

CONSTRUCTION PLANS FOR WICHITA SEWAGE TREATMENT PLANT ONE HEADWORKS SCREENING EQUIPMENT REPLACEMENT

WICHITA, SEDGWICK COUNTY, KANSAS

CITY OF WICHITA PROJECT NO. 448-668060

OCA NO. 628310

GARY JANZEN, P.E., CITY ENGINEER

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CIVIL

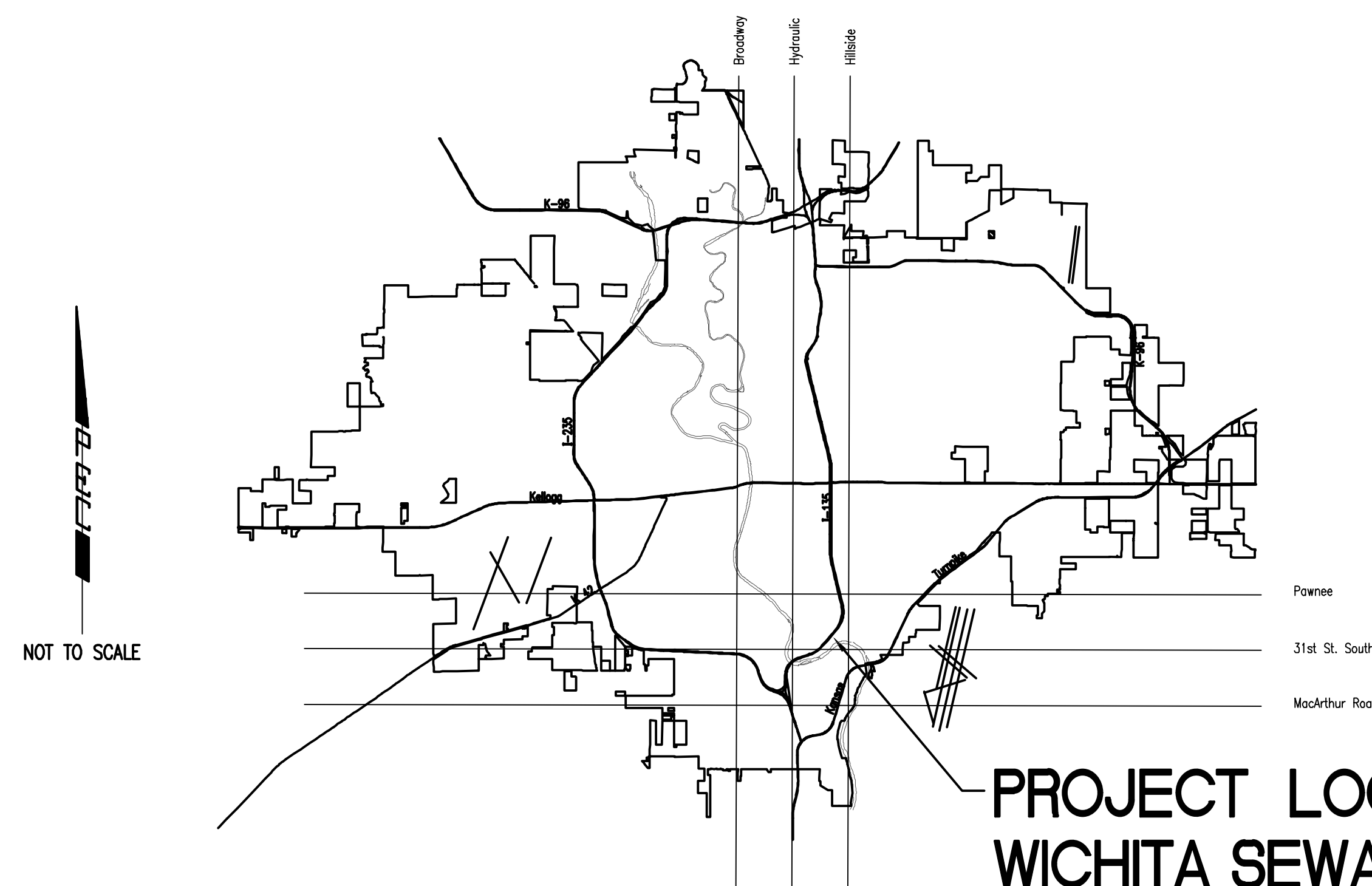
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VICINITY MAP

OCTOBER 2019

PEC PROJECT NO. 34-180295-001-0042

PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS



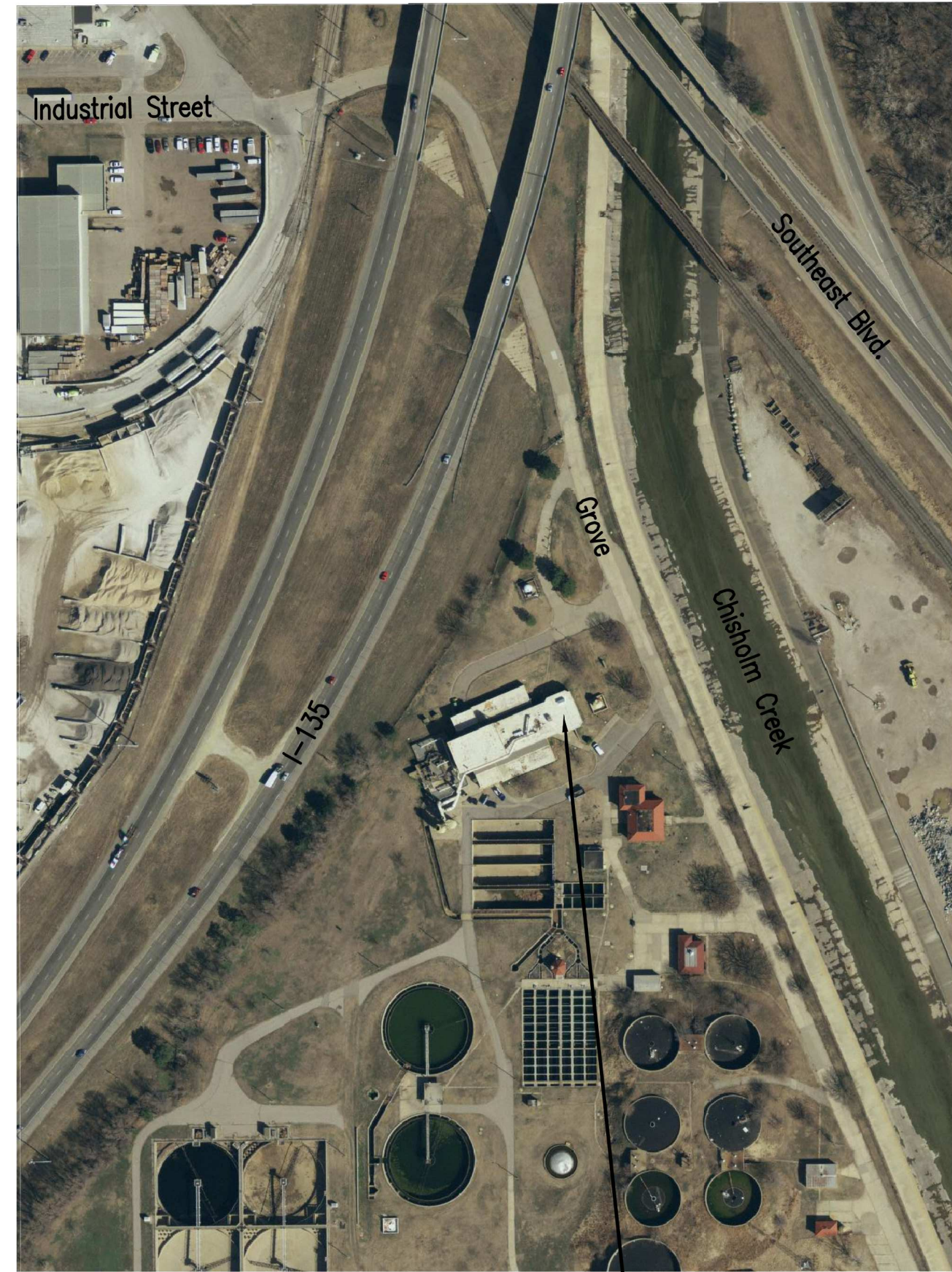
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 S:\Projects\2019\180295\Drawings\180295-001.dwg
 US\Wichita-Civ\2019\180295\Drawings\180295-000.dwg Key Map

1 2 3 4 5 6

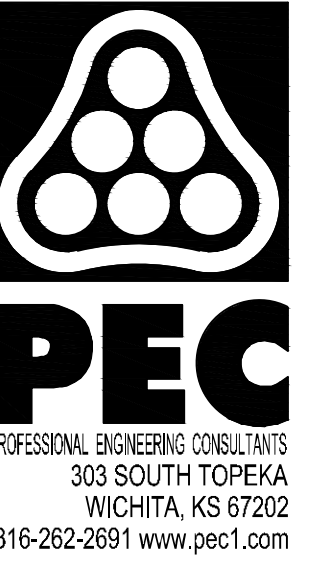
A
B
C
D
E

GENERAL NOTES

1. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT EXISTING ROADWAYS AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES TO ENSURE SAFETY.
2. AT LEAST 72 HOURS PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSONNEL TO ADVISE THEM OF THE INTENDED WORK AND OF HIS SCHEDULE:
 REBECCA LEWIS JAMIE BELDEN
 316-303-8703 (office) 316-640-7255 (mobile)
 rlewis@wichita.gov jbelden@wichita.gov
3. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CITY OF WICHITA SPECIFICATIONS AND STANDARDS UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL OBTAIN ALL LOCAL, COUNTY, STATE AND FEDERAL PERMITS AS REQUIRED.
5. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES SHALL BE REMOVED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
6. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING UTILITIES PRIOR TO MAKING CONNECTIONS. EXISTING UTILITY LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED AND APPROVED BY THE ENGINEER. SHALL BE SUBSIDIARY TO OTHER PAY ITEMS OF WORK.
7. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS AS TO NOT INTERRUPT PLANT OPERATIONS OR THE ACCESS OF PLANT DELIVERY VEHICLES.
8. THE CONTRACTOR SHALL COORDINATE ALL PLANT TIE-INS, SHUT DOWNS, PROCESS REMOVAL, AND PROCESS START UP WITH PLANT PERSONNEL. THESE WORK ACTIVITIES SHALL BE COMPLETED ONLY WITHIN THE WINDOW OF TIME ALLOCATED FOR THE PROCEDURE BY THE PLANT PERSONNEL.
9. ALL ELEVATIONS SHOWN ARE BASED ON NAVD 88 DATUM.
10. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE.
11. THE CONTRACTOR SHALL CLEAN THE SITE UPON COMPLETION OF THE WORK. ANY NEW ITEMS REQUIRING PAINTING SHALL BE SUFFICIENTLY CLEANED AND PREPARED PRIOR TO PAINTING.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND DISPOSAL OF ALL REMOVED EQUIPMENT AND MATERIALS UNLESS SPECIFICALLY NOTED TO BE SALVAGED TO THE OWNER.



PROJECT LOCATION
WICHITA SEWAGE TREATMENT PLANT ONE



HEADWORKS SCREENING EQUIPMENT REPLACEMENT

CITY OF WICHITA, KANSAS

Issue:	

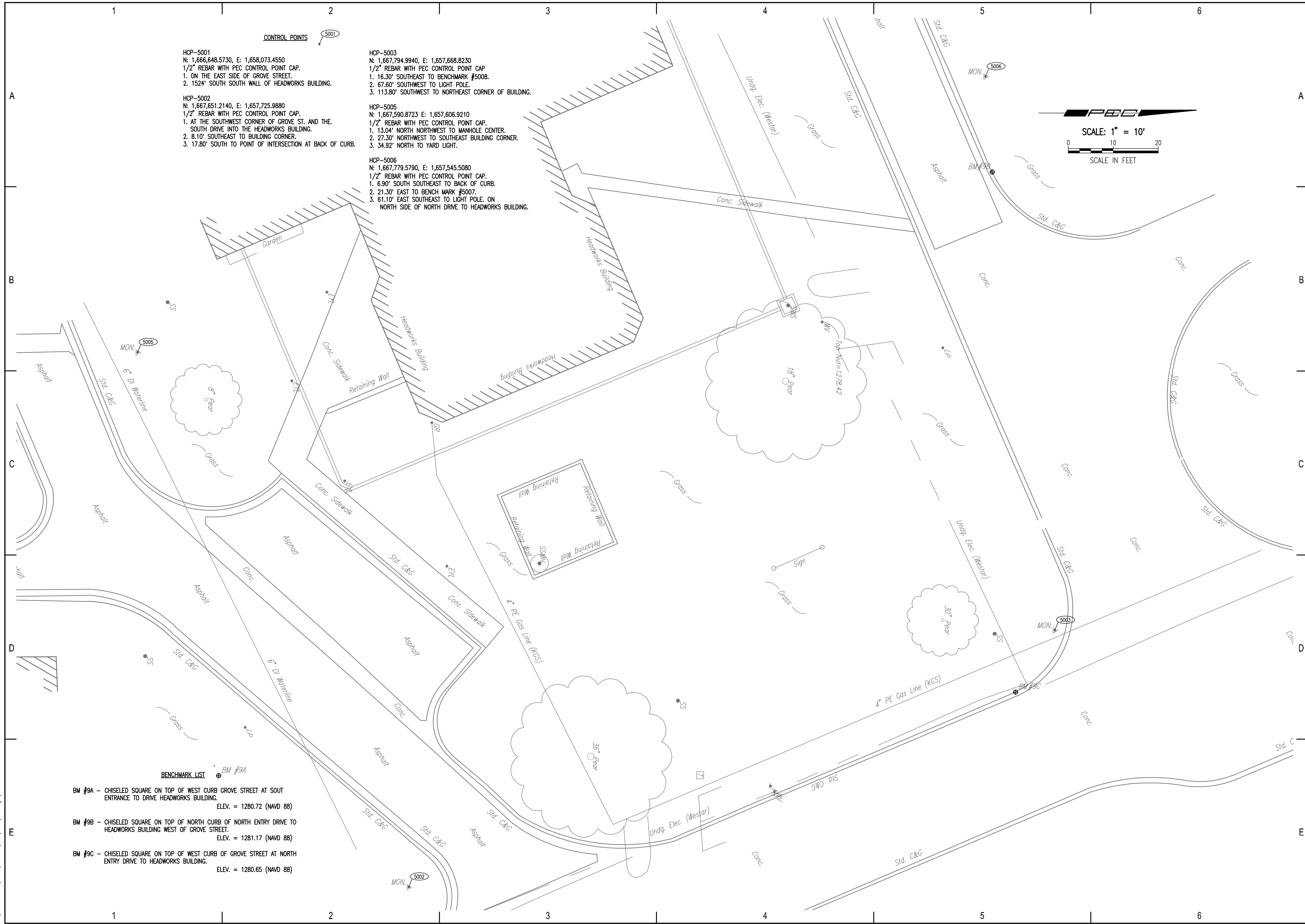
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
CHECKED BY	MDK

KEY MAP AND GENERAL NOTES

G101

1 2 3 4 5 6

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CONTROL POINTS

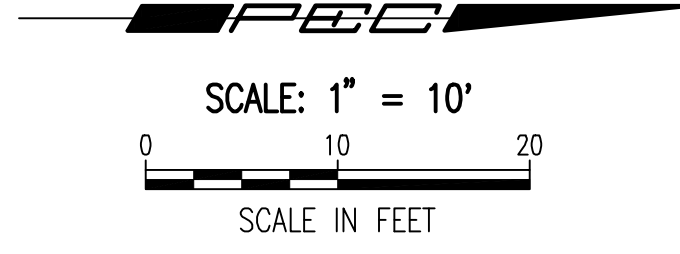
HCP-5001
 N: 1,666,648.5730, E: 1,658,073.4550
 1/2" REBAR WITH PEC CONTROL POINT CAP.
 1. ON THE EAST SIDE OF GROVE STREET.
 2. 1524' SOUTH SOUTH WALL OF HEADWORKS BUILDING.

HCP-5002
 N: 1,667,651.2140, E: 1,657,725.9880
 1/2" REBAR WITH PEC CONTROL POINT CAP.
 1. AT THE SOUTHWEST CORNER OF GROVE ST. AND THE SOUTH DRIVE INTO THE HEADWORKS BUILDING.
 2. 8.10' SOUTHEAST TO BUILDING CORNER.
 3. 17.80' SOUTH TO POINT OF INTERSECTION AT BACK OF CURB.

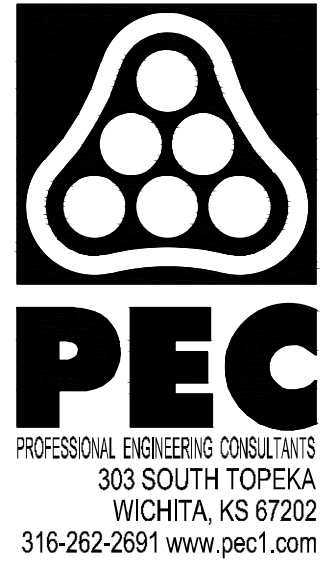
HCP-5003
 N: 1,667,794.9940, E: 1,657,668.8230
 1/2" REBAR WITH PEC CONTROL POINT CAP.
 1. 16.30' SOUTHEAST TO BENCHMARK #5008.
 2. 67.60' SOUTHWEST TO LIGHT POLE.
 3. 113.80' SOUTHWEST TO NORTHEAST CORNER OF BUILDING.

HCP-5005
 N: 1,667,590.8723 E: 1,657,606.9210
 1/2" REBAR WITH PEC CONTROL POINT CAP.
 1. 13.04' NORTH NORTHWEST TO MANHOLE CENTER.
 2. 27.30' NORTHWEST TO SOUTHEAST BUILDING CORNER.
 3. 34.92' NORTH TO YARD LIGHT.

HCP-5006
 N: 1,667,779.5790, E: 1,657,545.5080
 1/2" REBAR WITH PEC CONTROL POINT CAP.
 1. 6.90' SOUTH SOUTHEAST TO BACK OF CURB.
 2. 21.30' EAST TO BENCHMARK #5007.
 3. 61.10' EAST SOUTHEAST TO LIGHT POLE. ON NORTH SIDE OF NORTH DRIVE TO HEADWORKS BUILDING.



- BENCHMARK LIST**
- BM #9A** - CHISELED SQUARE ON TOP OF WEST CURB GROVE STREET AT SOUT ENTRANCE TO DRIVE HEADWORKS BUILDING. ELEV. = 1280.72 (NAVD 88)
 - BM #9B** - CHISELED SQUARE ON TOP OF NORTH CURB OF NORTH ENTRY DRIVE TO HEADWORKS BUILDING WEST OF GROVE STREET. ELEV. = 1281.17 (NAVD 88)
 - BM #9C** - CHISELED SQUARE ON TOP OF WEST CURB OF GROVE STREET AT NORTH ENTRY DRIVE TO HEADWORKS BUILDING. ELEV. = 1280.65 (NAVD 88)



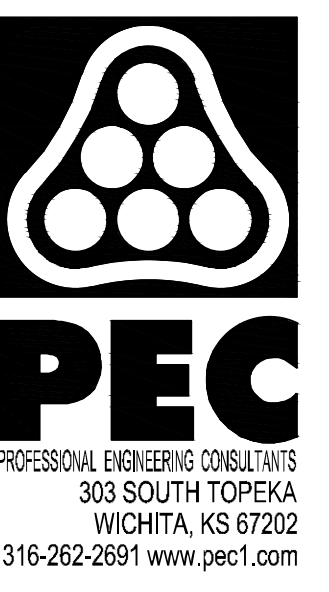
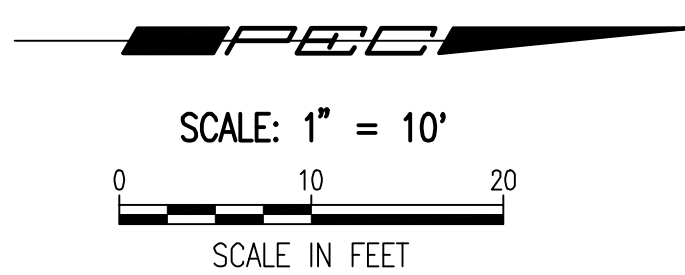
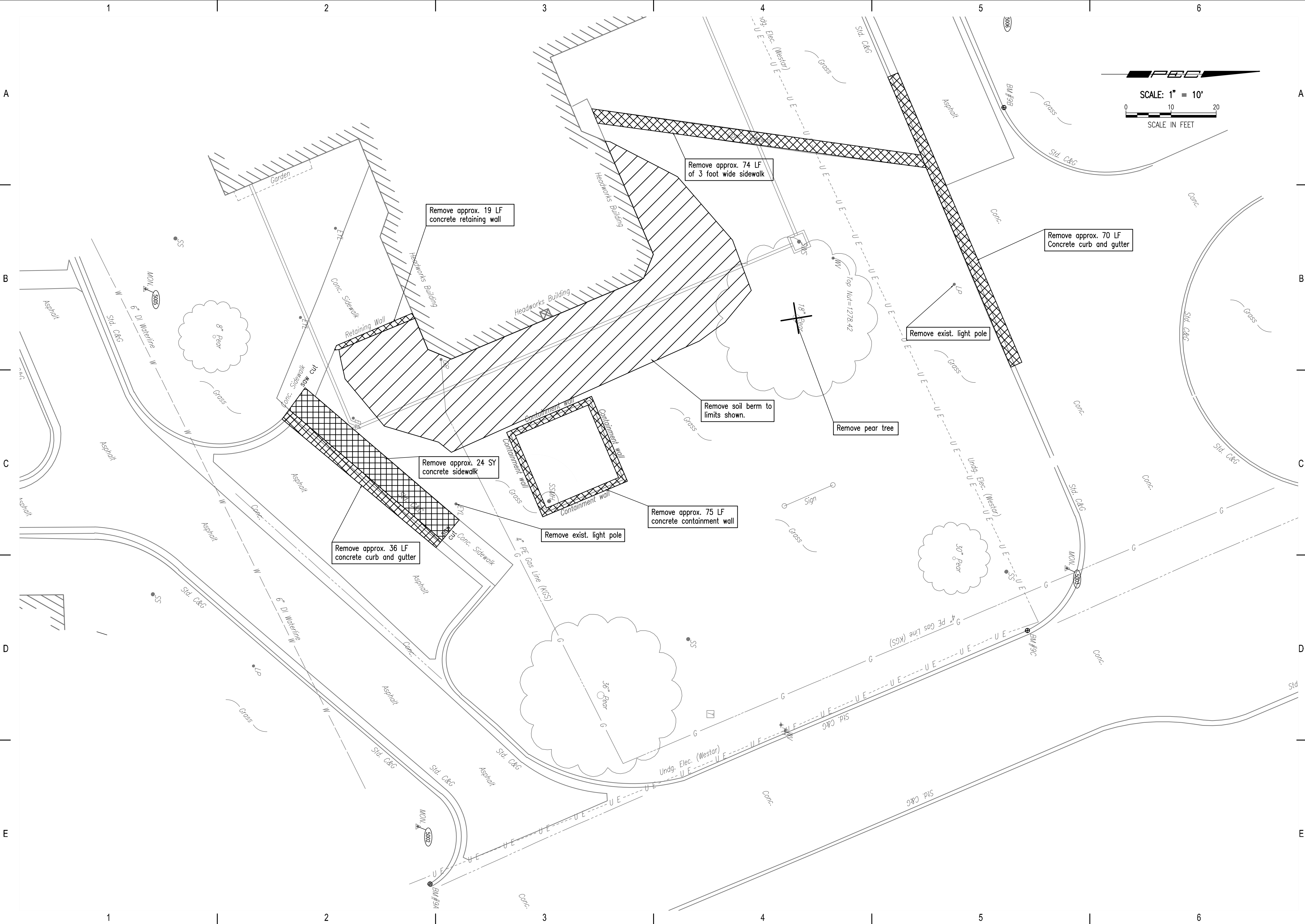
HEADWORKS SCREENING EQUIPMENT REPLACEMENT

CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
CHECKED BY	MDK
HORIZONTAL AND VERTICAL SITE CONTROL	

C001

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HEADWORKS SCREENING EQUIPMENT REPLACEMENT

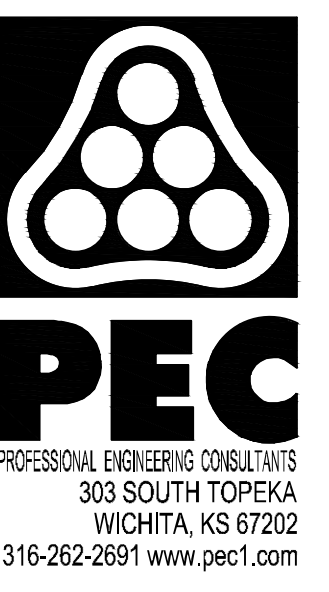
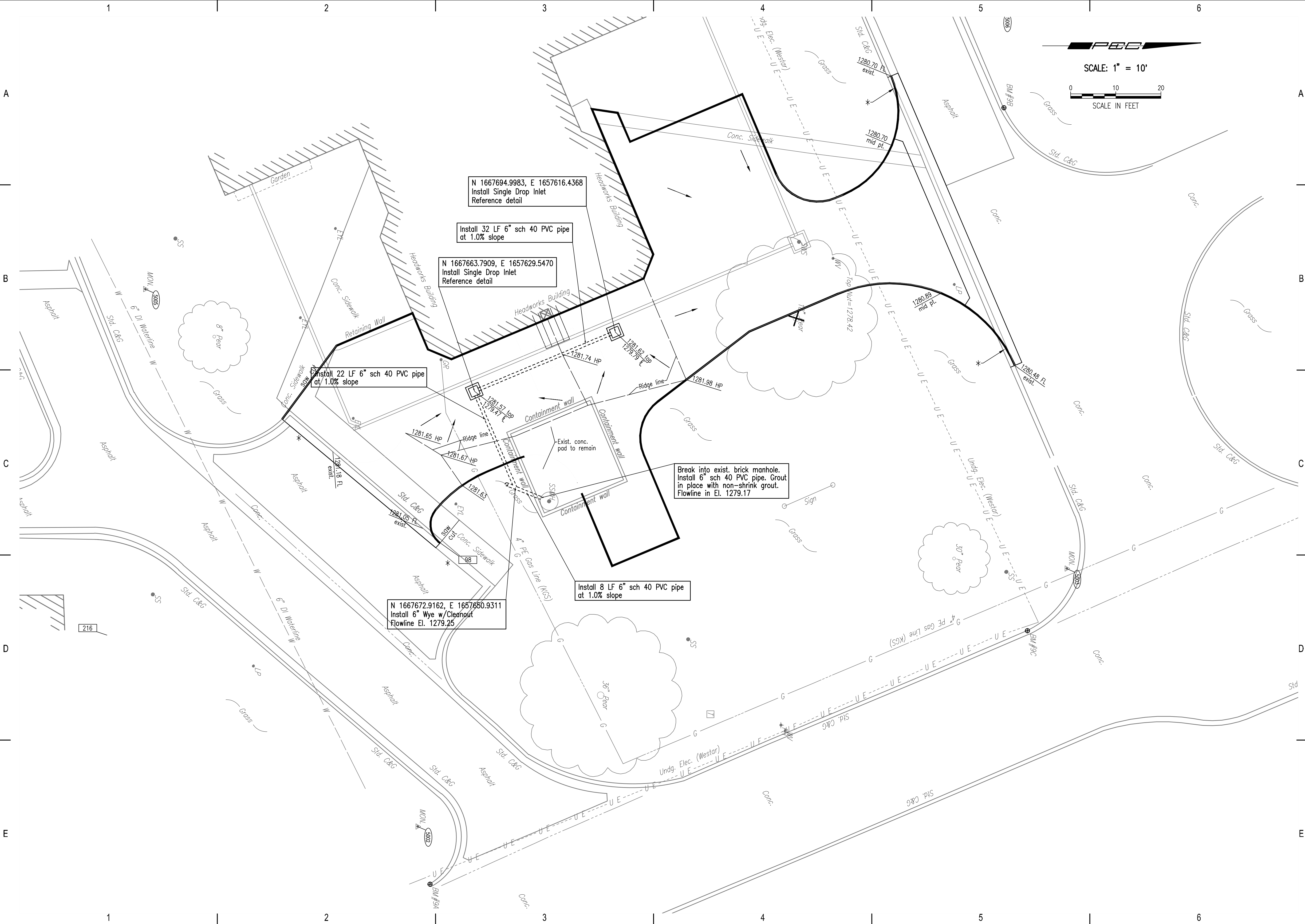
CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
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SITE DEMOLITION PLAN

C002

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HEADWORKS SCREENING EQUIPMENT REPLACEMENT

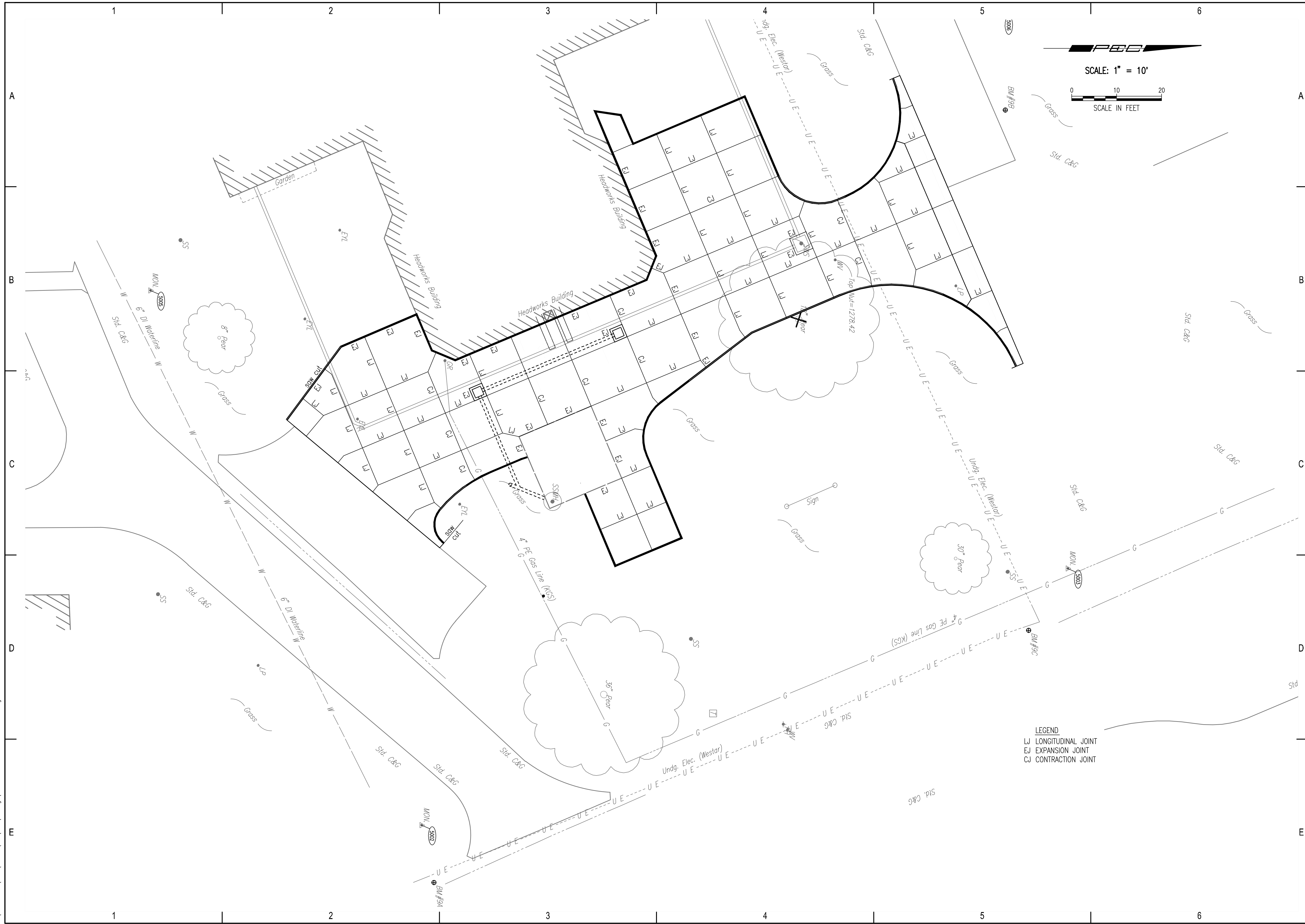
CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
CHECKED BY	MDK

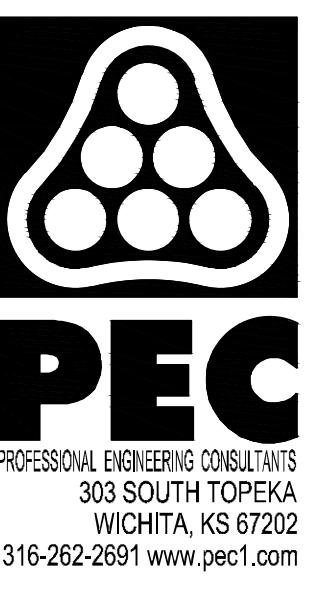
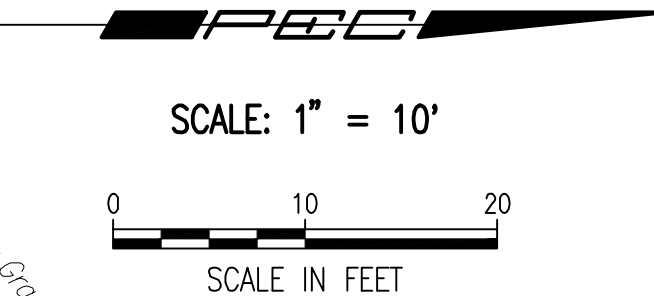
SITE DRAINAGE PLAN

C003

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LEGEND
 LJ LONGITUDINAL JOINT
 EJ EXPANSION JOINT
 CJ CONTRACTION JOINT

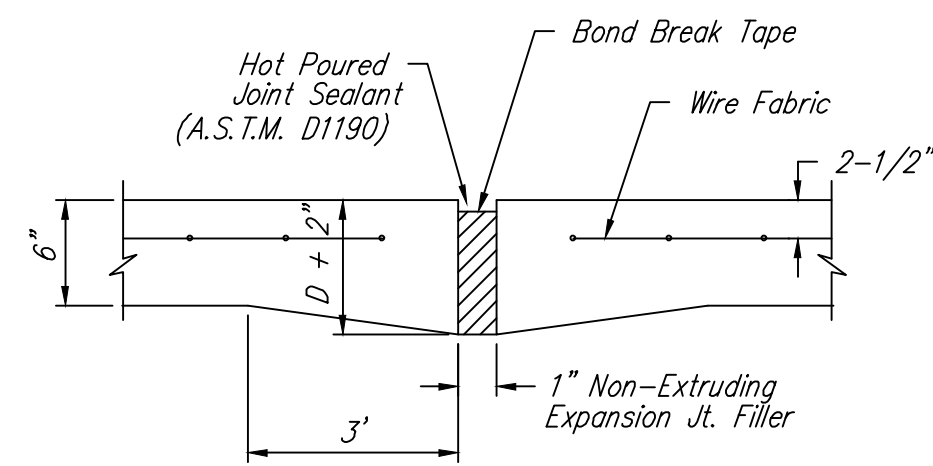


HEADWORKS SCREENING EQUIPMENT REPLACEMENT

CITY OF WICHITA, KANSAS

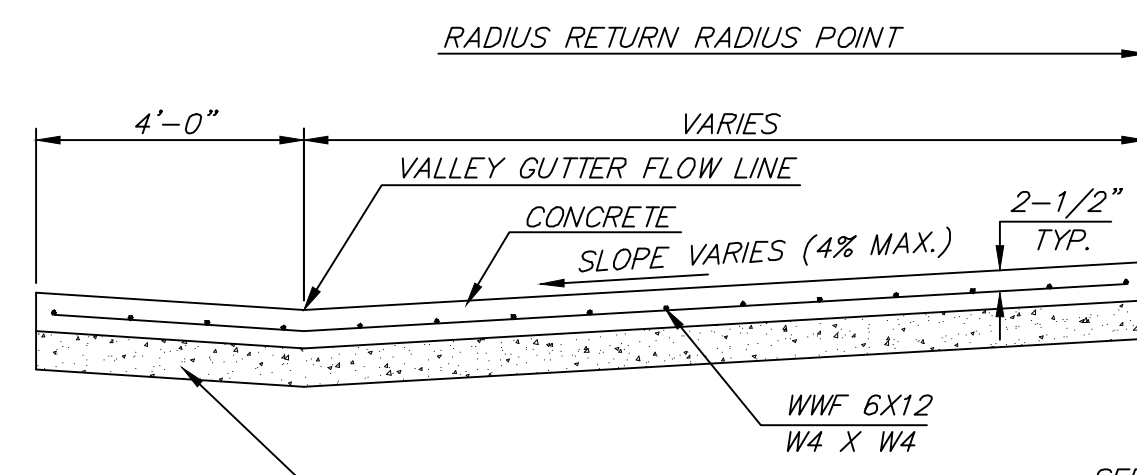
Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
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CHECKED BY	MDK

PAVEMENT JOINTING PLAN
C005

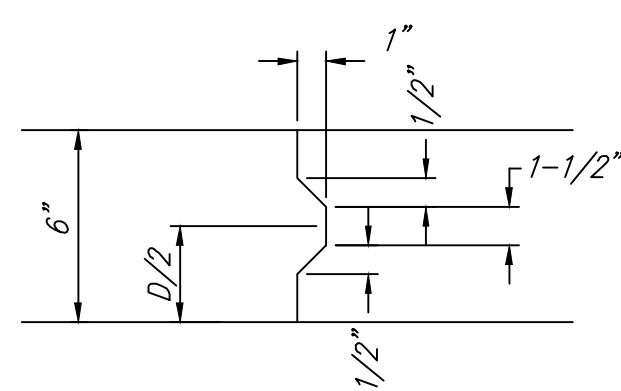


EXPANSION JOINT

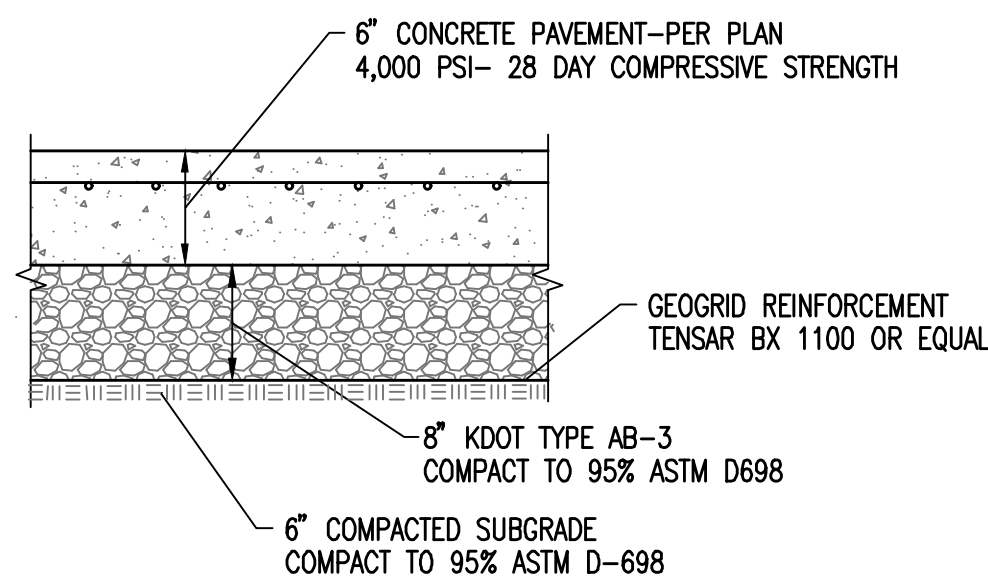
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



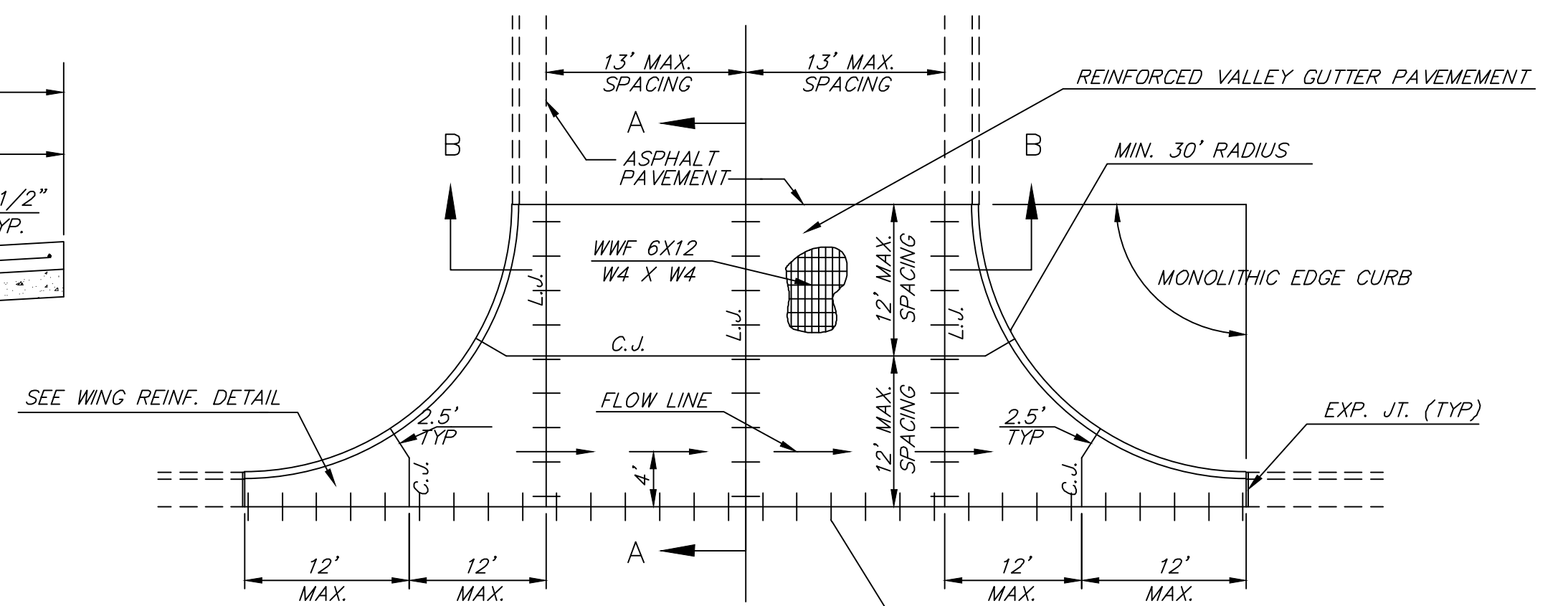
SECTION A-A



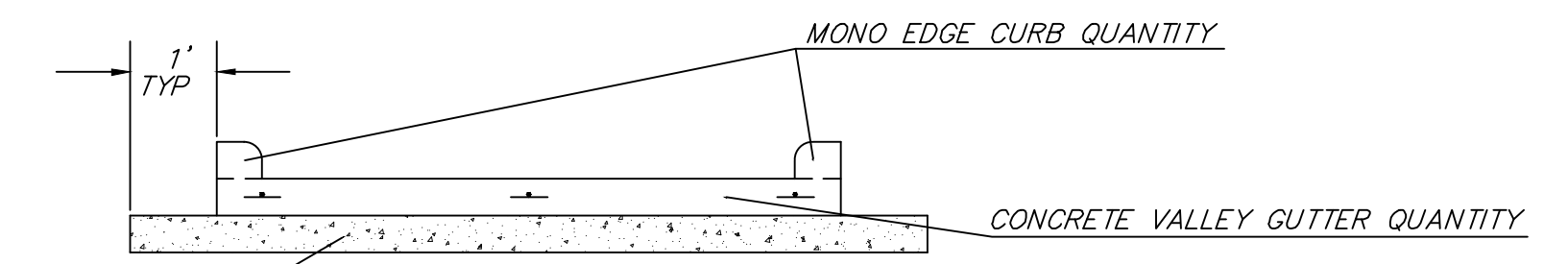
KEYWAY DETAIL



6\"/>

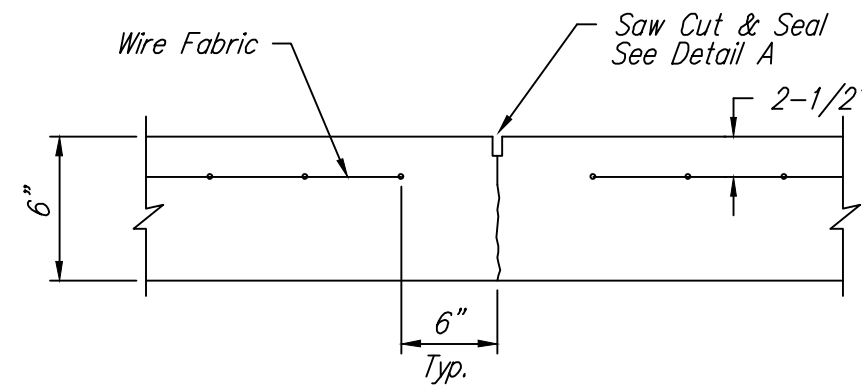


PLAN

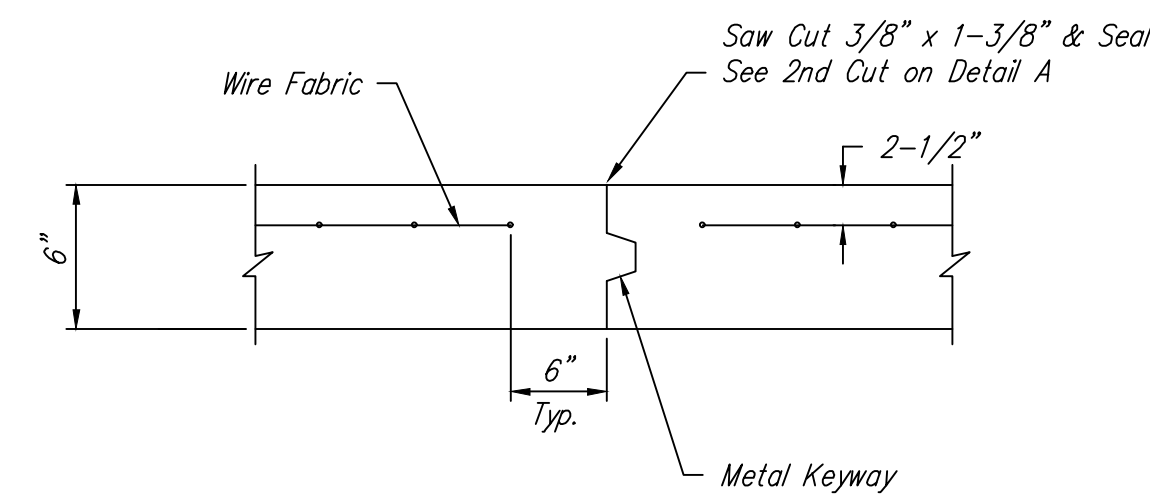


SECTION B-B

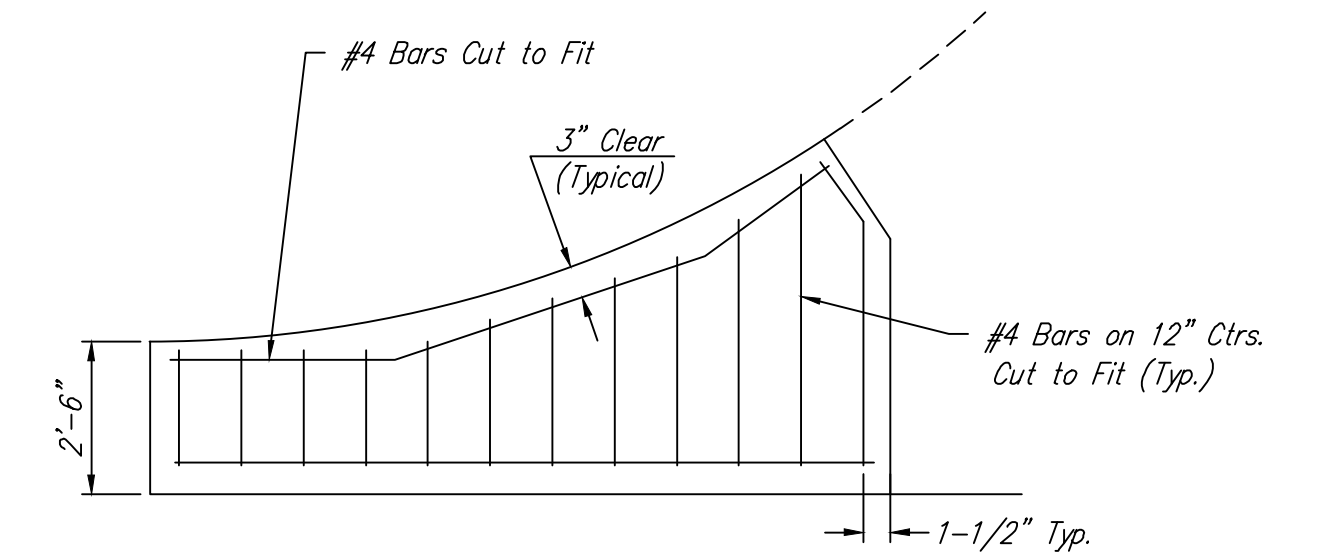
REINFORCED VALLEY GUTTER DETAIL



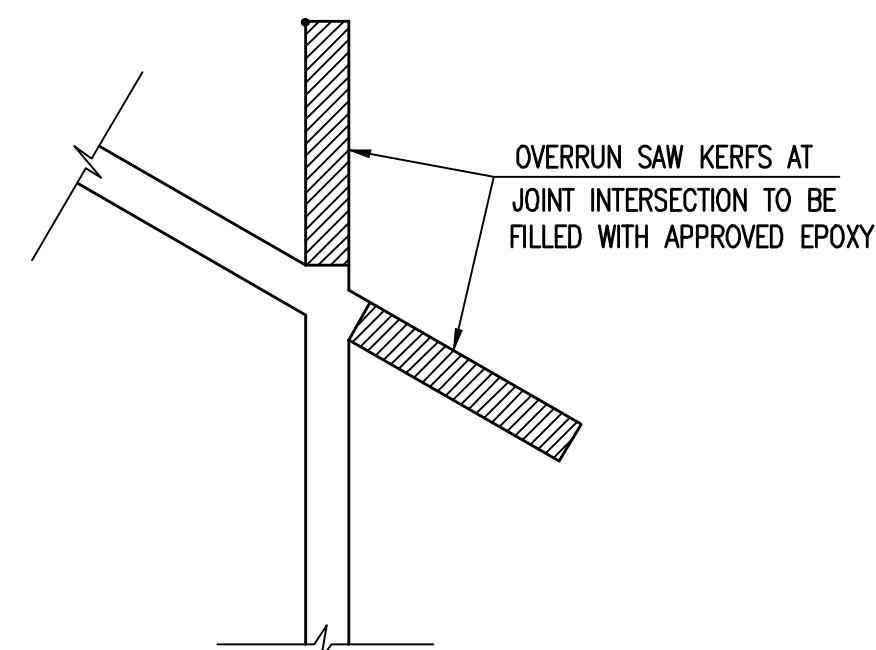
CONTRACTION JOINT DETAIL (C.J.)



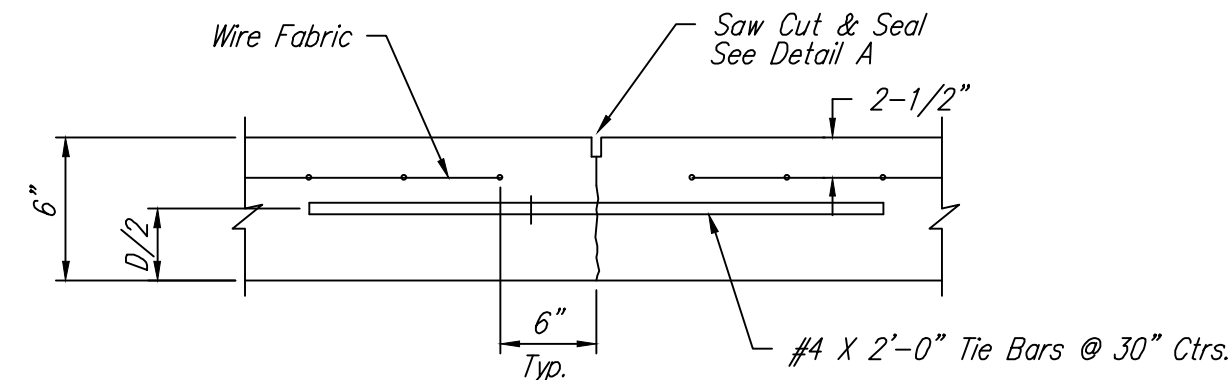
OPTIONAL CONTRACTION JOINT



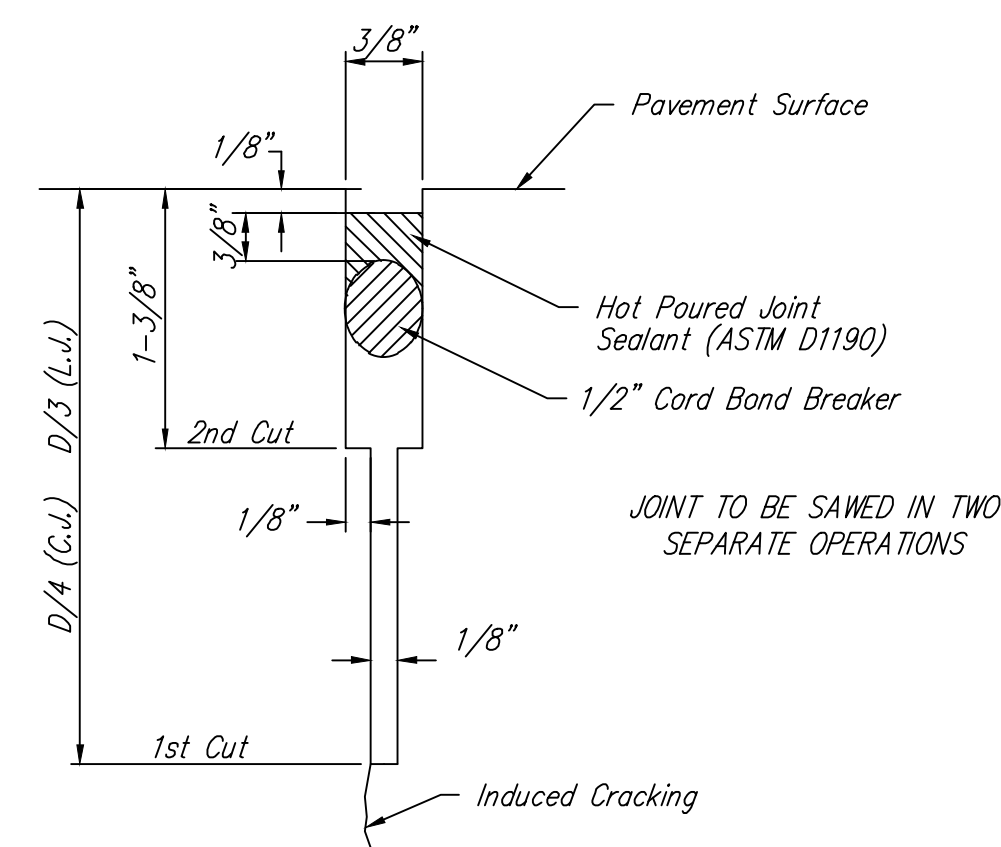
WING REINFORCING DETAIL



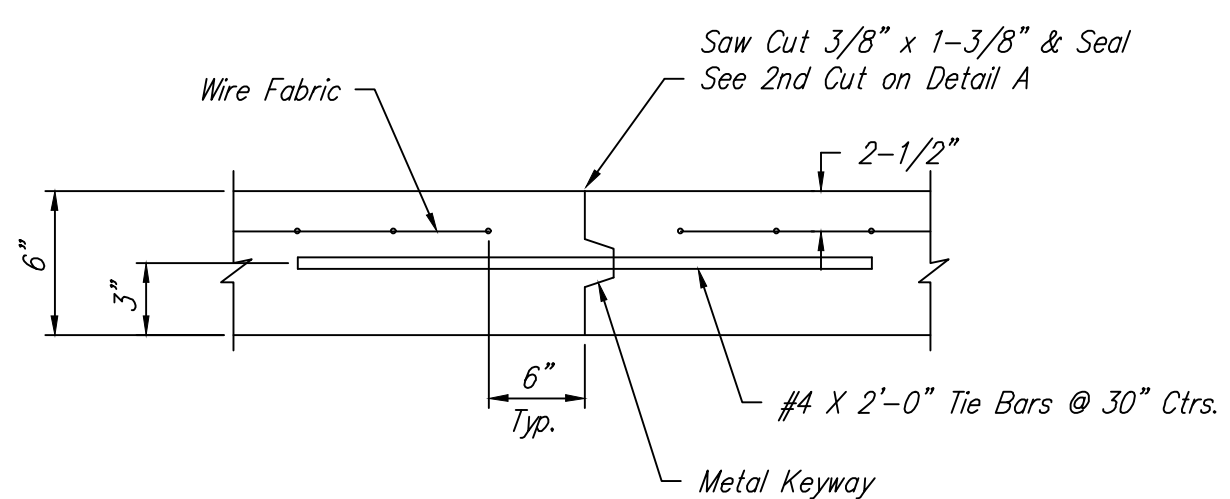
KERF DETAIL



LONGITUDINAL JOINT DETAIL (L.J.)



SAW JOINT DETAIL (DETAIL A)



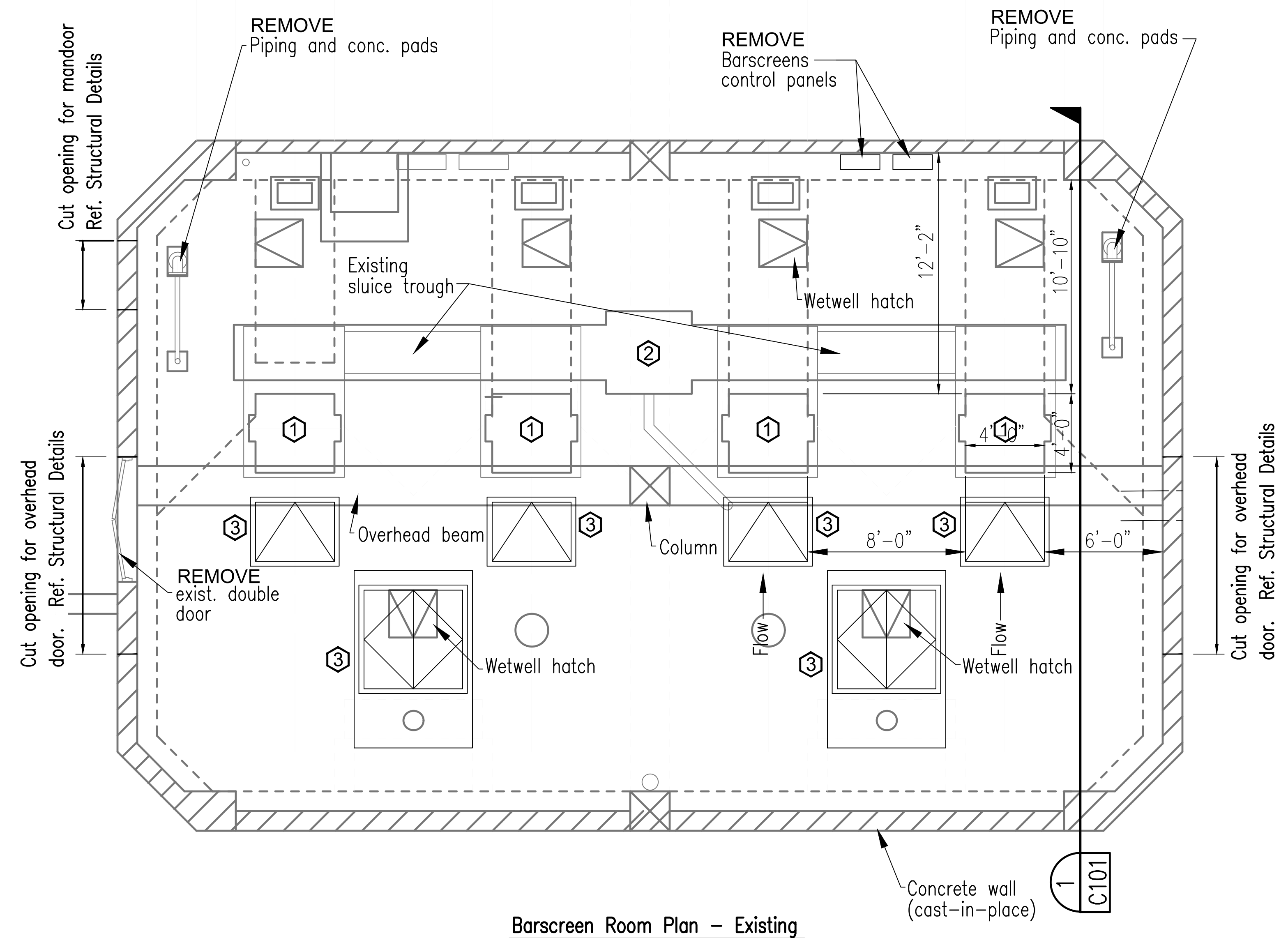
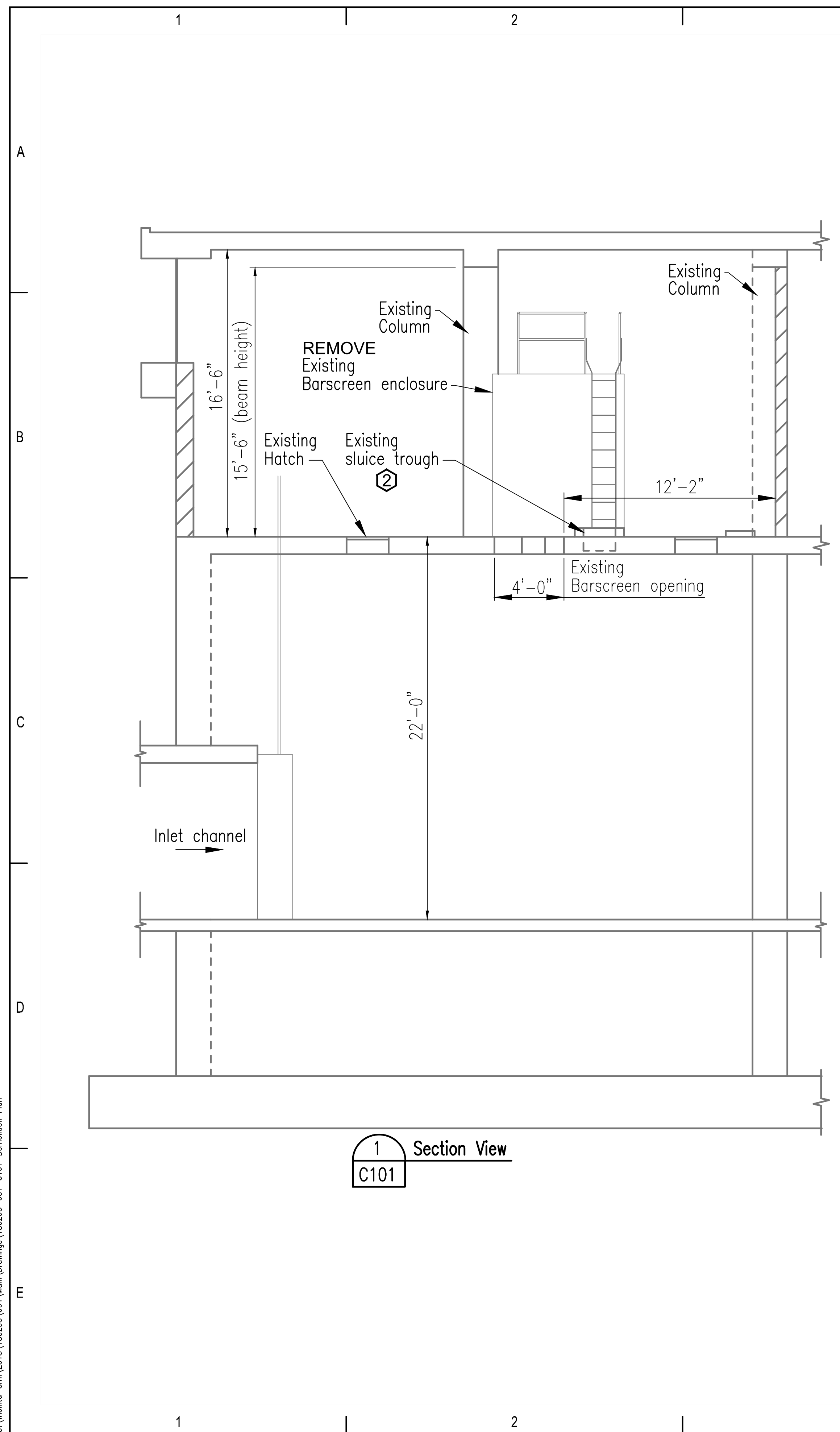
OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)

WELDED WIRE FABRIC

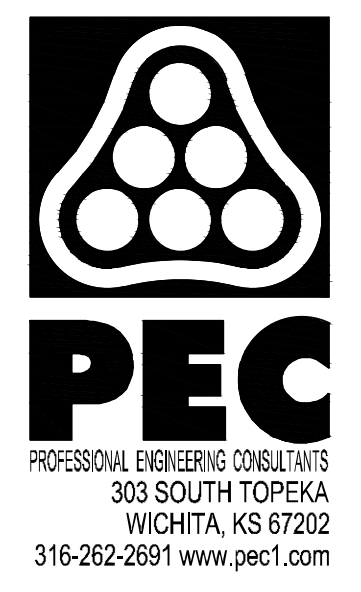
REINFORCING FABRIC SHALL BE FURNISHED IN FLAT SHEETS. THE CONTRACTOR MAY PROVIDE A DIFFERENT PATTERN OF FABRIC AS LONG AS A MINIMUM OF 0.054 SQ. IN./ FT. OF REINFORCING IS PROVIDED IN EACH DIRECTION. WELDED WIRE FABRIC SHALL BE CUT IN THE FIELD AS REQUIRED TO CONFORM TO THE SHAPE OF THE PANEL TO BE REINFORCED.

REVISION MAY 2017		SECTION B-B, ROCK EXTENDED ONE FOOT BEYOND PAVEMENT	
PAVEMENT DETAILS CITY ENGINEER GARY JANZEN, P.E.			
PROJECT NUMBER	OCA NUMBER	DATE	
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501			SHEET C007

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- ① Remove existing barscreen enclosure, control panels (Reference Electrical) and support. Contractor responsible for disposal of all removed equipment, accessories, and materials.
- ② Remove sluice trough curb flush with floor - Reference Structural drawings for details and requirements.
- ③ Remove concrete floor - Reference Structural drawings for details and requirements.



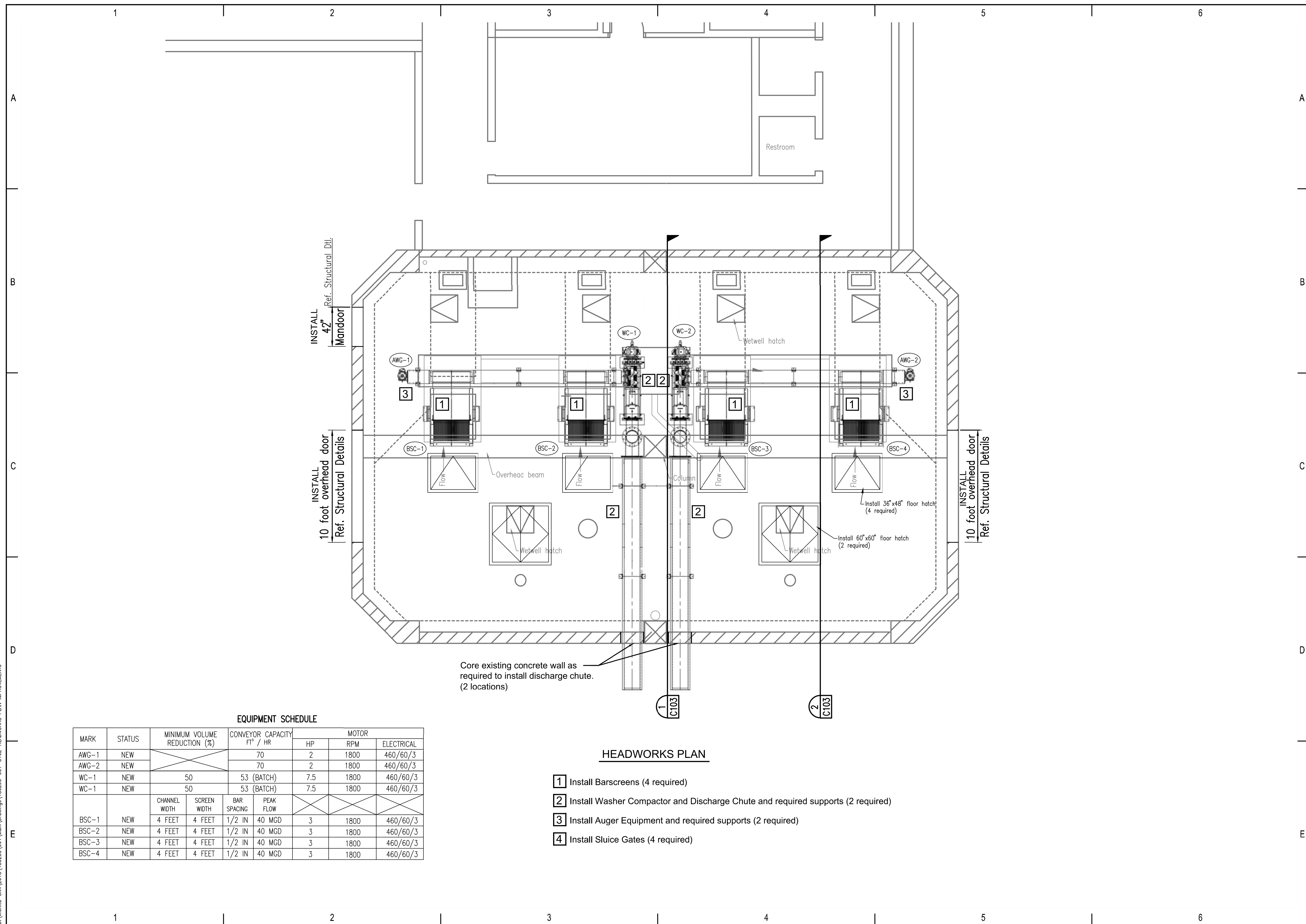
HEADWORKS SCREENING EQUIPMENT REPLACEMENT

CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
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CHECKED BY	MDK
HEADWORKS DEMOLITION PLAN	

C101

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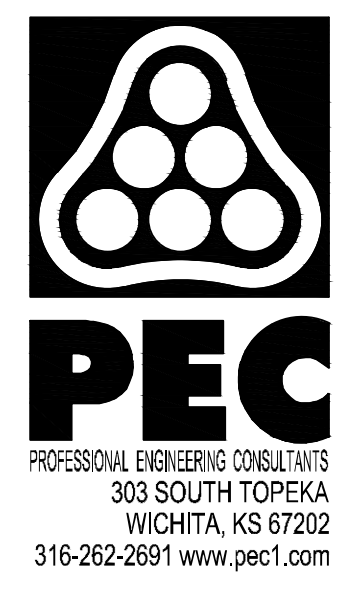


EQUIPMENT SCHEDULE

MARK	STATUS	MINIMUM VOLUME REDUCTION (%)		CONVEYOR CAPACITY		MOTOR		
				FT ³ / HR	HP	RPM	ELECTRICAL	
AWG-1	NEW	70		70	2	1800	460/60/3	
AWG-2	NEW			70	2	1800	460/60/3	
WC-1	NEW	50		53 (BATCH)	7.5	1800	460/60/3	
WC-1	NEW	50		53 (BATCH)	7.5	1800	460/60/3	
BSC-1	NEW	4 FEET	4 FEET	1/2 IN	40 MGD	3	1800	460/60/3
BSC-2	NEW	4 FEET	4 FEET	1/2 IN	40 MGD	3	1800	460/60/3
BSC-3	NEW	4 FEET	4 FEET	1/2 IN	40 MGD	3	1800	460/60/3
BSC-4	NEW	4 FEET	4 FEET	1/2 IN	40 MGD	3	1800	460/60/3

HEADWORKS PLAN

- 1** Install Barscreens (4 required)
- 2** Install Washer Compactor and Discharge Chute and required supports (2 required)
- 3** Install Auger Equipment and required supports (2 required)
- 4** Install Sluice Gates (4 required)



HEADWORKS SCREENING EQUIPMENT REPLACEMENT

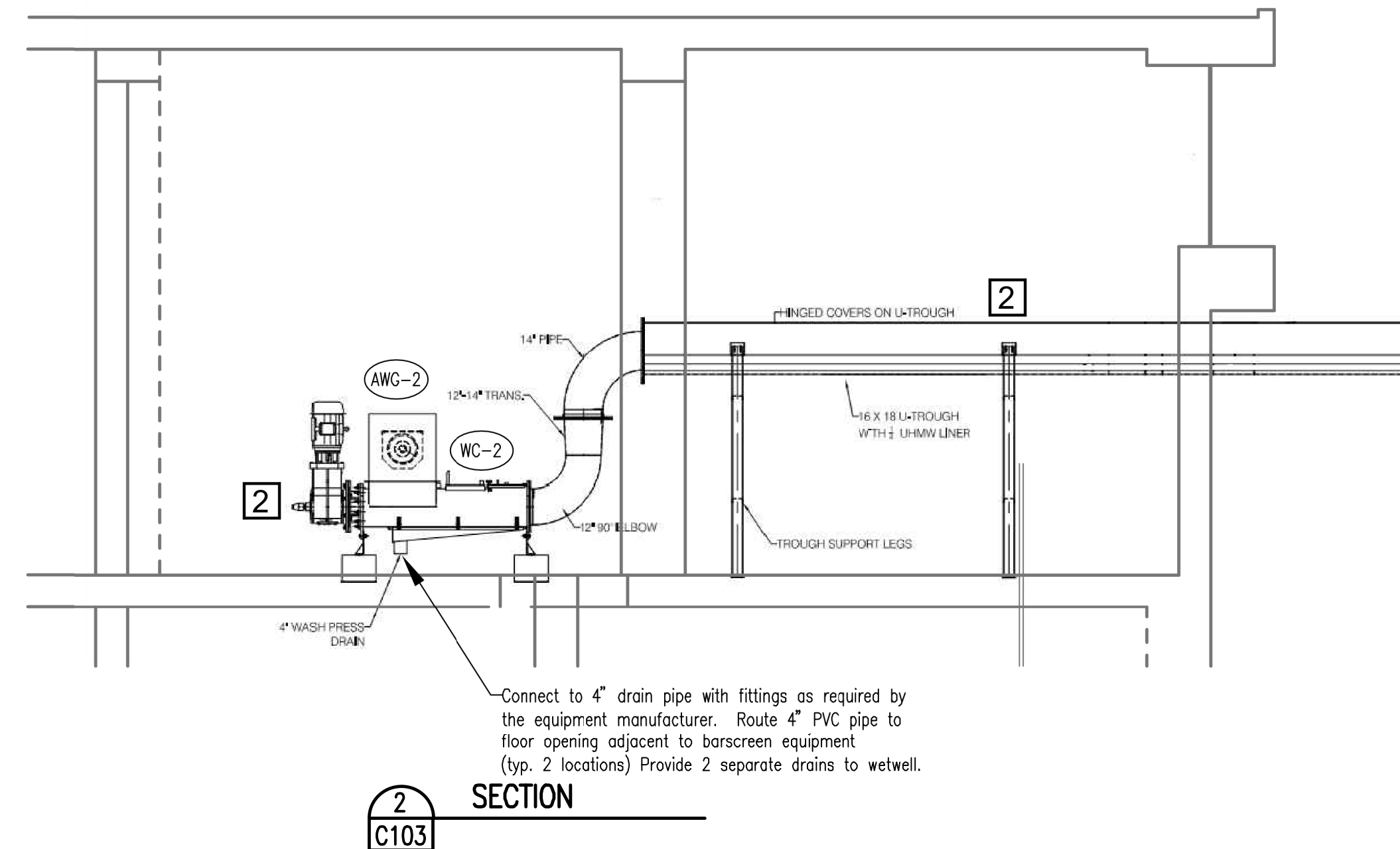
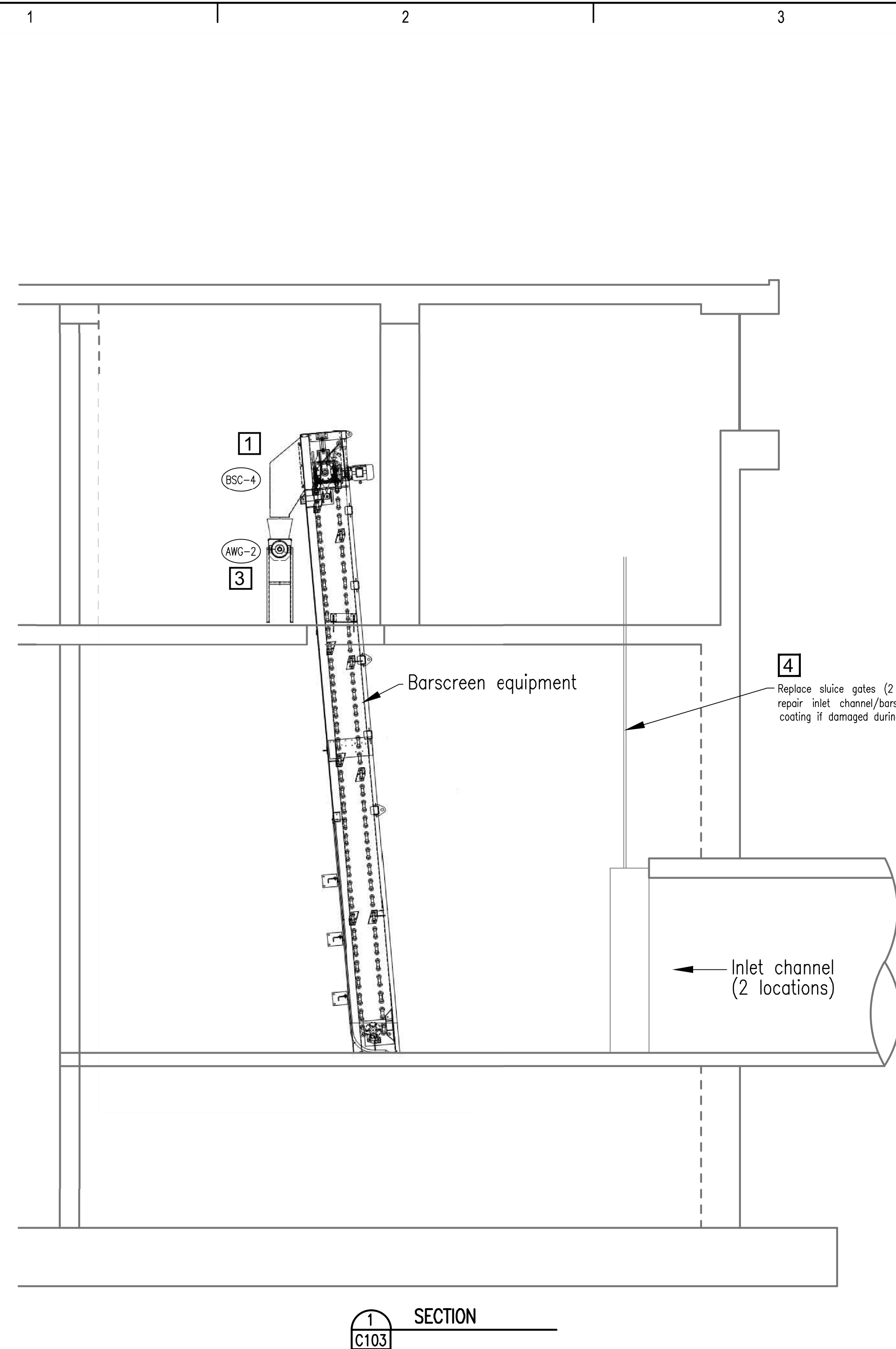
CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
CHECKED BY	MDK

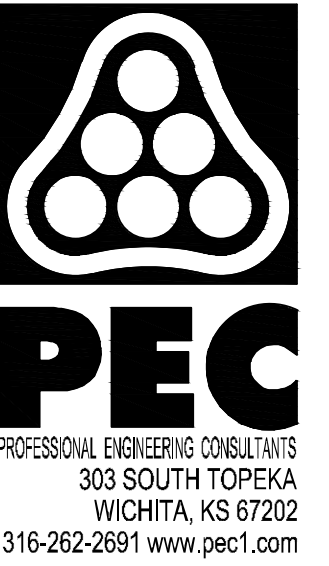
HEADWORKS IMPROVEMENT PLAN

C102

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- 1 Install Barscreens (4 required)
- 2 Install Washer Compactor and Discharge Chute and required supports (2 required)
- 3 Install Auger Equipment and required supports (2 required)
- 4 Install Sluice Gates (4 required)



HEADWORKS SCREENING EQUIPMENT REPLACEMENT

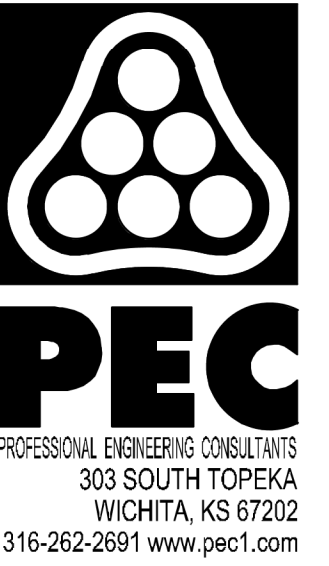
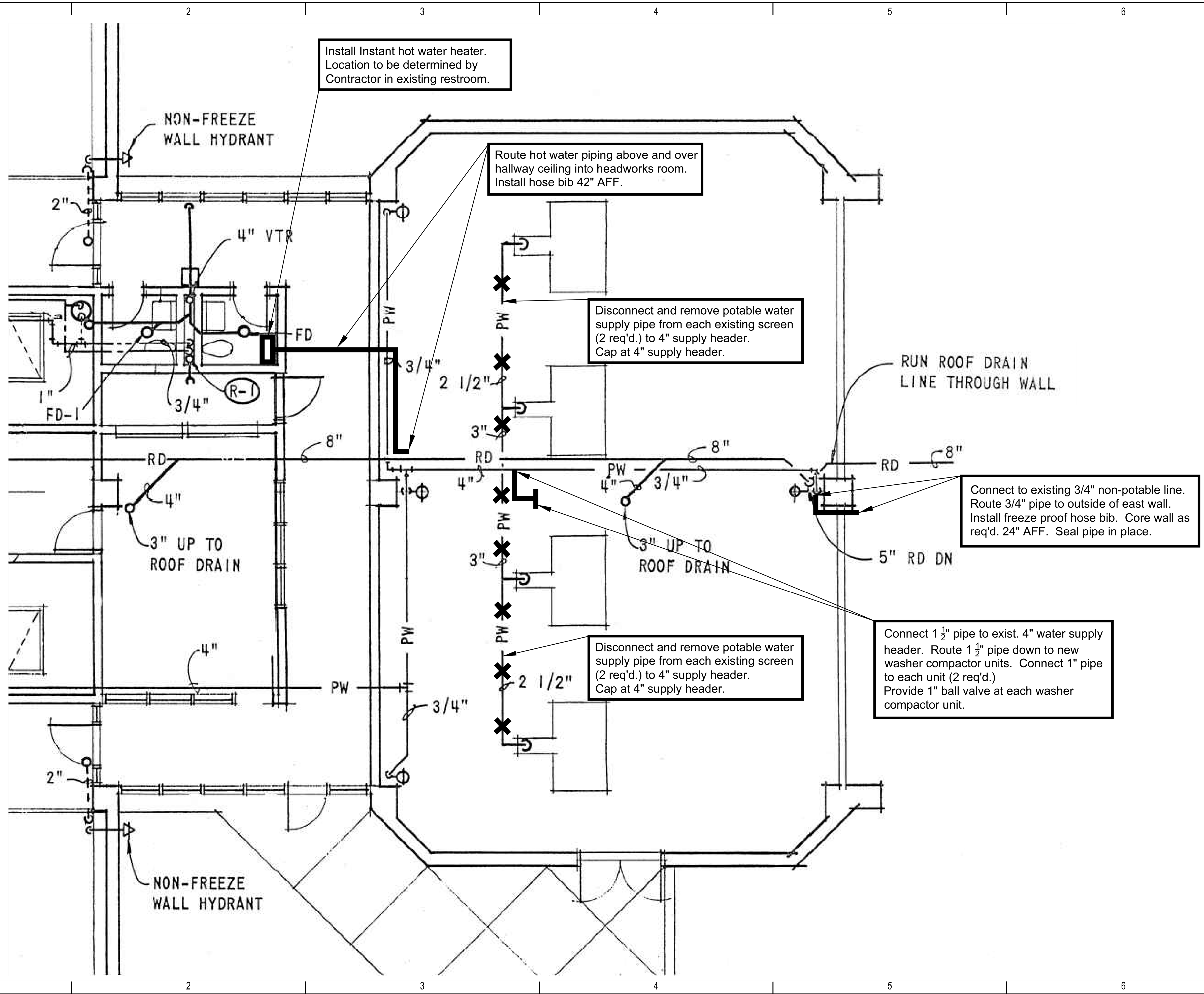
CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
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HEADWORKS EQUIPMENT SECTIONS

C103

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HEADWORKS SCREENING EQUIPMENT REPLACEMENT

CITY OF WICHITA, KANSAS

Issue:	
JOB NO.	180295-001
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
CHECKED BY	MDK
EQUIPMENT WATER SUPPLY PLAN	

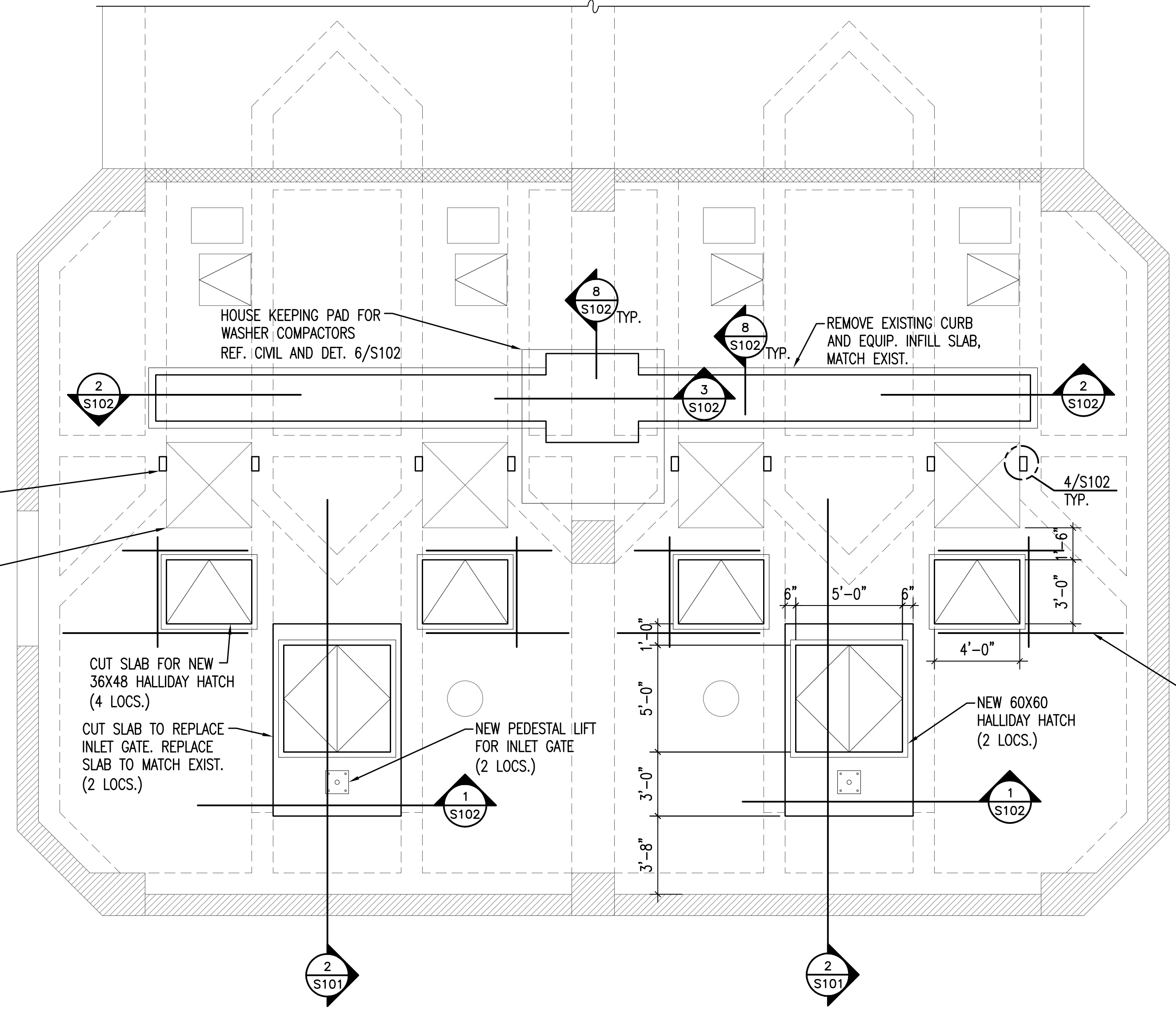
C104

HEADWORKS SCREENING EQUIPMENT REPLACEMENT

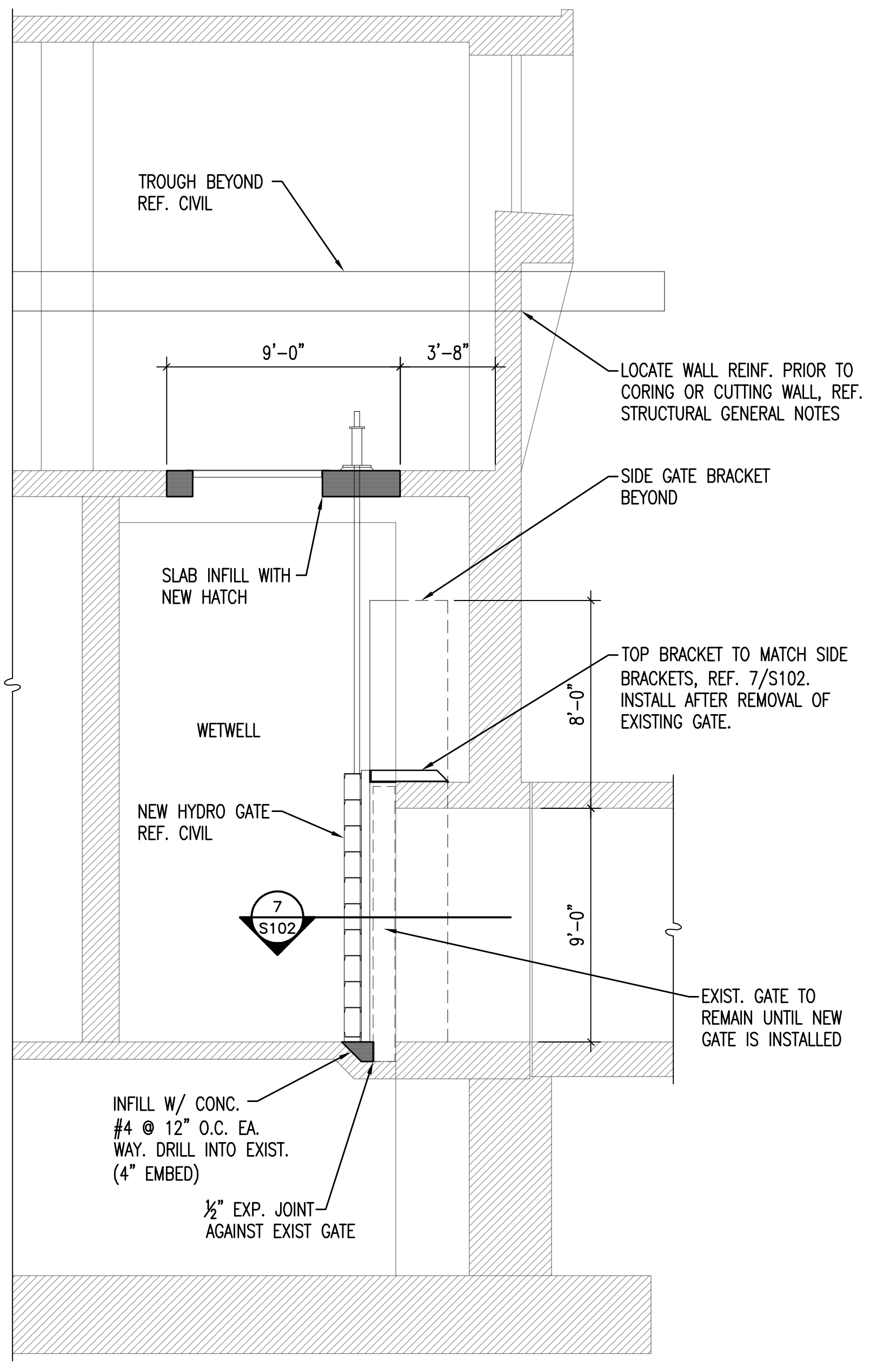
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DATE	OCTOBER 2019
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DESIGNED BY	DKC
DRAWN BY	DKC
CHECKED BY	MWK

FRAMING PLAN & WALL SECTION

S101

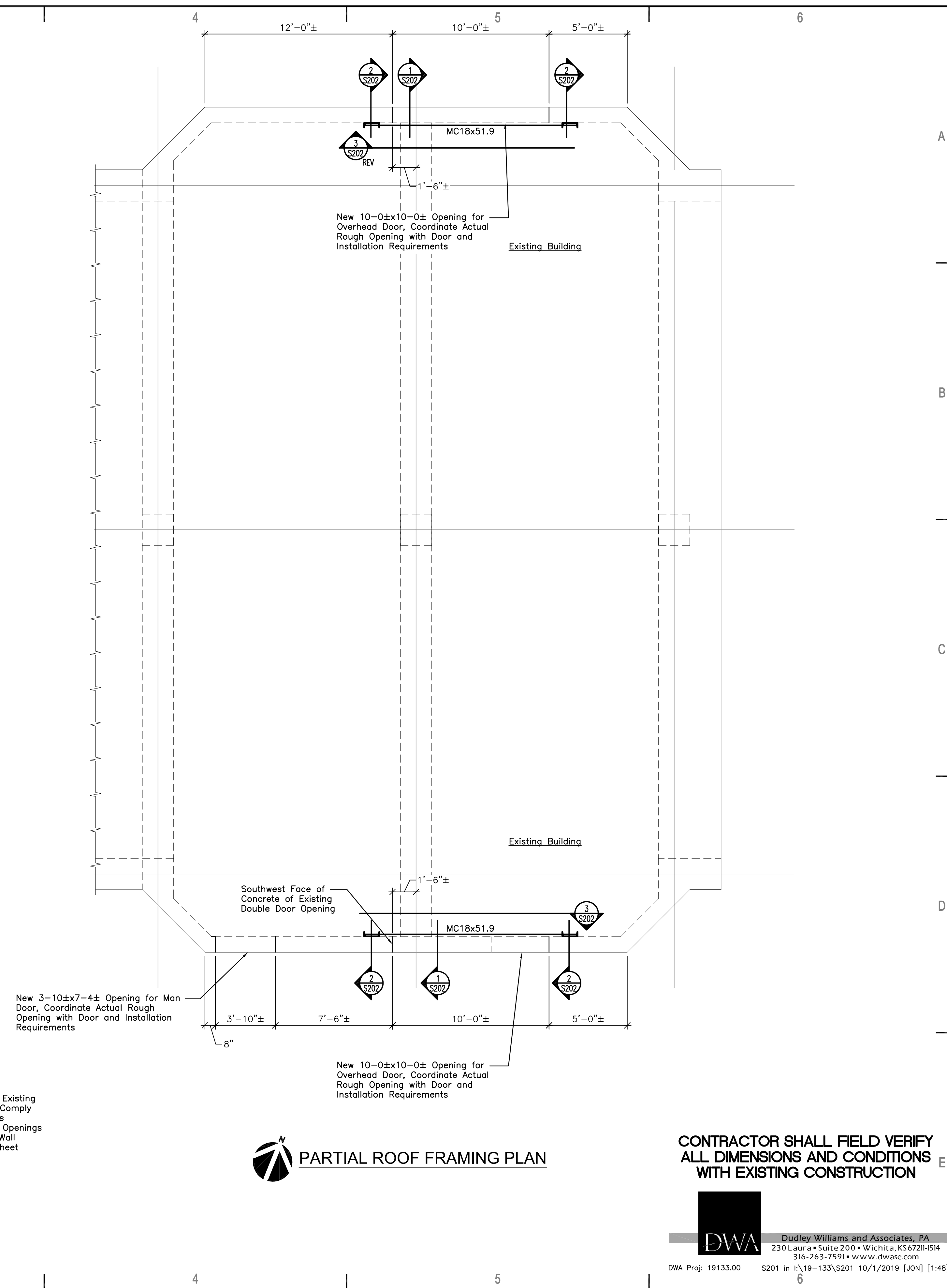
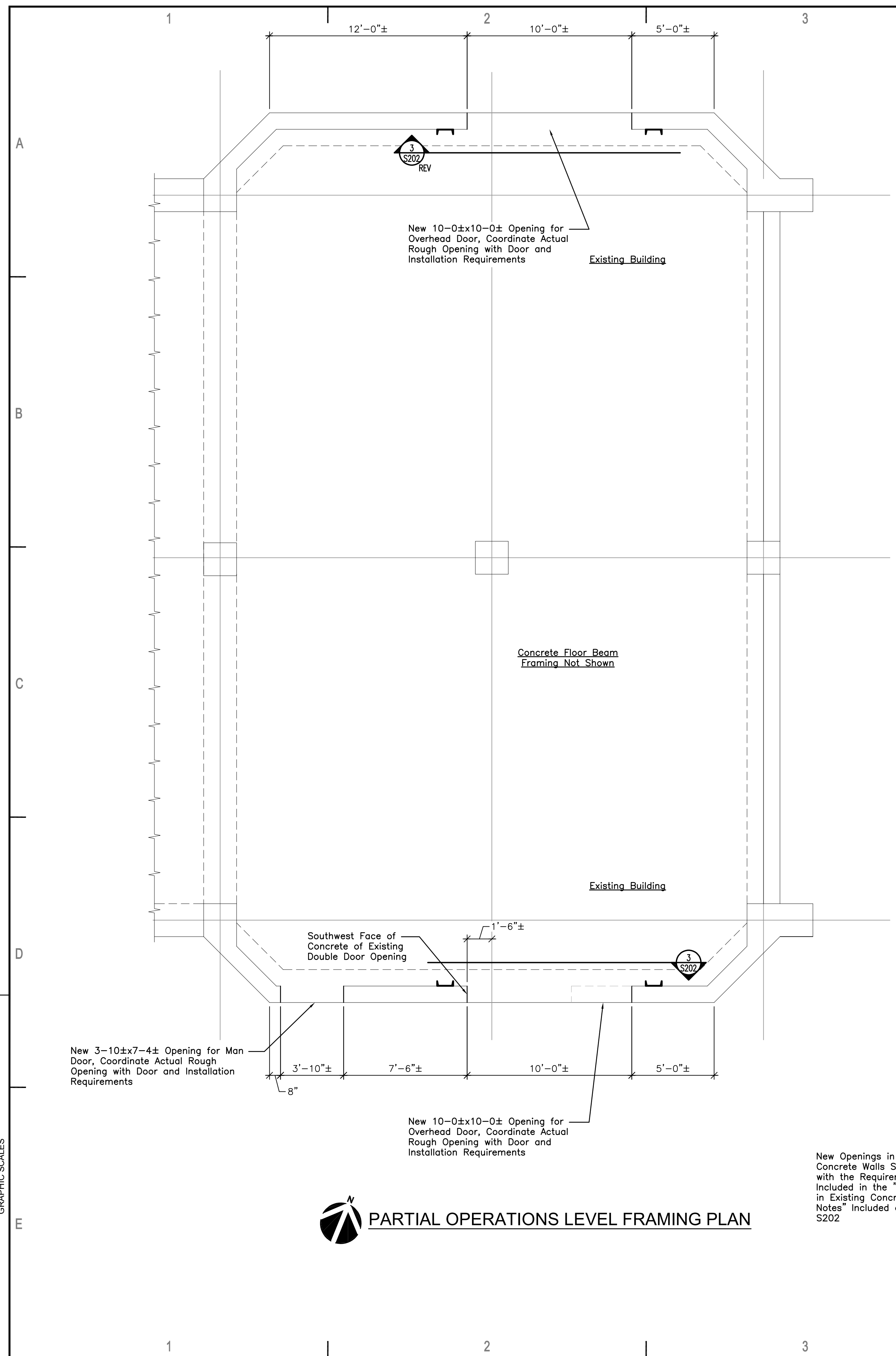
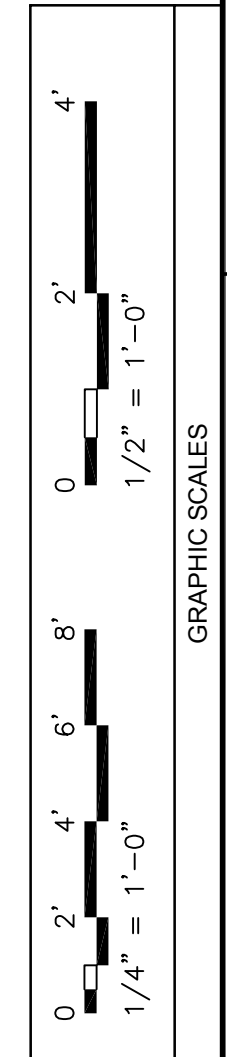


1 FLOOR PLAN AT GRADE
S101 1/4"=1'-0"



2 WALL SECTION
S101 1/4"=1'-0"

Saved: 10-07-2019 5:25:23 PM by: DKC
 Plot Scale: 1:1 10-07-2019 5:26:05 PM by: CAJ
 U:\wchita-civil\2018\180295\001\Struct\Drawings\00's\180295-001_S101

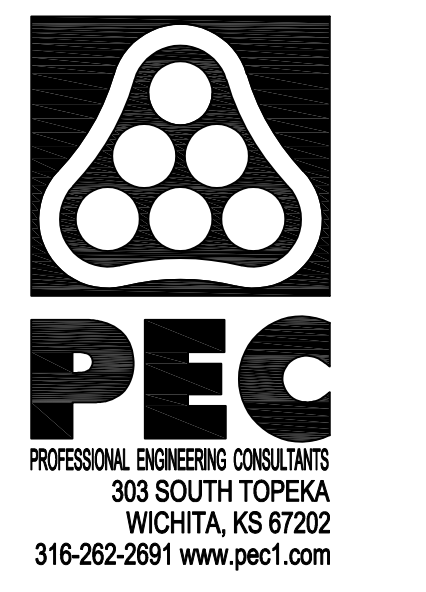


New Openings in the Existing Concrete Walls Shall Comply with the Requirements Included in the "New Openings in Existing Concrete Wall Notes" Included on Sheet S202

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS WITH EXISTING CONSTRUCTION

DWA Dudley Williams and Associates, PA
2301 Laura • Suite 200 • Wichita, KS 67221-1514
316-263-7591 • www.dwase.com

DWA Proj: 19133.00 S201 in E:\19-133\S201 10/1/2019 [JON] [1-48]



HEADWORKS SCREENING EQUIPMENT REPLACEMENT

Issue:	

JOB NO.	180295-001
DATE	OCTOBER 2019
PM	
DESIGNED BY	JL
DRAWN BY	JL
CHECKED BY	---

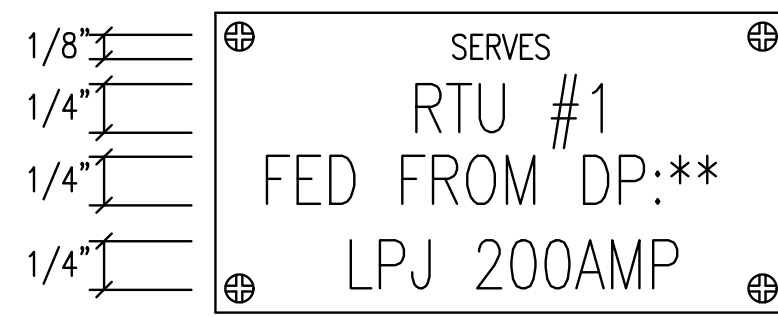
PARTIAL FRAMING PLANS

S201

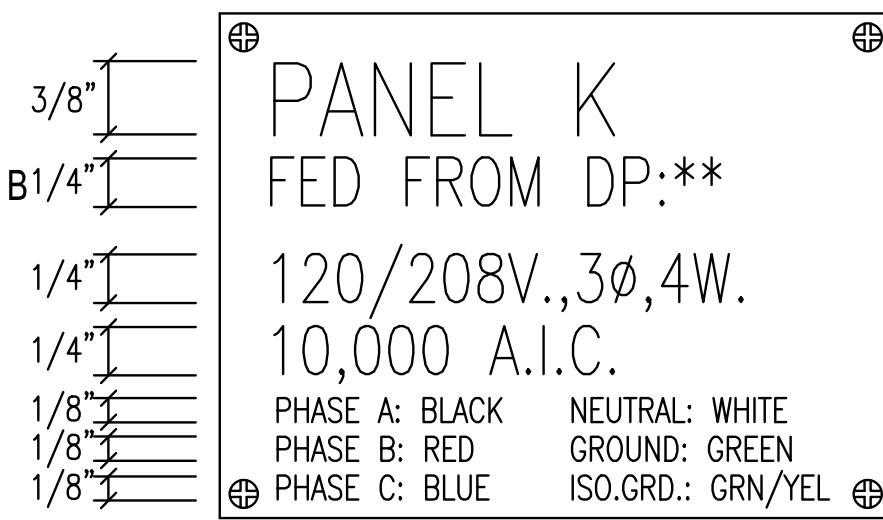
CITY OF WICHITA, KANSAS



SWITCHBOARD/DISTRIBUTION PANEL/MOTOR CONTROL CENTER BREAKER/SWITCH



DISCONNECT SWITCH



BRANCH CIRCUIT/DISTRIBUTION PANEL

TYPICAL NAME PLATES

NO SCALE
NOTE: SEE SPECIFICATION SECTION 260500 FOR NAME PLATE COLOR REQUIREMENTS.

EXIST. PANEL: LB 208Y/120 VOLTS, 3 PHASE, 4 WIRE
225 AMP MLO, SURFACE MTD. 10000 AIC LABELED

CIRC NO.	LOAD V. A.	LOAD TYPE	DESCRIPTION	AMP SIZE	WIRE SIZE	AMP SIZE	WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1			UNIT HEATER	15	A	15	A	UNIT HEATER			2
3			UNIT HEATER	15	B	15	B	EXHAUST FAN #7			4
5			UNIT HEATER	15	C	20	C	SIDE WALK LIGHTS			6
7			REC - OPERATION LEVEL	20	A	20	A	REC - NORTH BLOWER			8
9			REC - OPERATION LEVEL	20	B	20	B	BENCH GRINDER			10
11			ELECT WATER COOLER	1	C	20	C	ELECT WATER COOLER WEST			12
13			WATER HEATER	1	A	20	A	UPS - REC ON DESK			14
15			DATA RACK	1	B	20	B	SECURITY PANEL			16
17			SUPPLY FAN #7	1	C	20	C	SMOKE DETECTOR			18
19			UNIT HEATER	15	A	20	A	LIGHTS RAKE ROOM			20
21			RTU	2	B	20	B	HOT WATER HEATER			22
23					C	20	C	HOT WATER HEATER			24
25			GFI REC - RAKE ROOM	1	A	20	A	SOUTHER OVERHEAD DOOR			26
27			MCC SMOKE DETECTOR	1	B						28
29			LTS - RAKE ROOM	1	C						30
31	340	1Ø	EXTERIOR LIGHTS	1	A	20	A	SPACE			32
33	500	3Ø	HEAT TRACE	1	B	20	B	METHANE SENSOR			34
35	500	3Ø	HEAT TRACE	1	C	20	C	UPS			36
37	200	3Ø	LIGHTING CONTACTOR	1	A			SPACE			38
39			SPACE		B			SPACE			40
41			SPACE		C			SPACE			42

- ALL EXISTING LOADS AND CIRCUIT BREAKERS ARE TO REMAIN U.O.N.
- PROVIDE 20A. 1P. 120V. CIRCUIT BREAKER THAT MATCHES EXISTING PANEL MANUFACTURER, TYPE, AND A.I.C. RATING. UPDATE PANEL DIRECTORY.
- ROUTE CIRCUIT VIA EXISTING EXTERIOR LIGHTING CONTACTOR.
- PROVIDE 20A. 1P. 120V. GFPE CIRCUIT BREAKER THAT MATCHES EXISTING PANEL MANUFACTURER, TYPE, AND A.I.C. RATING. UPDATE PANEL DIRECTORY.
- PROVIDE 30A. 1P. 120V. GFPE CIRCUIT BREAKER THAT MATCHES EXISTING PANEL MANUFACTURER, TYPE, AND A.I.C. RATING. UPDATE PANEL DIRECTORY.

LIGHTING FIXTURE SCHEDULE (P.E.C.)

FIXT. LTR.	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	DESCRIPTION	LAMP TYPE	LENS/LOUVER/FINISH	W	L	D
R1	COOPER LIGHTING XTORSARL				WALL PACK	7400LM 5000K 65CRI	ACRYLIC	8.75	11	13.5
						1 UNV	85-WATT			

① MANUFACTURERS LISTED IN THIS SCHEDULE OR APPROVED BY WRITTEN ADDENDUM WILL BE THE ONLY APPROVED MANUFACTURERS TO BID THE LIGHTING FIXTURES FOR THIS PROJECT. CONTRACTORS AND SUPPLIERS USING PRICING FROM MANUFACTURERS NOT LISTED ON SCHEDULE OR BY ADDENDUM DO SO AT THEIR OWN RISK.

GENERAL NOTES

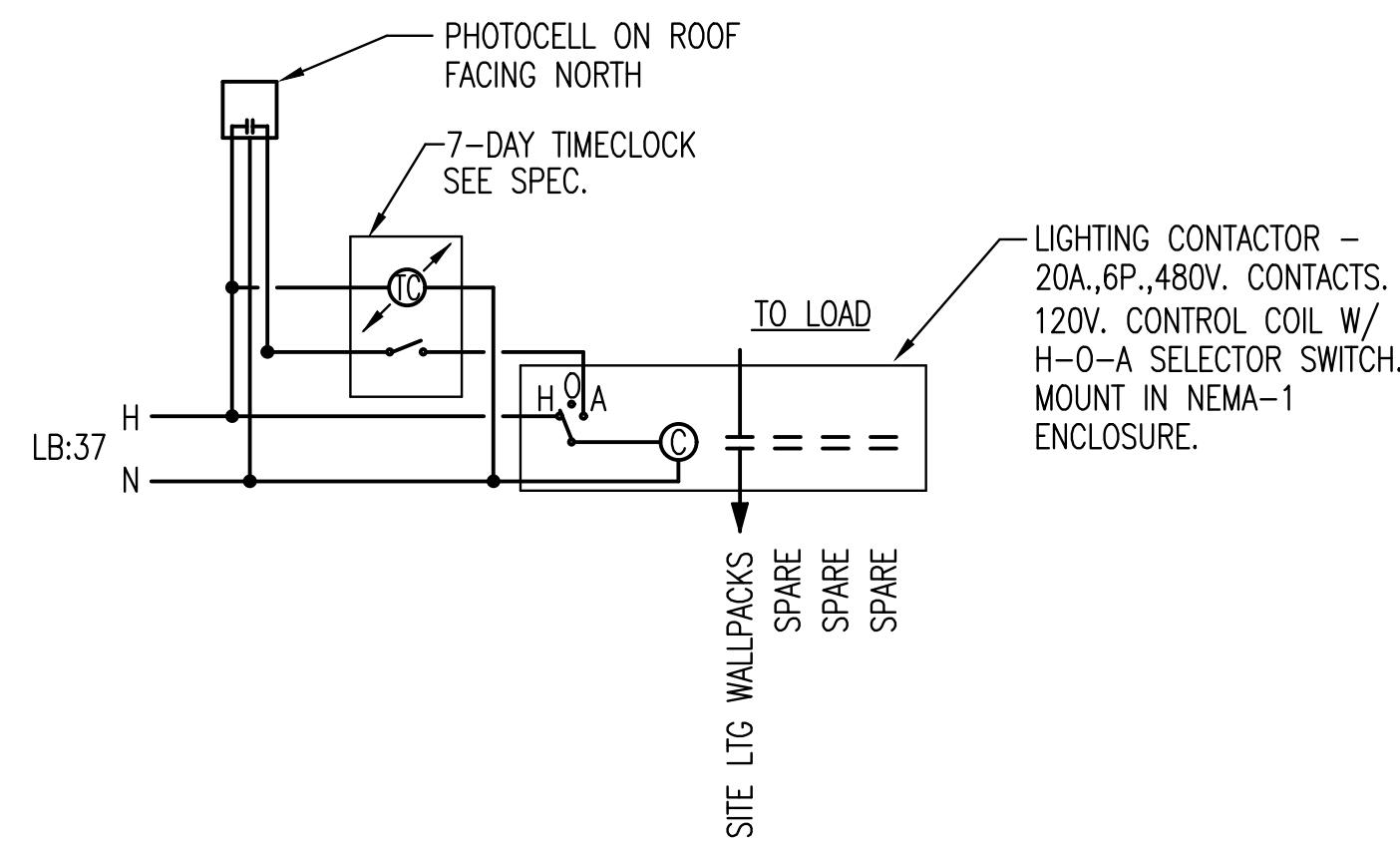
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & THE AMERICANS WITH DISABILITIES ACT (ADA).
- REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
- E.C. SHALL REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTION OF INTERLOCKING AND CONTROLS OF MECHANICAL UNITS AND THERMOSTAT LOCATIONS.
- CONDUIT RUN W/CONDUCTORS AS INDICATED & GROUND WIRE SIZED PER N.E.C. 250.122. CONDUIT SIZE AS REQUIRED.
- WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND GROUND.
- BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING
	FUSE	
	DISCONNECT (SEE EQUIP CONN SCHED) (VOLTAGE / SWITCH SIZE / FUSE SIZE / # OF POLES NOTED IF EQUIPMENT NOT SCHEDULED)	
	STARTER (SEE EQUIP CONN SCHED) (VOLTAGE / STARTER SIZE / # OF POLES NOTED IF EQUIPMENT NOT SCHEDULED)	
	FEEDER DESIGNATION	
	FUSIBLE SWITCH (CIRCUIT NUMBER / SWITCH SIZE / FUSE SIZE / # OF POLES) (# OF POLES IF OTHER THAN 3)	PANEL
	3Ø TRANSFORMER (DELTA PRIMARY / WYE SECONDARY)	
	EQUIPMENT (SINGLE MOTOR / MULTI-MOTOR OR OTHER TYPE AS NOTED)	
	STARTER WITH FUSIBLE SWITCH (CIRCUIT NUMBER / SWITCH SIZE / FUSE SIZE / # OF POLES) (# OF POLES IF OTHER THAN 3)	PANEL

PEN WEIGHT LEGEND

SYMBOL	DESCRIPTION
	ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK SOLID LINES ARE NEW TO BE INSTALLED.
	NEW DUPLEX GROUNDED RECEPTACLE
	NEW LIGHT FIXTURE
	ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN LIGHT SOLID LINES ARE EXISTING TO REMAIN.
	EXISTING DUPLEX GROUNDED RECEPTACLE TO REMAIN
	EXISTING LIGHT FIXTURE TO REMAIN
	ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK DASHED LINES ARE TO BE REMOVED.
	DUPLEX GROUNDED RECEPTACLE TO BE REMOVED
	LIGHT FIXTURE TO BE REMOVED



LIGHTING CONTROL WIRING DIAGRAMS

NO SCALE

EQUIPMENT CONNECTION SCHEDULE

MECHANICAL EQUIPMENT CONNECTIONS

UNIT DESIG.	UNIT VOLTAGE	LOAD			PANEL DEVICE				DEVICE AT UNIT				FEEDER DESCRIPTION OR SEE THE FEEDER SCHEDULE	REMARKS OR SEE THE INDICATED NOTES BELOW	
		H.P.	FLA	KVA	CIRCUIT NUMBER	BKR/SW FUSE	STARTER	NEMA	BKR/SW FUSE	STARTER	NEMA	OTHER			
WH	WATER HEATER														
1	480/3	720MM	86.6	71.97	MCC3:12		200	150	3			200	---	3	1 3 #1/0 AWG THWN; #6 AWG GRD; 2" C.

① ALL CONNECTIONS AND ELECTRICAL EQUIPMENT LISTED IN SCHEDULE SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FIELD VERIFY CONNECTION REQUIREMENTS AND EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

② REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTIONS OF INTERLOCKING, THERMOSTAT LOCATIONS, EXHAUST FAN CONTROL SWITCHES, AND OTHER CONTROLS OF MECHANICAL EQUIPMENT.

③ SIZE FUSES FOR MOTOR FUSTATS BASED ON 125% OF MANUFACTURER'S NAMEPLATE FULL LOAD AMPERAGE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

CONTROL CABLES CONDUIT SCHEDULE

# OF CABLES	ESTIMATED CONDUIT SIZE
1	1/2"
2	3/4"
3	1"
5	1 1/4"
7	1 1/2"
13	2"
18	2 1/2"
29	3"
38	3 1/2"

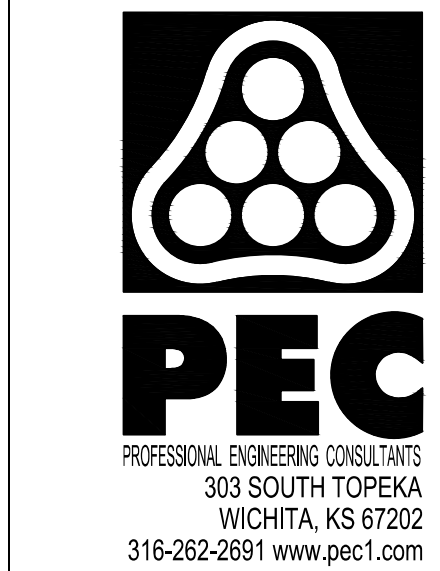
NOTE: ABOVE CONDUIT SIZES DEPEND ON ACTUAL CABLES INSTALLED. VERIFY CABLE SIZES & ADJUST CONDUIT AS REQUIRED. RUN ALL CONTROL CABLES IN SEPARATE CONDUIT FROM POWER CIRCUITS. ALSO RUN SHIELDED & LAN LAN CABLES IN SEPARATE CONDUIT FROM OTHER CONTROLS. CONTRACTOR CAN SIZE CONDUIT FOR ACTUAL CABLE SIZE, PER N.E.C. FILL TABLE WITH 25% SPARE CAPACITY. SUBMIT CALCULATIONS.

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING
	LIGHT FIXTURE & FIXTURE LETTER	WALL
	UNLESS OTHERWISE NOTED	
	DUPLEX GROUNDED RECEPTACLE	18" AFF
	FLOAT SWITCH	
	JUNCTION BOX	
	FUSTAT BUSS #SSY	
	BRANCH CIRCUIT PANEL & PANEL DESIG.	72" TO TOP
	ELECTRICAL DISTRIBUTION EQUIPMENT	
	FEEDER DESIGNATION	
	EMERGENCY CIRCUIT	CEIL./WALL
	MASTER/SLAVE FIXTURE WHIP	CEILING
	CONDUIT HOME RUN, 1 CIRCUIT. 2#10 & 1#10 GRD. GEN. NOTE 7 & 8	CEIL./WALL
	CONDUIT RUN 2#12 & 1#12 GRD.- 3/4"	CEIL./WALL
	CONDUIT RUN 2#12 & 1#12 GRD.- 3/4"	EARTH/FLOOR
	CONDUIT HOME RUN, 1 CIRCUIT. 2#12 & 1#12 GRD. 3/4"	CEIL./WALL
	CONDUIT HOME RUN, 2 CIRCUITS. 4#12 & 1#12 GRD. 3/4"	CEIL./WALL
	CONDUIT HOME RUN, 3 CIRCUITS. 6#12 & 1#12 GRD. 3/4"	CEIL./WALL
	CONDUIT RUN PARTIAL CIRCUIT. 2#12 & 1#12 GRD. 3/4"	CEIL./WALL
	CONDUIT HOME RUN, 2 CIRCUITS PHASE CONDUCTORS (#12 UON) NEUTRAL CONDUCTOR (#12 UON) SWITCH LEGS (#12 UON) GROUND CONDUCTOR (#12 UON)	CEIL./WALL
	DISCRETE CONTROL CABLE (# OF PAIRS)	
	CONDUIT SEAL-OFF	
	DATA UTP CABLE (# OF CABLES)	
	OVERHEAD DOOR CONTROLLER	
	EMERGENCY STOP PUSHBUTTON	
	MOTOR	
	PHOTOCELL	

ELECTRICAL SHEET INDEX

SHEET NO.	DESCRIPTION
E001	ELECTRICAL LEAD SHEET
E002	ELECTRICAL ONE-LINE DIAGRAM - MCC3
E003	ELECTRICAL ONE-LINE DIAGRAM - MCC4
E004	ELECTRICAL SCHEDULES
E201	ELECTRICAL DEMOLITION PLAN
E301	ELECTRICAL SITE PLAN
E401	ELECTRICAL POWER PLAN



HEADWORKS SCREENING EQUIPMENT REPLACEMENT

Issue:	DATE	DESCRIPTION
1	90% SUBMITTAL	09/11/19

JOB NO.	180295-001
DATE	OCTOBER 2019
PM	
DESIGNED BY	RWW
DRAWN BY	ABP
CHECKED BY	SMS

ELECTRICAL LEAD SHEET

E001

