	SY	7	
11	7030-108-E-0	Sidewalk, PCC, 4" Thick	SY	7	
12	7030-108-H-2	Driveway, Granular	TON	10	Materail shall be IDOT 4120 Gradation No. 11, Class A Crushed Stone compacted in place.
13	9010-108-A-0	Conventional Seeding; Seeding, Fertilizing and Mulching	LS	XXX	Use Type 1 Permanent Lawn Mixture
14	9040-108-E-0	Temporary RECP, Type 3.B (Extended Term)	SY	200	See plans for approximate installation locations. The limitation for increase of decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Owner may authorize use of all, part, or none of the estimated quantity at the unit price as bid.

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2015 SANITARY AND STORM SEWER IMPROVEMENTS
OSKALOOSA, IOWA

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SHEET TITLE
ESTIMATED PROJECT QUANTITIES

SCALE: NO SCALE

FIELD BOOK: NA

DRAWN BY: TRH/RAN/KJR

APPROVED: RAN

REVISIONS:

DATE: JUL. 27, 2015

PROJECT NO.: 3015033

SHEET NO.: C.01

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NORTH PROJECT SANITARY SEWER STRUCTURE TABLE				
STRUCTURE	NORTHING	EASTING	STATION	STRUCTURE TYPE
MH N61.1	476840.33	1875182.59	0+10.00	SW-301 MANHOLE, 48" DIA.
MH N61.2	476840.07	1875160.68	0+31.91	SW-301 MANHOLE, 48" DIA.
MH N62	476739.29	1874912.61	2+99.66	SW-301 MANHOLE, 48" DIA.
MH N62.1	476641.35	1874668.91	5+62.31	SW-301 MANHOLE, 48" DIA.
MH N62.2	476691.72	1874589.20	6+56.60	SW-301 MANHOLE, 48" DIA.
MH N62.3	476689.37	1874389.68	8+56.14	SW-301 MANHOLE, 48" DIA.
MH N63	476604.50	1874592.31	0+85.00	SW-301 MANHOLE, 48" DIA.
MH N65	476556.01	1874224.21	10+68.66	SW-301 MANHOLE, 48" DIA.
MH N66	476553.50	1874101.05	11+91.84	SW-301 MANHOLE, 48" DIA.
MH N66.1	476550.94	1873932.74	13+60.17	SW-301 MANHOLE, 48" DIA.
MH N66.2	476549.35	1873813.18	14+79.74	SW-301 MANHOLE, 48" DIA.
MH N66.3	476446.28	1873814.64	15+82.81	SW-301 MANHOLE, 48" DIA.
MH N67	476487.21	1873934.96	0+63.77	SW-301 MANHOLE, 48" DIA.

NORTH PROJECT SANITARY SEWER PIPE TABLE								
PIPE	DIAMETER	MATERIAL	FROM	TO	LENGTH	SLOPE	PIPE ℄ IN	PIPE ℄ OUT
SS-13	15"	PVC or TRUSS	MH N61.2	MH N61.1	21.91 LF	1.20%	781.76	781.50
SS-14	15"	PVC or TRUSS	MH N62	MH N61.2	267.75 LF	1.20%	785.07	781.86
SS-15	15"	PVC or TRUSS	MH N62.1	MH N62	262.65 LF	1.20%	788.32	785.17
SS-16	15"	PVC or TRUSS	MH N62.2	MH N62.1	94.29 LF	1.20%	789.55	788.42
SS-17	15"	PVC or TRUSS	MH N62.3	MH N62.2	199.54 LF	2.25%	795.03	790.55
SS-18	15"	PVC or TRUSS	MH N65	MH N62.3	212.52 LF	1.25%	799.19	796.53
SS-19	15"	PVC or TRUSS	MH N66	MH N65	123.18 LF	1.00%	800.52	799.29
SS-20	15"	PVC or TRUSS	MH N66.1	MH N66	168.33 LF	1.00%	802.30	800.62
SS-21	15"	PVC or TRUSS	MH N66.2	MH N66.1	119.57 LF	1.00%	803.60	802.40
SS-22	15"	PVC or TRUSS	MH N66.3	MH N66.2	103.07 LF	2.14%	807.81	805.60
SS-23	8"	PVC or TRUSS	MH N63	MH N62.1	85.00 LF	3.00%	792.87	790.32
SS-24	8"	PVC or TRUSS	MH N67	MH N66.1	63.77 LF	4.23%	807.00	804.30

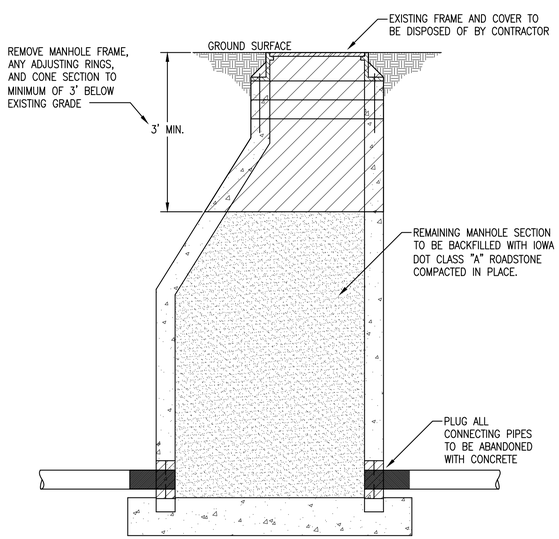
SOUTH PROJECT SANITARY SEWER STRUCTURE TABLE				
STRUCTURE	NORTHING	EASTING	STATION	STRUCTURE TYPE
MH M36	18438.47	16294.06	0+00.00	SW-301 MANHOLE, 60" DIA.
MH M56B	18737.05	16264.95	3+00.00	SW-301 MANHOLE, 48" DIA.
MH M59	19138.30	16141.68	7+33.88	SW-301 MANHOLE, 48" DIA.
MH M59A	19002.94	16239.02	5+67.14	SW-301 MANHOLE, 60" DIA.
MH M59B	19002.93	16108.07	6+43.59	SW-301 MANHOLE, 48" DIA.
MH M60	19229.59	16100.85	8+33.88	SW-301 MANHOLE, 48" DIA.
MH M61	19485.67	16099.08	10+89.97	SW-301 MANHOLE, 48" DIA.
MH M62	19639.99	16097.80	12+44.29	SW-301 MANHOLE, 48" DIA.
MH M62.1	19661.05	16053.42	12+44.29	SW-301 MANHOLE, 48" DIA.
MH M62.2	20153.29	16050.90	18+41.83	SW-301 MANHOLE, 48" DIA.
MH M62A	19817.84	16220.43	15+35.78	SW-301 MANHOLE, 48" DIA.
MH M62B	19653.85	16118.61	12+69.29	SW-301 MANHOLE, 48" DIA.
MH M62C	19653.63	16220.89	13+71.57	SW-301 MANHOLE, 48" DIA.
MH M62D	20123.89	16219.57	18+41.83	SW-301 MANHOLE, 48" DIA.
MH M63	20124.48	16384.72	20+06.98	SW-301 MANHOLE, 48" DIA.

SOUTH PROJECT SANITARY SEWER PIPE TABLE								
PIPE	DIAMETER	MATERIAL	FROM	TO	LENGTH	SLOPE	PIPE ℄ IN	PIPE ℄ OUT
SS-1	18"	PVC or TRUSS	MH M56B	MH M36	300.00 LF	4.00%	789.00	777.00
SS-2	18"	PVC or TRUSS	MH M59A	MH M56B	267.14 LF	1.75%	793.78	789.10
SS-3	18"	PVC or TRUSS	MH M59	MH M59A	166.73 LF	1.75%	796.80	793.88
SS-4	18"	PVC or TRUSS	MH M60	MH M59	100.00 LF	1.75%	798.65	796.90
SS-5	18"	PVC or TRUSS	MH M61	MH M60	256.09 LF	2.70%	805.66	798.75
SS-6	18"	PVC or TRUSS	MH M62	MH M61	154.33 LF	2.70%	809.93	805.76
SS-7	18"	PVC or TRUSS	MH M62B	MH M62	25.00 LF	1.81%	810.48	810.03
SS-8	18"	PVC or TRUSS	MH M62C	MH M62B	102.28 LF	1.40%	812.01	810.58
SS-9	18"	PVC or TRUSS	MH M62A	MH M62C	164.21 LF	1.40%	814.41	812.11
SS-10	18"	PVC or TRUSS	MH M62D	MH M62A	306.05 LF	1.40%	818.79	814.51
SS-11	18"	PVC or TRUSS	MH M63	MH M62D	165.15 LF	0.90%	820.37	818.88
SS-12	8"	PVC or TRUSS	MH M59B	MH M59A	130.95 LF	0.95%	796.02	794.77

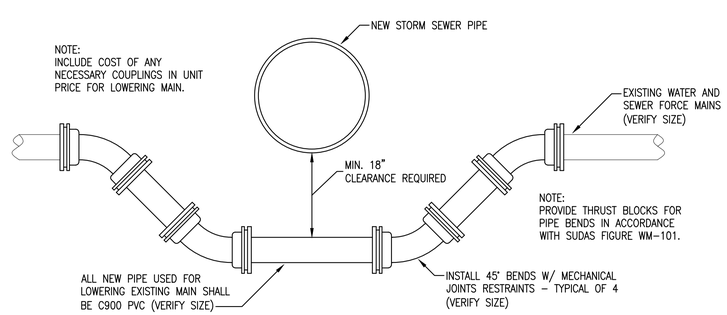
SOUTH PROJECT STORM SEWER STRUCTURE TABLE				
STRUCTURE NO.	NORTHING	EASTING	TOP OF CURB OR RIM ELEV.	STRUCTURE TYPE
ST-1	19032.37	16141.65	802.75	SW-512 INTAKE, CASE 2 W/ 24" RISER AND SW-604 TYPE 5 CASTING
ST-2	19229.52	16090.85	811.24	SW-401 MANHOLE, 60" DIA.
ST-3	19458.36	16089.27	814.64	SW-401 MANHOLE, 60" DIA.
ST-4	19458.25	16073.08	815.25	SW-513 INTAKE, 4'X4' INLET ELEV. = 814.00
ST-5	19504.25	16073.09	816.25	SW-513 INTAKE, 4'X4' INLET ELEV. = 815.00
ST-6	19882.08	16073.17	825.15	SW-401 MANHOLE, 48" DIA.
ST-7	20107.97	16072.34	831.63	SW-401 MANHOLE, 48" DIA.
ST-8	20179.72	16067.34	831.75	SW-502 INTAKE, 48" DIA.
ST-9	20196.74	16056.39	831.79	SW-401 MANHOLE, 48" DIA.
ST-10	20361.27	16056.66	834.31	SW-401 MANHOLE, 48" DIA.
ST-11	20456.74	16056.81	835.62	SW-401 MANHOLE, 48" DIA.
ST-12	20456.29	16072.27	835.69	SW-401 MANHOLE, 48" DIA.
ST-13	20458.04	16093.04	836.65	SW-507 INTAKE, SMALL BOX
ST-14	20460.33	16009.90	836.25	SW-507 INTAKE, SMALL BOX

SOUTH PROJECT STORM SEWER PIPE TABLE								
PIPE	DIAMETER	MATERIAL	FROM	TO	LENGTH	SLOPE	PIPE ℄ IN	PIPE ℄ OUT
P-1	30"	RCP	ST-1		48.0 LF	1.00%	789.98	789.50
P-2	30"	RCP	EX. INTAKE 1	ST-1	110.8 LF	9.99%	801.05	789.98
P-3	30"	RCP	ST-2	EX. INTAKE 2	76.7 LF	2.00%	803.57	802.04
P-4	30"	RCP	ST-3	ST-2	226.3 LF	2.00%	808.20	803.67
P-5	30"	RCP	ST-4	ST-3	13.8 LF	2.00%	808.58	808.30
P-6	30"	RCP	ST-5	ST-4	43.3 LF	2.00%	809.55	808.68
P-7	30"	RCP		ST-5	113.0 LF	2.00%	811.91	809.65
P-8	30"	RCP	EXIST. MANHOLE		39.0 LF	11.02%	816.21	811.91
P-9	18"	RCP	ST-6	EXIST. INTAKE	19.3 LF	0.98%	820.69	820.50
P-10	18"	RCP	ST-7	ST-6	225.9 LF	1.00%	822.95	820.69
P-11	18"	RCP	ST-8	ST-7	69.8 LF	1.00%	823.75	823.05
P-12	18"	RCP	ST-9	ST-8	18.7 LF	1.00%	824.03	823.84
P-13	18"	RCP	ST-10	ST-9	164.5 LF	2.00%	827.42	824.13
P-14	18"	RCP	ST-11	ST-10	95.5 LF	2.00%	829.43	827.52
P-15	18"	RCP	ST-12	ST-11	15.5 LF	2.00%	829.84	829.53
P-16	15"	RCP	ST-13	ST-12	18.4 LF	2.00%	830.31	829.94
P-17	15"	RCP	ST-14	ST-11	44.2 LF	1.00%	831.87	831.43

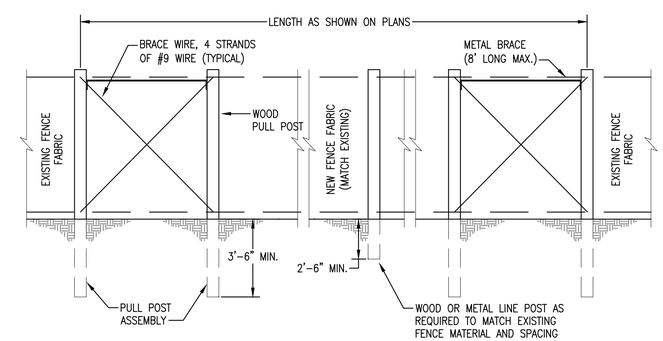
NOTE: PIPE LENGTH INCLUDES APRON LENGTH.



ABANDONMENT OF EXISTING MANHOLE DETAIL
NO SCALE



DETAIL - LOWER EXISTING WATER MAINS
NO SCALE



NOTES:

1. INSTALL BRACE (PULL) POST ASSEMBLY AT EACH END OF FENCE REMOVAL.
2. REPLACE FENCE REMOVED IN KIND WITH NEW MATERIALS AND LINE POSTS. SEE SPECIFICATIONS FOR REQUIRED MATERIALS.
3. REMOVE EXISTING FENCE AS REQUIRED FOR CONSTRUCTION. REMOVAL AND REPLACEMENT OF FENCE BEYOND THAT SHOWN ON PLANS IS AT CONTRACTOR'S EXPENSE.

DETAIL - FENCE REPLACEMENT
NO SCALE

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2015 SANITARY AND STORM SEWER IMPROVEMENTS
OSKALOOSA, IOWA

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SHEET TITLE
TABULATIONS AND DETAILS

SCALE: NO SCALE
FIELD BOOK: NA
DRAWN BY: TRH/RAN/KJR
APPROVED: RAN
REVISIONS:
DATE: JUL. 27, 2015
PROJECT NO.: 3015033
SHEET NO.: C.02

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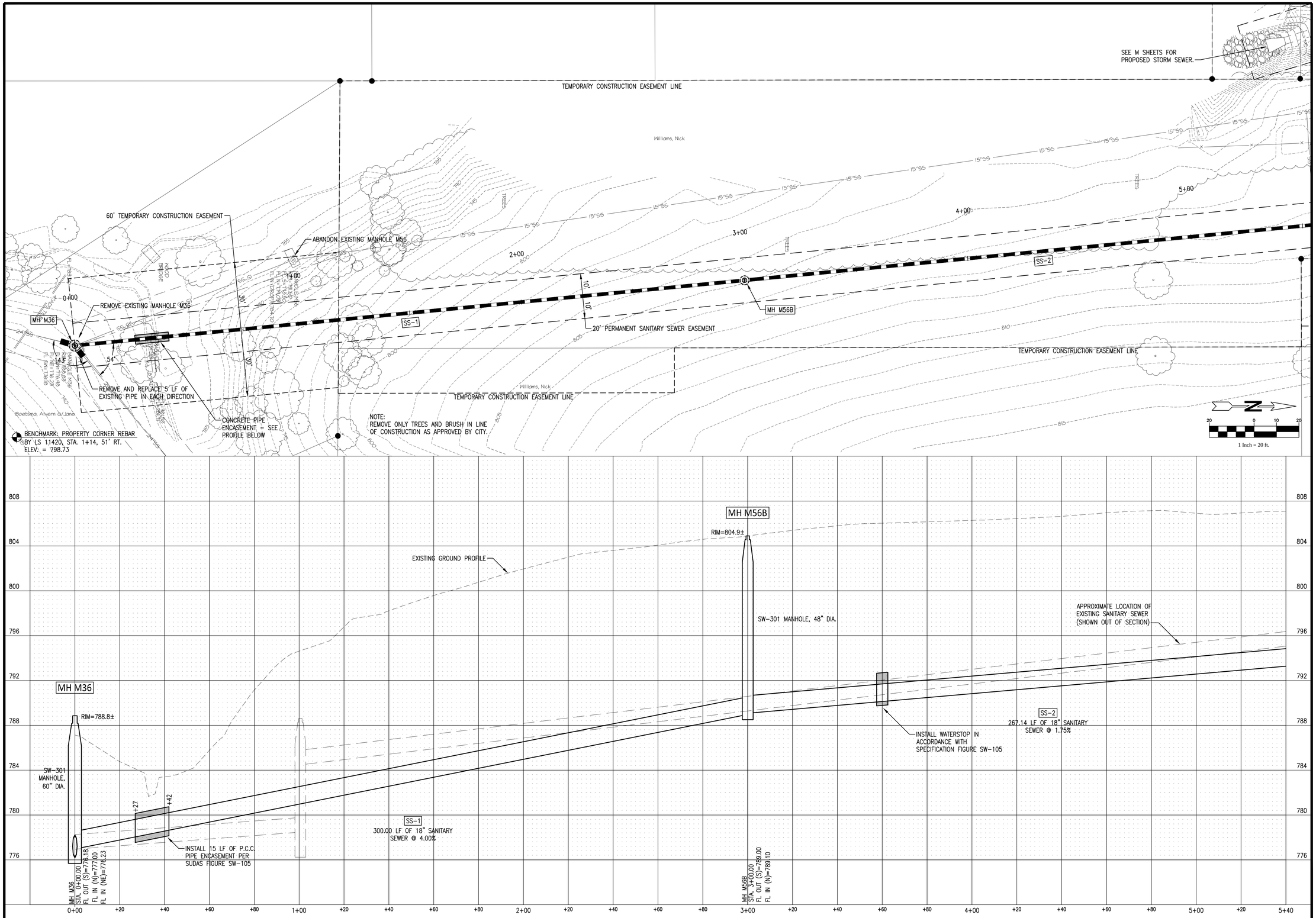

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SHEET TITLE
SANITARY SEWER PLAN AND PROFILE

SCALE:
1" = 20' HOR. 1" = 4' VERT.

FIELD BOOK:
NA

DRAWN BY:
TRH/RAN/KJR

APPROVED:
RAN

REVISIONS:

DATE:
JUL. 27, 2015

PROJECT NO.:
3015033

SHEET NO.:
D.01

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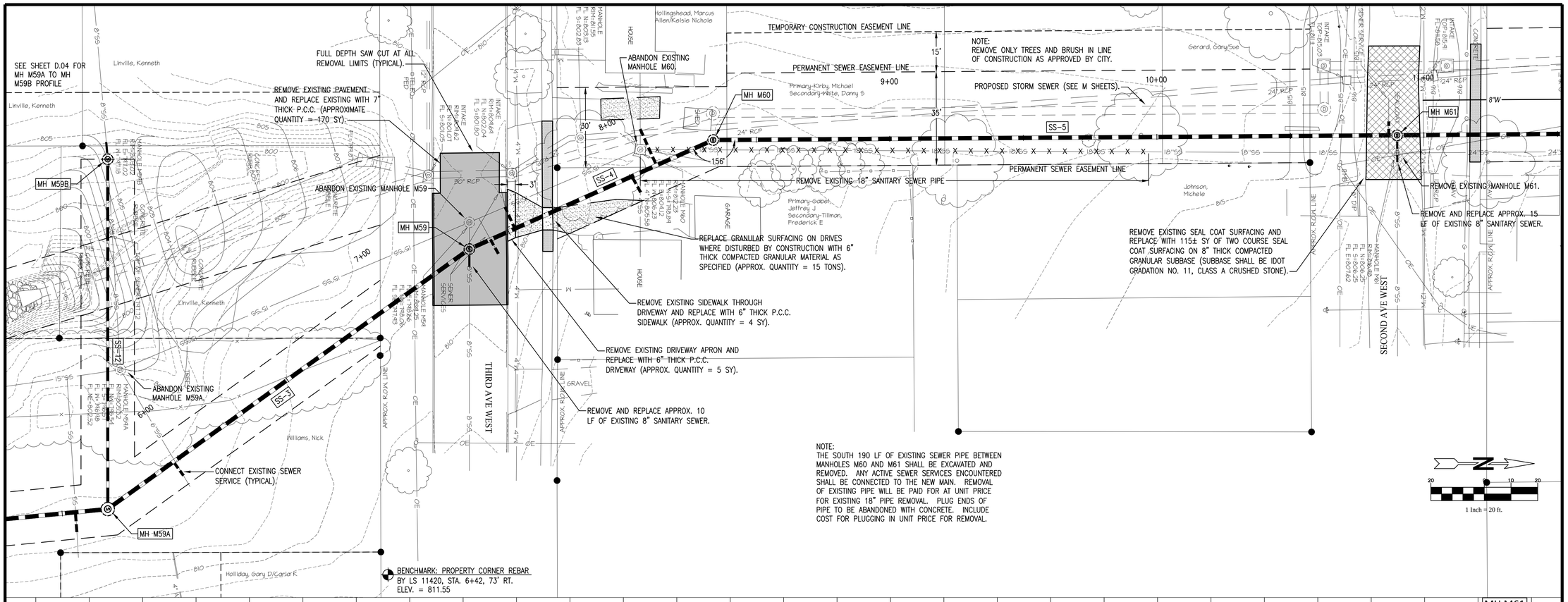

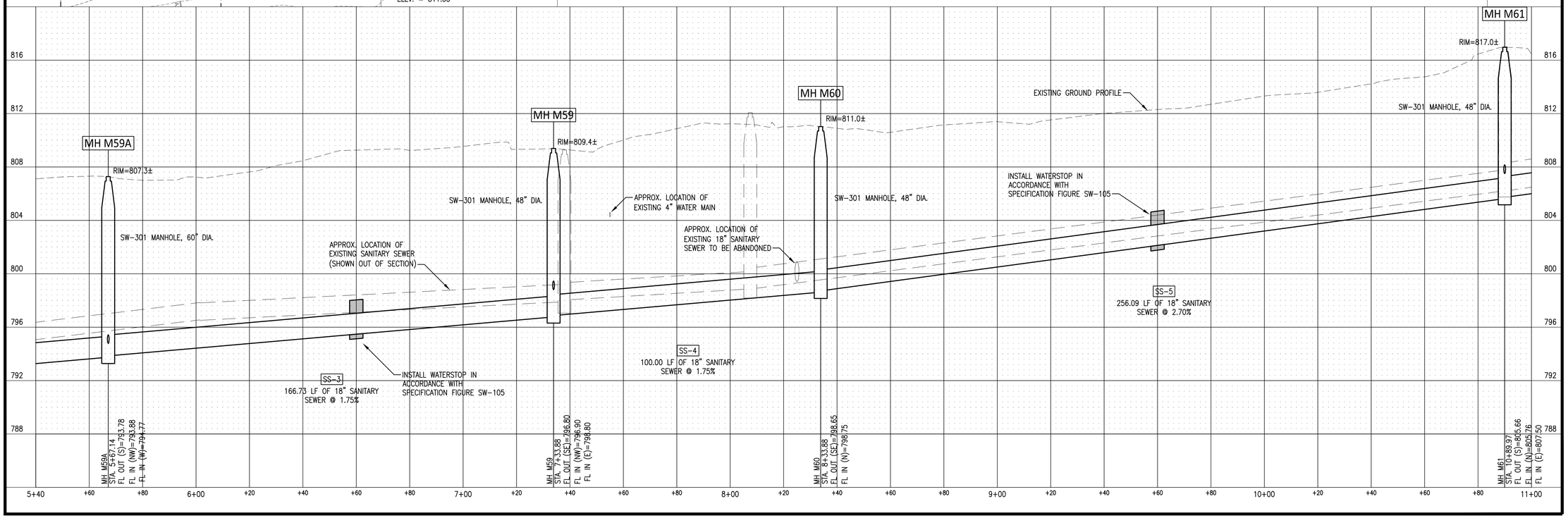

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SHEET TITLE
SANITARY SEWER PLAN AND PROFILE

SCALE:
1" = 20' HOR. 1" = 4' VERT.

FIELD BOOK:
NA

DRAWN BY:
TRH/RAN/KJR

APPROVED:
RAN

REVISIONS:

DATE:
JUL. 27, 2015

PROJECT NO.:
3015033

SHEET NO.:
D.02

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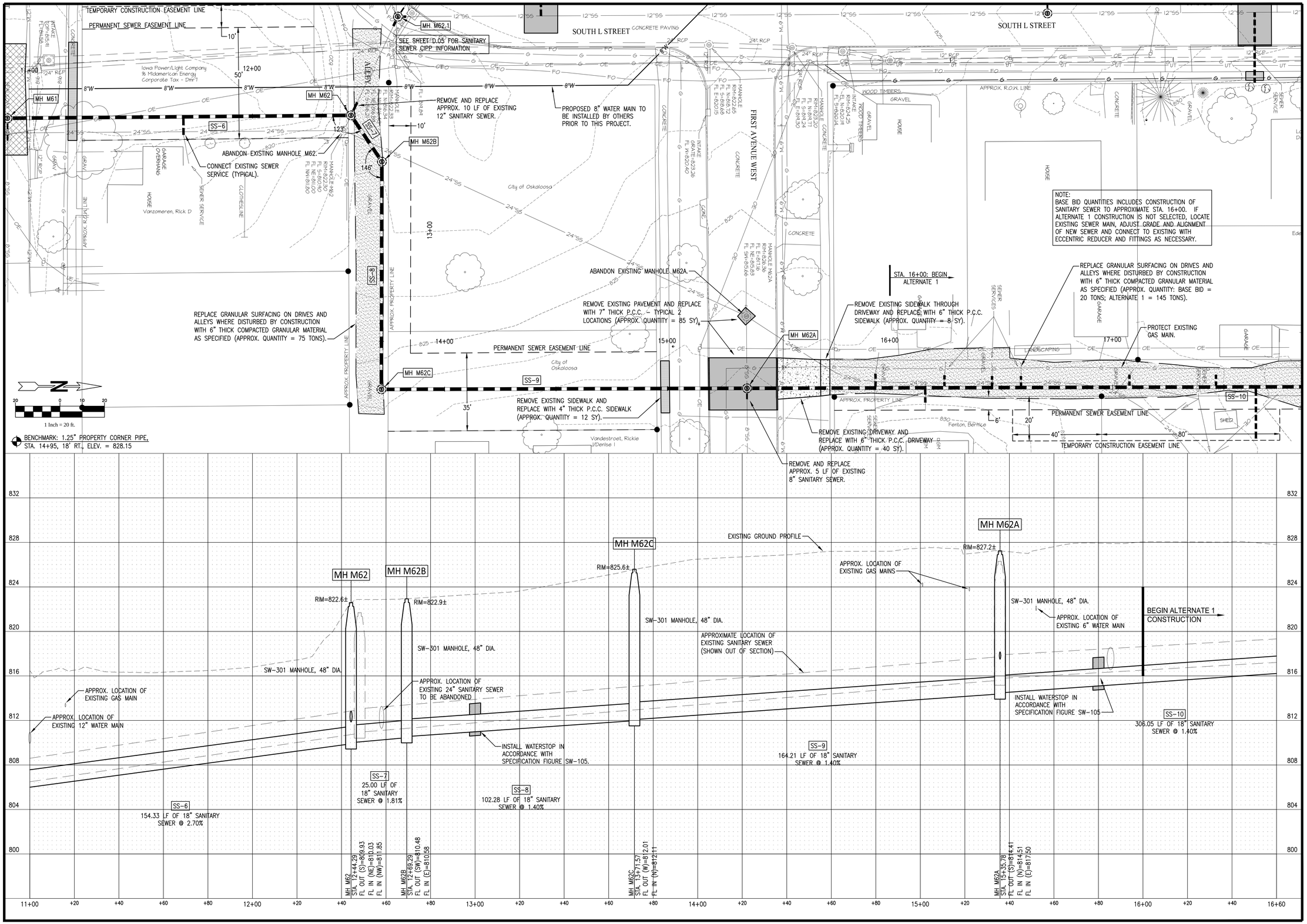

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PROJECT NO.:
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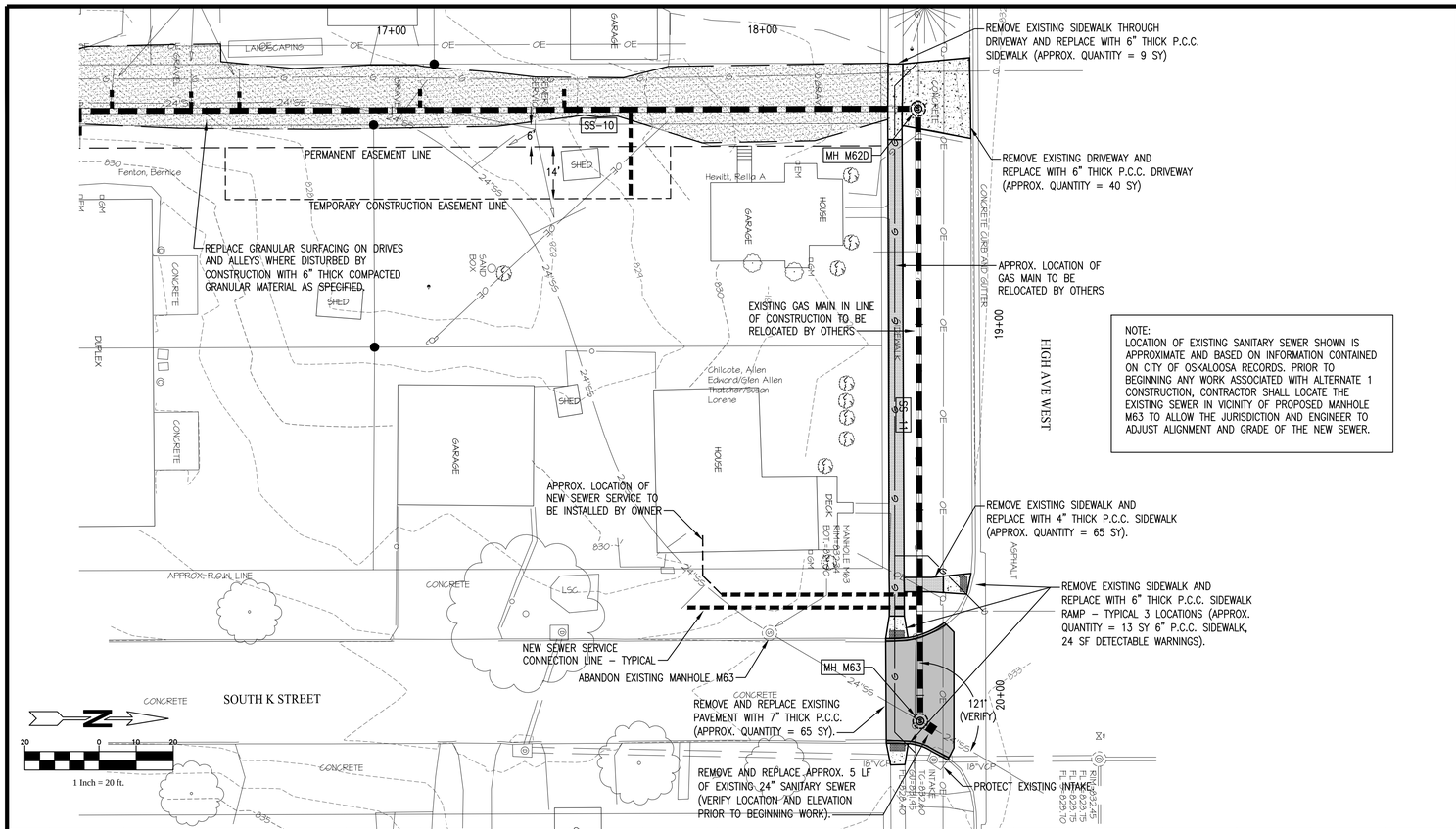
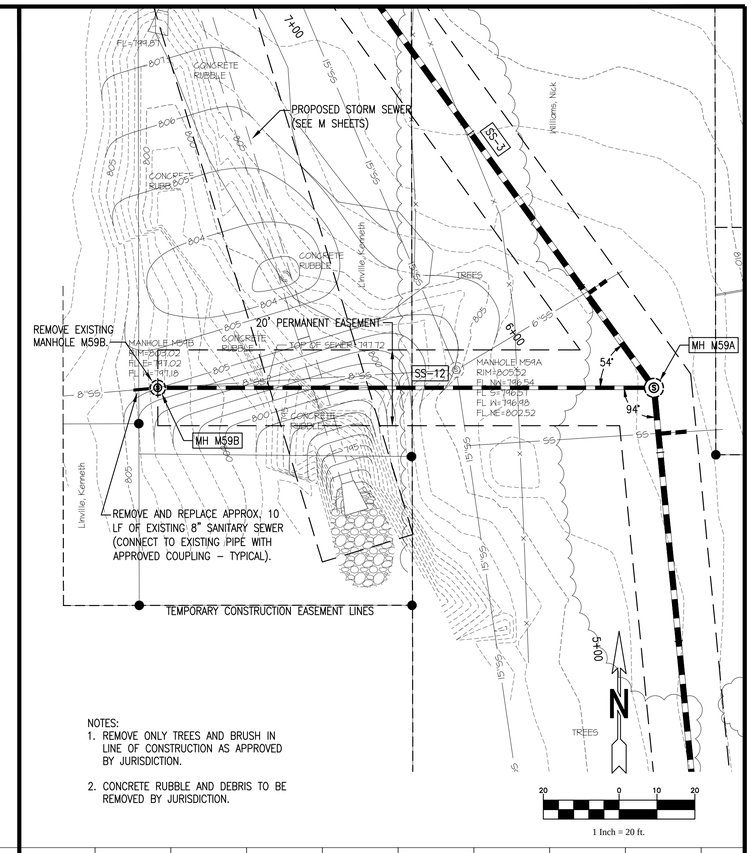
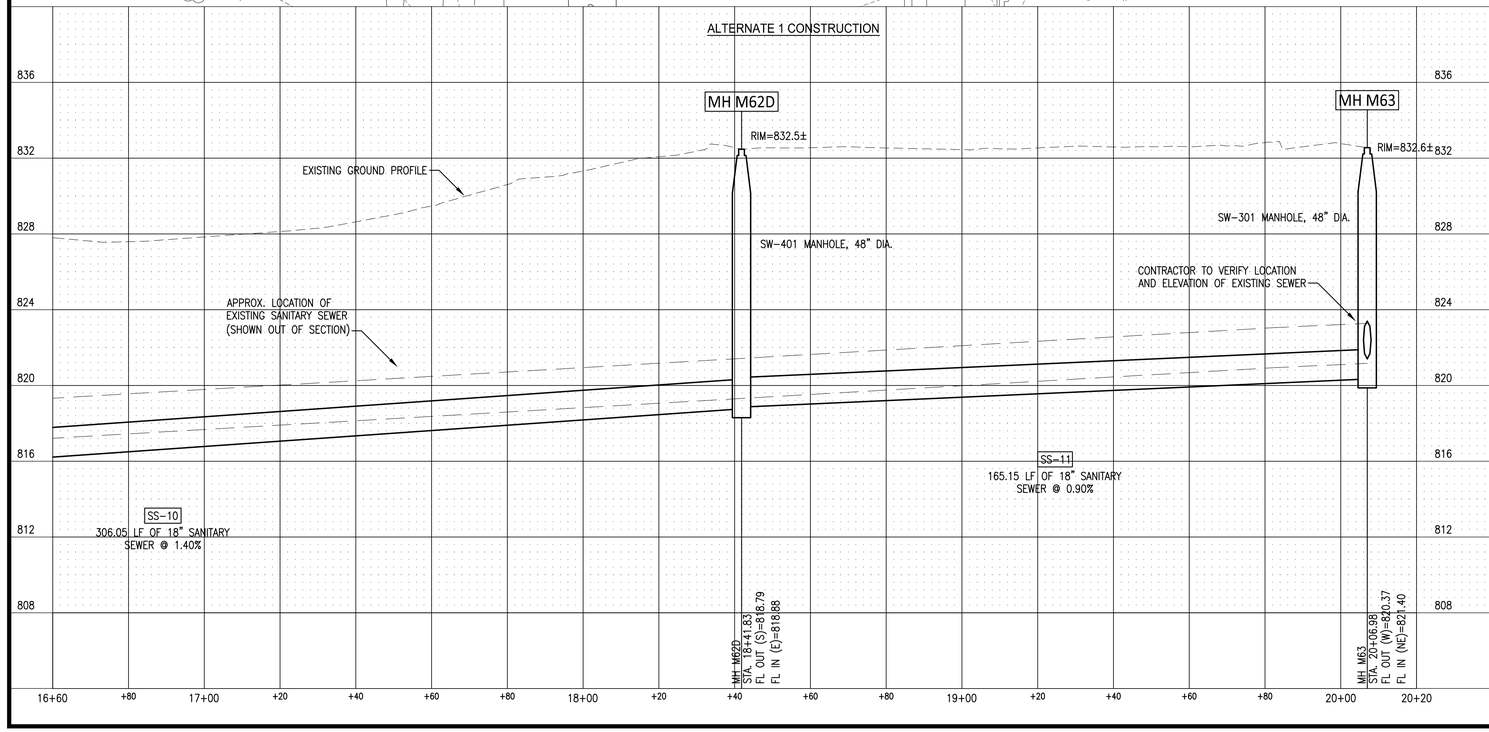


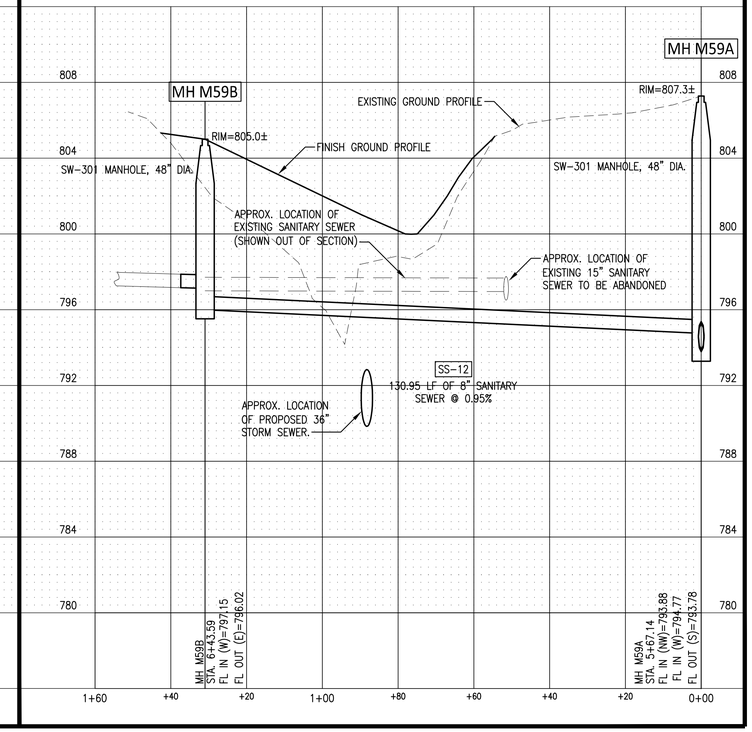
NOTE:
LOCATION OF EXISTING SANITARY SEWER SHOWN IS APPROXIMATE AND BASED ON INFORMATION CONTAINED ON CITY OF OSKALOOSA RECORDS. PRIOR TO BEGINNING ANY WORK ASSOCIATED WITH ALTERNATE 1 CONSTRUCTION, CONTRACTOR SHALL LOCATE THE EXISTING SEWER IN VICINITY OF PROPOSED MANHOLE M63 TO ALLOW THE JURISDICTION AND ENGINEER TO ADJUST ALIGNMENT AND GRADE OF THE NEW SEWER.



NOTES:
1. REMOVE ONLY TREES AND BRUSH IN LINE OF CONSTRUCTION AS APPROVED BY JURISDICTION.
2. CONCRETE RUBBLE AND DEBRIS TO BE REMOVED BY JURISDICTION.

ALTERNATE 1 CONSTRUCTION





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SHEET TITLE
SANITARY SEWER PLAN AND PROFILE

SCALE:
1" = 20' HOR. 1" = 4' VERT.

FIELD BOOK:
NA

DRAWN BY:
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APPROVED:
RAN

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JUL. 27, 2015

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SHEET NO.:
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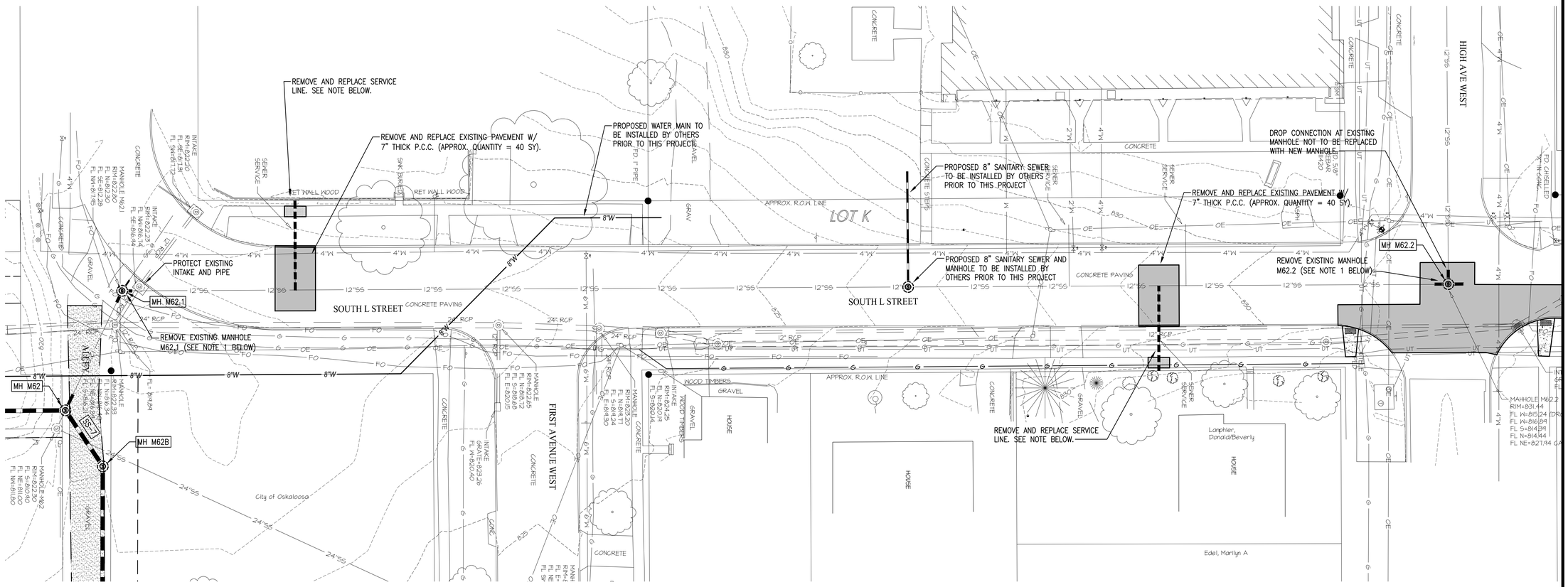

SANITARY SEWER REHABILITATION NOTES

1. REMOVE AND REPLACE MANHOLES M62.1 AND M62.2. INSTALL MINIMUM OF 5 LINEAL FEET OF NEW PIPE FOR CONNECTION TO EACH EXISTING PIPE AT THE MANHOLES.
2. CLEAN AND INSPECT APPROXIMATELY 540 LINEAL FEET OF 12" DIAMETER SANITARY SEWER BETWEEN SANITARY SEWER MANHOLES M62-M62.1 AND M62.1-M62.2.
3. INSTALL CURED-IN-PLACE-PIPE (CIPP) AND REINSTATE ACTIVE SERVICES WITHOUT EXCAVATION UTILIZING REMOTE CONTROL CUTTING DEVICE. ONLY ACTIVE SEWER SERVICES SHALL BE REINSTATED. CONTRACTOR TO VERIFY ACTIVE SERVICES BY DYE TESTING. JURISDICTION WILL OBTAIN PERMISSION FROM PROPERTY OWNER TO GAIN ACCESS TO RESIDENCE TO PERFORM TESTING.
4. LOCATE AND EXCAVATE REINSTATED SERVICE TAP, REMOVE EXISTING WYE OR TEE AND FULL CIRCUMFERENCE OF EXISTING SEWER MAIN FROM AROUND CIPP AND INSTALL NEW 4" OR 6" SEWER SERVICE SADDLE AS SPECIFIED.
5. REPLACE EXISTING 4" OR 6" SERVICE LINE FROM SEWER MAIN TO PROPERTY LINE. REMOVE AND REPLACE 4" THICK P.C.C. SIDEWALK IN LINE OF SERVICE LINE CONSTRUCTION.

20 0 10 20

1 Inch = 20 ft.

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SHEET TITLE
SOUTH L STREET SANITARY SEWER REHABILITATION

SCALE: 1" = 20'

FIELD BOOK: NA

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APPROVED: RAN

REVISIONS:

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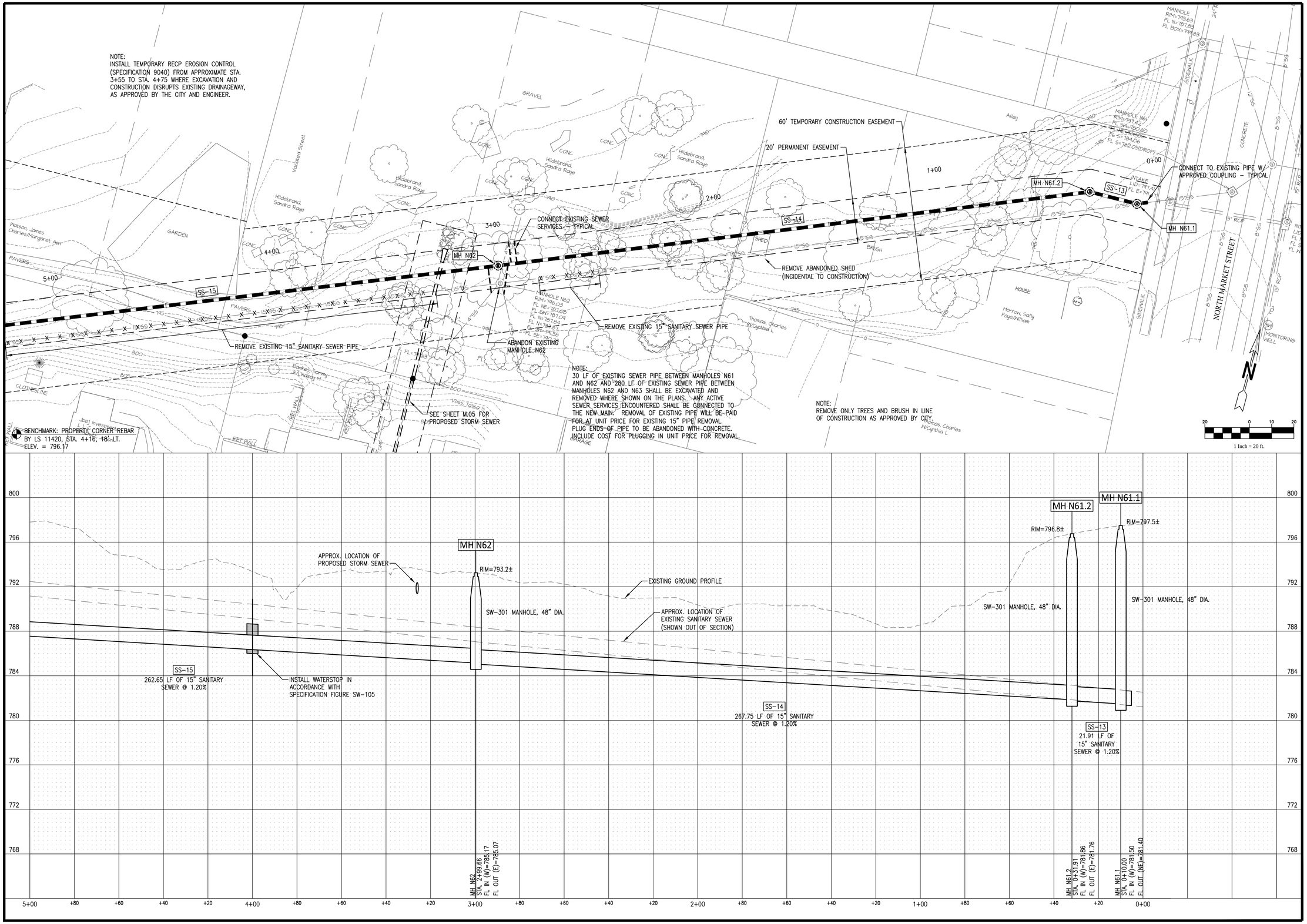

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SHEET NO.:
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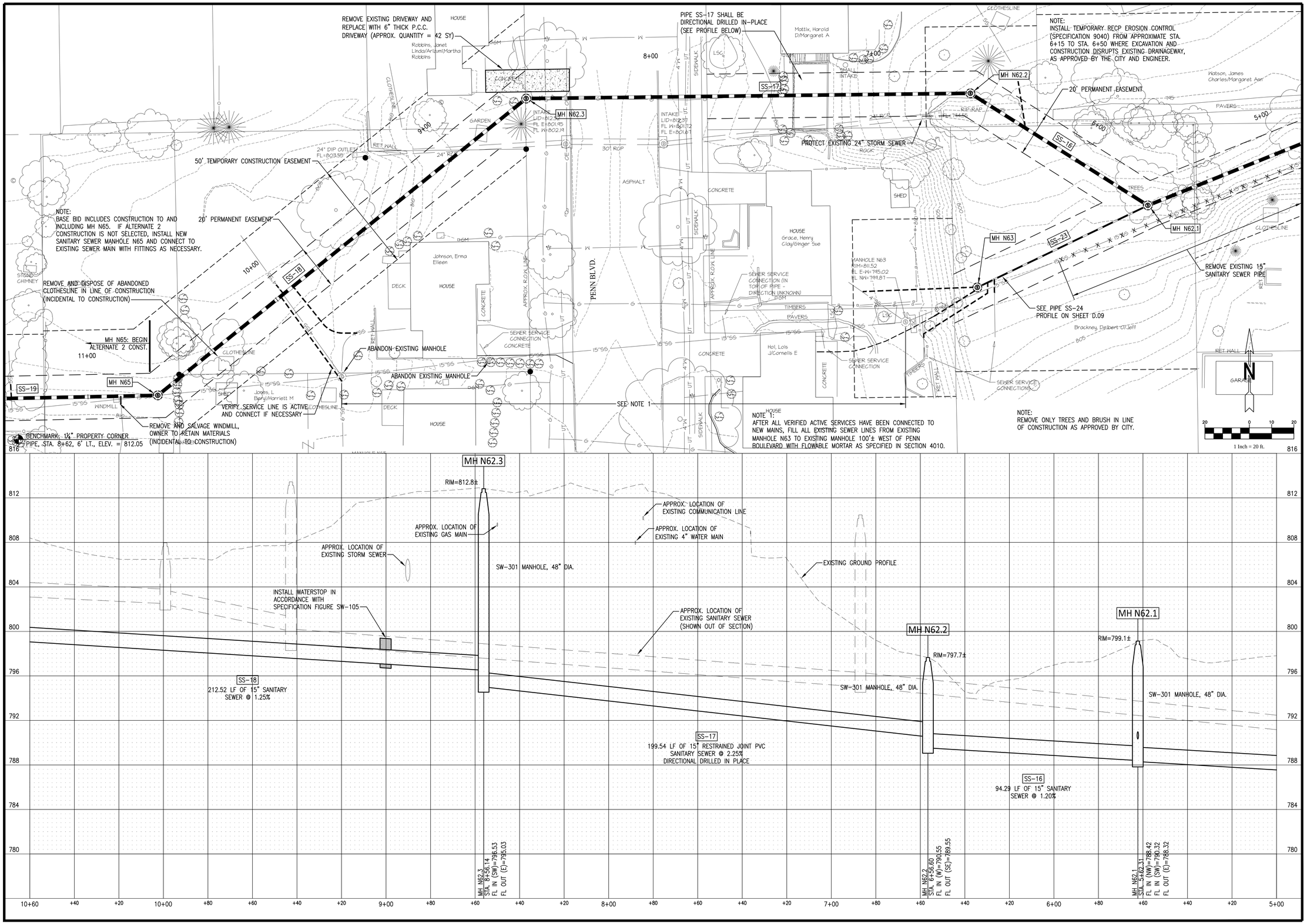

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SHEET NO.:
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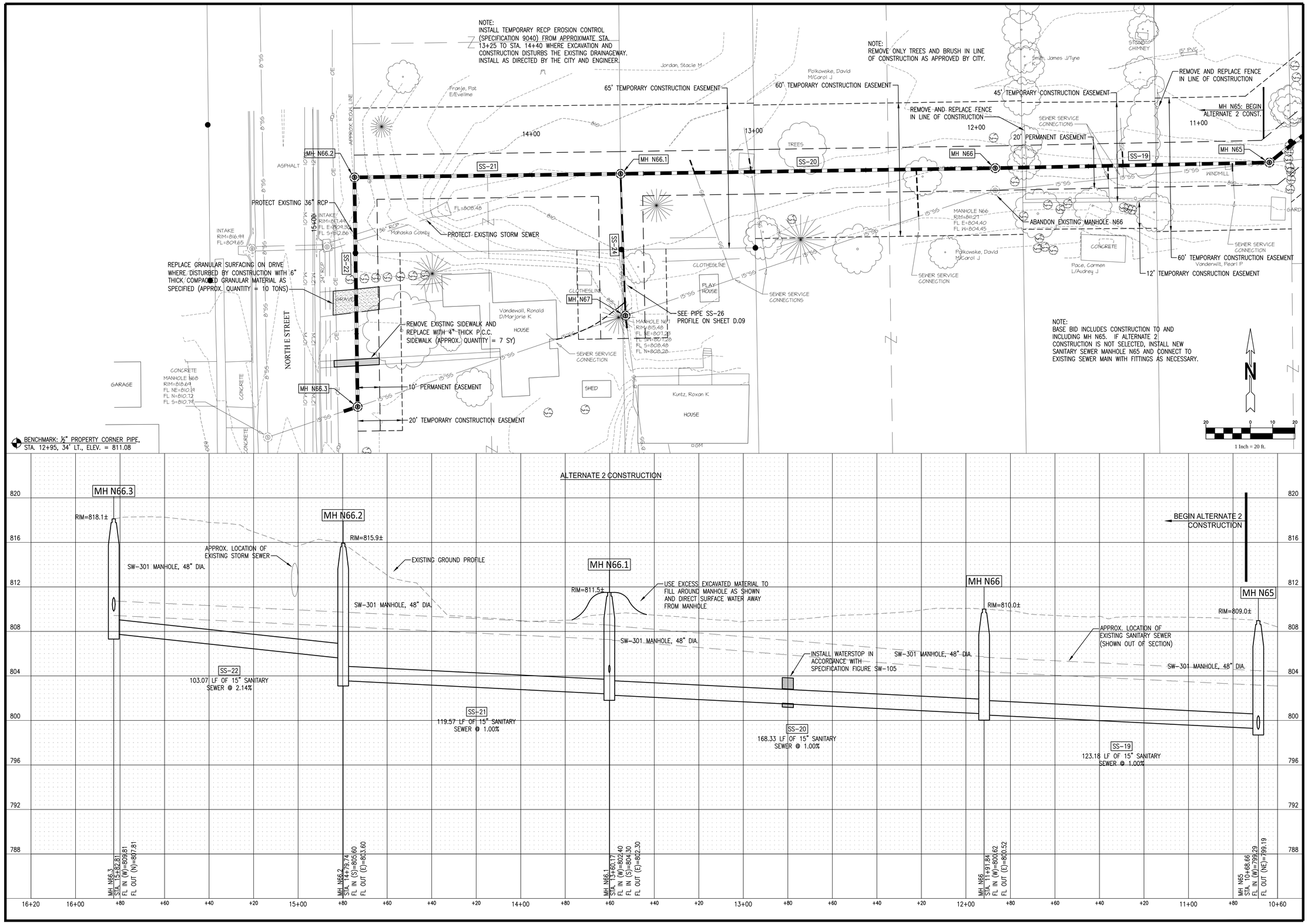

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FIELD BOOK:
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REVISIONS:

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JUL. 27, 2015

PROJECT NO.:
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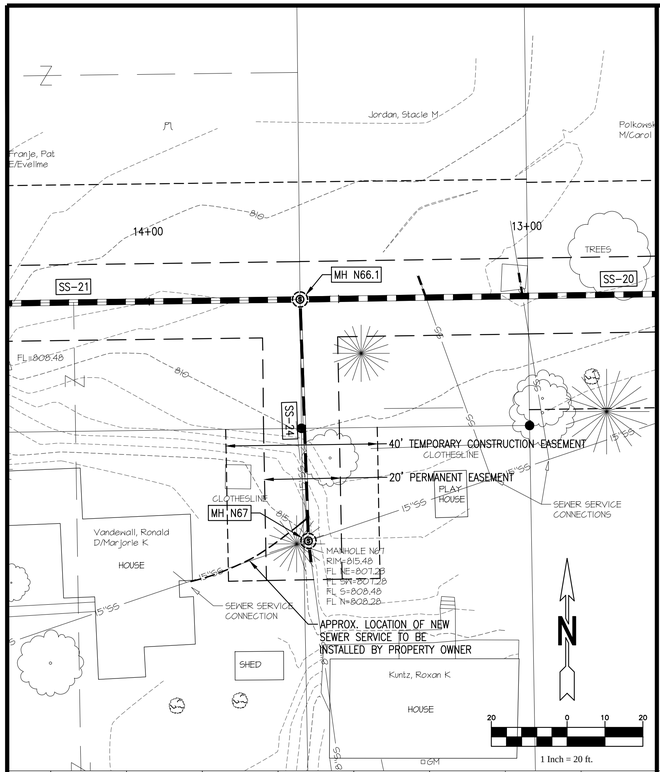
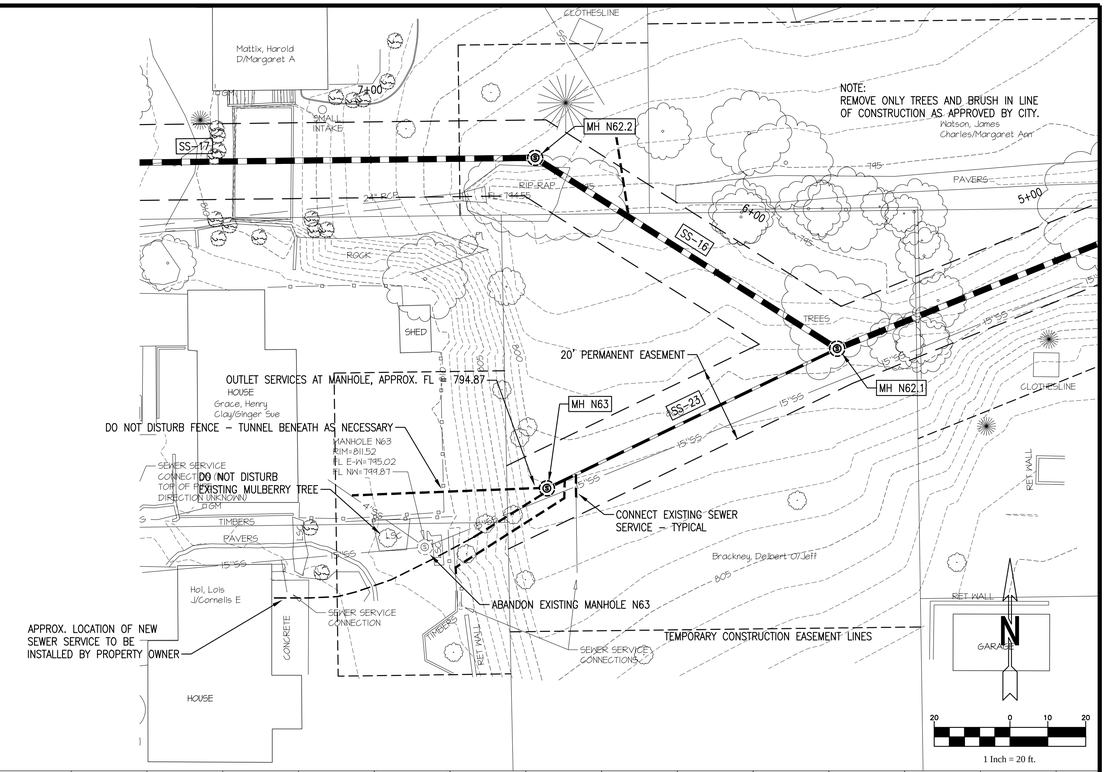
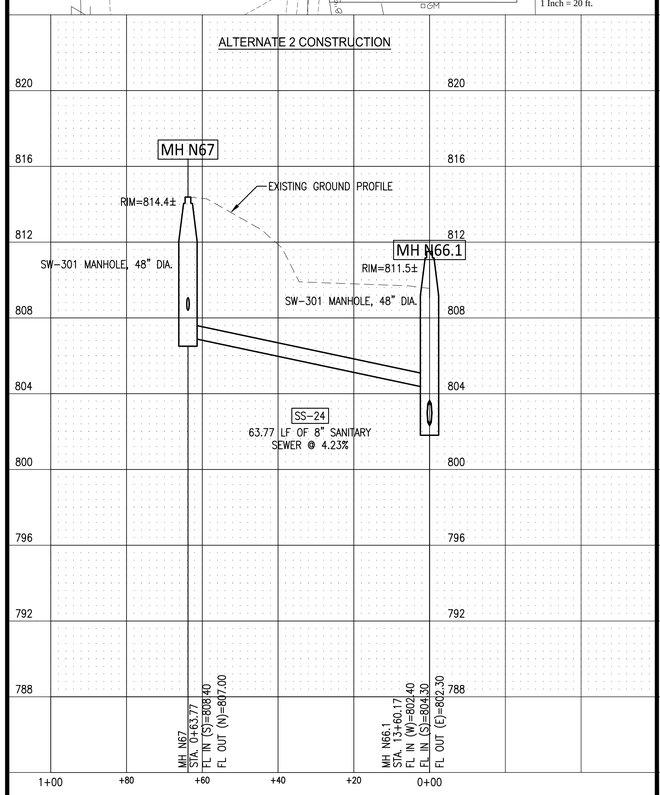
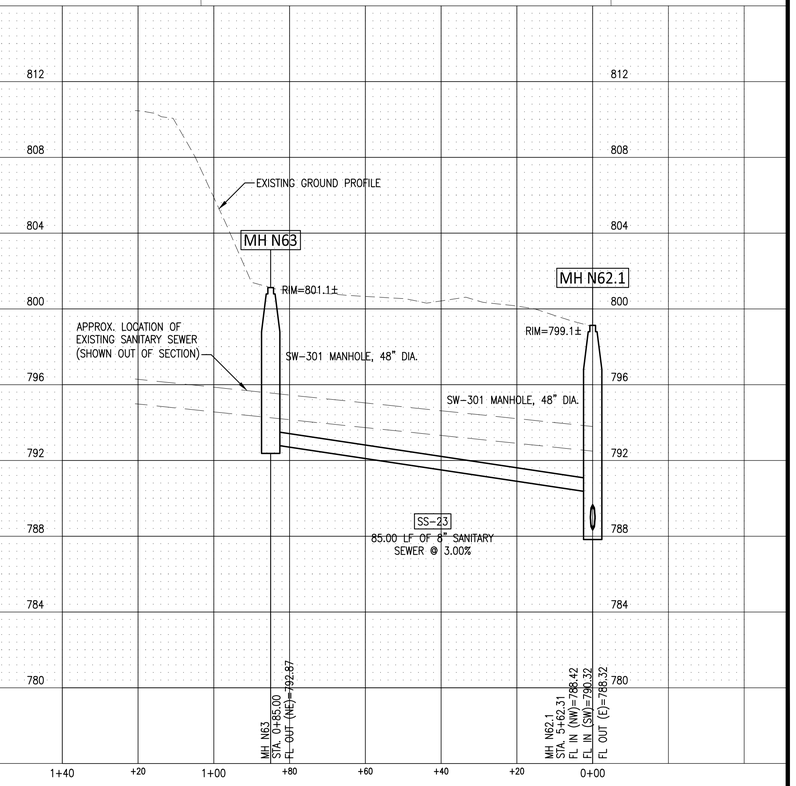
SHEET NO.:
D.08









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SHEET TITLE
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SCALE:
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FIELD BOOK:
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APPROVED:
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REVISIONS:

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JUL. 27, 2015

PROJECT NO.:
3015033

SHEET NO.:
D.09

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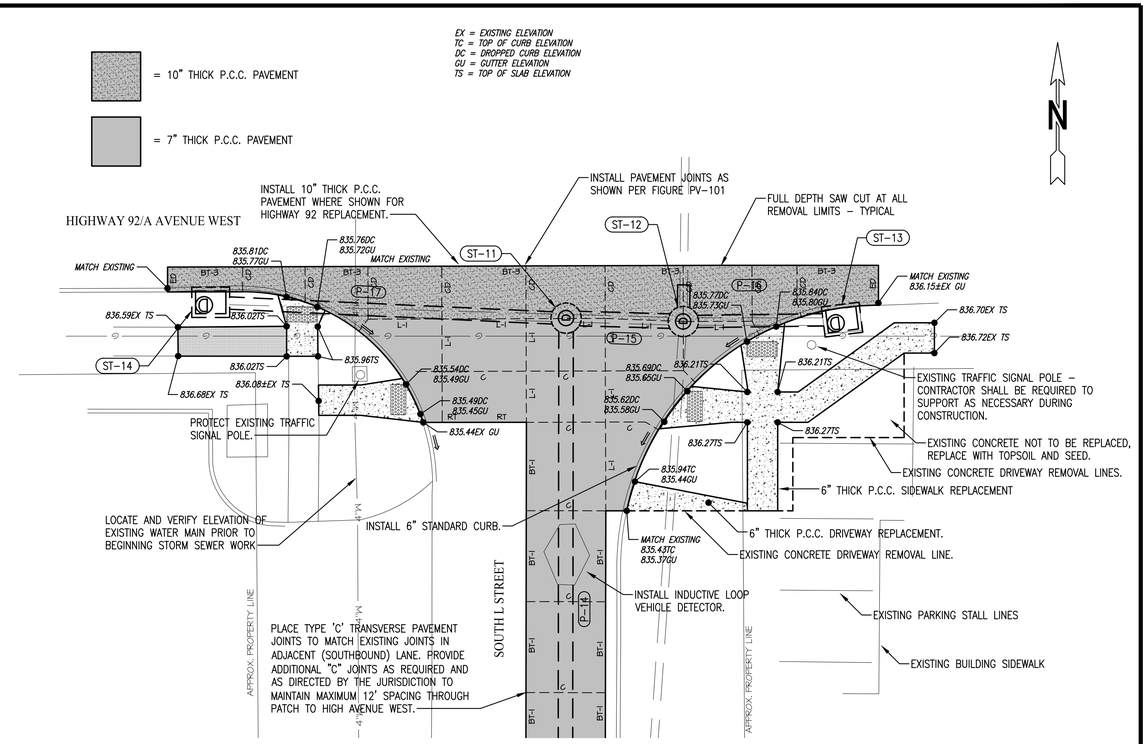
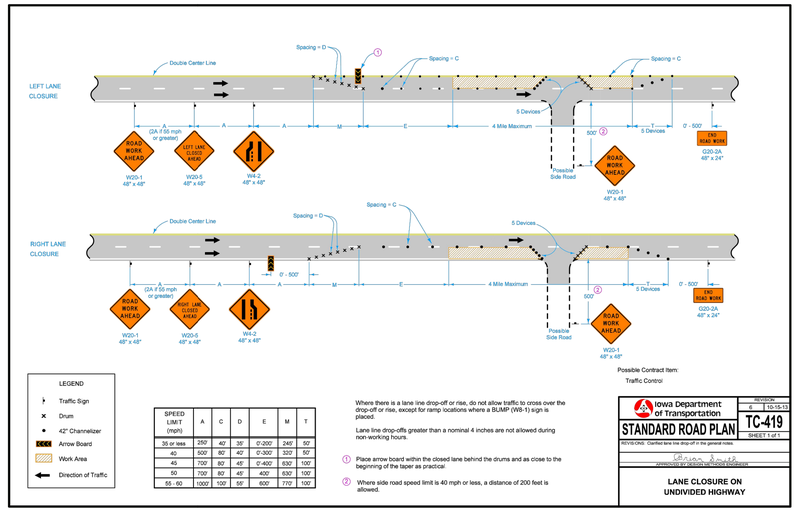
SOUTH PROJECT STORM SEWER STRUCTURE TABLE				
STRUCTURE NO.	NORTHING	EASTING	TOP OF CURB OR RIM ELEV.	STRUCTURE TYPE
ST-11	20456.74	16056.81	835.62	SW-401 MANHOLE, 48" DIA.
ST-12	20456.29	16072.27	835.69	SW-401 MANHOLE, 48" DIA.
ST-13	20458.04	16093.04	836.65	SW-507 INTAKE, SMALL BOX
ST-14	20460.33	16009.90	836.25	SW-507 INTAKE, SMALL BOX

SOUTH PROJECT STORM SEWER PIPE TABLE								
PIPE	DIAMETER	MATERIAL	FROM	TO	LENGTH	SLOPE	PIPE FL IN	PIPE FL OUT
P-14	18"	RCP	ST-11	ST-10	95.5 LF	2.00%	829.43	827.52
P-15	18"	RCP	ST-12	ST-11	15.5 LF	2.00%	829.84	829.53
P-16	15"	RCP	ST-13	ST-12	18.4 LF	2.00%	830.31	829.94
P-17	15"	RCP	ST-14	ST-11	44.2 LF	1.00%	831.87	831.43



SOUTH L STREET AND HIGHWAY 92 DETAIL
SCALE: 1" = 10'



SPEED LIMIT (mph)	A	C	D	E	M	T
35 or less	250'	40'	35'	0'-200'	240'	50'
40	500'	80'	40'	0'-300'	320'	50'
45	700'	80'	45'	0'-400'	630'	100'
50	700'	80'	45'	400'	630'	100'
55 - 60	1000'	100'	55'	600'	770'	100'

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OSKALOOSA, IOWA

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SHEET TITLE
INTERSECTION PAVING DETAIL

SCALE: AS NOTED
FIELD BOOK: NA
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APPROVED: RAN
REVISIONS:
DATE: JUL. 27, 2015
PROJECT NO.: 3015033
SHEET NO.: L.01

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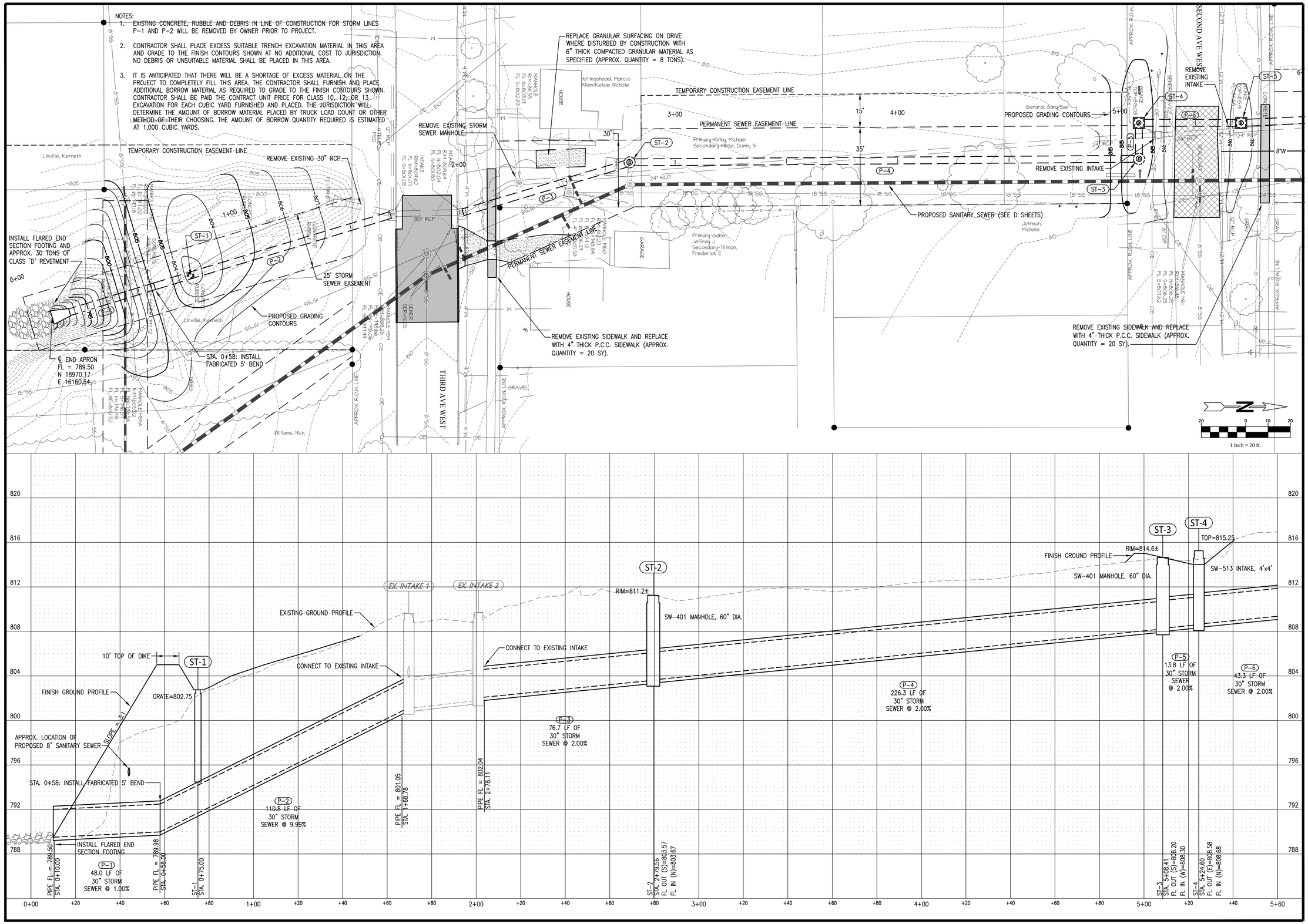
NOTES:

1. EXISTING CONCRETE, RUBBLE AND DEBRIS IN LINE OF CONSTRUCTION FOR STORM LINES P-1 AND P-2 WILL BE REMOVED BY OWNER PRIOR TO PROJECT.
2. CONTRACTOR SHALL PLACE EXCESS SUITABLE TRENCH EXCAVATION MATERIAL IN THIS AREA AND GRADE TO THE FINISH CONTOURS SHOWN AT NO ADDITIONAL COST TO JURISDICTION. NO DEBRIS OR UNSUITABLE MATERIAL SHALL BE PLACED IN THIS AREA.
3. IT IS ANTICIPATED THAT THERE WILL BE A SHORTAGE OF EXCESS MATERIAL ON THE PROJECT TO COMPLETELY FILL THIS AREA. THE CONTRACTOR SHALL FURNISH AND PLACE ADDITIONAL BORROW MATERIAL AS REQUIRED TO GRADE TO THE FINISH CONTOURS SHOWN. CONTRACTOR SHALL BE PAID THE CONTRACT UNIT PRICE FOR CLASS 10, 12, OR 13 EXCAVATION FOR EACH CUBIC YARD FURNISHED AND PLACED. THE JURISDICTION WILL DETERMINE THE AMOUNT OF BORROW MATERIAL PLACED BY TRUCK LOAD COUNT OR OTHER METHOD OF THEIR CHOOSING. THE AMOUNT OF BORROW QUANTITY REQUIRED IS ESTIMATED AT 1,000 CUBIC YARDS.



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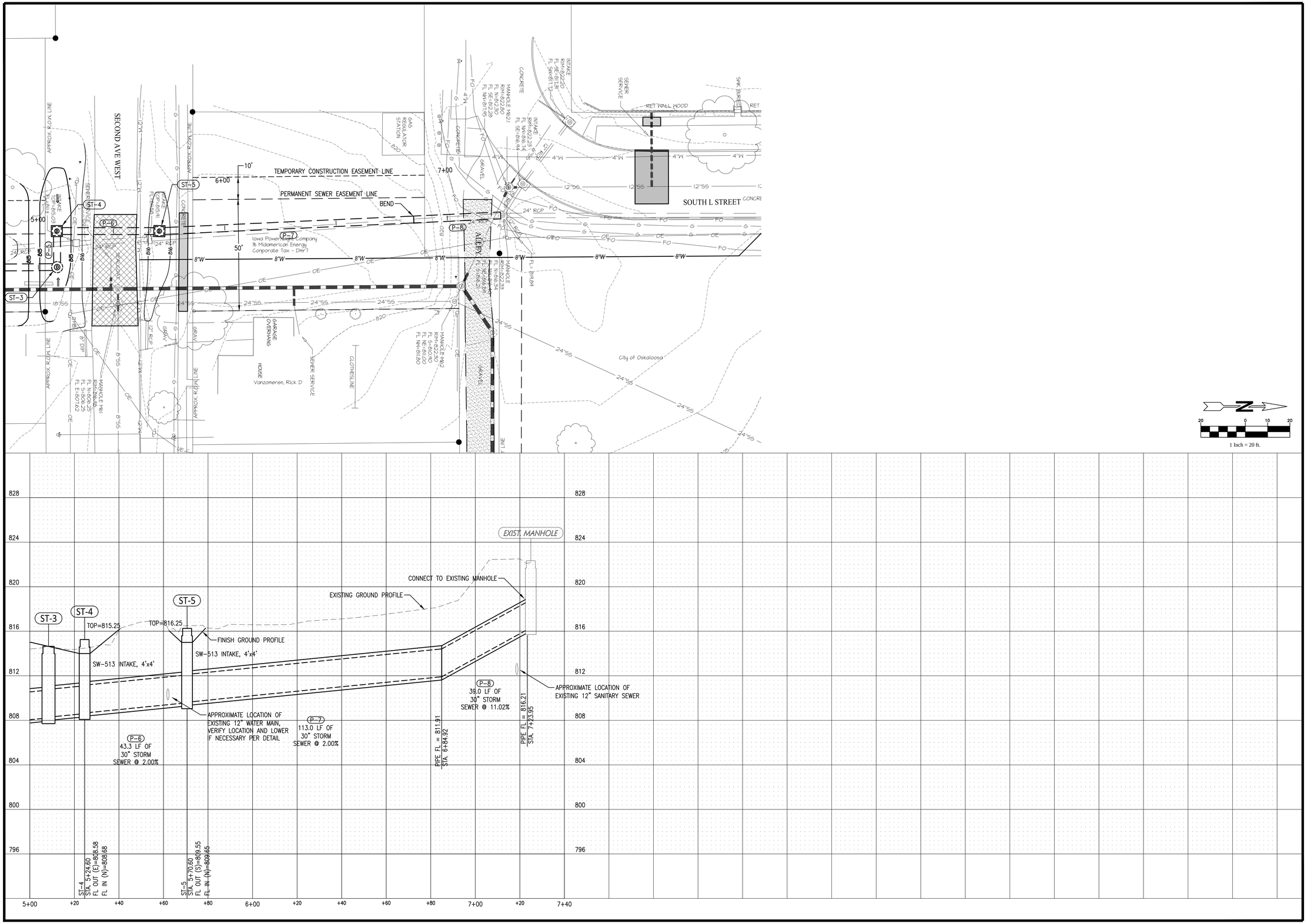

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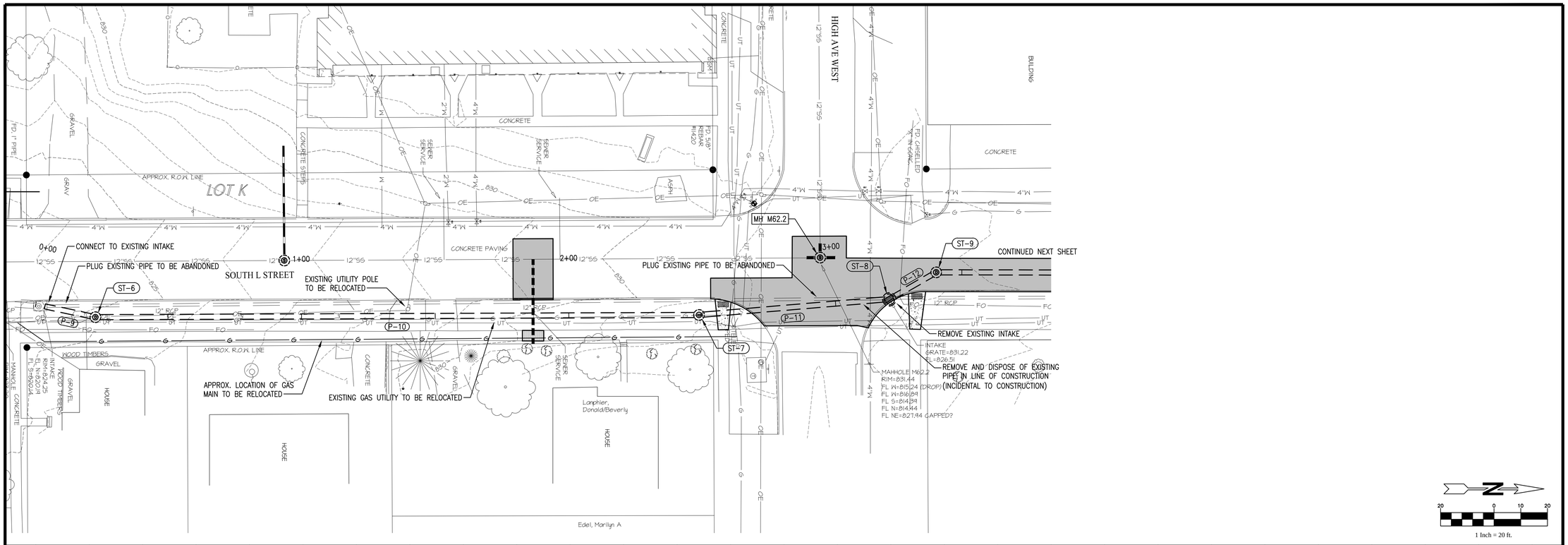

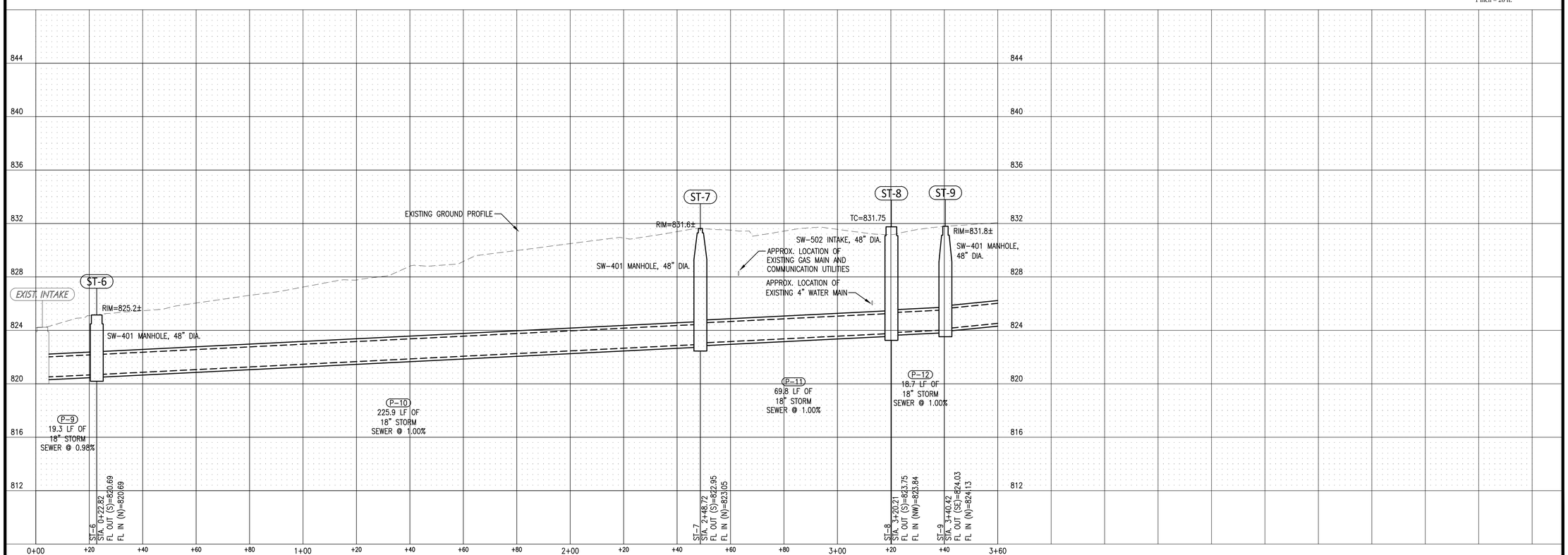

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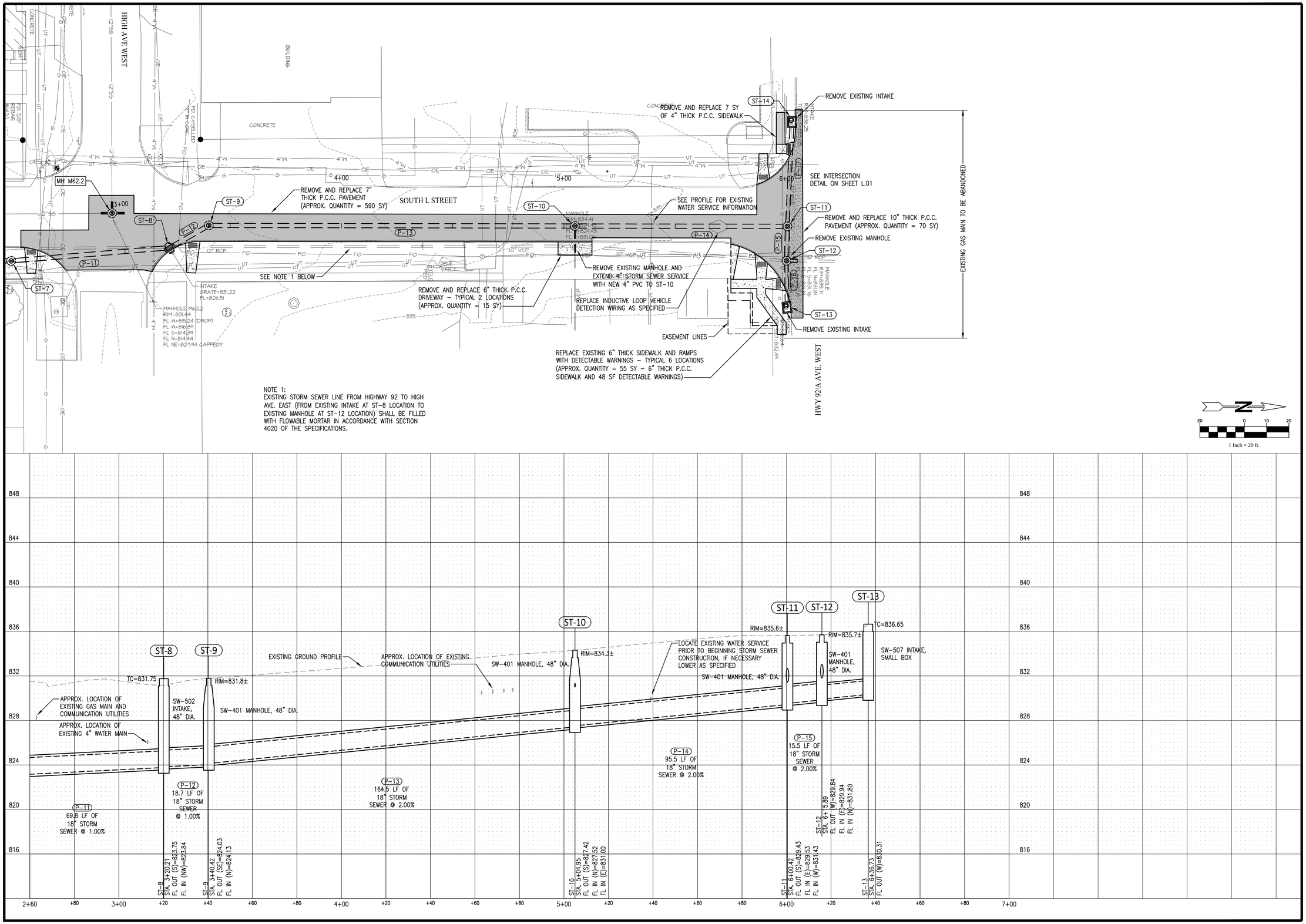

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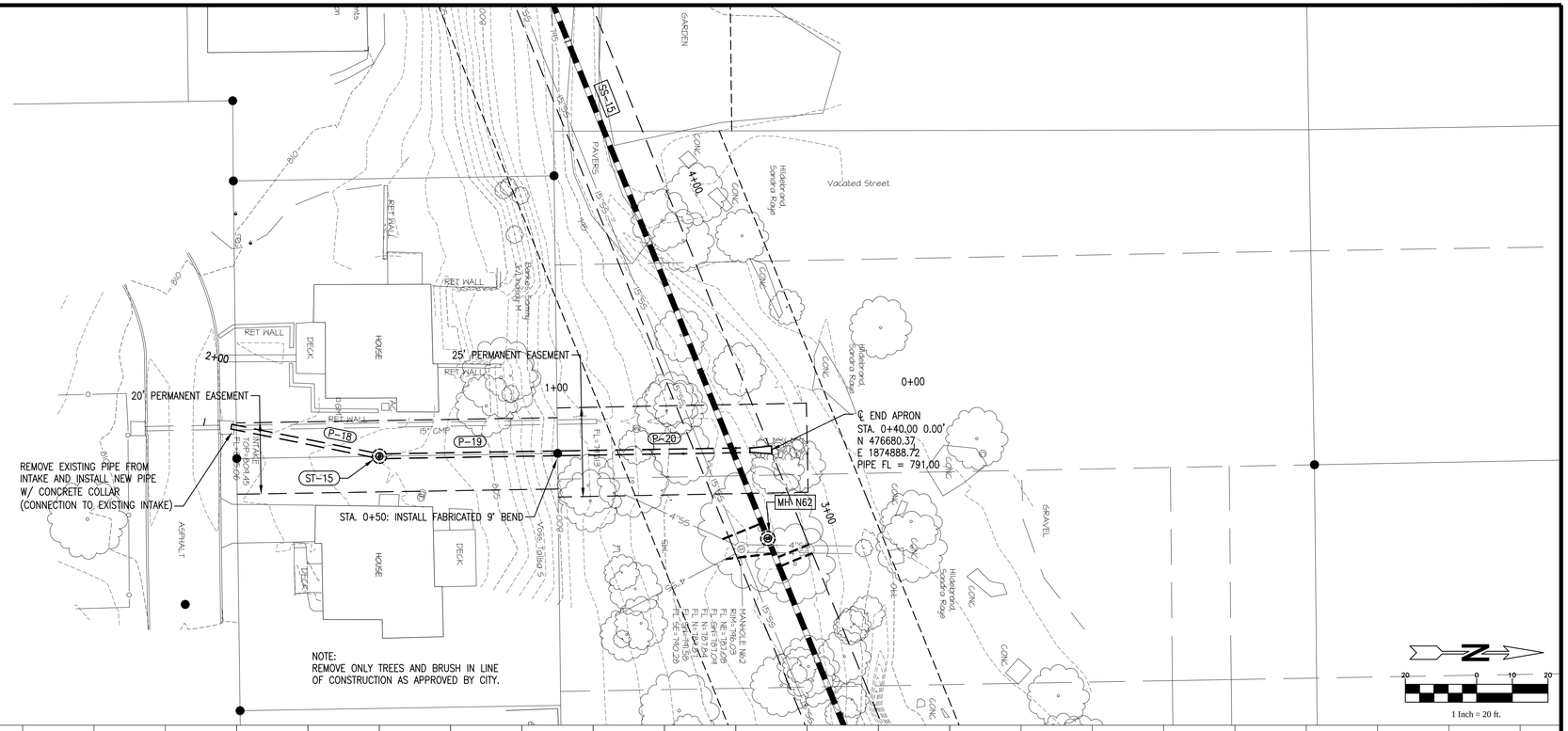
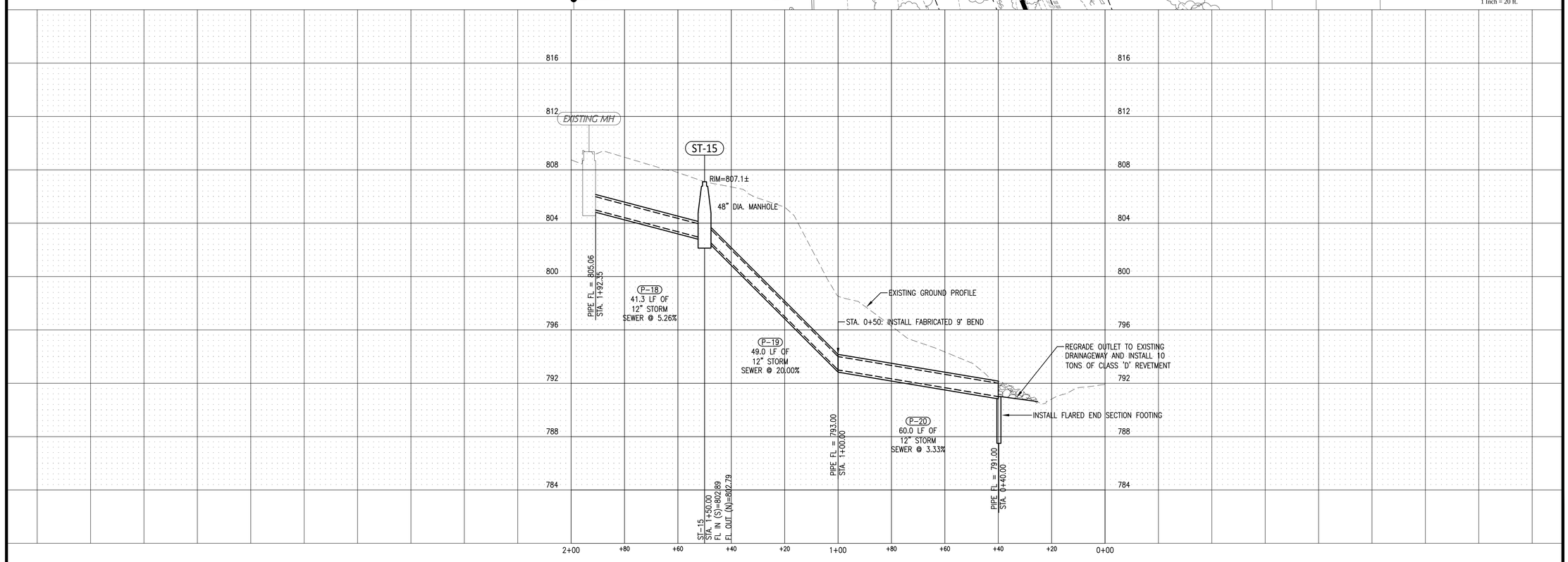
STORM SEWER STRUCTURE TABLE				
STRUCTURE NO.	NORTHING	EASTING	TOP OF CURB OR RIM ELEV.	STRUCTURE TYPE
ST-15	476630.37	1874889.55	807.1	SW-401 MANHOLE, 48" DIA.

STORM SEWER PIPE TABLE								
PIPE	DIAMETER	MATERIAL	FROM	TO	LENGTH	SLOPE	PIPE FL IN	PIPE FL OUT
P-18	12"	PVC or HDPE	EXISTING MH	ST-15	41.3 LF	5.26%	805.06	802.89
P-19	12"	PVC or HDPE	ST-15		49.0 LF	20.00%	802.79	793.00
P-20	12"	PVC or HDPE			60.0 LF	3.33%	793.00	791.00

NOTE: PIPE LENGTH INCLUDES APRON LENGTH.





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2015 SANITARY AND STORM SEWER IMPROVEMENTS OSKALOOSA, IOWA

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SHEET TITLE
STORM SEWER PLAN AND PROFILE

SCALE:
1" = 20' HOR. 1" = 4' VERT.

FIELD BOOK:
NA

DRAWN BY:
TRH/RAN/KJR

APPROVED:
RAN

REVISIONS:

DATE:
JUL. 27, 2015

PROJECT NO.:
3015033

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