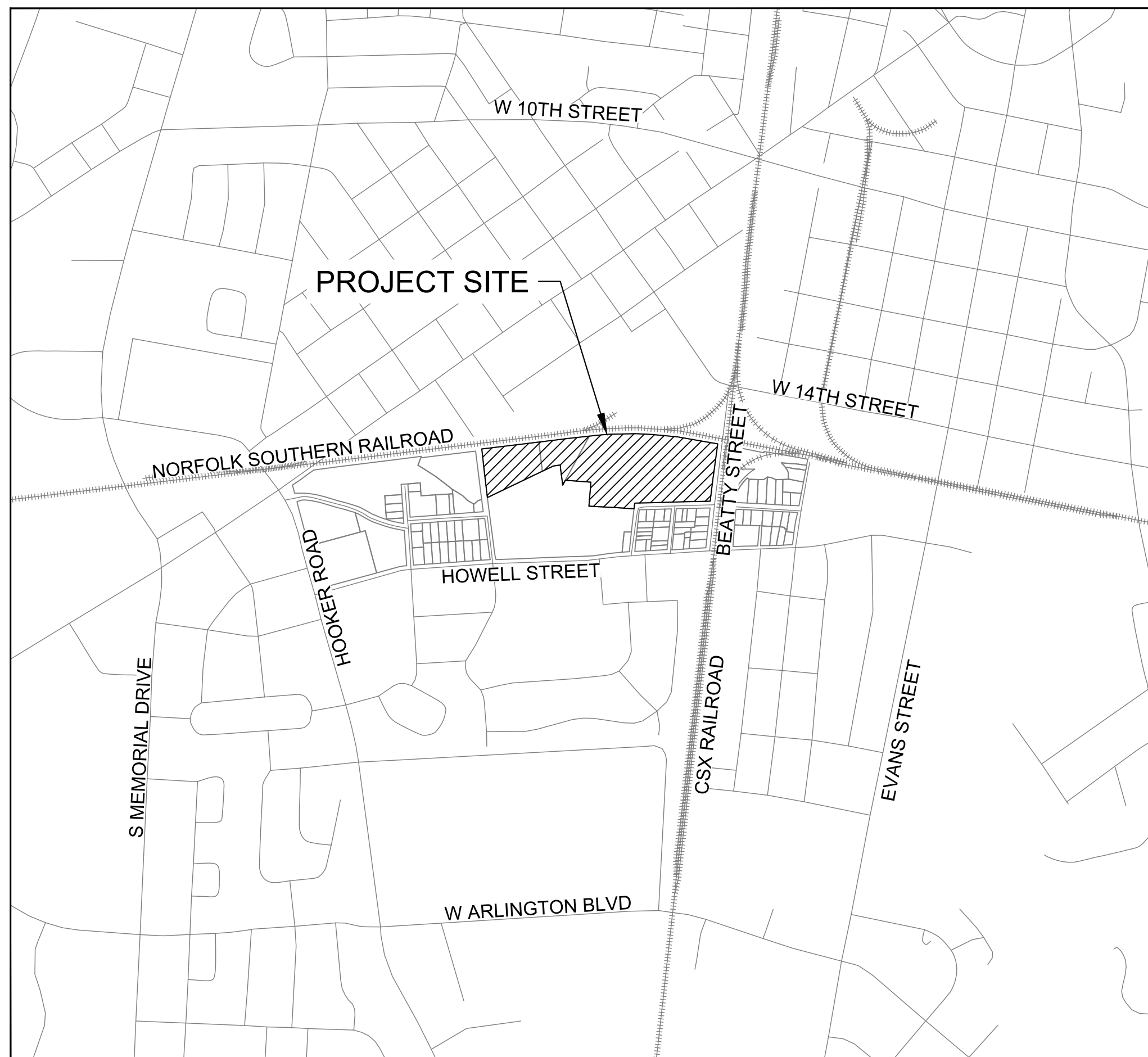


CITY OF GREENVILLE PUBLIC WORKS

STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

PROJECT #



VICINITY MAP
SCALE: 1"=800'

SHEET LIST	
Sheet Number	Sheet Title
G1	COVER
G2	GENERAL NOTES
G3	SHEET INDEX
C1	PLAN & PROFILE - STA 0+00 TO 2+25
C1A	SITE PLAN - STA 0+00 TO 2+25
C1B	RESTORATION SITE PLAN - STA 0+00 TO 2+25
C2	PLAN & PROFILE - STA 2+25 TO 6+50
C2A	SITE PLAN - STA 2+25 TO 6+50
C2B	RESTORATION SITE PLAN - STA 2+25 TO 6+50
C3	PLAN & PROFILE - STA 6+50 TO 10+50
C3A	SITE PLAN - STA 6+50 TO 10+50
C3B	RESTORATION SITE PLAN - STA 6+50 TO 10+50
C4	PLAN & PROFILE - STA 10+50 TO 14+00
C4A	SITE PLAN - STA 10+50 TO 14+00
C4B	RESTORATION SITE PLAN - STA 10+50 TO 14+00
C5	SIDE SYSTEM PROFILES
C6	SIDE SYSTEM PROFILES
C7	CHIMNEY STRUCTURE PROFILES
C8	CHIMNEY STRUCTURE PROFILES
D1	SITE DETAILS
D2	SITE DETAILS
D3	COG DETAILS
D4	COG DETAILS
D5	COG DETAILS
D6	STORM STRUCTURES TABLE
D7	NCDOT DETAILS
D8	NCDOT DETAILS
S1	RCBC DETAILS
S2	STRUCTURE 1 DETAIL
S3	STRUCTURE 2 DETAIL
S4	OIL-WATER SEPARATOR DETAIL

UWS1	WATER & SEWER UTILITY RELOCATION
UWS2	WATER UTILITY RELOCATION
UWS3	SEWER UTILITY RELOCATION
UWS4	SEWER UTILITY RELOCATION
UWS5	GUC UTILITY DETAILS
UWS6	UTILITY DETAILS
U1	UTILITY RELOCATION
U2	UTILITY RELOCATION
U3	UTILITY RELOCATION
EC1	EROSION CONTROL COVER
EC2	EROSION CONTROL NOTES
EC3	EROSION CONTROL NCG01 NOTES
EC4	EROSION CONTROL PLAN
EC5	EROSION CONTROL PLAN
EC6	EROSION CONTROL PLAN
EC7	EROSION CONTROL PLAN
EC8	EROSION CONTROL DETAILS
EC9	EROSION CONTROL DETAILS
TC1	TRAFFIC CONTROL NOTES
TC2	TRAFFIC CONTROL PLAN
TC3	TRAFFIC CONTROL DETAILS
X1	FINAL SURVEY INDEX
X2	FINAL SURVEY
X3	FINAL SURVEY
X4	FINAL SURVEY
X5	FINAL SURVEY
X6	FINAL SURVEY
X7	FINAL SURVEY
X8	FINAL SURVEY
X9	FINAL SURVEY
X10	FINAL SURVEY

PLANS PREPARED BY:
WK DICKSON
community infrastructure consultants

720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0495
(919) 782-9672
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NO.	DATE	REVISIONS

PLANS PREPARED FOR:

CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER
PIPE IMPROVEMENTS PHASE 1
GREENVILLE, NORTH CAROLINA

TITLE:
COVER

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023

100% PLANS

G1

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CITY: CITY OF GREENVILLE 1500 BEATTY STREET GREENVILLE, NC 27634 (252) 329-4683 TEL	ENGINEER: W.K. DICKSON 720 CORPORATE DRIVE RALEIGH, NC 27607 (919) 782-0495 TEL (919) 782-9672 FAX	SURVEYOR: STEWART 5410 OLD POOLE ROAD RALEIGH, NC 27610 (919) 380-8750	SUE (LEVEL B): STEWART 5410 OLD POOLE ROAD RALEIGH, NC 27610 (919) 380-8750	GEOTECHNICAL: FROHLING & ROBERTSON, INC. 310 HUBERT STREET RALEIGH, NC 27603 (919) 828-3441 TEL (919) 828-5751 FAX	SUE (LEVEL A TEST): STEWART 5410 OLD POOLE ROAD RALEIGH, NC 27610 (919) 866-4738
CONTACT: KEVIN MULLIGAN, P.E.	CONTACT: MARC HORSTMAN, P.E., CFM	CONTACT: JORDAN SCHOFF, P.L.S.	CONTACT: JORDAN SCHOFF, P.L.S.	CONTACT: MICHAEL S. SABODISH JR., P.E., PHD.	CONTACT: BRANDON FIRMSTONE

GENERAL NOTES:

- 1. ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL BE AS DESCRIBED IN THE PROJECT MANUAL IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS OF THE CITY OF GREENVILLE AND OTHER ENTITIES HAVING JURISDICTION OVER ASPECTS OF THE PROJECT.
2. THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING CONSTRUCTION.
3. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL APPROVALS AND EASEMENTS ON THE JOB SITE AT ALL TIMES.
...
31. CEMETERIES ARE PROTECTED UNDER NORTH CAROLINA GENERAL STATUTE CHAPTER 65, AND SHOULD BE AVOIDED IF POSSIBLE. IF UNMARKED HUMAN SKELETAL REMAINS ARE ENCOUNTERED DURING CONSTRUCTION IN THE GENERAL VICINITIES NOTED ON THESE PLANS...

BACKFILLING:

- 1. REFER TO TRENCHING SPECIFICATIONS AND DETAIL SHEET D2.

WATER SERVICE RECONNECTIONS ON REPLACEMENT MAINS:

- 1. CONTRACTOR SHALL REPLACE THE EXISTING WATER SERVICES/LATERALS IN ACCORDANCE WITH GREENVILLE UTILITIES COMMISSION (GUC) STANDARDS. WATER SERVICES SHALL BE REPLACED FROM THE METER TO THE NEW MAIN UTILIZING COPPER TUBING AND ALL NEW FITTINGS AND INCLUSIVE OF NEW BRASS CURB STOP AND CURB STOP BOX. THE CONTRACTOR SHALL INSTALL A NEW TAP, UTILIZING A NEW TAPPING SADDLE AND CORPORATION IN ACCORDANCE WITH GUC STANDARDS.
2. THE CONTRACTOR SHALL USE BRASS FITTINGS AS REQUIRED BY GUC TO CONNECT THE SERVICE LINE AND TAILPIECE TO THE METER, PLUS MAKE CONNECTION OF THE TAILPIECE TO THE CUSTOMER'S EXISTING PRIVATE WATER SERVICE LINE.
3. FOR ANY EXISTING WATER SERVICES THAT ARE TO BE RETAINED AND THAT ARE DAMAGED AS A RESULT OF CONTRACTOR OPERATIONS, THE CONTRACTOR SHALL REPLACE THESE EXISTING SERVICES IN ACCORDANCE WITH GUC STANDARDS...

STANDARD UTILITY NOTES (AS APPLICABLE):

- 1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND THE GREENVILLE UTILITIES COMMISSION (GUC) MANUAL FOR THE DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER SYSTEM EXTENSIONS FOR GREENVILLE UTILITIES.
2. UTILITY SEPARATION REQUIREMENTS:
a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER AND ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE.
...
10. THROUGHOUT CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL IMMEDIATELY REMEDY ACCIDENTAL INTERRUPTION TO CUSTOMER WATER AND/OR SEWER SERVICE, AND PROVIDE 24 HOUR ADVANCE NOTICE TO THE ENGINEER/OWNER FOR SCHEDULED INTERRUPTIONS TO CUSTOMER WATER AND/OR SEWER SERVICE.

UTILITY COORDINATION:

- 1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING ALL APPROPRIATE UTILITY OWNERS AND ASSURING THAT UTILITIES ARE LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. NOTIFY UTILITY OWNERS A MINIMUM OF 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
2. IN THE EVENT OF CONFLICTS WITH EXISTING UTILITIES OR IF FURTHER VERIFICATION OF FACILITIES OR TEMPORARY DISRUPTION OF SERVICE IS NECESSARY, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY AND SHALL FULLY COORDINATE ANY NECESSARY MODIFICATIONS WITH THE CITY OF GREENVILLE AND THE APPROPRIATE UTILITY.
3. IF UTILITIES NEED TO BE RELOCATED DUE TO EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION WORK AND COST OF THE WATER AND SEWER (WET UTILITIES) ONLY.

EROSION CONTROL NOTES:

- 1. CONTRACTOR SHALL BE REQUIRED TO MAINTAIN EROSION CONTROL DEVICES AND TO PREVENT SEDIMENTATION DAMAGE TO ALL ADJACENT PROPERTIES AND STREAMS IN ACCORDANCE WITH THE EROSION CONTROL PLANS AND THE CURRENT NORTH CAROLINA EROSION AND SEDIMENTATION MANUAL.
2. THE CONTRACTOR SHALL HAVE A COMPLETE SOIL AND EROSION CONTROL PLAN ON THE JOB SITE AT ALL TIMES AND THE EROSION AND SEDIMENT CONTROL APPROVAL PLACARD SHALL BE POSTED ON SITE.
3. EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO PERFORMING ANY LAND DISTURBING ACTIVITIES IN ANY AREA AND MAINTAINED DURING WORK.
4. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL PRACTICES WEEKLY AND AFTER RAINFALL EVENTS AND MAKE ANY NEEDED REPAIRS IMMEDIATELY...

TRAFFIC AND PEDESTRIAN CONTROL GENERAL NOTES:

- 1. REFER TO PLAN SHEETS TC1 TO TC3 FOR COMPLETE TRAFFIC AND PEDESTRIAN CONTROL INFORMATION FOR THIS PROJECT.
2. THROUGHOUT CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL NOT UN-NECESSARILY INTERRUPT PROPERTY OWNER ACCESS TO ITS PROPERTY, AND SHALL IMMEDIATELY PROVIDE ACCESS FOR EMERGENCY VEHICLES AS DICTATED BY UNFORSEEN EVENTS.
3. THE CONTRACTOR SHALL NOT IMPEDIE TRAFFIC AT ANY TIME UNTIL THE APPROVED TRAFFIC CONTROL DEVICES ARE IN PLACE.

- 4. ALL TRAFFIC CONTROL MEASURES, DEVICES, INSTALLATION, METHODS, SEQUENCING AND PLANS SHALL BE IN STRICT ACCORDANCE WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SUPPLEMENTS SUCH AS NCDOT AND/OR CITY TRANSPORTATION SERVICES.

STORM DRAINAGE PIPE & GRADING NOTES:

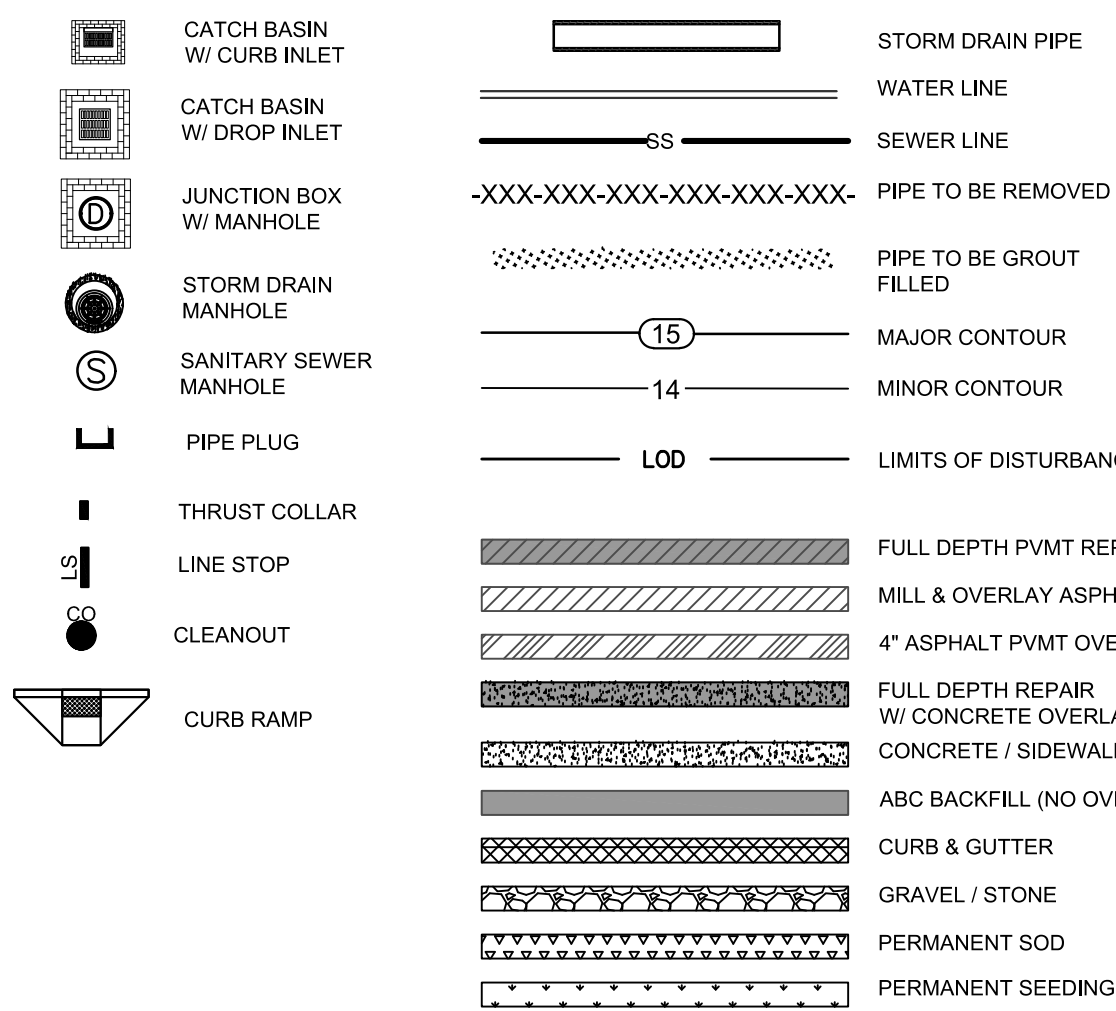
- 1. PROPOSED PIPE INVERT ELEVATIONS HAVE PRECEDENCE OVER SLOPES, HOWEVER, SLOPES SHALL NOT BE DECREASED FROM THOSE SHOWN ON PLAN WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
2. STRUCTURES INCLUDING STORM DRAIN PIPE AND STORM STRUCTURES SHALL HAVE A VERTICAL TOLERANCE OF ±0.05 FEET AND A HORIZONTAL TOLERANCE OF ±0.50 FEET.
3. POSITIVE DRAINAGE SHALL BE PROVIDED ON ALL GRADED AREAS, ESPECIALLY AREAS TO BE PAVED, THROUGHOUT CONSTRUCTION.
4. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, TRENCHING, OR OTHER LAND DISTURBING ACTIVITY SHALL BE PERMITTED BEYOND LIMITS OF DISTURBANCE WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND OWNER.

SURVEY NOTES:

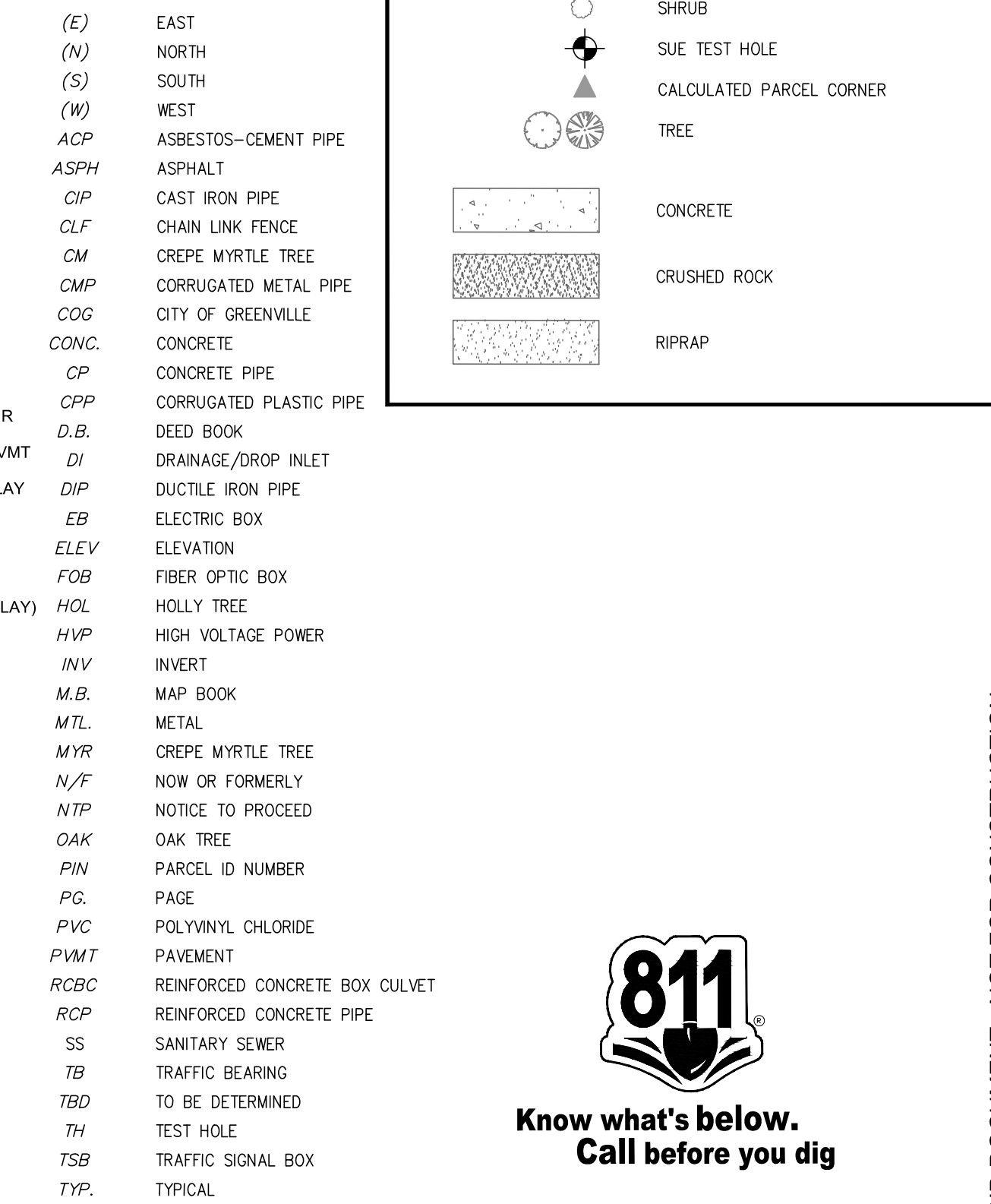
SURVEY PERFORMED BY: STEWART ENGINEERING, RALEIGH, NC 27610, CONTACT: JORDAN SCHOFF, PH: (919) 380-8750
SUE PERFORMED BY: STEWART ENGINEERING, RALEIGH, NC 27610, CONTACT: BRANDON FIRMSTONE, (919) 866-4738

- 1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
2. ALL COORDINATES ARE GROUND COORDINATES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
3. THE HORIZONTAL DATUM IS NC GRID (NAD83/2011) AND VERTICAL DATUM IS (NAV08) BASED UPON GPS METHODS USING REAL-TIME KINEMATIC SOLUTIONS FOR THE SURVEY CONTROL POINTS SHOWN HEREON AND TIED TO NORTH CAROLINA GEODETIC SURVEY MONUMENT "FICKLEN" (N:678570.4994; E:2486875.2750; ELEVATION 58.71').
4. THE INITIAL STATE PLANE POSITIONS FOR THIS SURVEY WERE SCALED FROM GRID TO GROUND FROM A PROJECT LOCATION OF N:677484.418, E:2481216.790, ELEVATION 53.55', (TRAV-1) USING A COMBINED FACTOR OF 0.99989362.

PROPOSED



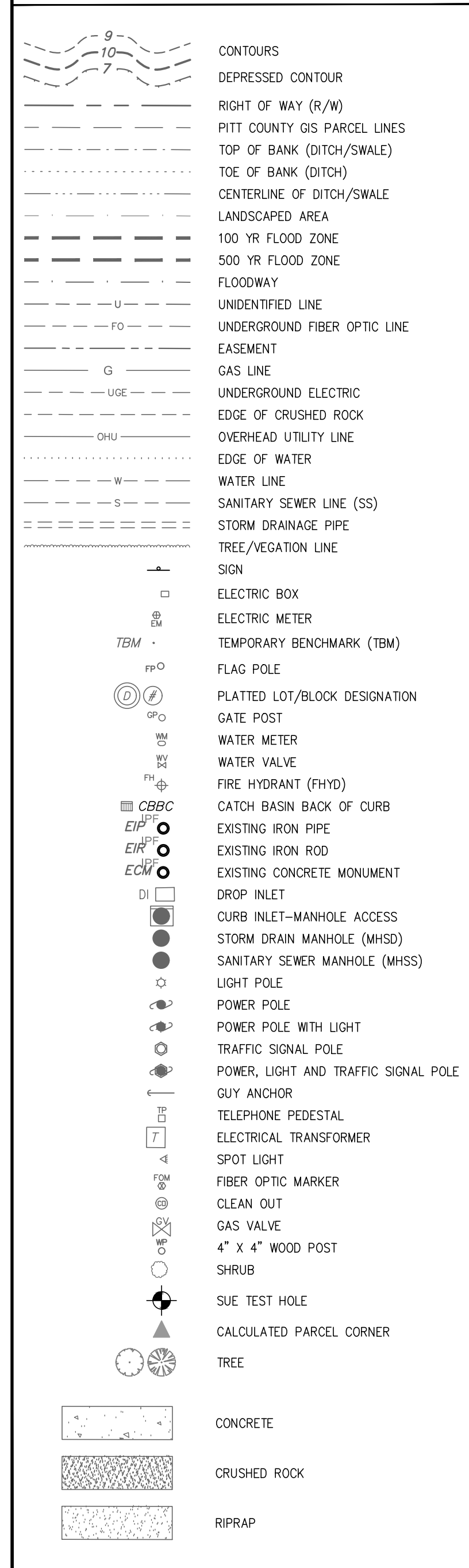
ABBREVIATIONS



BYPASS PUMPING/DEWATERING PLAN:

- 1. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A BYPASS PUMPING/DEWATERING PLAN, DESIGNED BY A PROFESSIONAL ENGINEER, TO BE REVIEWED AND APPROVED BY W.K. DICKSON. THE BYPASS PUMPING/DEWATERING PLAN SHALL DETAIL THE APPROACH FOR CAPTURE, CONTROL AND DISCHARGE OF SURFACE AND GROUNDWATER RESULTING FROM BYPASS PUMPING/DEWATERING.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A WEEKLY INSPECTION REPORT, PREPARED BY THE BYPASS PUMPING/DEWATERING SYSTEM DESIGN ENGINEER, DOCUMENTING THAT THE SYSTEM IS PROPERLY INSTALLED AND FUNCTIONING TO THE ENGINEER'S EXPECTATIONS.

EXISTING LEGEND



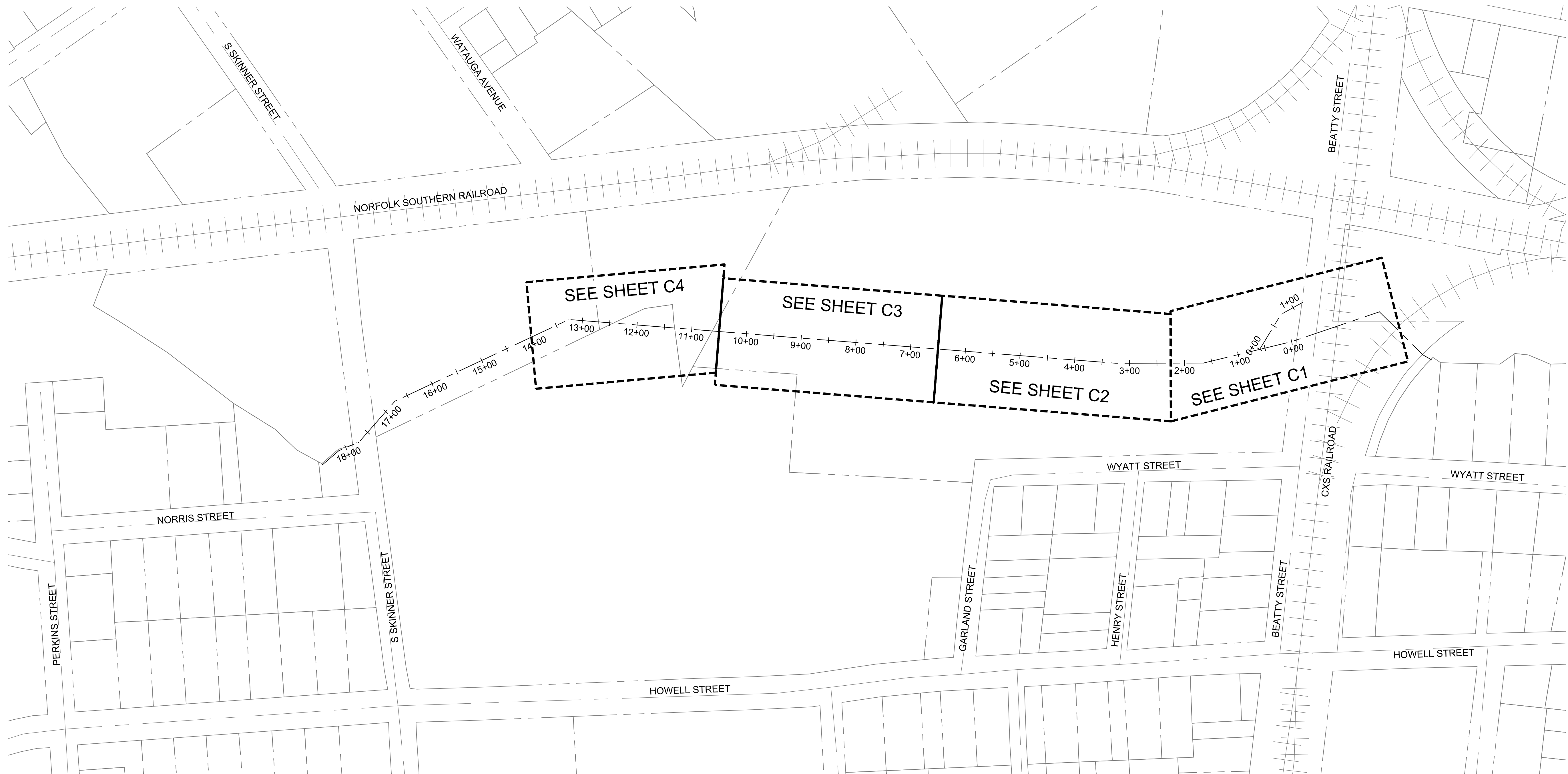
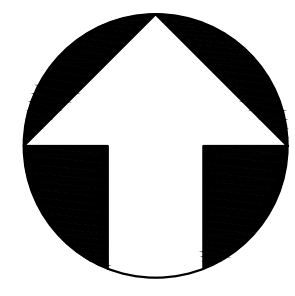
811 Know what's below. Call before you dig

PLANS PREPARED BY: W.K. DICKSON, PROFESSIONAL ENGINEER, SEAL 041392, M.A.R.C. THORNTON. NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041392. Jul 11 2023 10:58 AM

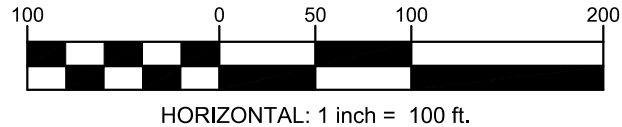
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PLANS PREPARED FOR: Greenville, NORTH CAROLINA, CITY OF GREENVILLE

PROJECT: PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA. TITLE: GENERAL NOTES. WKD PROJECT: 20220983.00.RA DATE: 7/11/2023. 100% PLANS. G2



SCALE: 1"=100'



HORIZONTAL: 1 inch = 100 ft.

PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-3455
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F-0374



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NO.	DATE	REVISIONS

PLANS PREPARED FOR:	Greenville NORTH CAROLINA <i>find yourself in good company</i>	CITY OF GREENVILLE
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PROJECT:	PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA	TITLE:	SHEET INDEX
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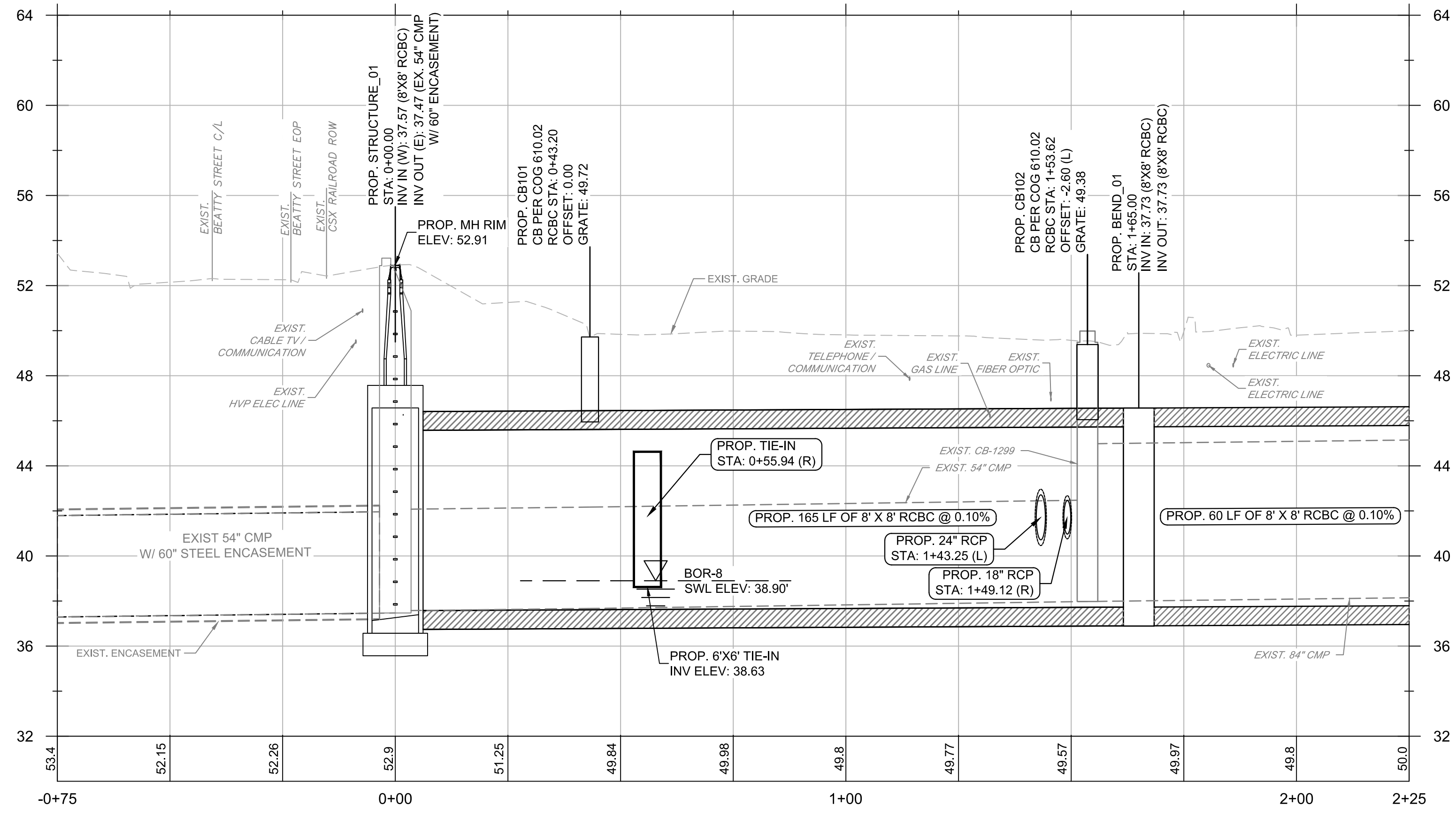
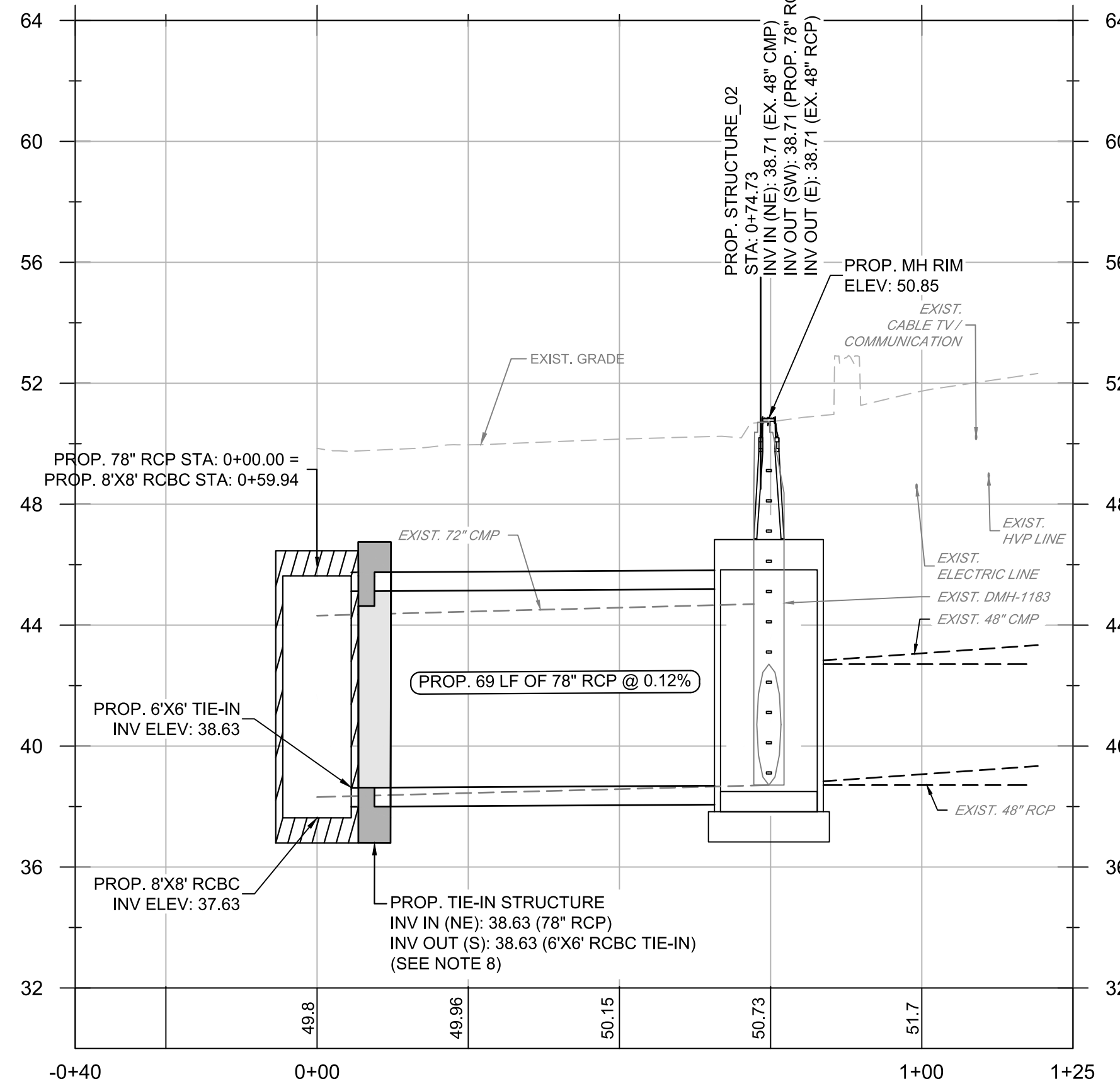
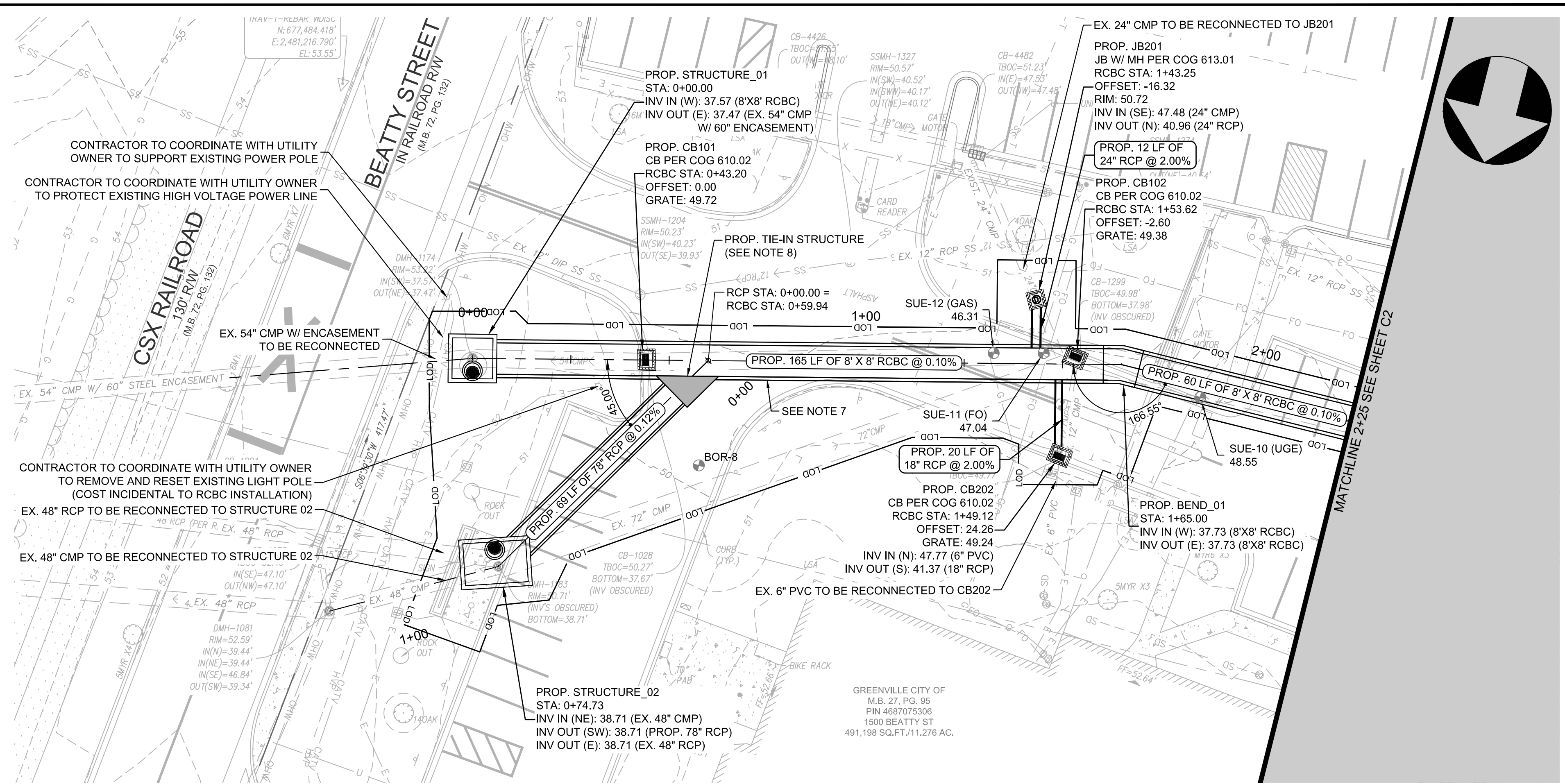
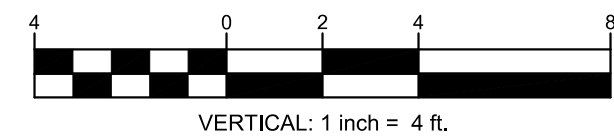
W.K.D. PROJECT:	20220983.00.RA
DATE:	7/11/2023
100% PLANS	

G3

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NOTES:

1. THE EXISTENCE OR NON-EXISTENCE, LOCATION AND ELEVATION OF EXISTING UTILITIES IS AN APPROXIMATION SUBJECT TO LIMITATIONS OF SUBSURFACE UTILITY ENGINEERING (SUE).
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
3. ALL PROPOSED STORM DRAIN PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE INDICATED.
4. ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
5. REFER TO RESTORATION SITE PLAN FOR PAVEMENT, DRIVEWAY, CURB & GUTTER, SIDEWALK, AND CURB RAMP LOCATIONS.
6. COST AND MATERIALS TO CONNECT EXISTING STORM DRAIN PIPE TO PROPOSED STRUCTURES ARE INCIDENTAL TO THE INSTALLATION OF STRUCTURE.
7. CONCRETE MIX DESIGN SHALL INCORPORATE CEMENTITIOUS MATERIALS WITH HIGH RESISTANCE TO ACIDIC WATER. SEE "ACID RESISTANT CONCRETE" SPECIAL PROVISION FOR MORE DETAIL.
8. THE CONTRACTOR SHALL CONSTRUCT TIE-IN STRUCTURE W/ 6'X6' CUT-IN OPENING INTO THE PROPOSED 8'X8' BOX CULVERT. THE STRUCTURE SHALL BE HS-20 TRAFFIC BEARING. COST AND MATERIALS ARE INCIDENTAL TO THE INSTALLATION OF THE 78" RCP.
9. THE CONTRACTOR SHALL REMOVE AND RESET EXISTING CHAIN-LINK FENCE AS NEEDED, MOTORIZED GATE, GATE MOTOR, AND CARD READER(S). GATE, GATE MOTOR, AND CARD READER(S) TO BE PROTECTED AND REINSTALLED. REMOVAL AND RESETTING SHALL INCLUDE ALL ASSOCIATED ELECTRIC SERVICES. REFER TO SP-54.



PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
(919) 782-9672
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PLANS PREPARED FOR:
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PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
PLAN & PROFILE - STA 0+00 TO 2+25

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023

100% PLANS

C1

NOTES:

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2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
3. ALL PROPOSED STORM DRAIN PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE INDICATED.
4. ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
5. REFER TO RESTORATION SITE PLAN FOR PAVEMENT, DRIVEWAY, CURB & GUTTER, SIDEWALK, AND CURB RAMP LOCATIONS.
6. ALL PAVEMENT / CONCRETE CUTS SHALL BE DONE BY SAW CUTTING.
7. CONCRETE CURB & GUTTER AND SIDEWALKS SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
8. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
9. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.
10. THE CONTRACTOR SHALL REMOVE AND REPLACE EXISTING BRICK PLANTER, FACILITY SIGNAGE, 36 SY CONCRETE SLAB, AND TWO (2) FLAG POLES. SIGN AND FLAG POLES TO BE PROTECTED AND REINSTALLED. PAYMENT SHALL BE INCIDENTAL TO THE INSTALLATION OF STRUCTURE 02.
11. THE CONTRACTOR SHALL REMOVE AND RESET EXISTING CHAIN-LINK FENCE AS NEEDED, MOTORIZED GATE, GATE MOTOR, AND CARD READER(S). GATE, GATE MOTOR, AND CARD READER(S) TO BE PROTECTED AND REINSTALLED. REMOVAL AND RESETTING SHALL INCLUDE ALL ASSOCIATED ELECTRIC SERVICES. REFER TO SP-54.
12. ALL SIGNS AND POSTS WITHIN THE LOD TO BE REMOVED AND RESET.

PLANS PREPARED BY:



community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0465
(919) 782-9672
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NO. DATE REVISIONS

PLANS PREPARED FOR:



CITY OF GREENVILLE

PROJECT:

PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:

SITE PLAN - STA 0+00 TO 2+25

WKD PROJECT:

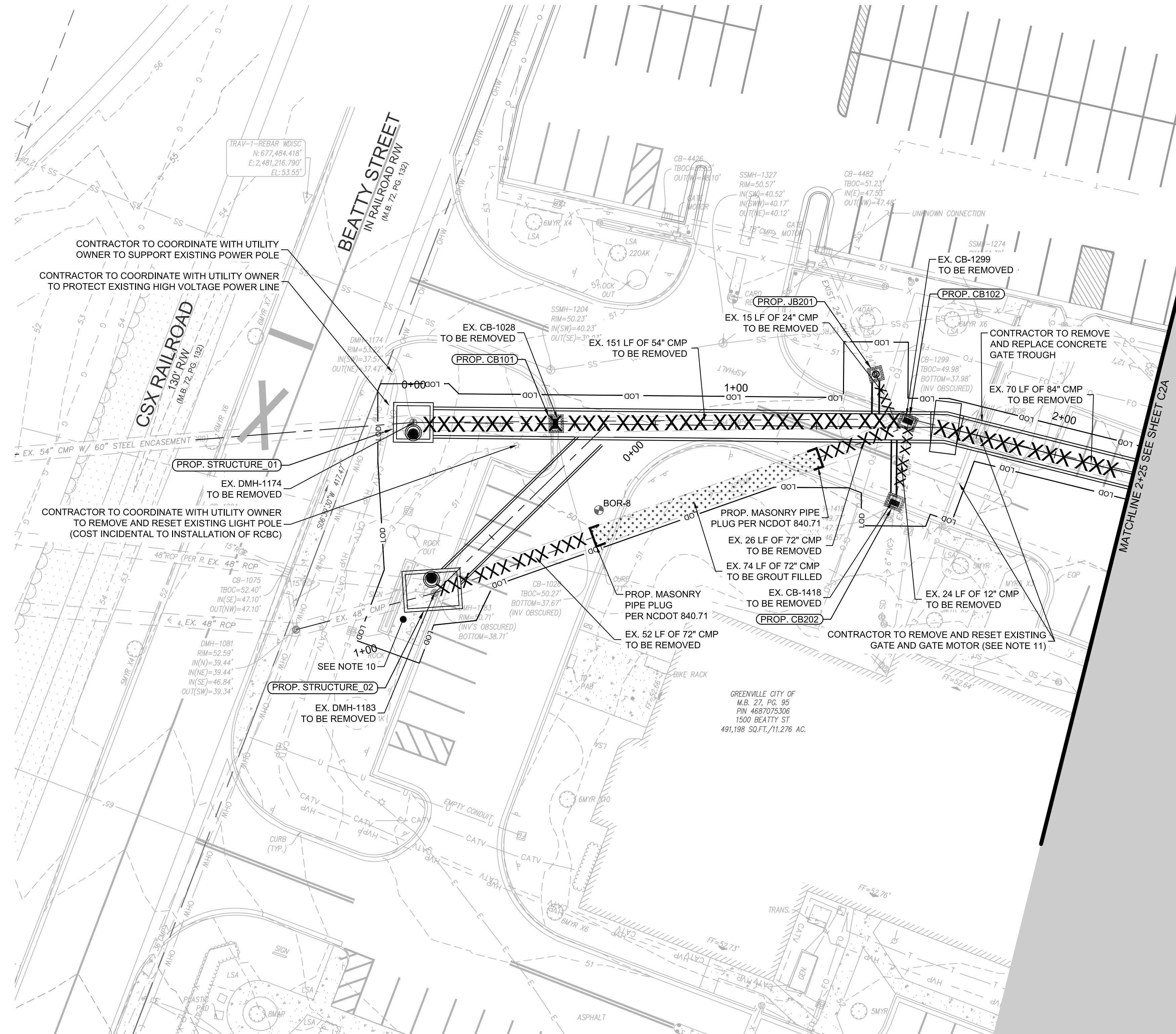
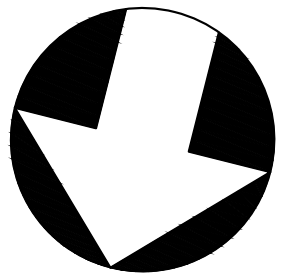
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DATE:

7/11/2023

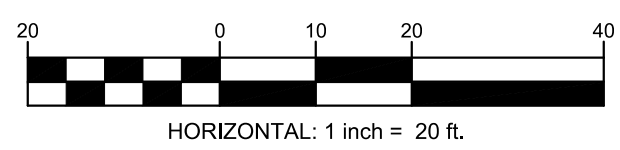
100% PLANS

C1A



LEGEND:

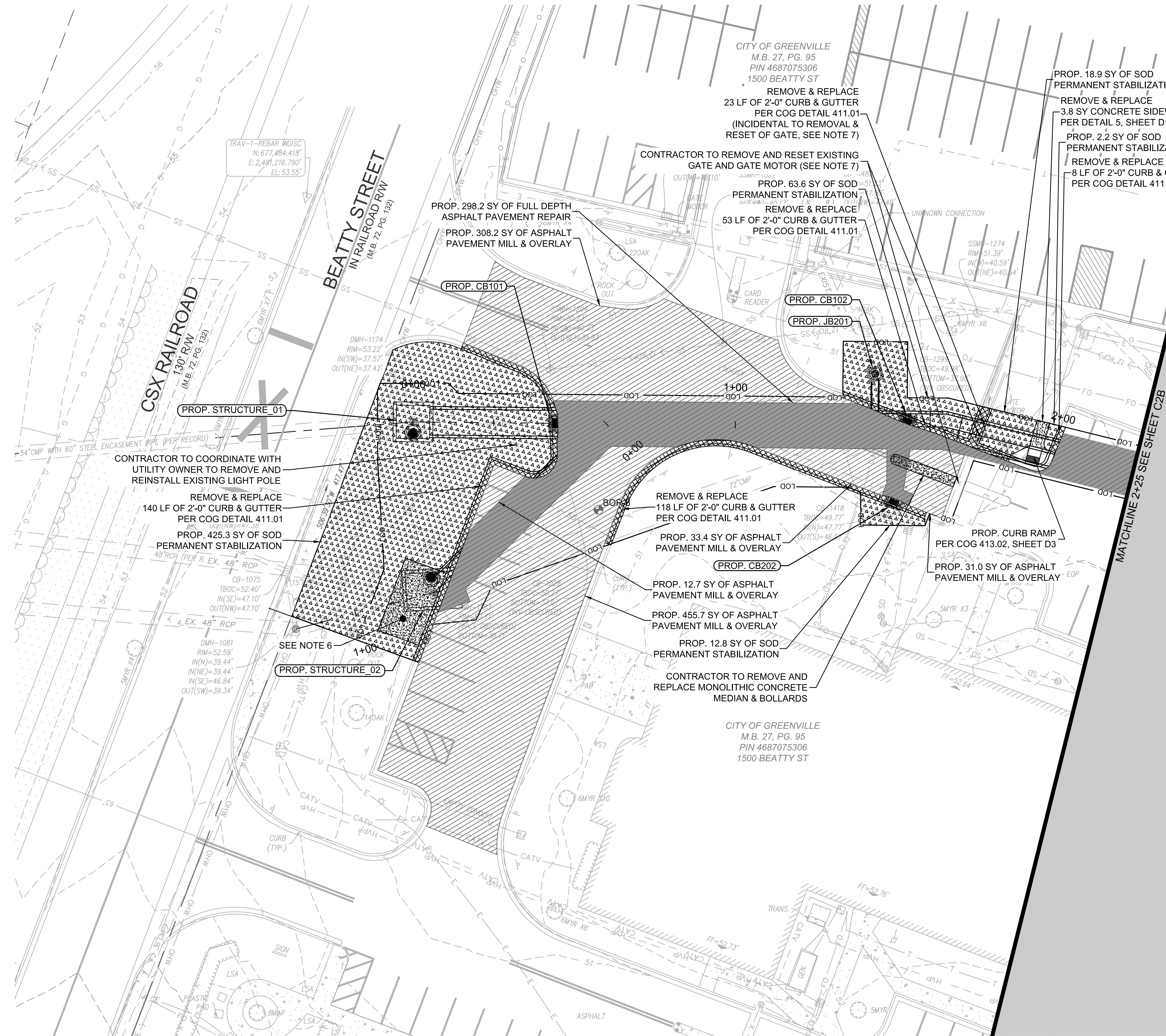
- XXX-XXX-XXX-XXX-XXX-XXX-XXX-XXX- PROP. PIPE REMOVAL
- PROP. GROUT FILL
- ┌ PROP. PIPE PLUG



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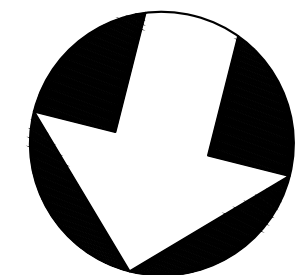
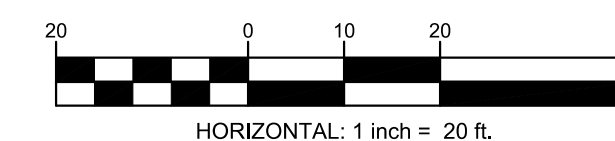
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2. ALL PAVEMENT / CONCRETE CUTS SHALL BE DONE BY SAW CUTTING.
3. CONCRETE CURB & GUTTER AND SIDEWALKS SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
4. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
5. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.
6. THE CONTRACTOR SHALL REMOVE AND RESET EXISTING BRICK PLANTER, FACILITY SIGNAGE, 36 SY CONCRETE SLAB, AND TWO (2) FLAG POLES. SIGN AND FLAG POLES TO BE PROTECTED AND REINSTALLED. COST SHALL BE INCIDENTAL TO THE INSTALLATION OF STRUCTURE 02.
7. THE CONTRACTOR SHALL REMOVE AND RESET EXISTING CHAIN-LINK FENCE AS NEEDED, MOTORIZED GATE, GATE MOTOR, AND CARD READER(S). GATE, GATE MOTOR, AND CARD READER(S) TO BE PROTECTED AND REINSTALLED. INSTALLATION SHALL INCLUDE ALL ASSOCIATED ELECTRIC SERVICES.



LEGEND:

- PROP. FULL DEPTH PAVEMENT REPAIR (SEE DETAIL 2, SHEET D1)
- PROP. MILL & OVERLAY ASPHALT PAVEMENT (SEE DETAIL 1, SHEET D1)
- PROP. 4" ASPHALT PAVEMENT OVERLAY (SEE DETAIL 3, SHEET D1)
- PROP. FULL DEPTH REPAIR W/ CONCRETE OVERLAY (SEE DETAIL 4, SHEET D1)
- PROP. CONCRETE / SIDEWALK REPLACEMENT (SEE DETAIL 5, SHEET D1)
- PROP. COMPACTED ABC BACKFILL (NO OVERLAY)
- PROP. REMOVE & REPLACE CURB & GUTTER (SEE COG DETAIL 411.01, SHEET D3)
- PROP. GRAVEL / STONE REPLACEMENT
- PROP. PERMANENT SOD
- PROP. PERMANENT SEEDING
- PROP. CURB RAMP (SEE COG DETAIL 413.02, SHEET D3)



PLANS PREPARED BY:
W.K. DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
 (919) 782-9672
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 NC LICENSE NO. F-0374



Jul 11 2023 10:59 AM SEAL

SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
 NORTH CAROLINA
find yourself in good company
 CITY OF GREENVILLE

PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA

TITLE:
 RESTORATION SITE PLAN -
 STA 0+00 TO 2+25

W.K.D. PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

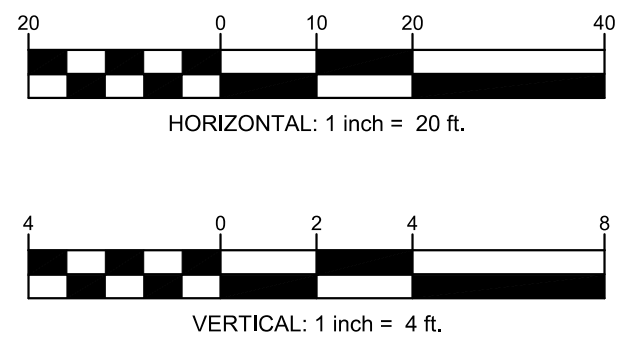
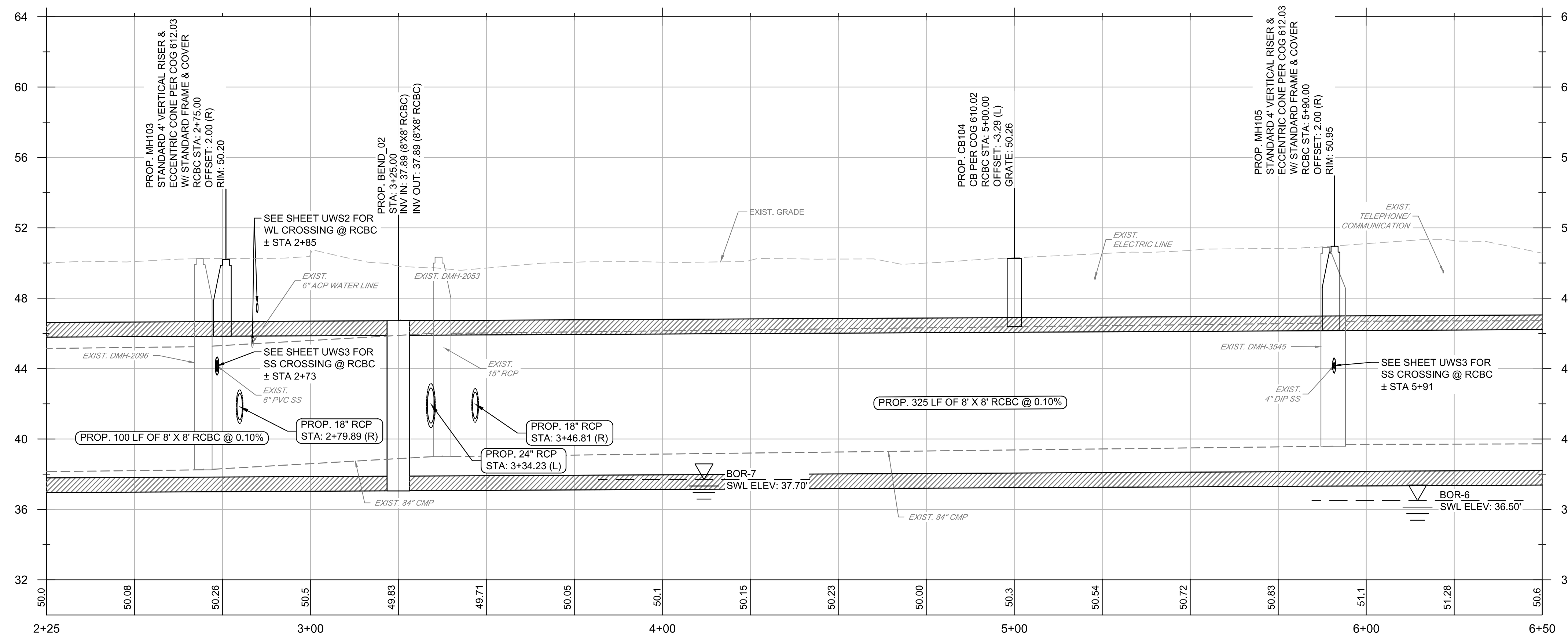
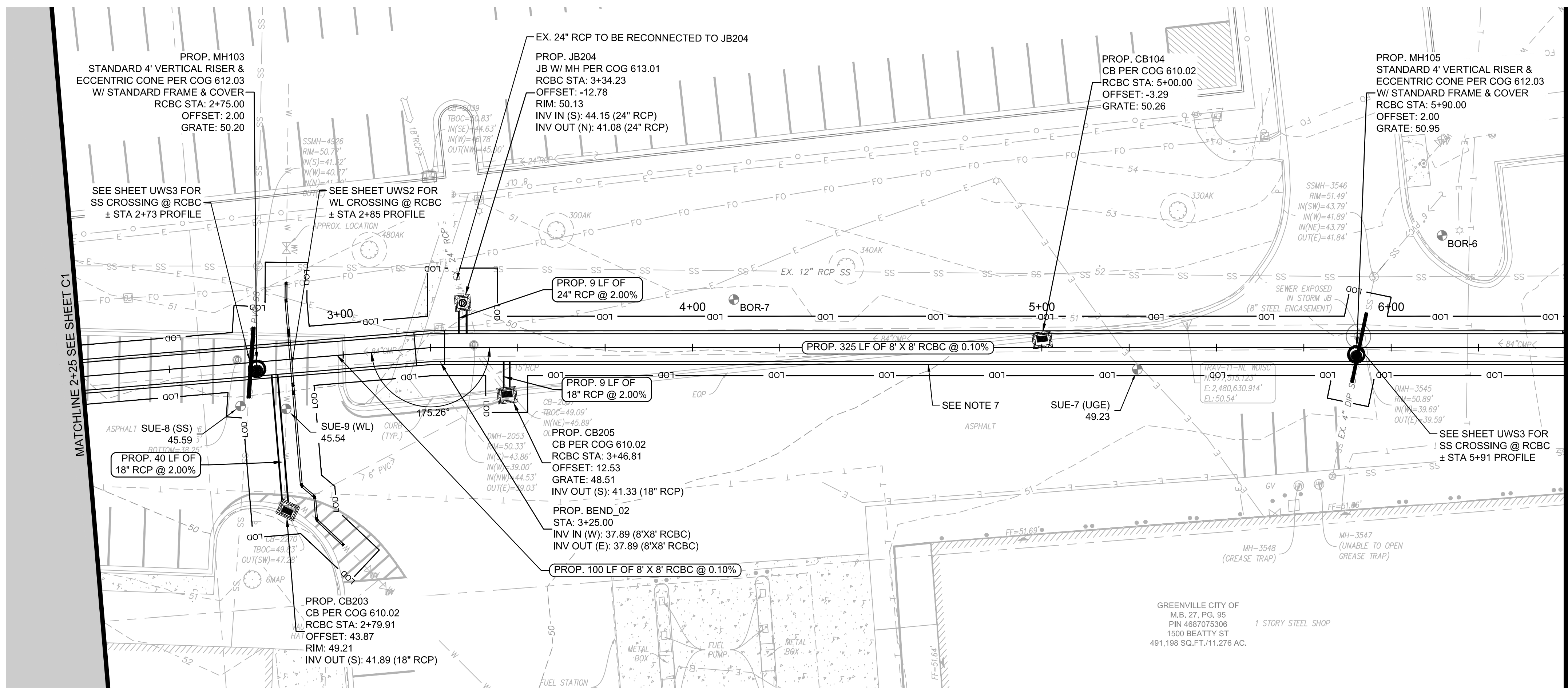
100% PLANS

C1B

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NOTES:

- THE EXISTENCE OR NON-EXISTENCE, LOCATION AND ELEVATION OF EXISTING UTILITIES IS AN APPROXIMATION SUBJECT TO LIMITATIONS OF SUBSURFACE UTILITY ENGINEERING (SUE).
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
- ALL PROPOSED STORM DRAIN PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE INDICATED.
- ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
- REFER TO RESTORATION SITE PLAN FOR PAVEMENT, DRIVEWAY, CURB & GUTTER, SIDEWALK, AND CURB RAMP LOCATIONS.
- COST AND MATERIALS TO CONNECT EXISTING STORM DRAIN PIPE TO PROPOSED STRUCTURES ARE INCIDENTAL TO THE INSTALLATION OF STRUCTURE.
- CONCRETE MIX DESIGN SHALL INCORPORATE CEMENTITIOUS MATERIALS WITH HIGH RESISTANCE TO ACIDIC WATER. SEE "ACIDIC RESISTANT CONCRETE" SPECIAL PROVISION FOR MORE DETAIL.



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

PLANS PREPARED BY:
WK DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F0374



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SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
Find yourself in good company
CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
PLAN & PROFILE - STA 2+25 TO 6+50

WKD PROJECT:
20220983.00.RA

DATE:
7/11/2023

100% PLANS

C2

BID DOCUMENT - NOT FOR CONSTRUCTION

NOTES:

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2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
3. ALL PROPOSED STORM DRAIN PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE INDICATED.
4. ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
5. REFER TO RESTORATION SITE PLAN FOR PAVEMENT, DRIVEWAY, CURB & GUTTER, SIDEWALK, AND CURB RAMP LOCATIONS.
6. ALL PAVEMENT / CONCRETE CUTS SHALL BE DONE BY SAW CUTTING.
7. CONCRETE CURB & GUTTER AND SIDEWALKS SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
8. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
9. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.

PLANS PREPARED BY:



community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0465
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NO. DATE REVISIONS

PLANS PREPARED FOR:



CITY OF GREENVILLE

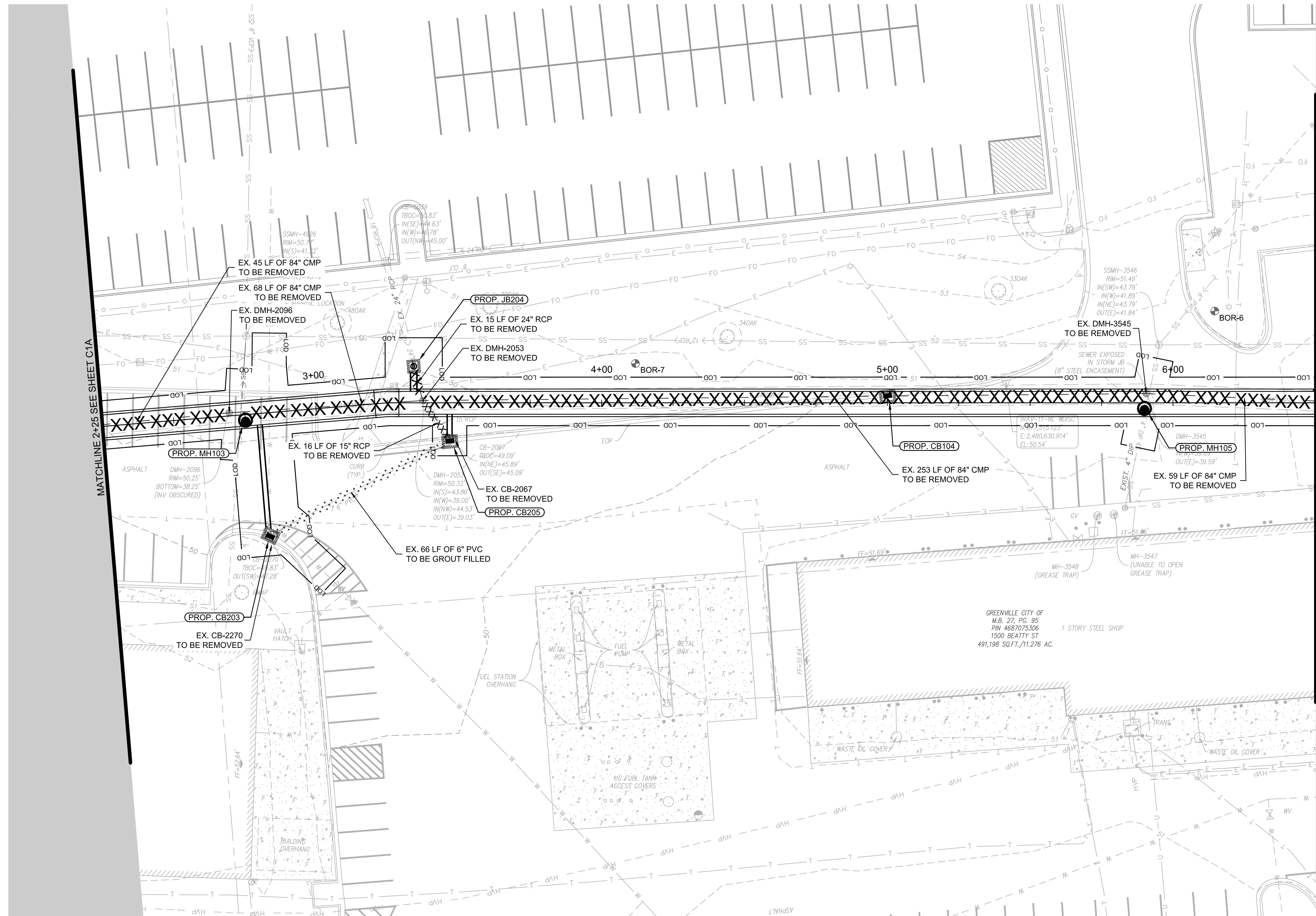
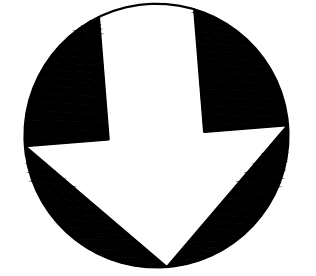
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TITLE: SITE PLAN - STA 2+25 TO 6+50

WKD PROJECT: 20220983.00.RA
DATE: 7/11/2023

100% PLANS

C2A



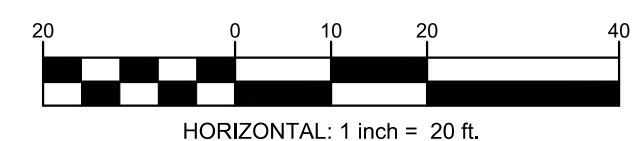
MATCHLINE 2+25 SEE SHEET C1A

MATCHLINE 6+50 SEE SHEET C3A

LEGEND:

- xxxxxxx PROP. PIPE REMOVAL
- PROP. GROUT FILL
- PROP. PIPE PLUG

BID DOCUMENT - NOT FOR CONSTRUCTION



NOTES:

1. ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
2. ALL PAVEMENT / CONCRETE CUTS SHALL BE DONE BY SAW CUTTING.
3. CONCRETE CURB & GUTTER AND SIDEWALKS SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
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PLANS PREPARED BY:



community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
 (919) 782-9672
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NO.	DATE	REVISIONS

PLANS PREPARED FOR:

 GREENVILLE CITY OF GREENVILLE

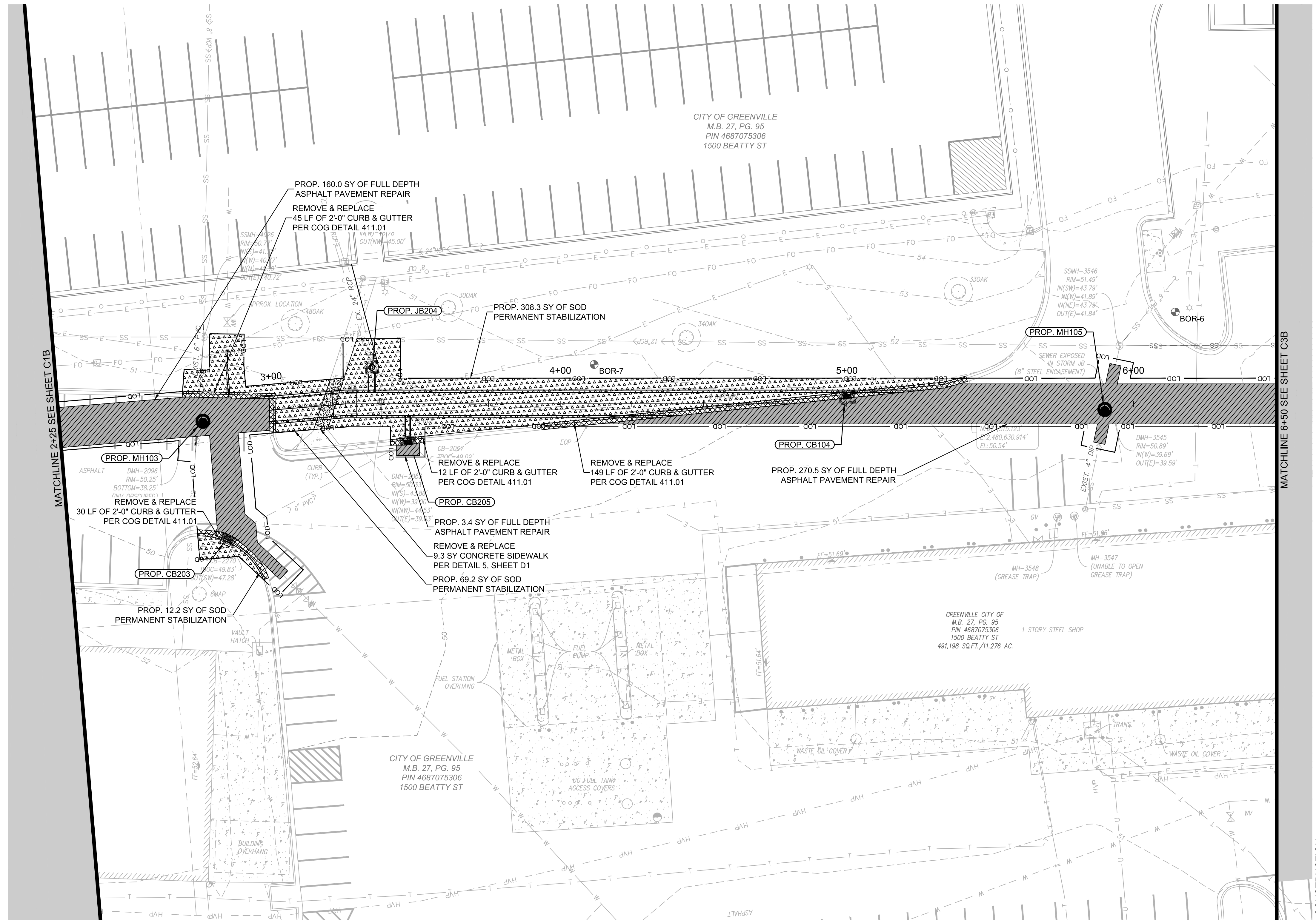
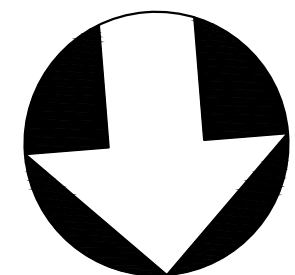
PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA

TITLE:
 RESTORATION SITE PLAN -
 STA 2+25 TO 6+50

WKD PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

100% PLANS

C2B



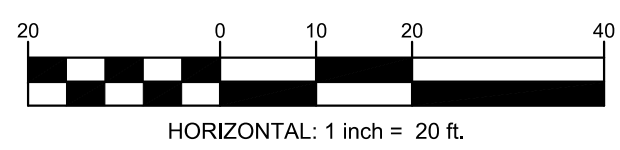
MATCHLINE 2+25 SEE SHEET C-1B

MATCHLINE 6+50 SEE SHEET C-3B

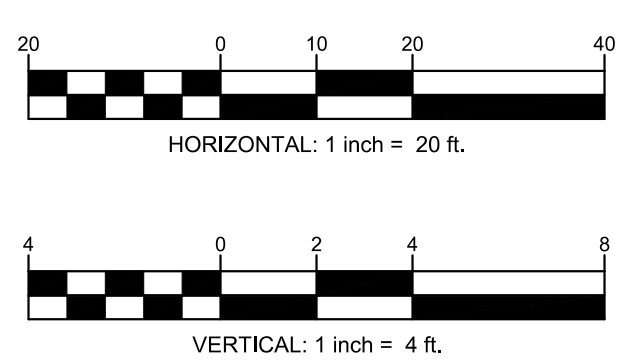
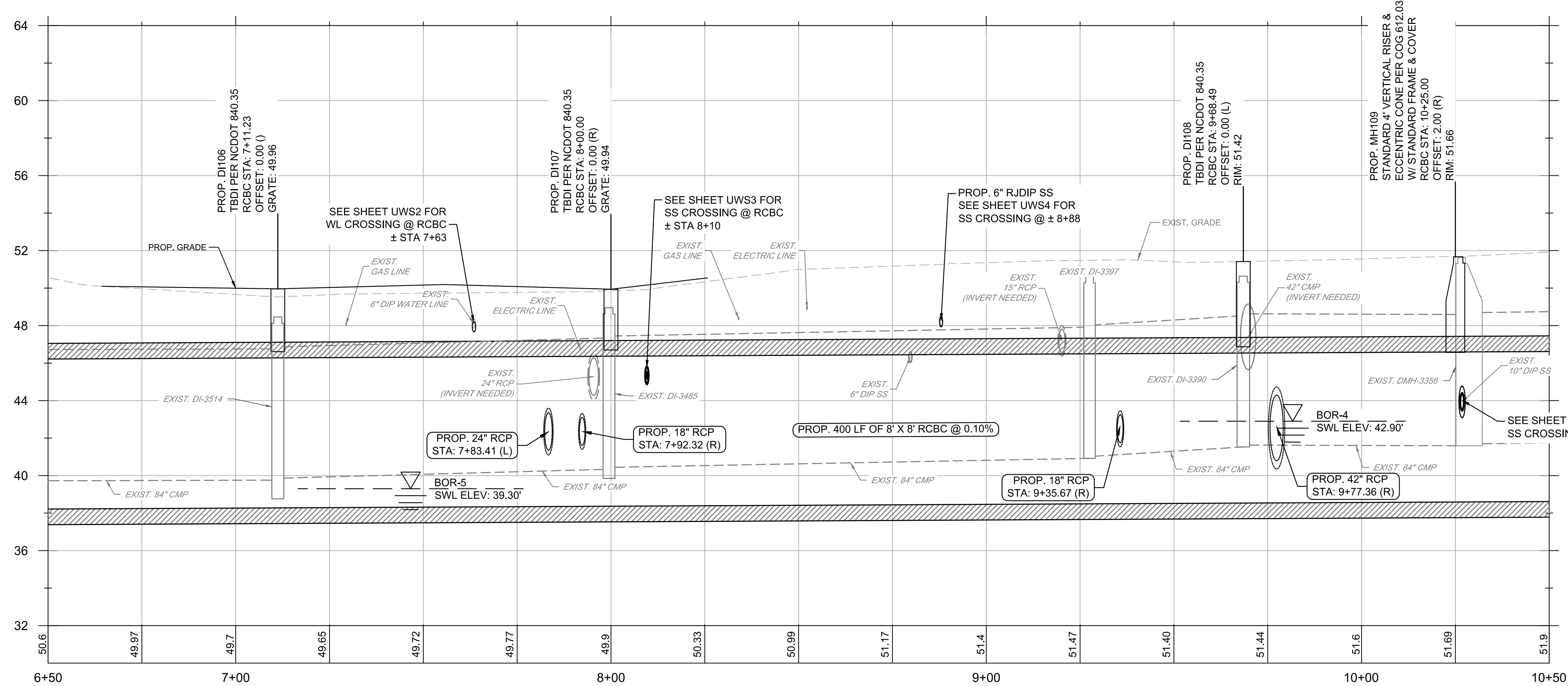
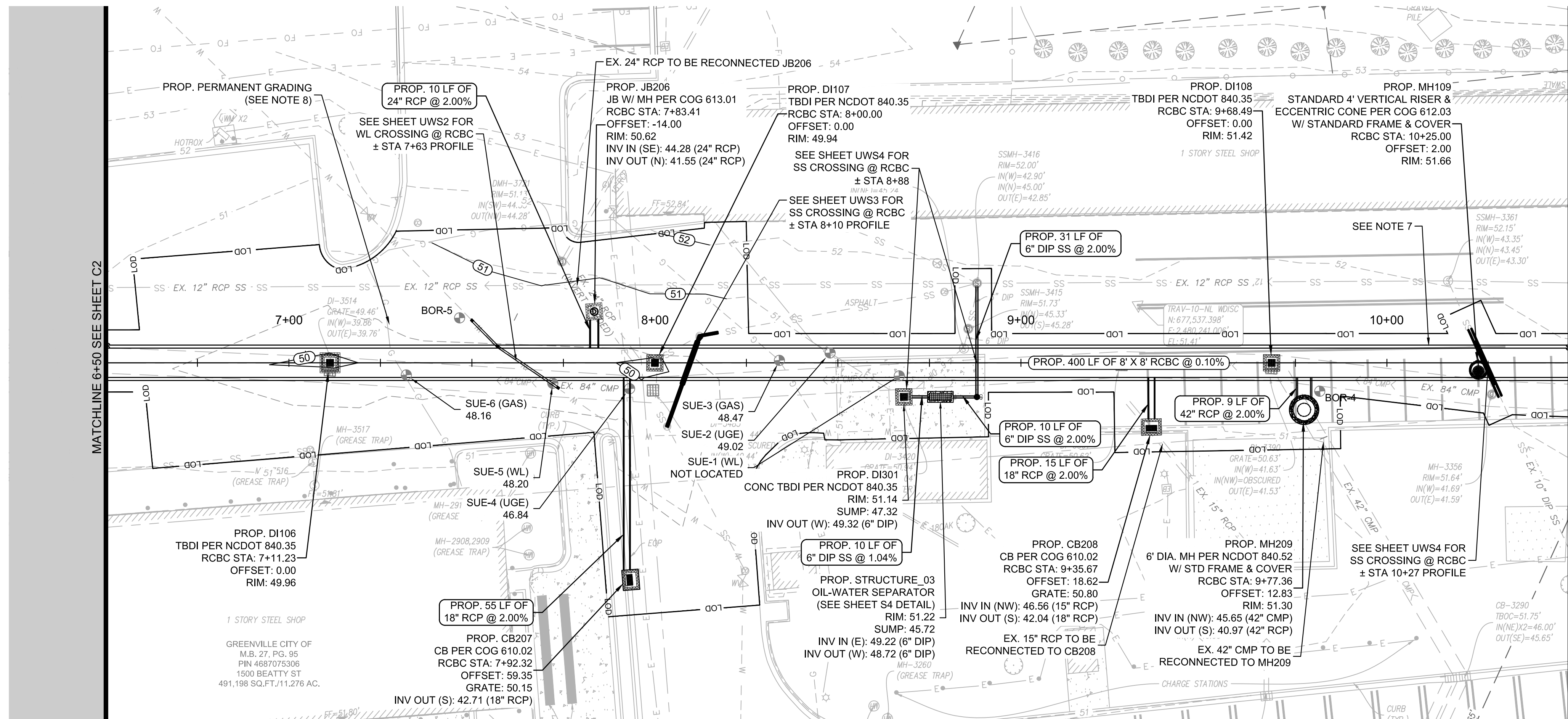
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LEGEND:

- PROP. FULL DEPTH PAVEMENT REPAIR (SEE DETAIL 2, SHEET D1)
- PROP. MILL & OVERLAY ASPHALT PAVEMENT (SEE DETAIL 1, SHEET D1)
- PROP. 4" ASPHALT PAVEMENT OVERLAY (SEE DETAIL 3, SHEET D1)
- PROP. FULL DEPTH REPAIR W/ CONCRETE OVERLAY (SEE DETAIL 4, SHEET D1)
- PROP. CONCRETE / SIDEWALK REPLACEMENT (SEE DETAIL 5, SHEET D1)
- PROP. COMPACTED ABC BACKFILL (NO OVERLAY)
- PROP. REMOVE & REPLACE CURB & GUTTER (SEE COG DETAIL 411.01, SHEET D3)
- PROP. GRAVEL / STONE REPLACEMENT
- PROP. PERMANENT SOD
- PROP. PERMANENT SEEDING
- PROP. CURB RAMP (SEE COG DETAIL 413.02, SHEET D3)



- NOTES:
- THE EXISTENCE OR NON-EXISTENCE, LOCATION AND ELEVATION OF EXISTING UTILITIES IS AN APPROXIMATION SUBJECT TO LIMITATIONS OF SUBSURFACE UTILITY ENGINEERING (SUE).
 - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
 - ALL PROPOSED STORM DRAIN PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE INDICATED.
 - ALL EXISTING CURB OR GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
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 - CONCRETE MIX DESIGN SHALL INCORPORATE CEMENTITIOUS MATERIALS WITH HIGH RESISTANCE TO ACIDIC WATER. SEE "ACID RESISTANT CONCRETE" SPECIAL PROVISION FOR MORE DETAIL.
 - THE CONTRACTOR SHALL PROVIDE PERMANENT PAVEMENT GRADING TO PROVIDE POSITIVE SURFACE RUNOFF TO PROPOSED CATCH BASIN DROP INLETS.



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

PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F03074



Jul 11 2023 11:00

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
find yourself in good company
CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
TITLE:
PLAN & PROFILE - STA 6+50 TO 10+50

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023



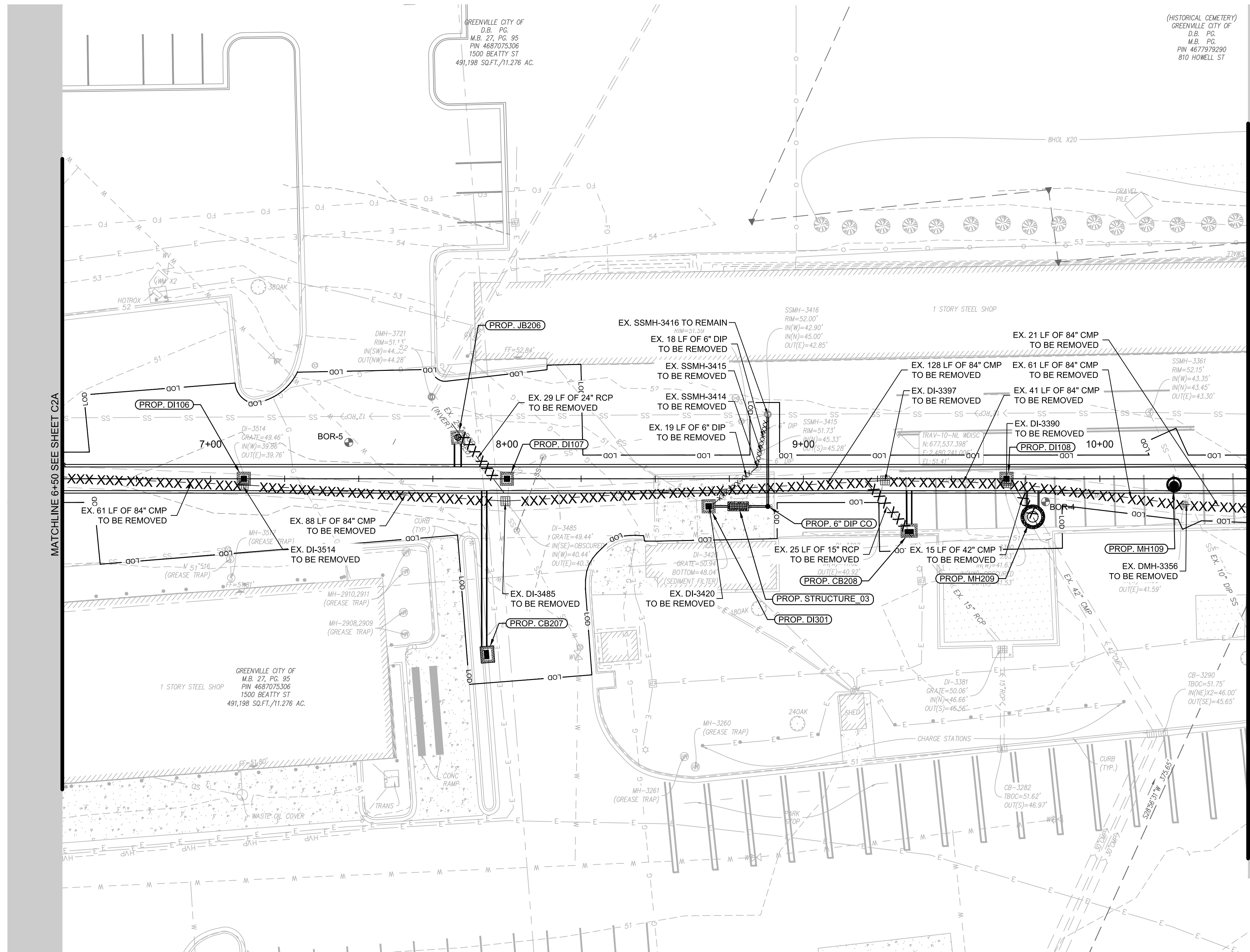
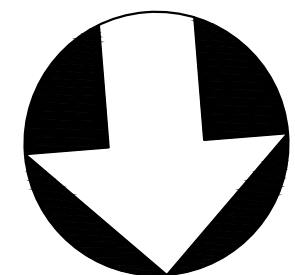
C3

NOTES:

1. THE EXISTENCE OR NON-EXISTENCE, LOCATION AND ELEVATION OF EXISTING UTILITIES IS AN APPROXIMATION SUBJECT TO LIMITATIONS OF SUBSURFACE UTILITY ENGINEERING (SUE).
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
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5. REFER TO RESTORATION SITE PLAN FOR PAVEMENT, DRIVEWAY, CURB & GUTTER, SIDEWALK, AND CURB RAMP LOCATIONS.
6. ALL PAVEMENT / CONCRETE CUTS SHALL BE DONE BY SAW CUTTING.
7. CONCRETE CURB & GUTTER AND SIDEWALKS SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
8. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
9. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.



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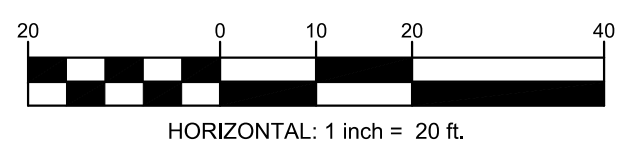


MATCHLINE 6+50 SEE SHEET C2A

MATCHLINE 10+50 SEE SHEET C4A

LEGEND:

- PROP. PIPE REMOVAL
- PROP. GROUT FILL
- ┌ PROP. PIPE PLUG



NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
 NORTH CAROLINA
 Find yourself in good company
 CITY OF GREENVILLE

PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA
 TITLE:
 SITE PLAN - STA 6+50 TO 10+50

WKD PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

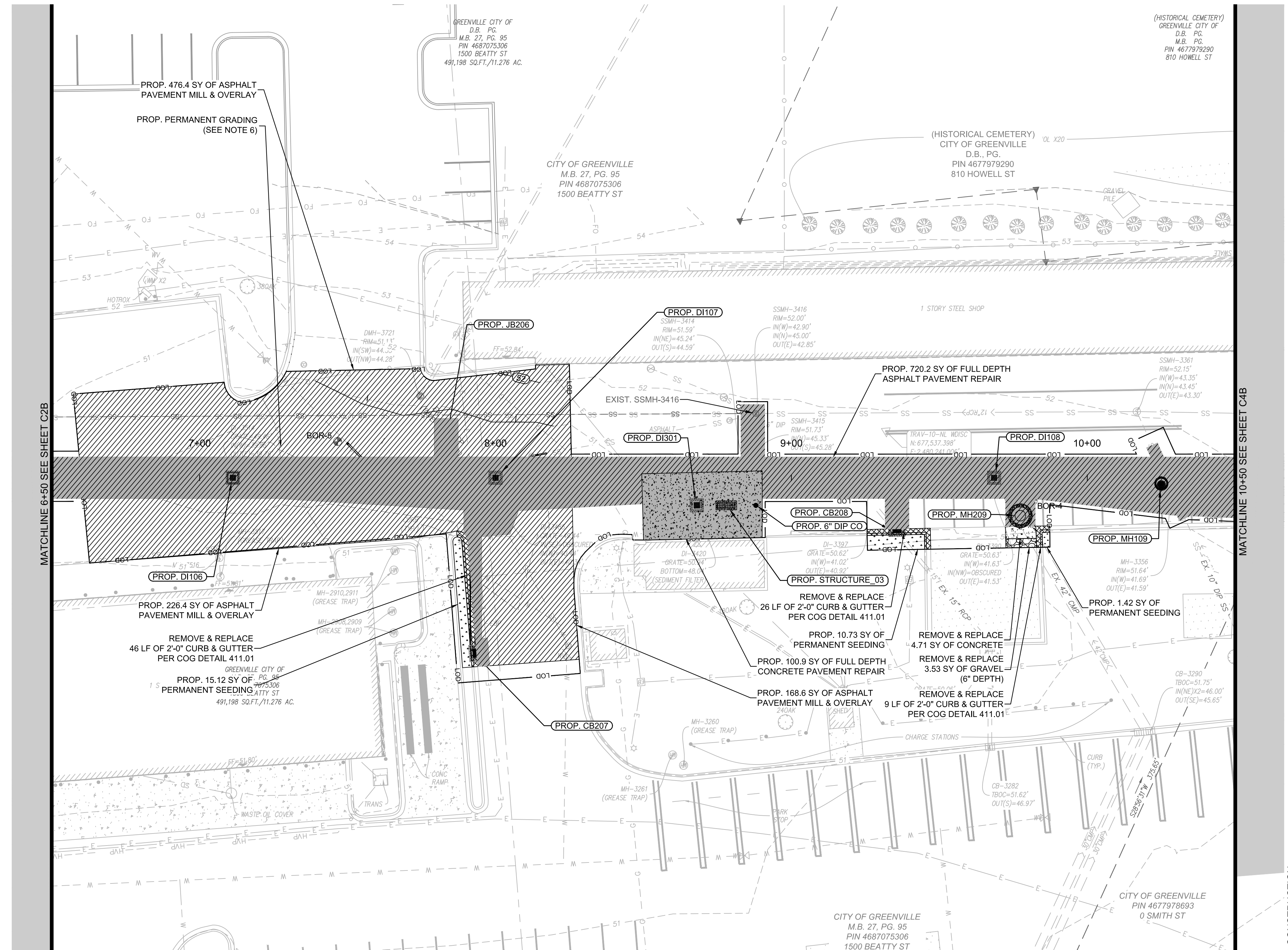
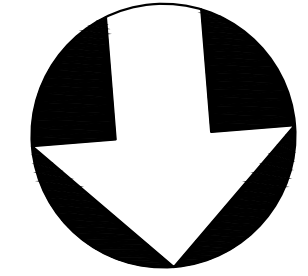
100% PLANS

C3A

BID DOCUMENT - NOT FOR CONSTRUCTION

NOTES:

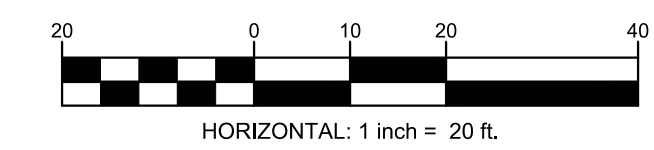
1. ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
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4. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
5. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.
6. THE CONTRACTOR SHALL PROVIDE PERMANENT PAVEMENT GRADING TO PROVIDE POSITIVE SURFACE RUNOFF TO PROPOSED CATCH BASIN INLET CB106.



MATCHLINE 6+50 SEE SHEET C2B

MATCHLINE 10+50 SEE SHEET C4B

- LEGEND:**
- PROP. FULL DEPTH PAVEMENT REPAIR (SEE DETAIL 2, SHEET D1)
 - PROP. MILL & OVERLAY ASPHALT PAVEMENT (SEE DETAIL 1, SHEET D1)
 - PROP. 4" ASPHALT PAVEMENT OVERLAY (SEE DETAIL 3, SHEET D1)
 - PROP. FULL DEPTH REPAIR W/ CONCRETE OVERLAY (SEE DETAIL 4, SHEET D1)
 - PROP. CONCRETE / SIDEWALK REPLACEMENT (SEE DETAIL 5, SHEET D1)
 - PROP. COMPACTED ABC BACKFILL (NO OVERLAY)
 - PROP. REMOVE & REPLACE CURB & GUTTER (SEE COG DETAIL 411.01, SHEET D3)
 - PROP. GRAVEL / STONE REPLACEMENT
 - PROP. PERMANENT SOD
 - PROP. PERMANENT SEEDING
 - PROP. CURB RAMP (SEE COG DETAIL 413.02, SHEET D3)



PLANS PREPARED BY:
W.K. DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0465
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F-0374



Jul 11 2023 11:00 AM SEAL

SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
 NORTH CAROLINA
 Find yourself in good company
 CITY OF GREENVILLE

PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA
TITLE:
 RESTORATION SITE PLAN -
 STA 6+50 TO 10+50

WKD PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

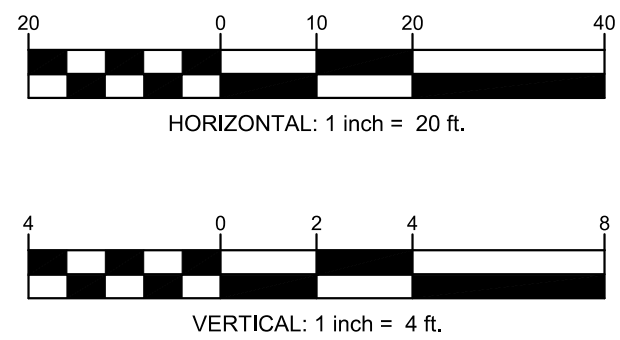
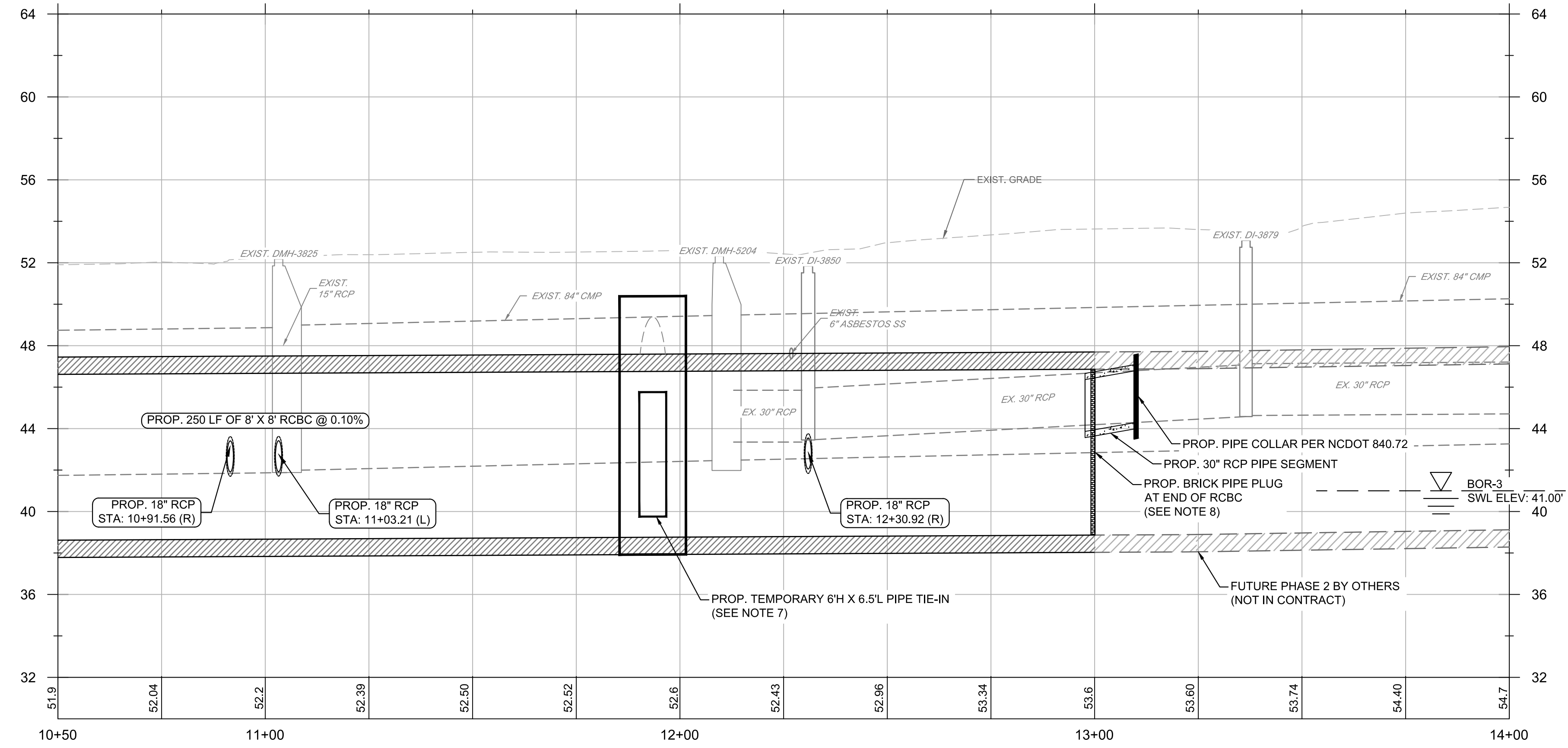
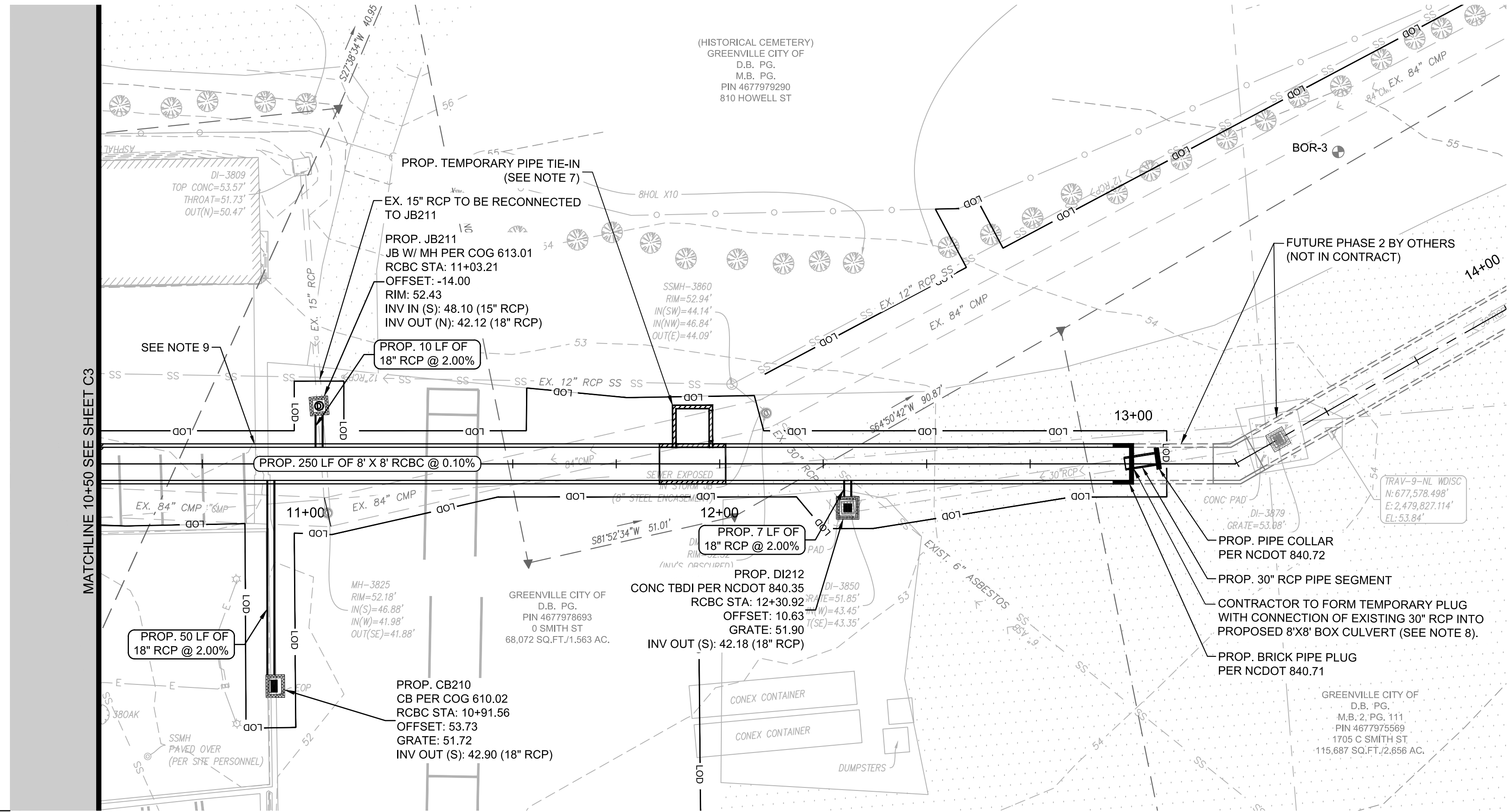
100% PLANS

C3B

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NOTES:

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2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY SIZES, MATERIALS, DEPTHS, AND LOCATION PRIOR TO CONSTRUCTION.
3. ALL PROPOSED STORM DRAIN PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE INDICATED.
4. ALL EXISTING CURB OR CURB AND GUTTER WITHIN LIMIT OF DISTURBANCE, OR AS OTHERWISE INDICATED, SHALL BE REMOVED AND REPLACED WITH 2'-0" CURB AND GUTTER.
5. REFER TO RESTORATION SITE PLAN FOR PAVEMENT, DRIVEWAY, CURB & GUTTER, SIDEWALK, AND CURB RAMP LOCATIONS.
6. COST AND MATERIALS TO CONNECT EXISTING STORM DRAIN PIPE TO PROPOSED STRUCTURES ARE INCIDENTAL TO THE INSTALLATION OF STRUCTURE.
7. CONTRACTOR TO INSTALL TEMPORARY PIPE TIE-IN TO DIVERT FLOW FROM EXISTING 84" CMP INTO THE PROPOSED 8'X8' BOX CULVERT BY CAST-IN-PLACE, BLOCK & MORTAR, OR APPROVED EQUIVALENT. CONTRACTOR SHALL SUBMIT MEANS AND METHOD TO W.K. DICKSON FOR APPROVAL PRIOR TO CONSTRUCTION. COST AND MATERIALS ARE INCIDENTAL TO THE INSTALLATION OF THE PIPE TIE-IN. REFER SPECIAL PROVISIONS.
8. CONTRACTOR TO FORM TEMPORARY BOX CULVERT PLUG WITH CONNECTION OF EXISTING 30" RCP STORM DRAIN. ADDITIONAL 30" RCP PIPE SEGMENT AND PIPE COLLAR ARE INCIDENTAL TO THE INSTALLATION AND CONNECTION.
9. CONCRETE MIX DESIGN SHALL INCORPORATE CEMENTITIOUS MATERIALS WITH HIGH RESISTANCE TO ACIDIC WATER. SEE "ACIDIC RESISTANT CONCRETE" SPECIAL PROVISION FOR MORE DETAIL.



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

PLANS PREPARED BY:
W.K. DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F0374



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NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
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 CITY OF GREENVILLE

PROJECT:
**PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA**

TITLE:
**PLAN & PROFILE -
 STA 10+50 TO 14+00**

WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023

100% PLANS

C4

BID DOCUMENT - NOT FOR CONSTRUCTION

NOTES:

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6. ALL PAVEMENT / CONCRETE CUTS SHALL BE DONE BY SAW CUTTING.
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8. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
9. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.
10. CONTRACTOR TO VERIFY PIPE MATERIAL PRIOR TO REMOVAL. PIPE IS NO LONGER IN SERVICE. THERE IS A DISCREPANCY BETWEEN SURVEY (CLAY PIPE) AND RECORDS (ASBESTOS PIPE).

PLANS PREPARED BY:



community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0465
(919) 782-8672
www.wkdickson.com
NC LICENSE NO. F-0374



Jul 11 2023 11:01 AM SEAL

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NO. DATE REVISIONS

PLANS PREPARED FOR:



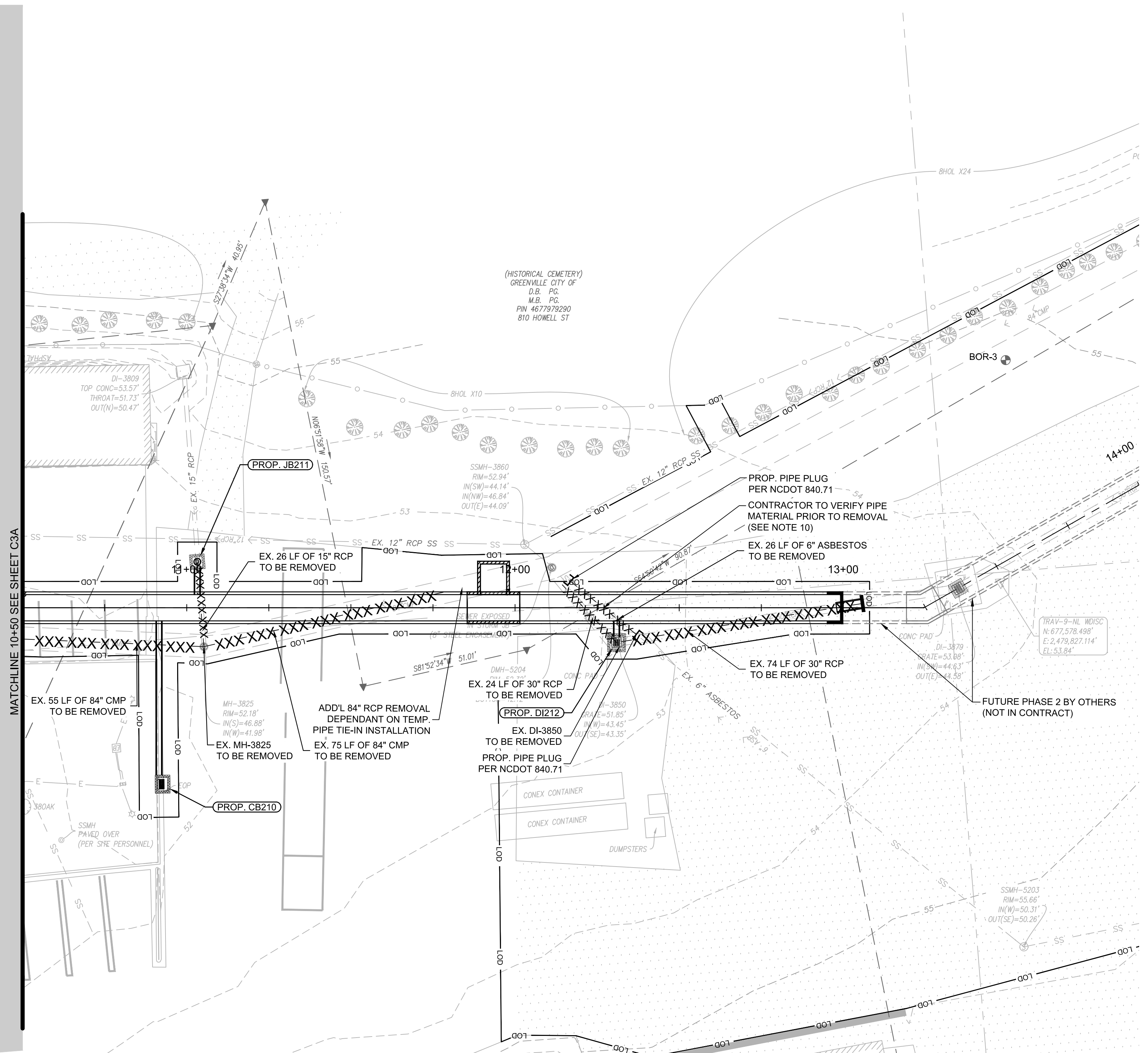
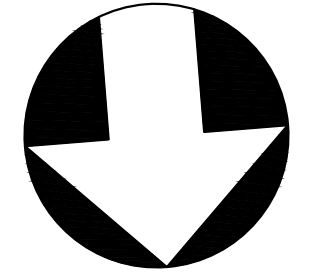
PROJECT:

PUBLIC WORKS STORMWATER
PIPE IMPROVEMENTS PHASE 1
GREENVILLE, NORTH CAROLINA

DATE:
7/11/2023

100% PLANS

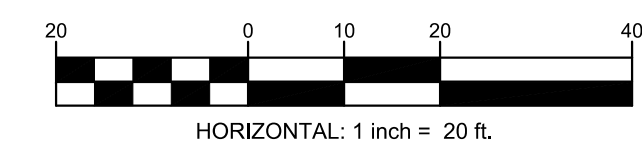
C4A



MATCHLINE 10+50 SEE SHEET C3A

LEGEND:

- XXXXXXX PROP. PIPE REMOVAL
- PROP. GROUT FILL
- ┌ PROP. PIPE PLUG



BID DOCUMENT - NOT FOR CONSTRUCTION

NOTES:

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3. CONCRETE CURB & GUTTER AND SIDEWALKS SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
4. ASPHALT PAVEMENT REMOVAL IS REQUIRED AND IS INCIDENTAL FOR ALL REPLACEMENT CURB & GUTTER WHERE REPLACEMENT CONCRETE CURB CUTS AND CURB & GUTTER IS WIDER THAN EXISTING CONCRETE CURB CUTS AND CURB & GUTTER.
5. EXISTING PAINT MARKINGS SHALL BE REPLACED ON PAVEMENT AND CURB BEING REMOVED AND REPLACED, AND IS INCIDENTAL TO THE INSTALLATION OF THE PAVEMENT AND CURB & GUTTER.

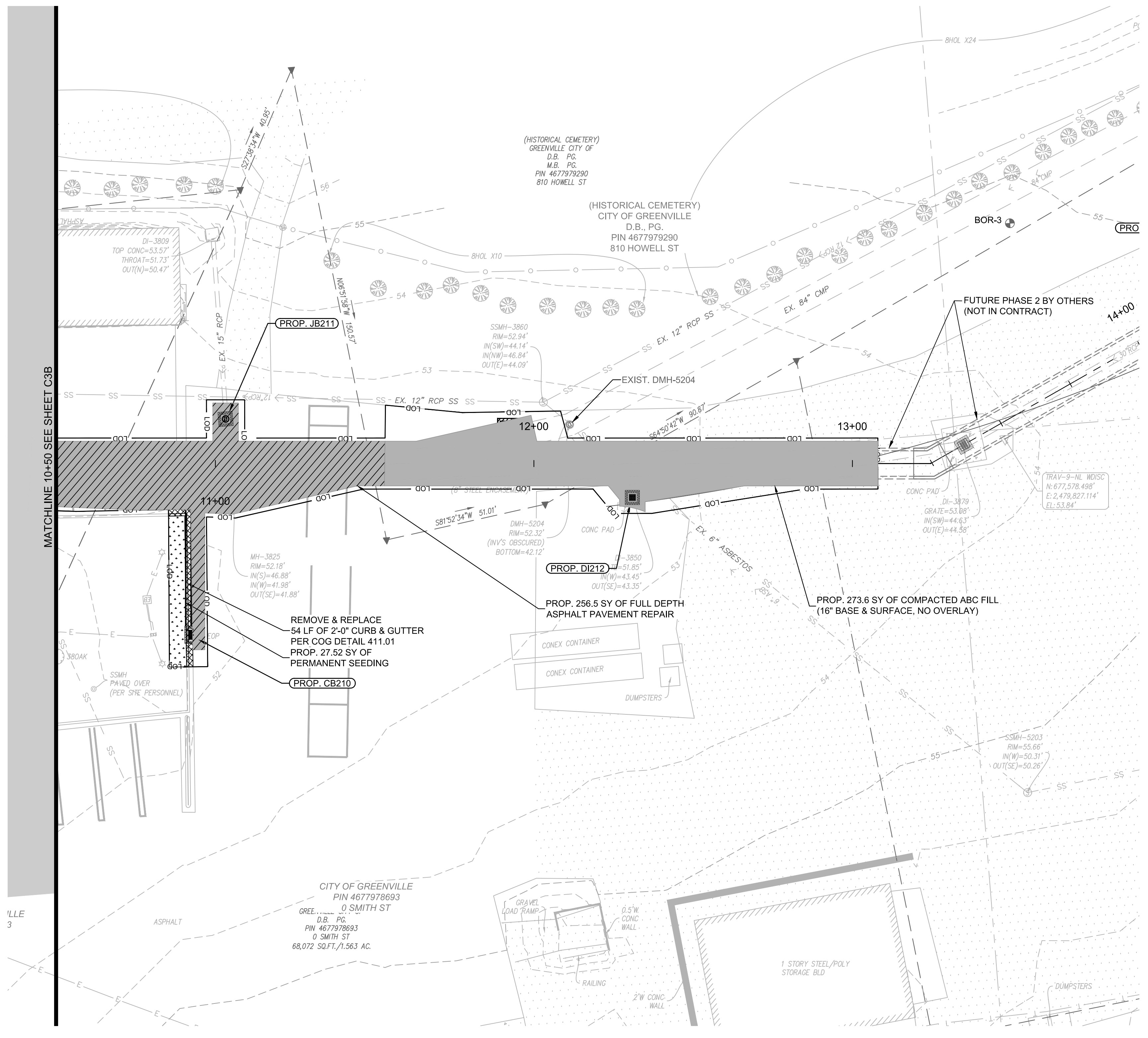
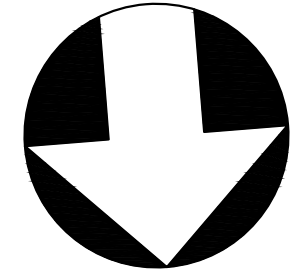
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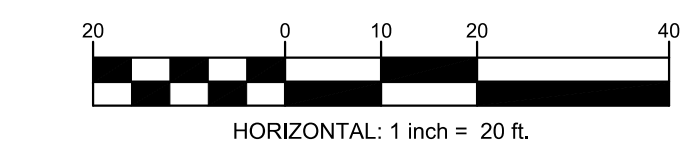


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LEGEND:

- PROP. FULL DEPTH PAVEMENT REPAIR (SEE DETAIL 2, SHEET D1)
- PROP. MILL & OVERLAY ASPHALT PAVEMENT (SEE DETAIL 1, SHEET D1)
- PROP. 4" ASPHALT PAVEMENT OVERLAY (SEE DETAIL 3, SHEET D1)
- PROP. FULL DEPTH REPAIR W/ CONCRETE OVERLAY (SEE DETAIL 4, SHEET D1)
- PROP. CONCRETE / SIDEWALK REPLACEMENT (SEE DETAIL 5, SHEET D1)
- PROP. COMPACTED ABC BACKFILL (NO OVERLAY)
- PROP. REMOVE & REPLACE CURB & GUTTER (SEE COG DETAIL 411.01, SHEET D3)
- PROP. GRAVEL / STONE REPLACEMENT
- PROP. PERMANENT SOD
- PROP. PERMANENT SEEDING
- PROP. CURB RAMP (SEE COG DETAIL 413.02, SHEET D3)



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PLANS PREPARED FOR:
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PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
TITLE:
RESTORATION SITE PLAN - STA 10+50 TO 14+00

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023

100% PLANS

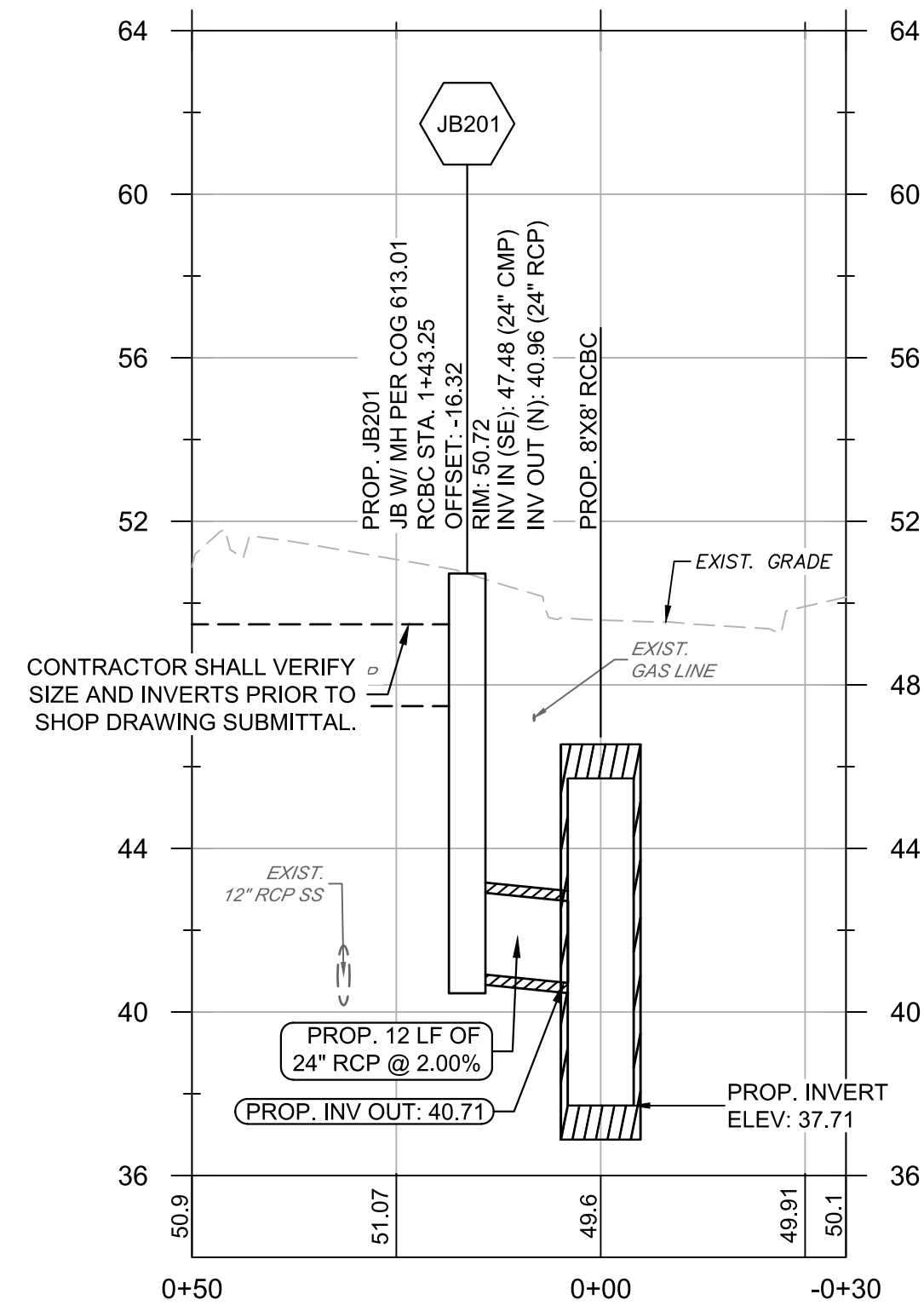
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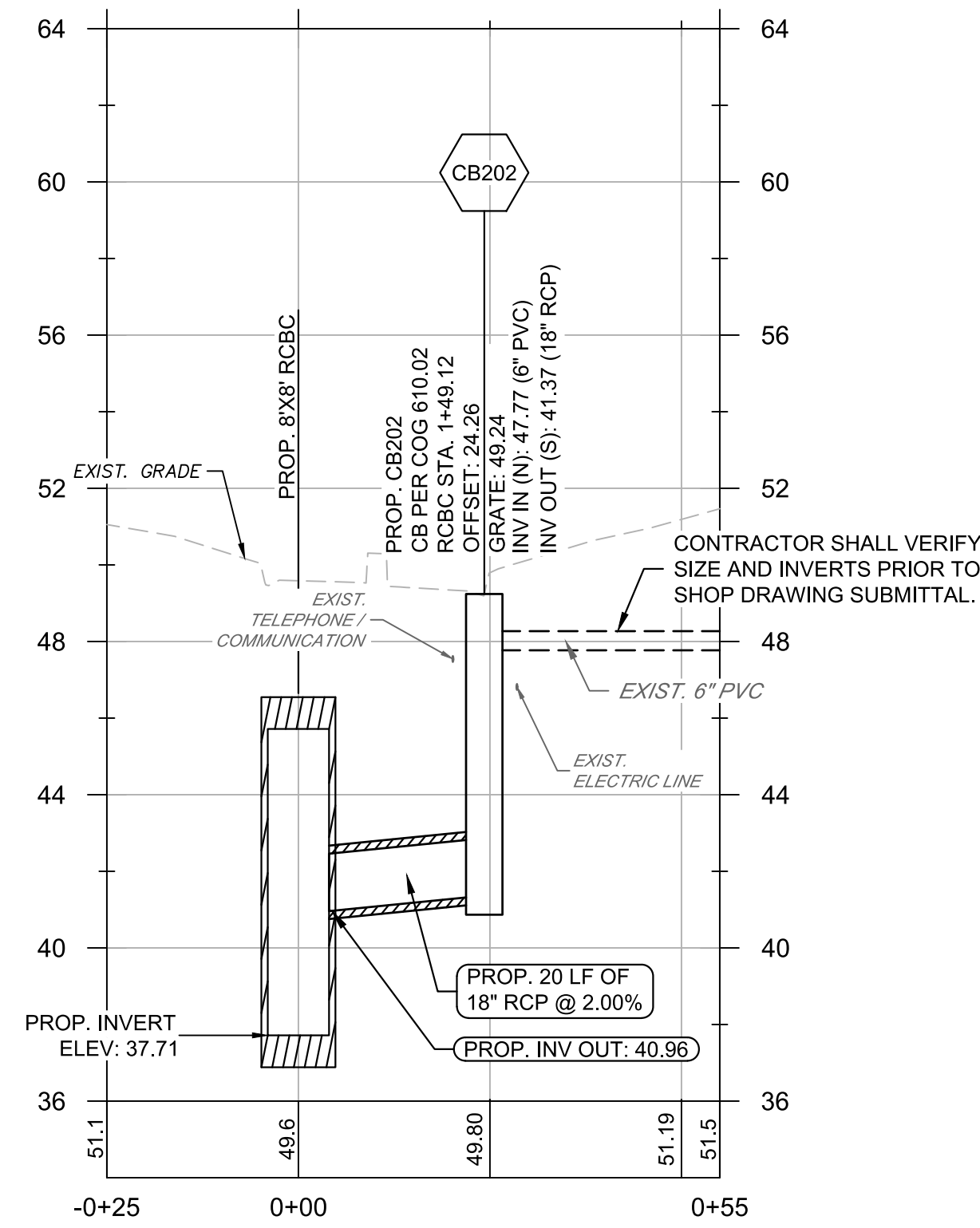
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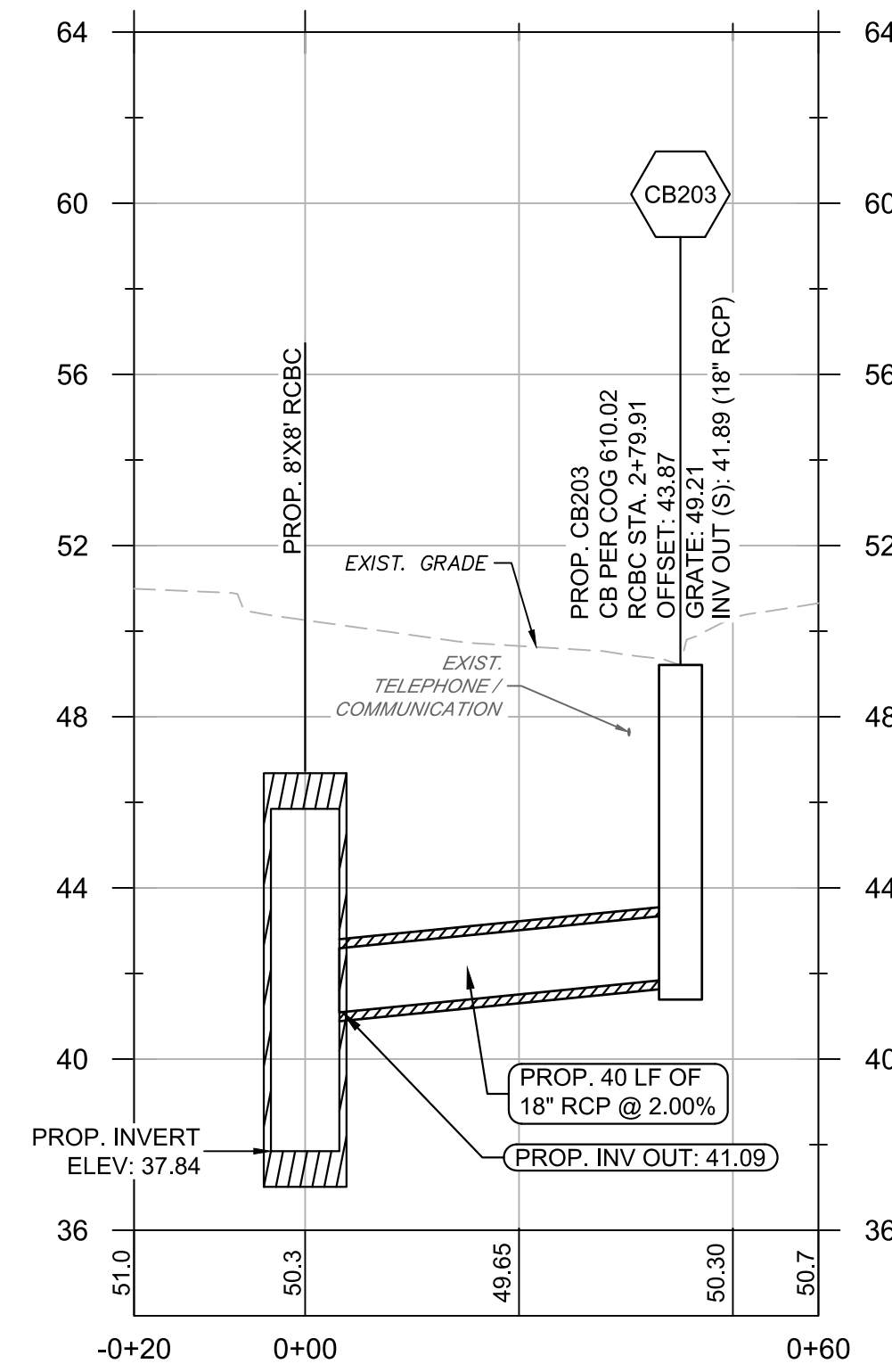
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PROP. JB201 @ RCBC STA 1+43



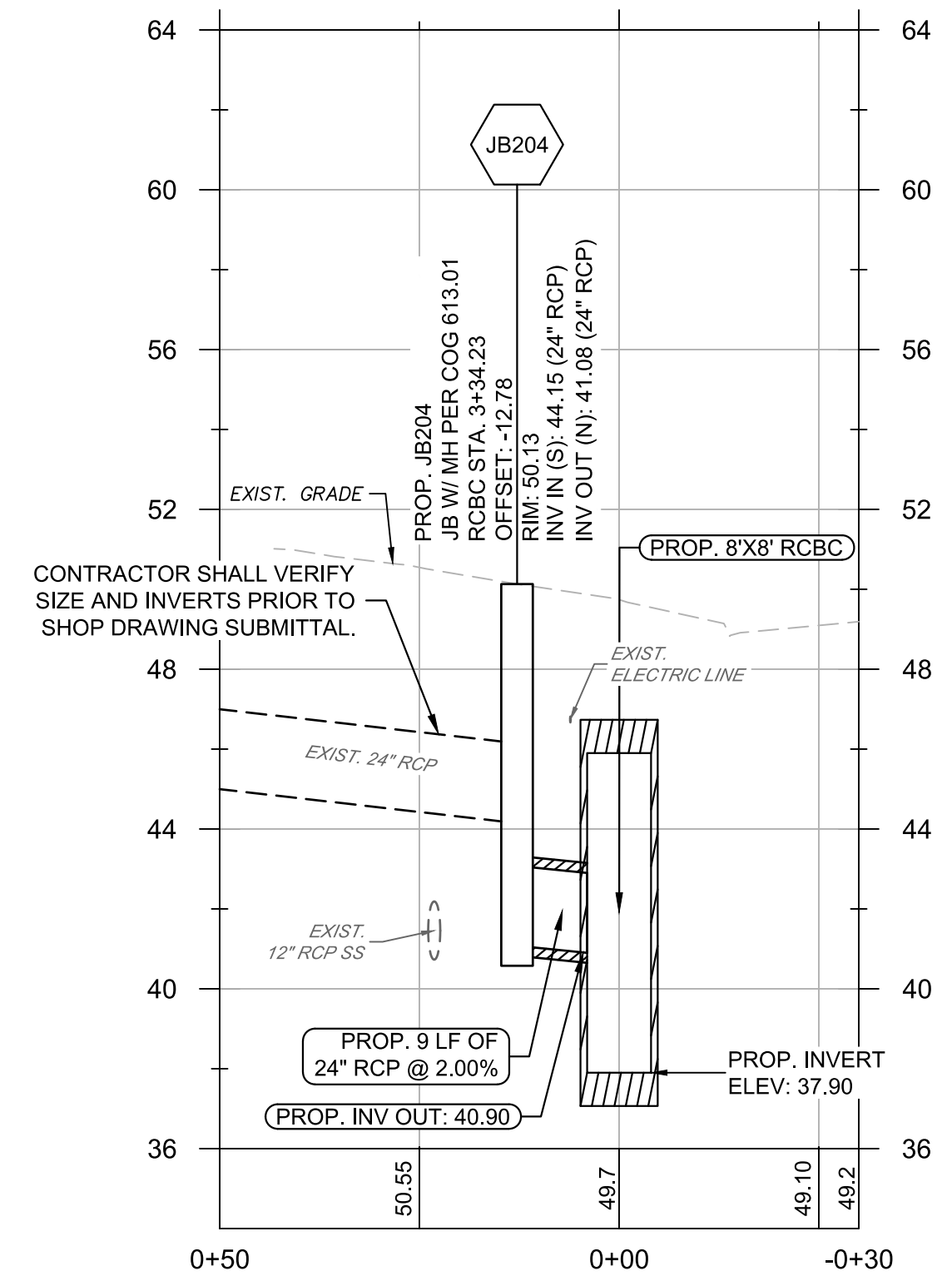
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PROP. CB202 @ RCBC STA 1+49



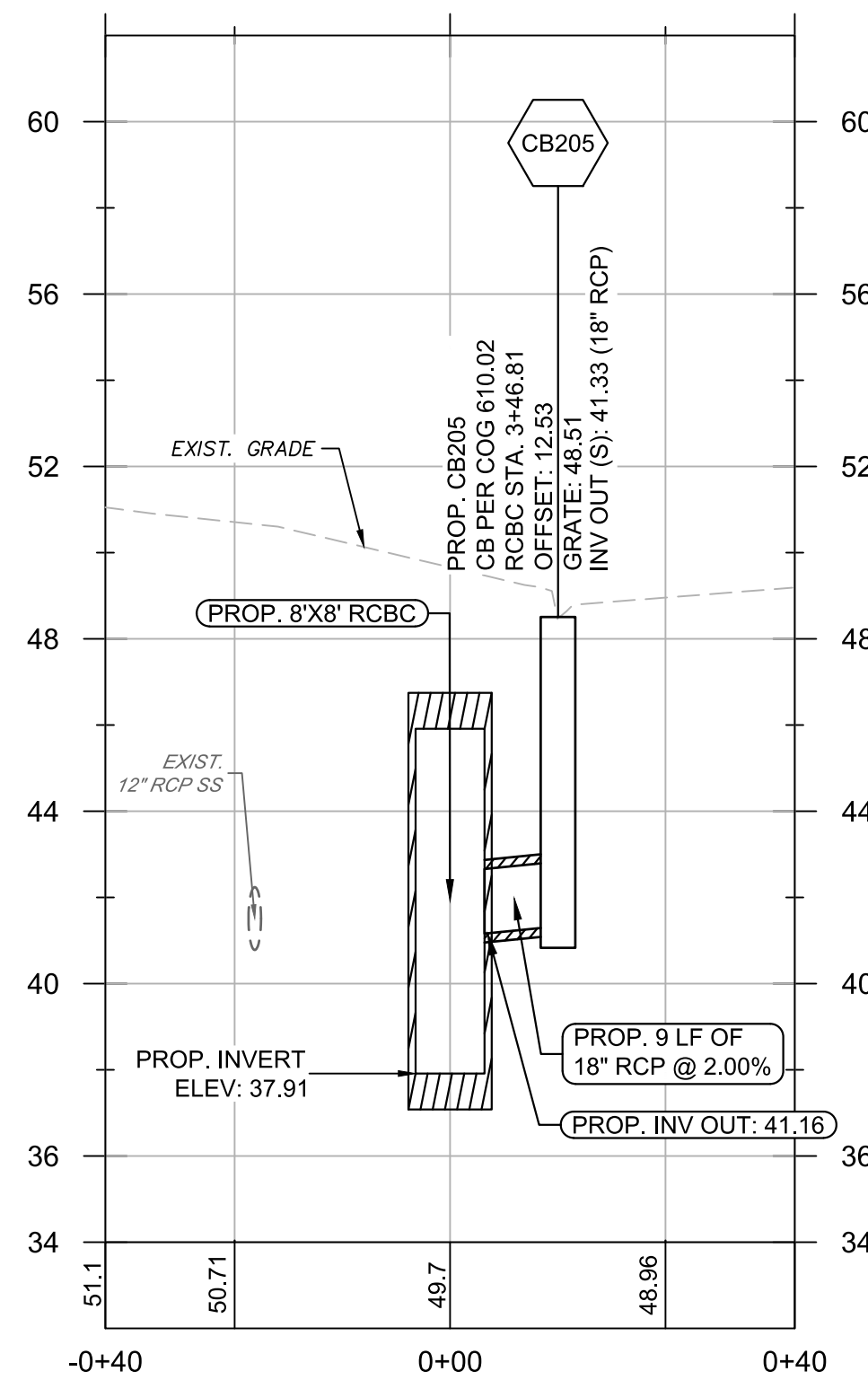
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PROP. CB203 @ RCBC STA 2+80



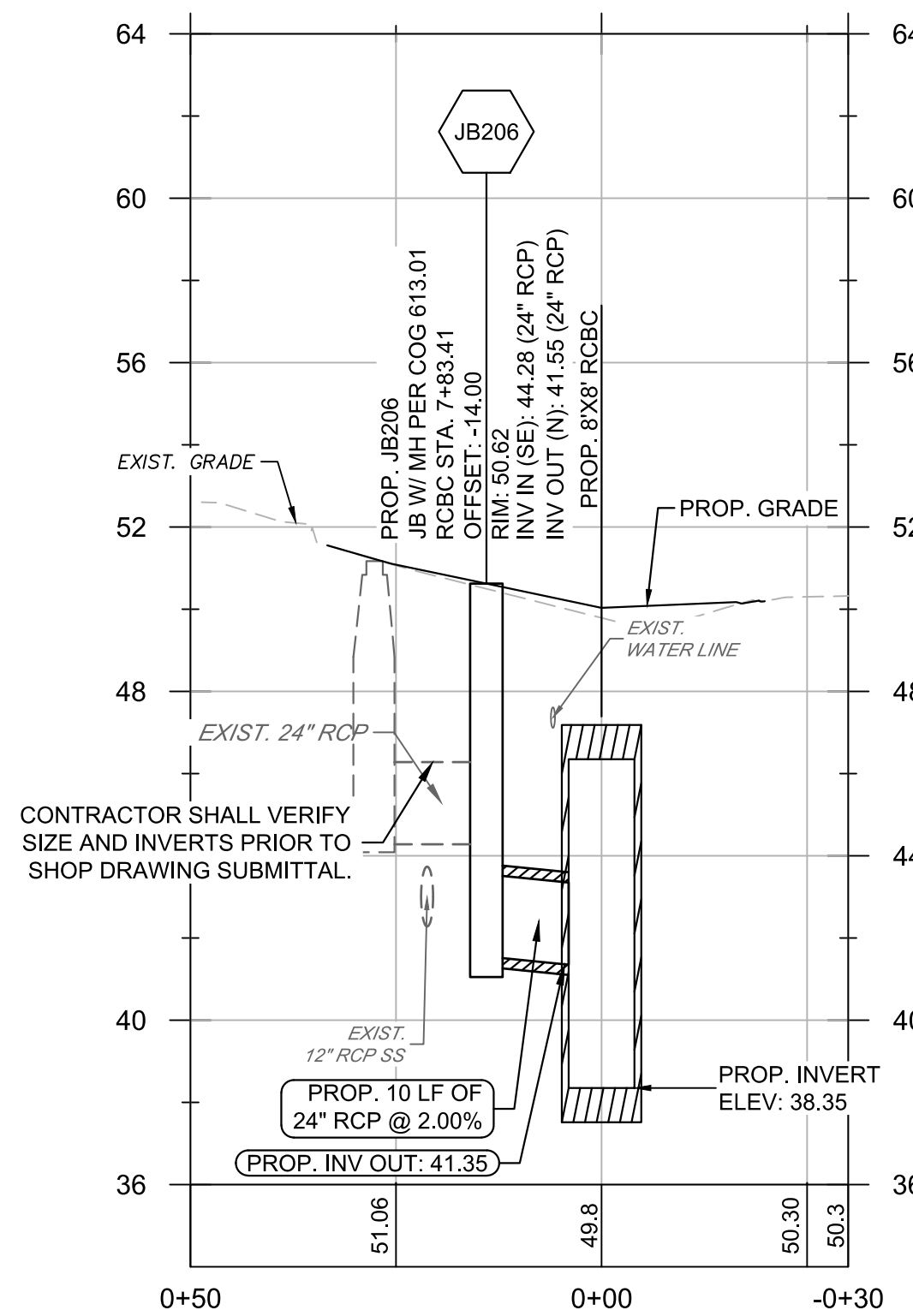
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PROP. CB204 @ RCBC STA 3+34



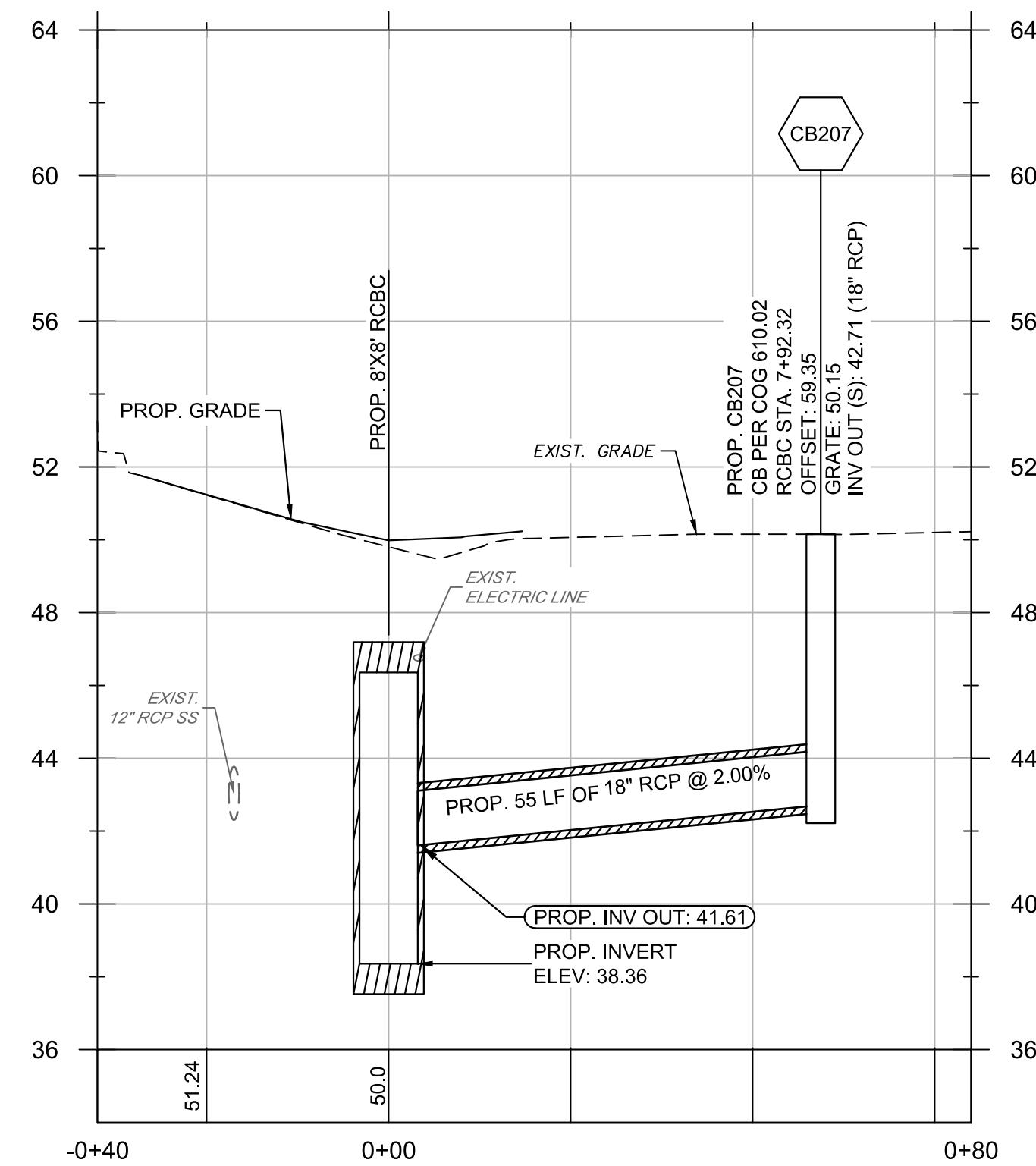
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PROP. CB205 @ RCBC STA 3+47



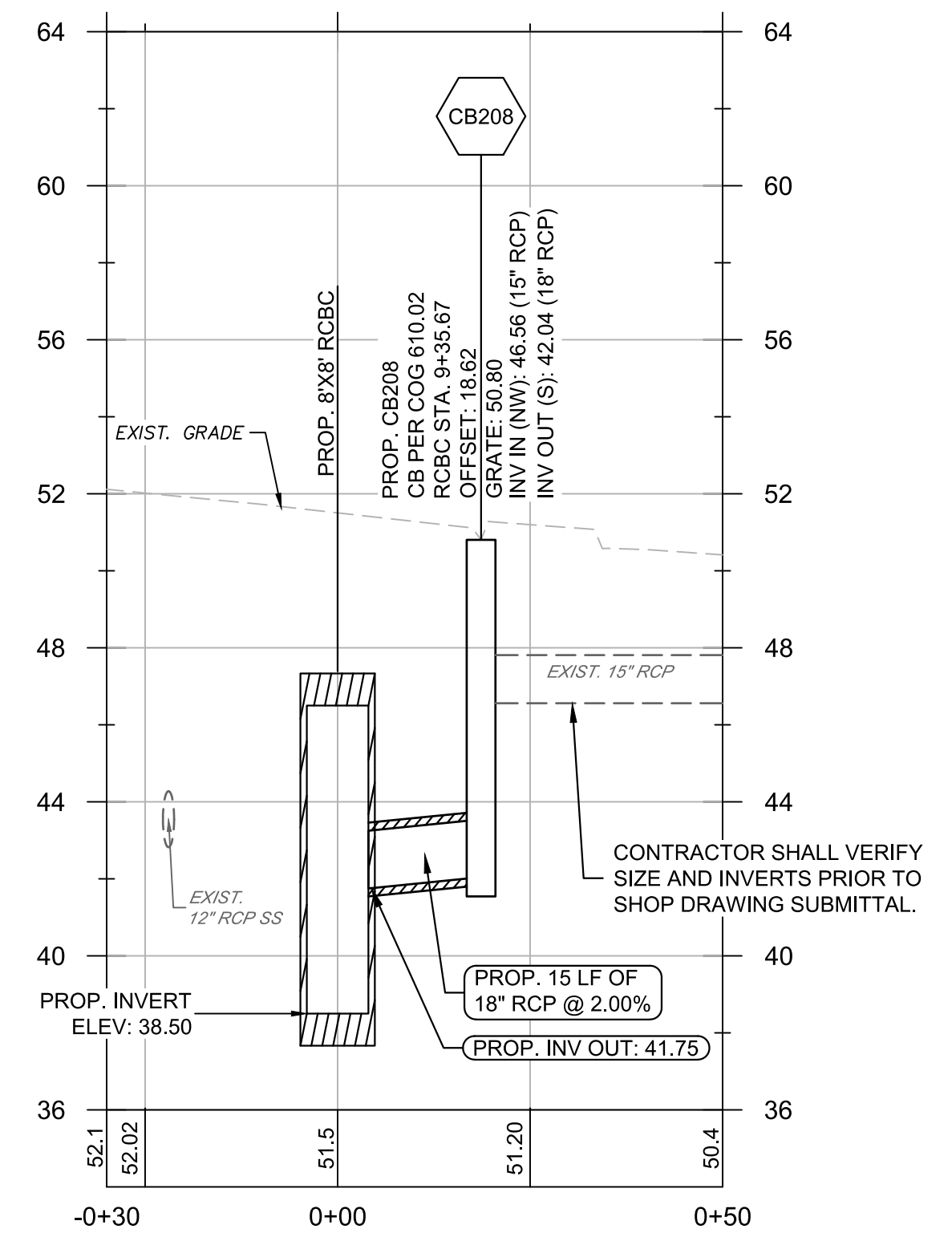
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PROP. JB206 @ RCBC STA 7+83



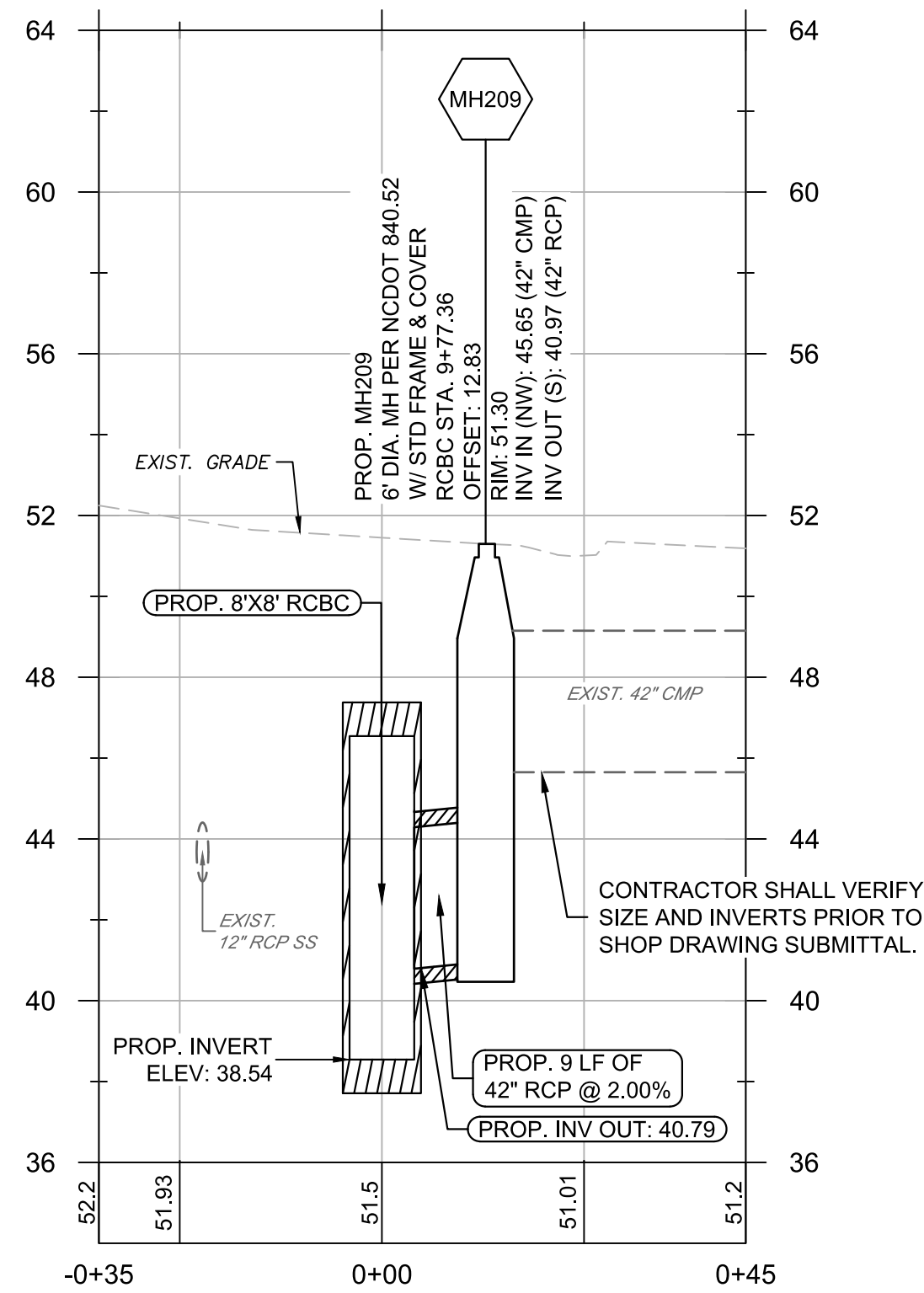
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PROP. CB207 @ RCBC STA 7+92



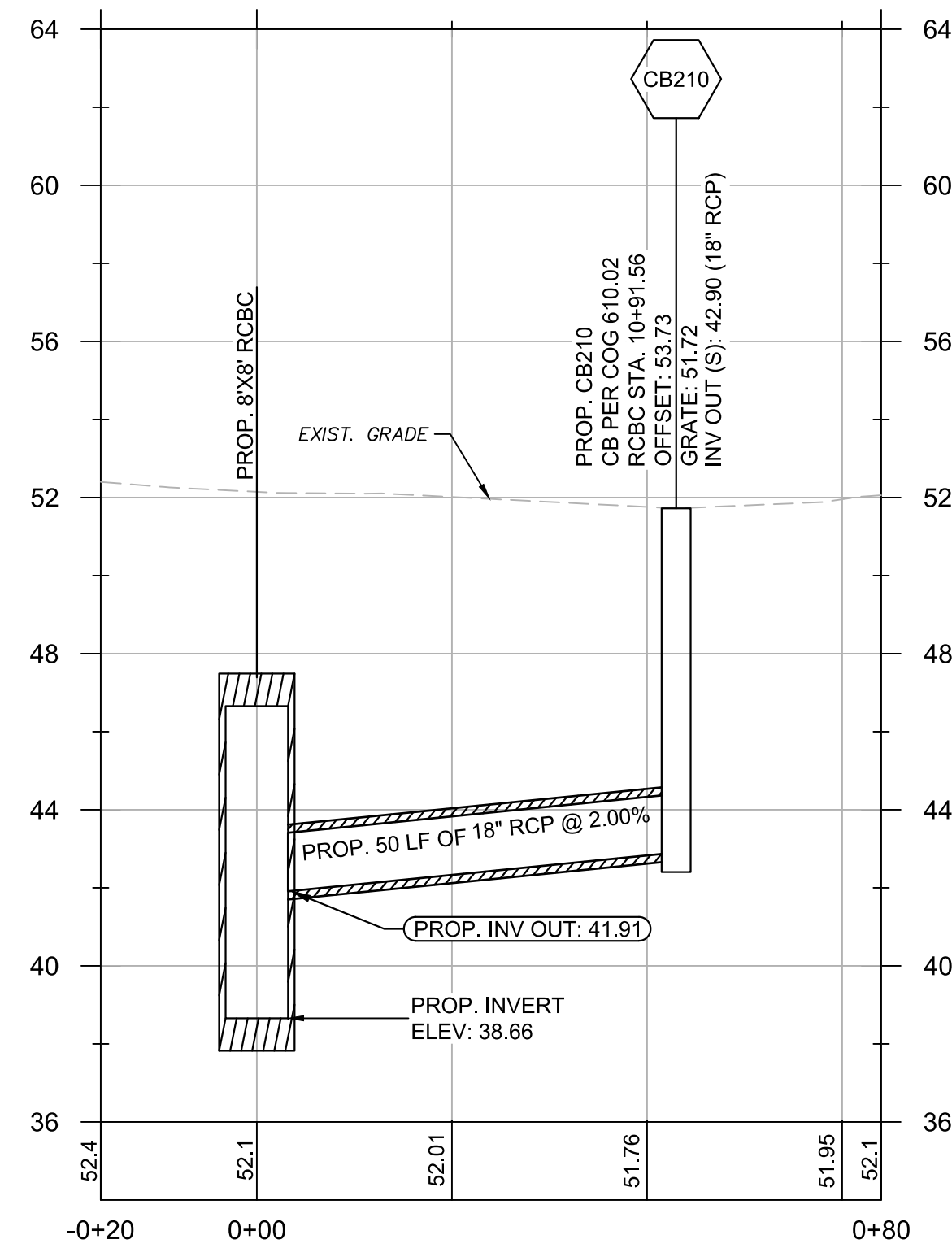
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PROP. CB208 @ RCBC STA 9+36



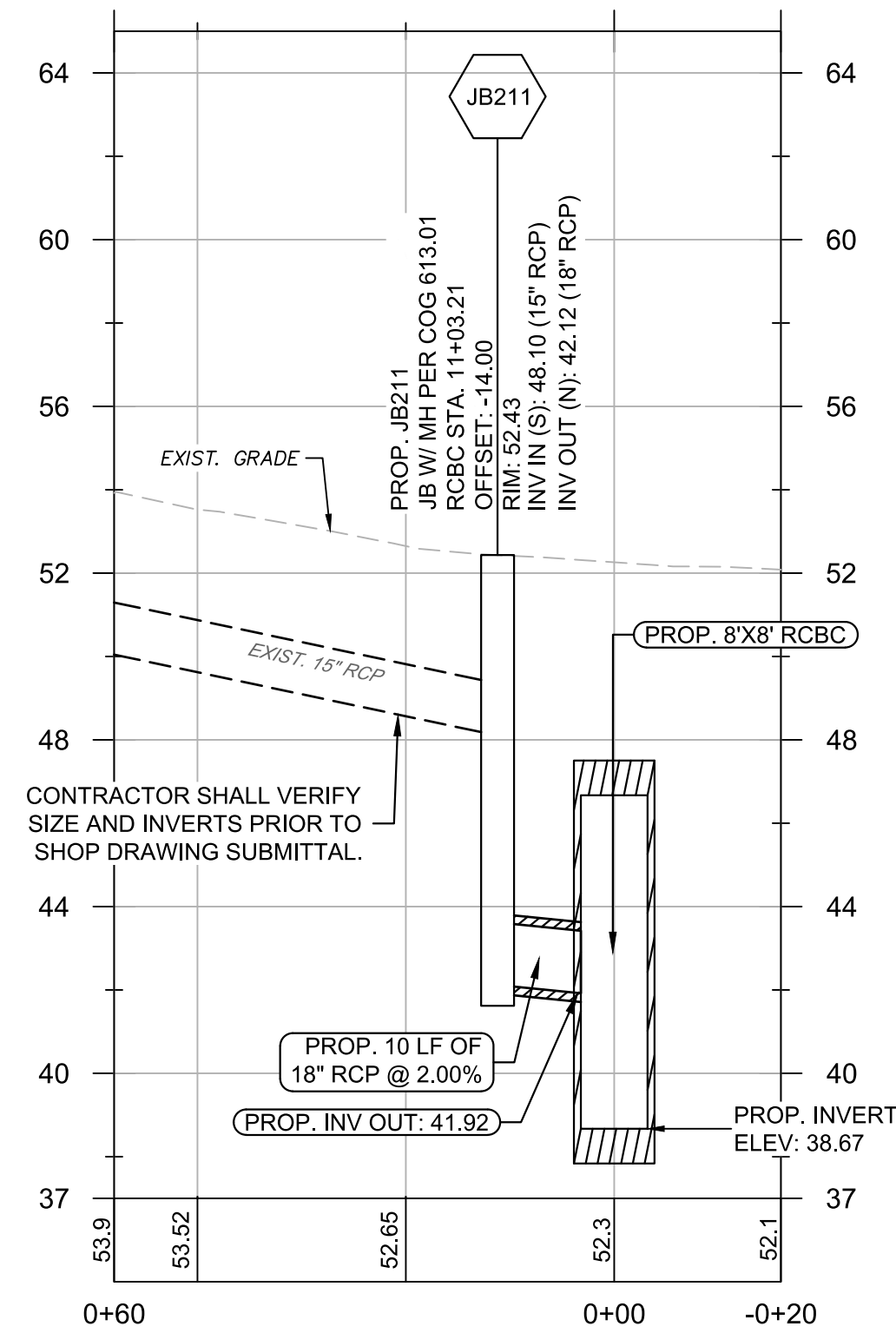
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PROP. MH209 @ RCBC STA 9+77



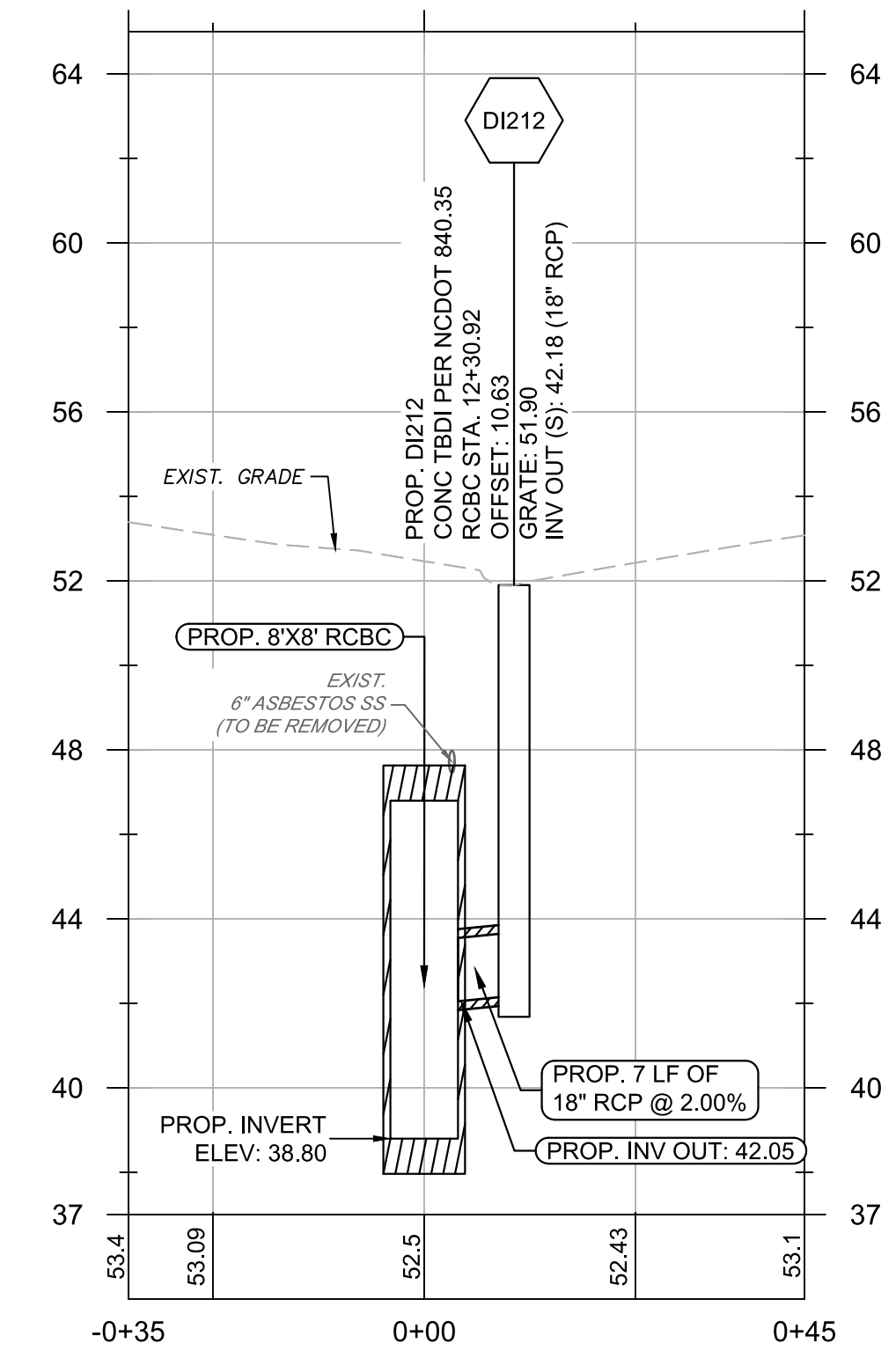
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PROP. CB210 @ RCBC STA 10+92



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

PROP. JB211 @ RCBC STA 11+03



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

PROP. DI212 @ RCBC STA 12+31

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 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
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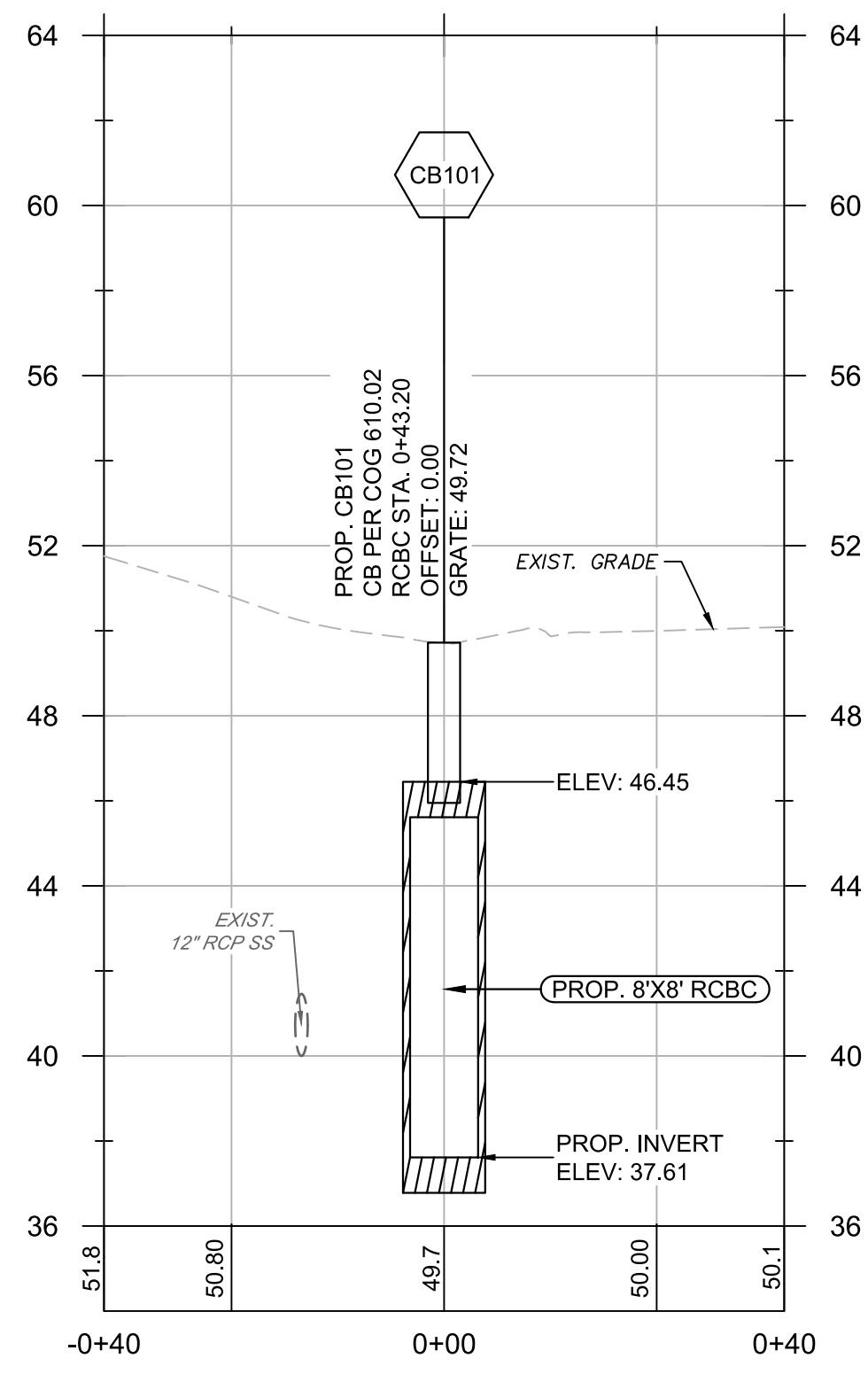
PROJECT:
**PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA**

TITLE:
SIDE SYSTEM PROFILES

WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023
100% PLANS

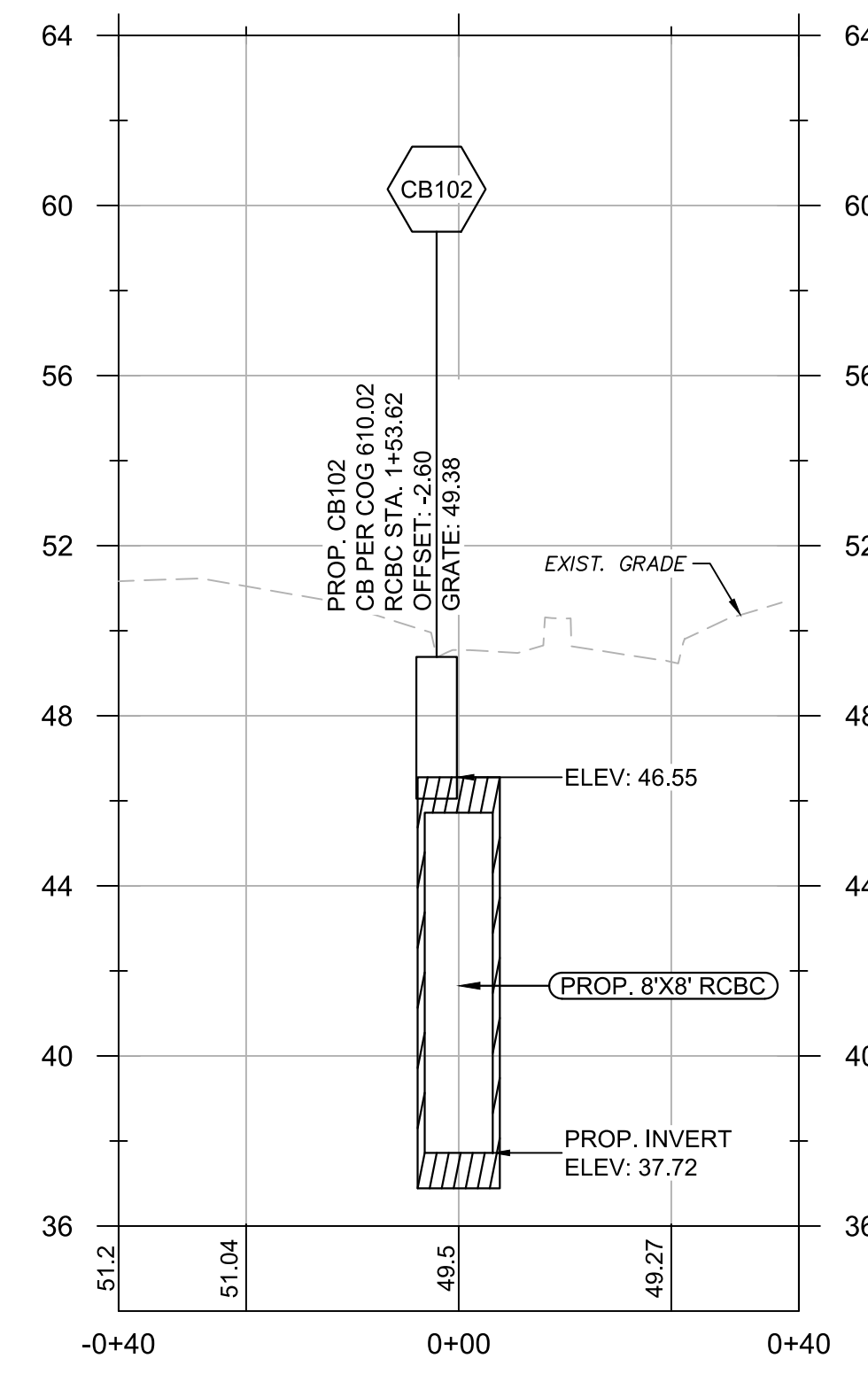
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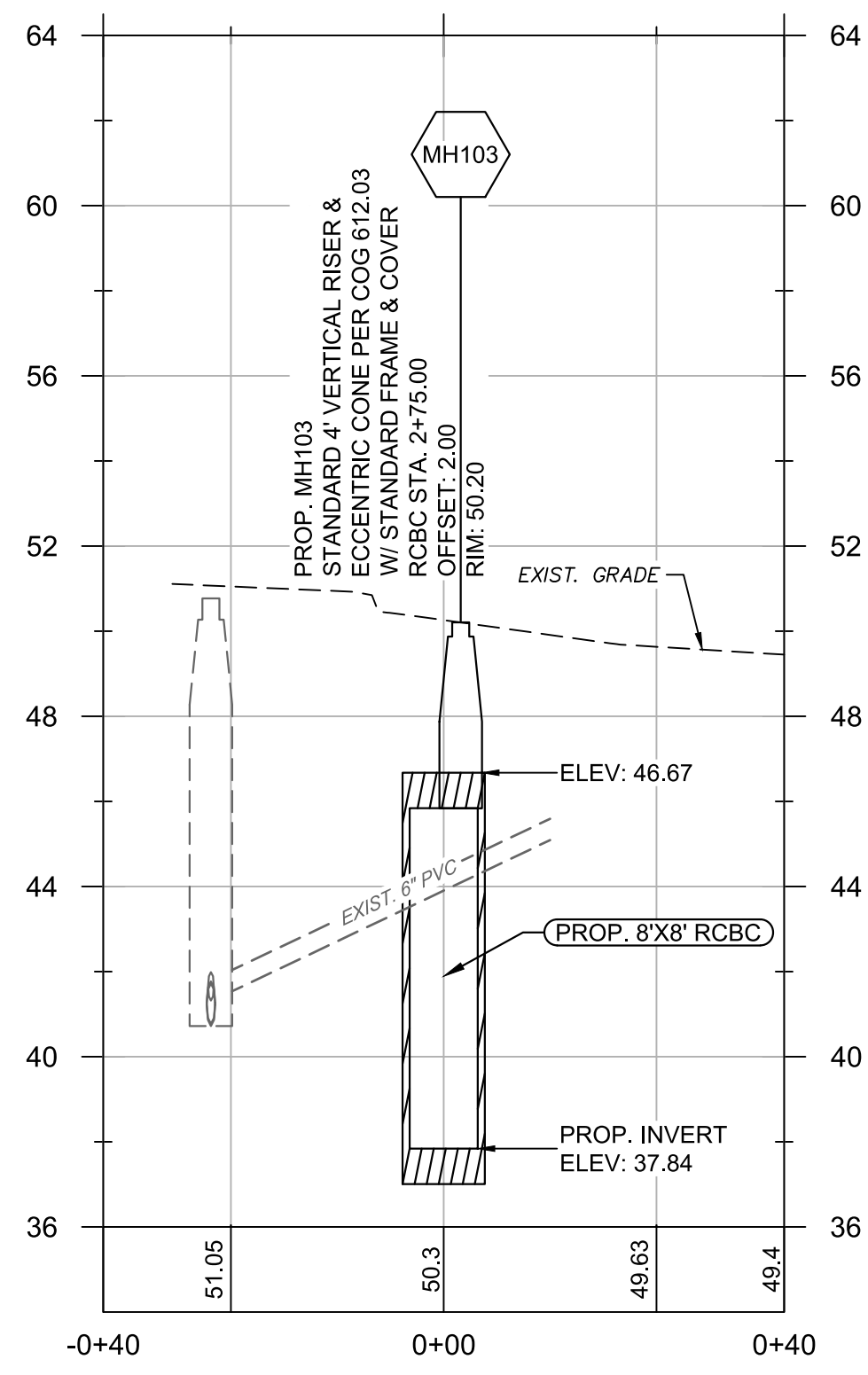
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PROP. CB101 @ RCBC STA 0+43



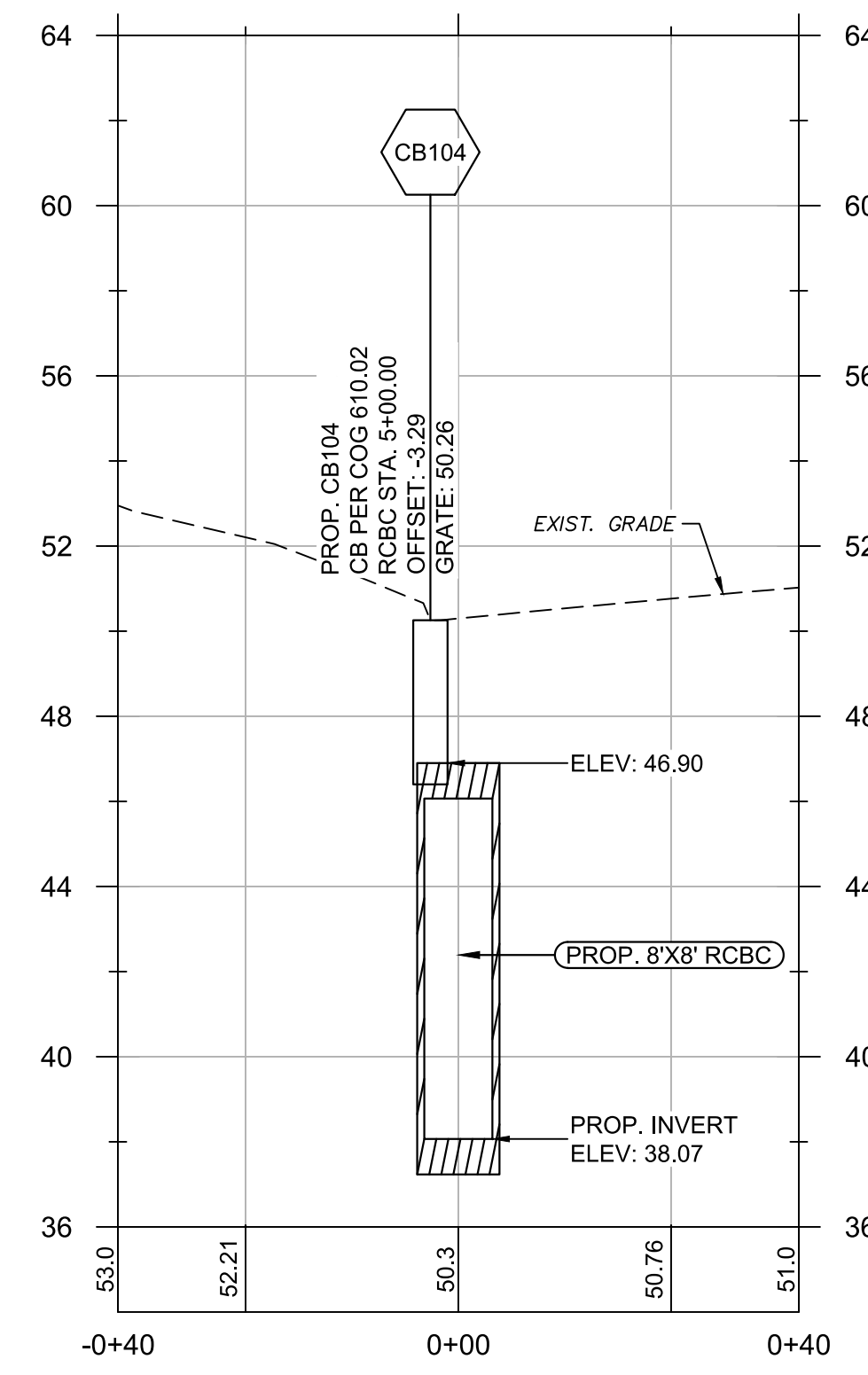
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PROP. CB102 @ RCBC STA 1+54



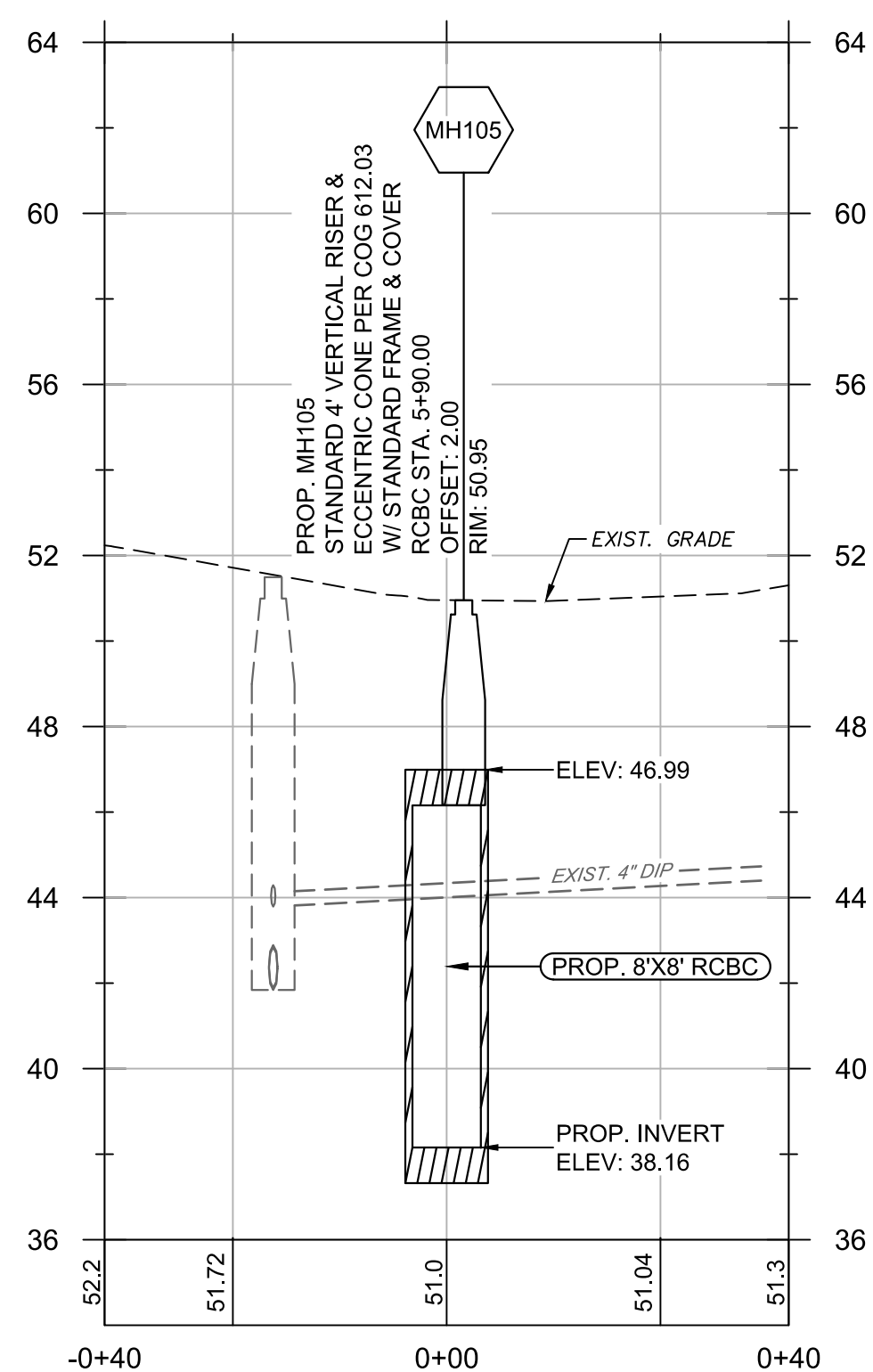
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PROP. MH103 @ RCBC STA 2+75



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

PROP. CB104 @ RCBC STA 5+00



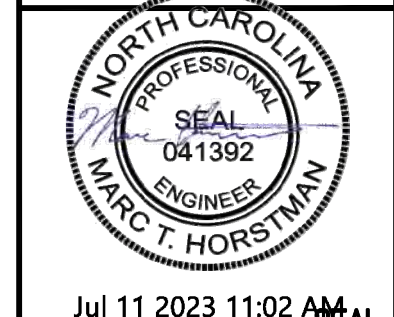
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PROP. MH105 @ RCBC STA 5+90

NOTE:
1. ALL PROPOSED VERTICAL CHIMNEY STRUCTURES ARE INCIDENTAL TO THE COST OF THE PROPOSED RCBC.

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community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-3455
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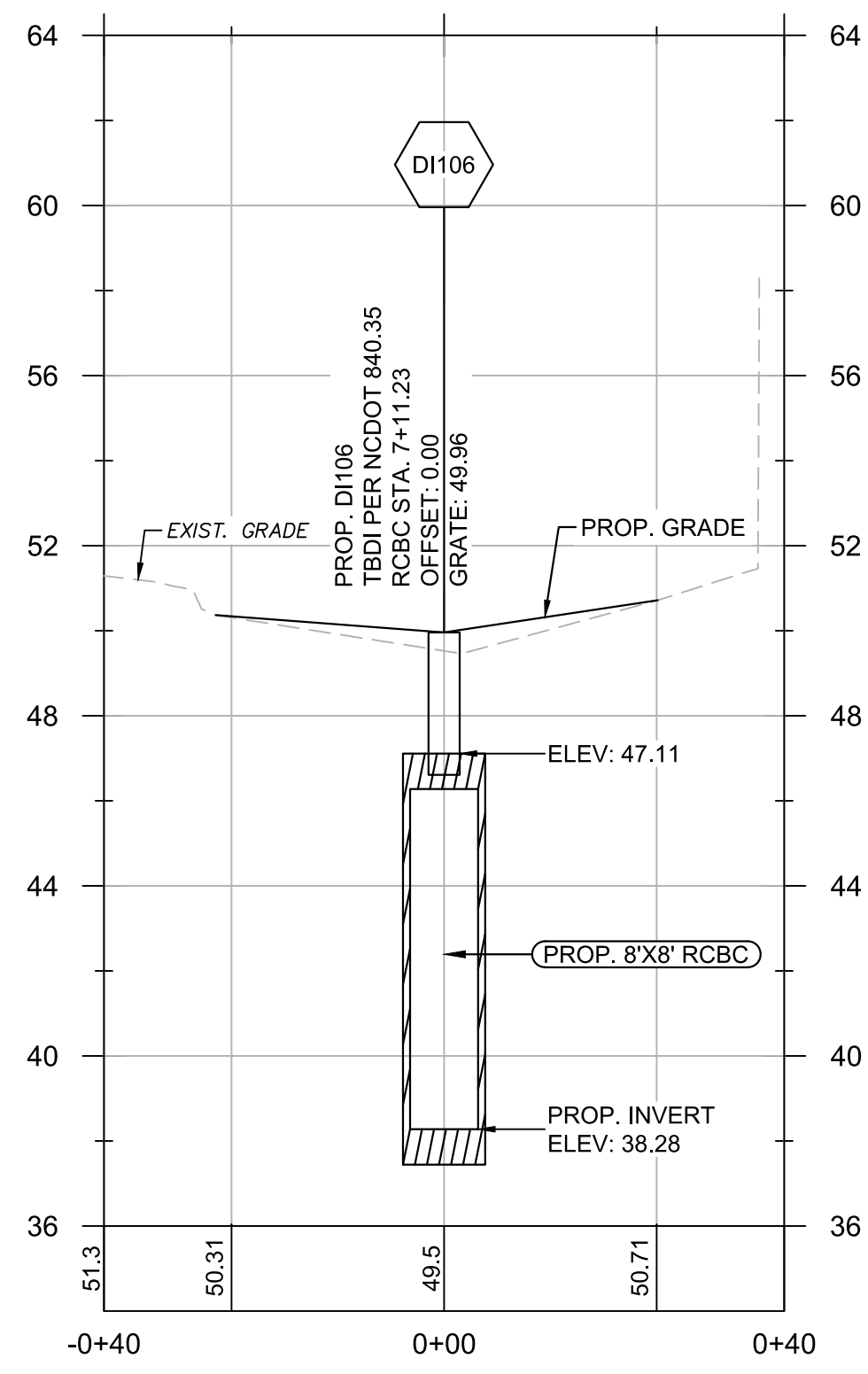
PLANS PREPARED FOR:
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PROJECT:
PUBLIC WORKS STORMWATER
PIPE IMPROVEMENTS PHASE 1
GREENVILLE, NORTH CAROLINA
TITLE:
CHIMNEY STRUCTURE PROFILES

WKD PROJECT:
20220983.00.RA
DATE:
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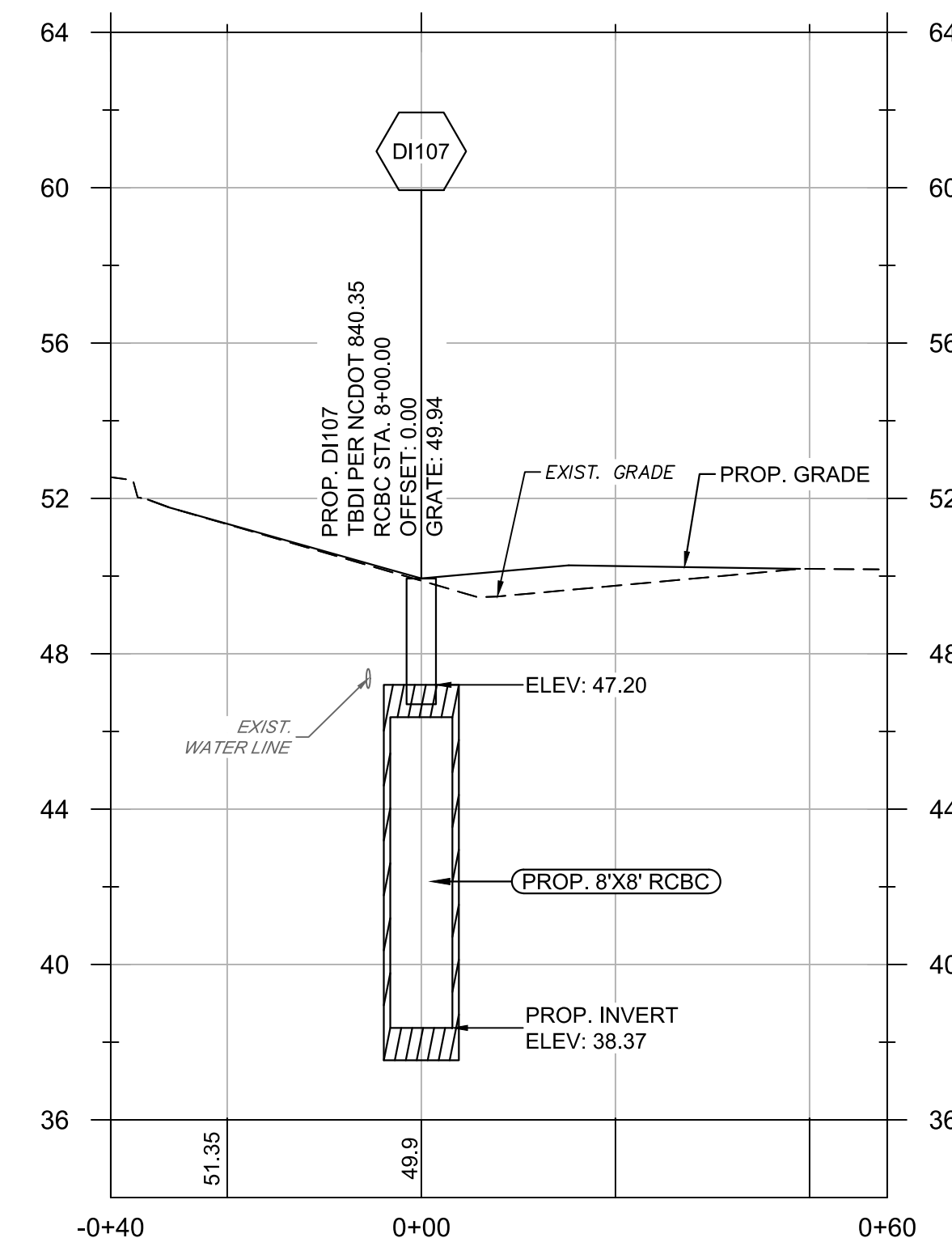
100% PLANS

C7



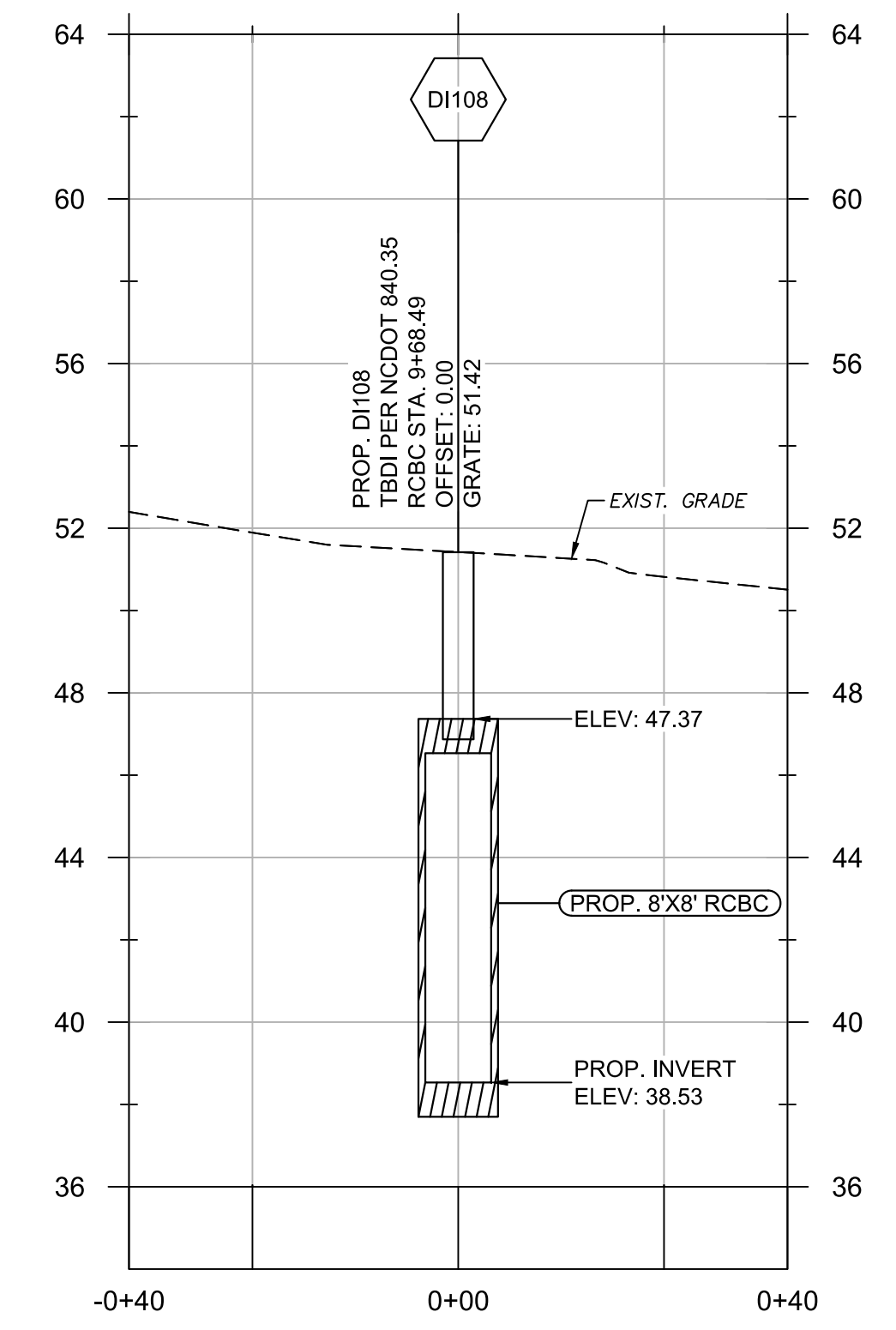
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PROP. DI106 @ RCBC STA 7+11



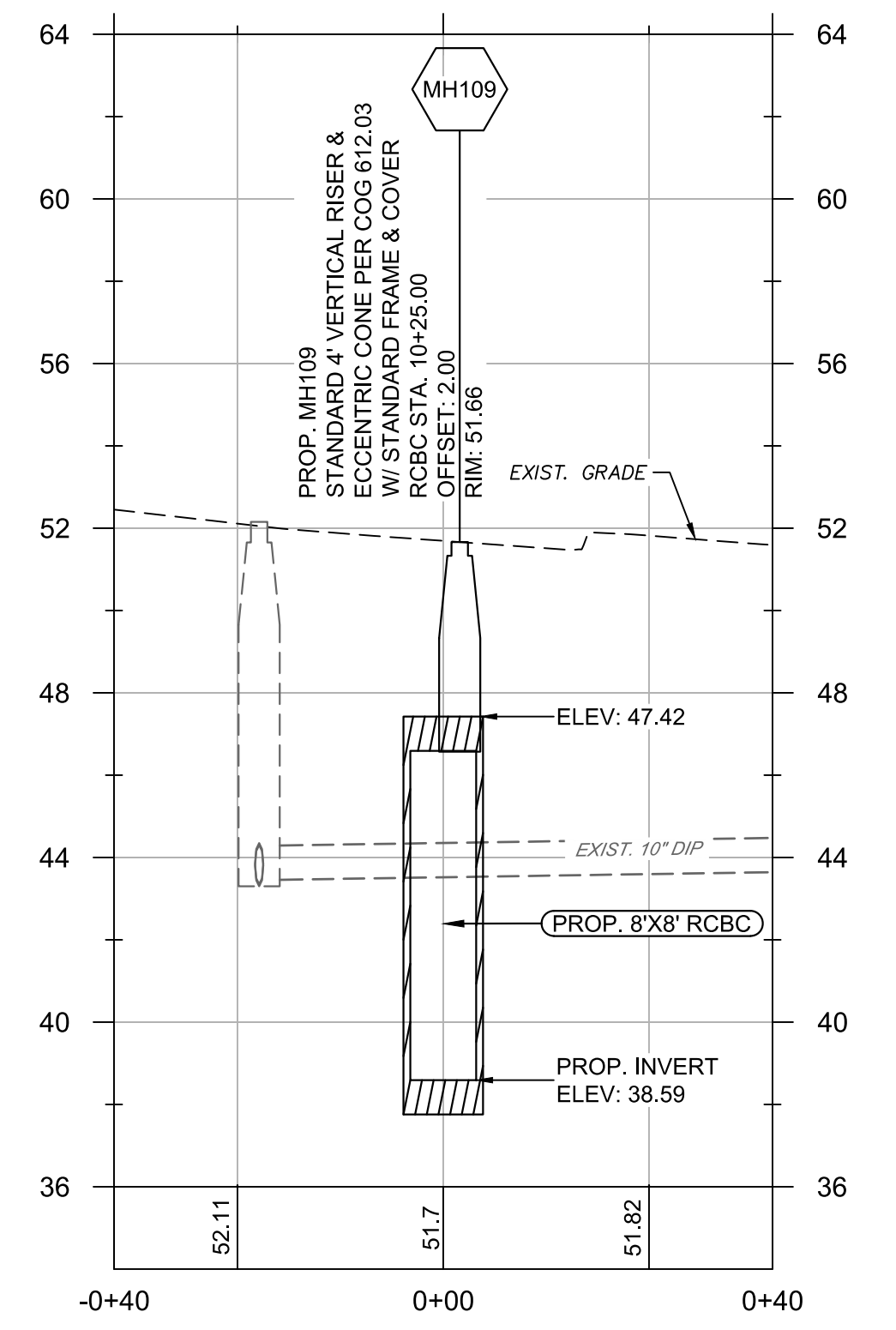
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PROP. DI107 @ RCBC STA 8+00



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

PROP. DI108 @ RCBC STA 9+68



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

PROP. MH109 @ RCBC STA 10+25

NOTE:

1. ALL PROPOSED VERTICAL CHIMNEY STRUCTURES ARE INCIDENTAL TO THE COST OF THE PROPOSED RCBC.

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 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-3455
 (919) 782-9672
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 ENGINEER
 M. T. HORSTIAN

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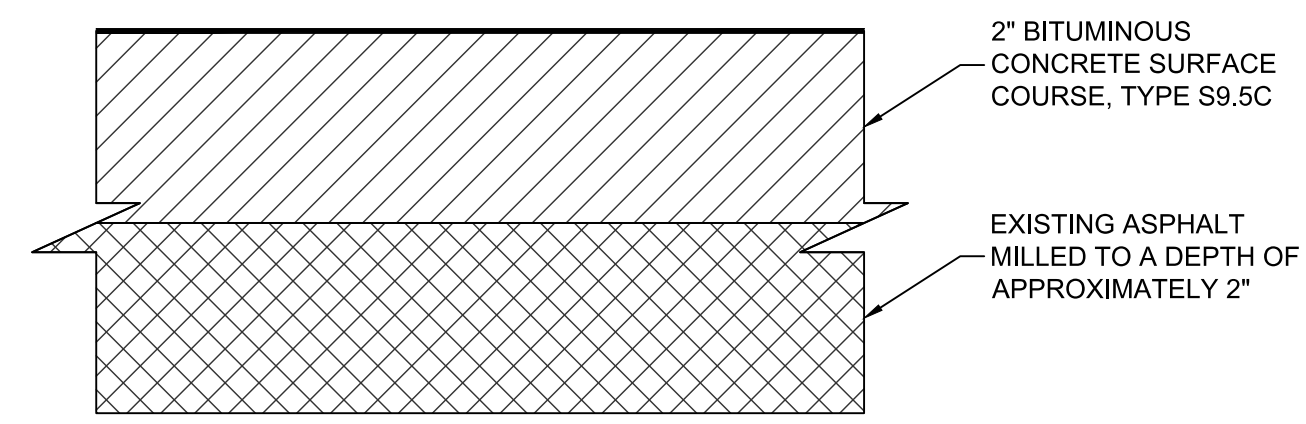
PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA

TITLE:
 CHIMNEY STRUCTURE PROFILES

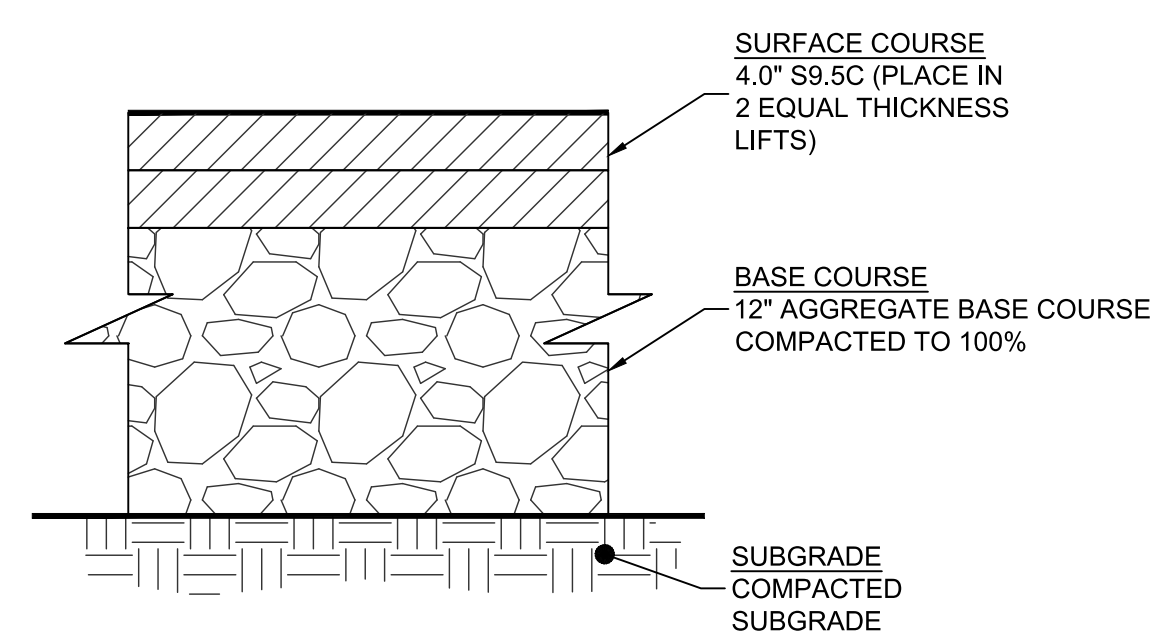
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C8

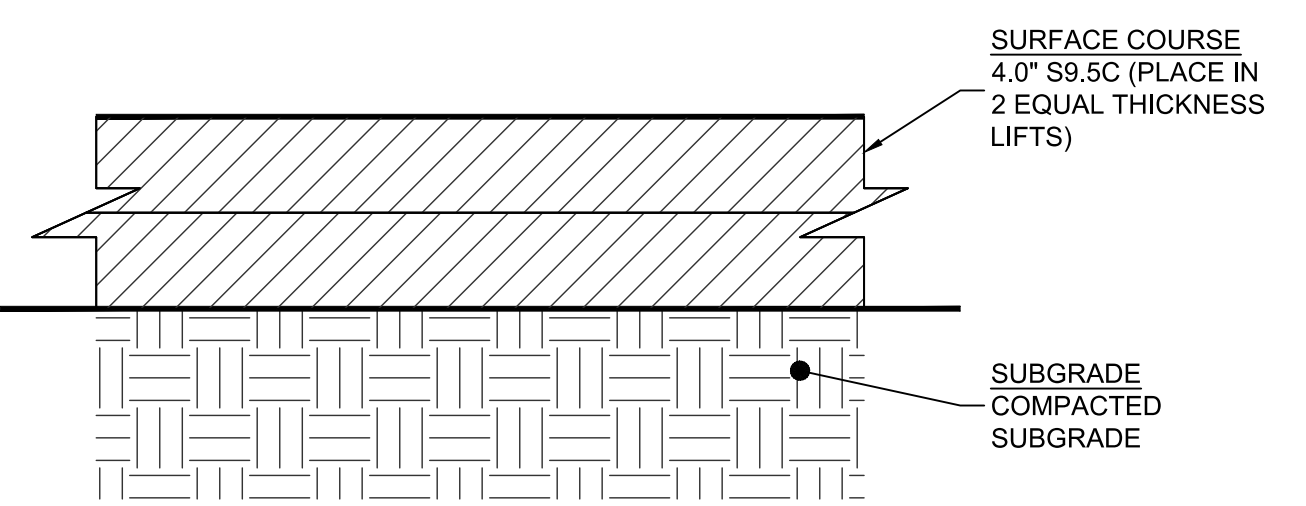


1
D1 MILL & OVERLAY PAVEMENT SECTION
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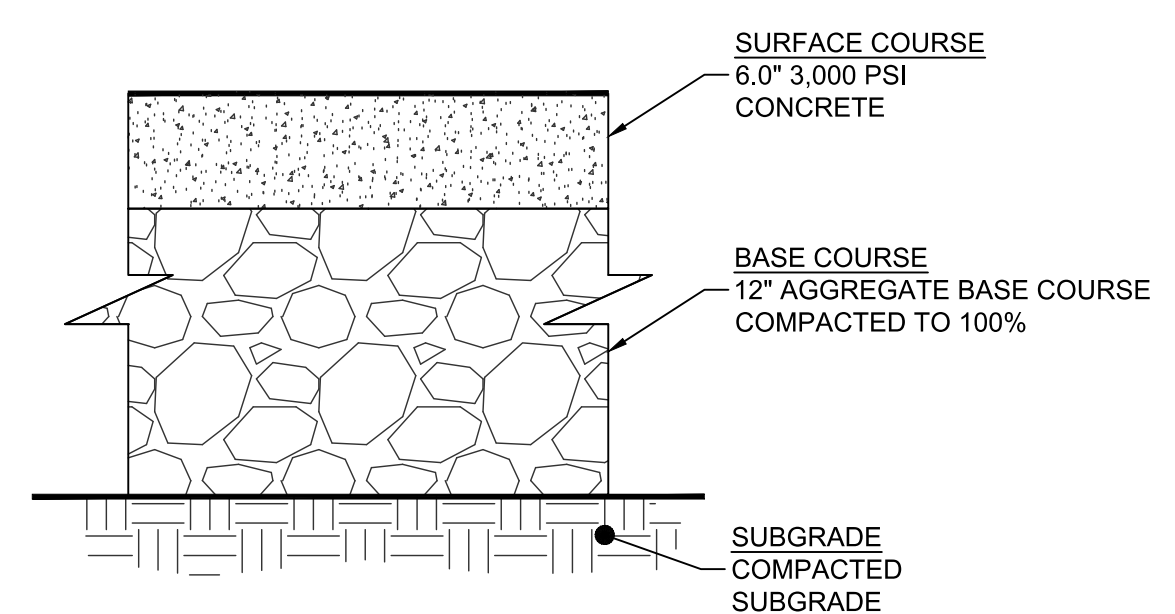


- NOTES:
1. PROPOSED PAVEMENT SECTION DIMENSIONS SHALL BE NO LESS THAN AS SHOWN IN THIS DETAIL.
 2. BASE AND SURFACE COURSE THICKNESS SHOWN ARE FINAL COMPACTED THICKNESS.

2
D1 FULL DEPTH ASPHALT PAVEMENT SECTION
NOT TO SCALE

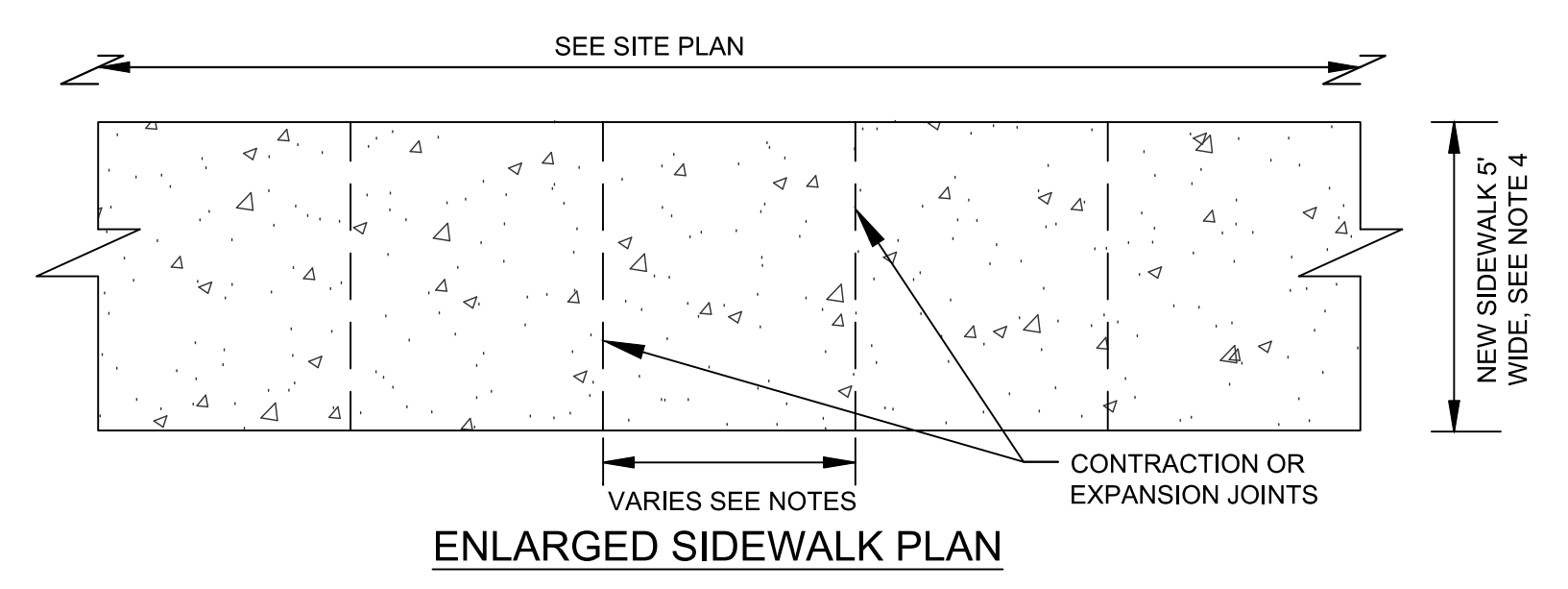


3
D1 4" ASPHALT PAVEMENT OVERLAY SECTION
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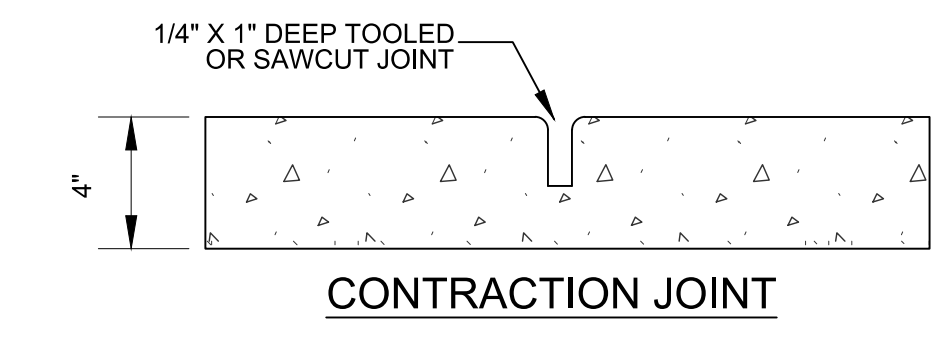


- NOTES:
1. PROPOSED PAVEMENT SECTION DIMENSIONS SHALL BE NO LESS THAN AS SHOWN IN THIS DETAIL.
 2. BASE AND SURFACE COURSE THICKNESS SHOWN ARE FINAL COMPACTED THICKNESS.

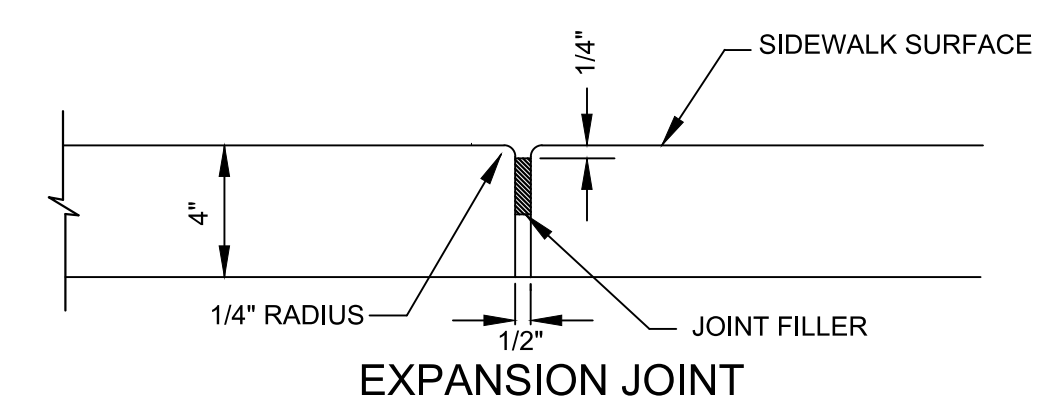
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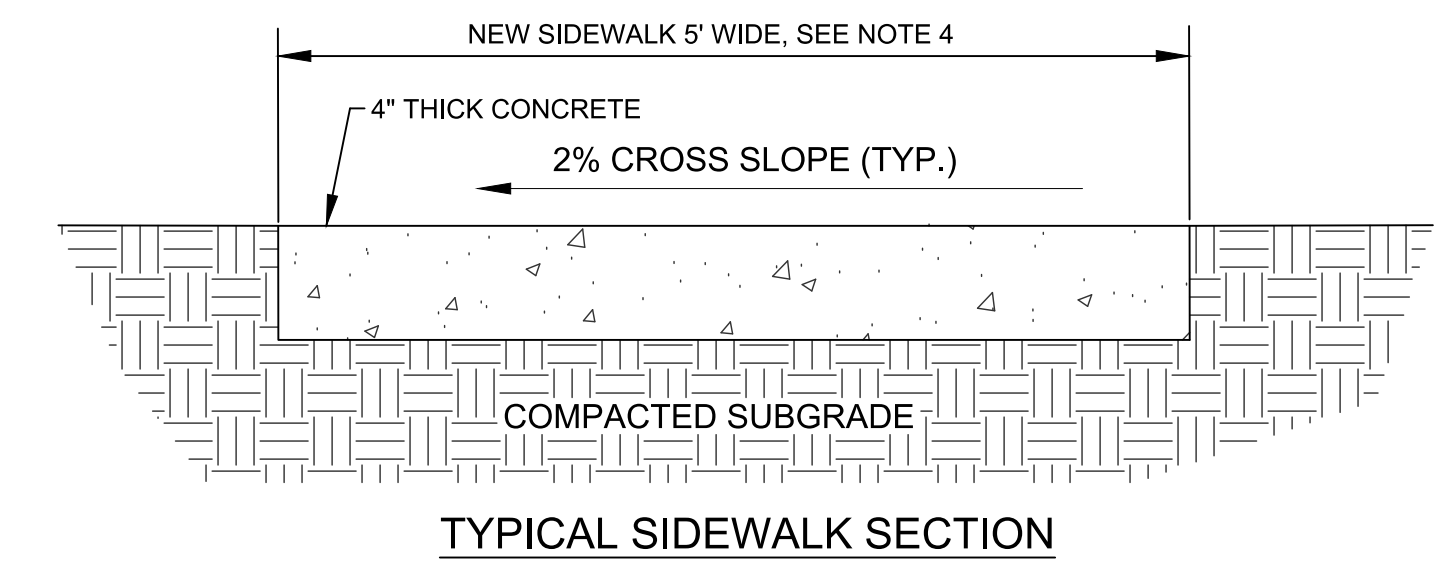
ENLARGED SIDEWALK PLAN



CONTRACTION JOINT



EXPANSION JOINT

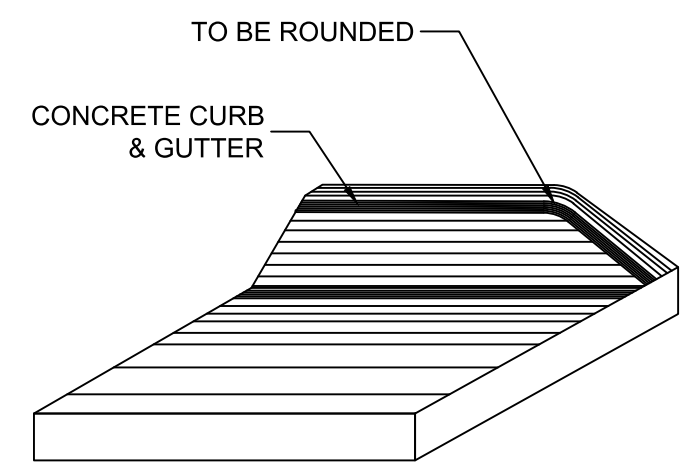


TYPICAL SIDEWALK SECTION

SIDEWALK NOTES:

1. ALL CONCRETE SHALL BE 3000 PSI MIX.
2. PROVIDE EXPANSION JOINTS EVERY 20'-0" AND WHERE SIDEWALK ABUTS STRUCTURES OR INTERSECTIONS OR CHANGES IN DIRECTION. STRUCTURES INCLUDE BUT ARE NOT LIMITED TO CONCRETE CURB AND CONCRETE DRIVEWAYS.
3. CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY 5'-0".
4. ALL NEW SIDEWALK SHALL BE 5' WIDE. SIDEWALK REPLACING EXISTING SIDEWALK SHALL MATCH EXISTING WIDTH.

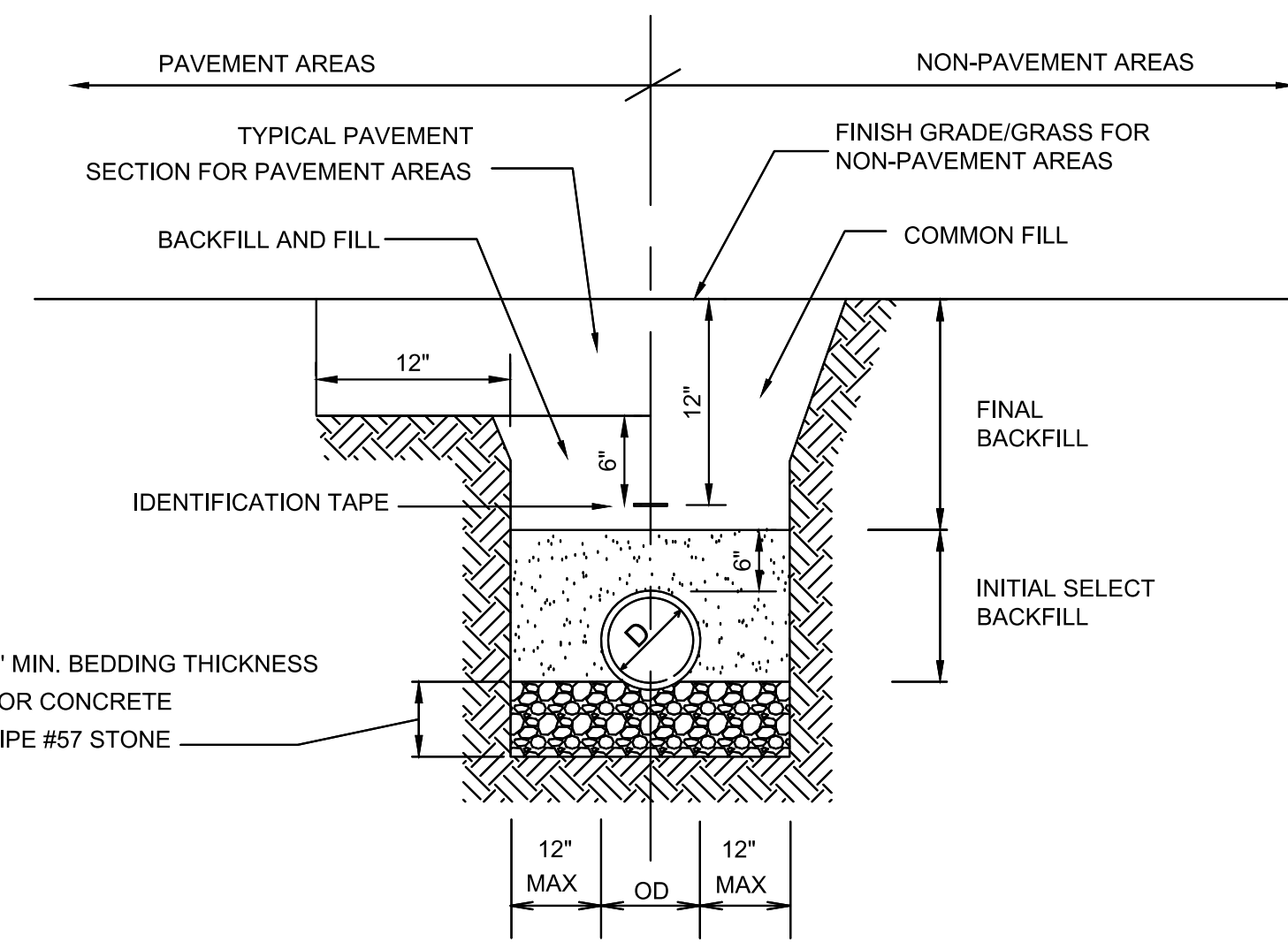
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D1 TYPICAL CONCRETE SIDEWALK DETAIL
NOT TO SCALE



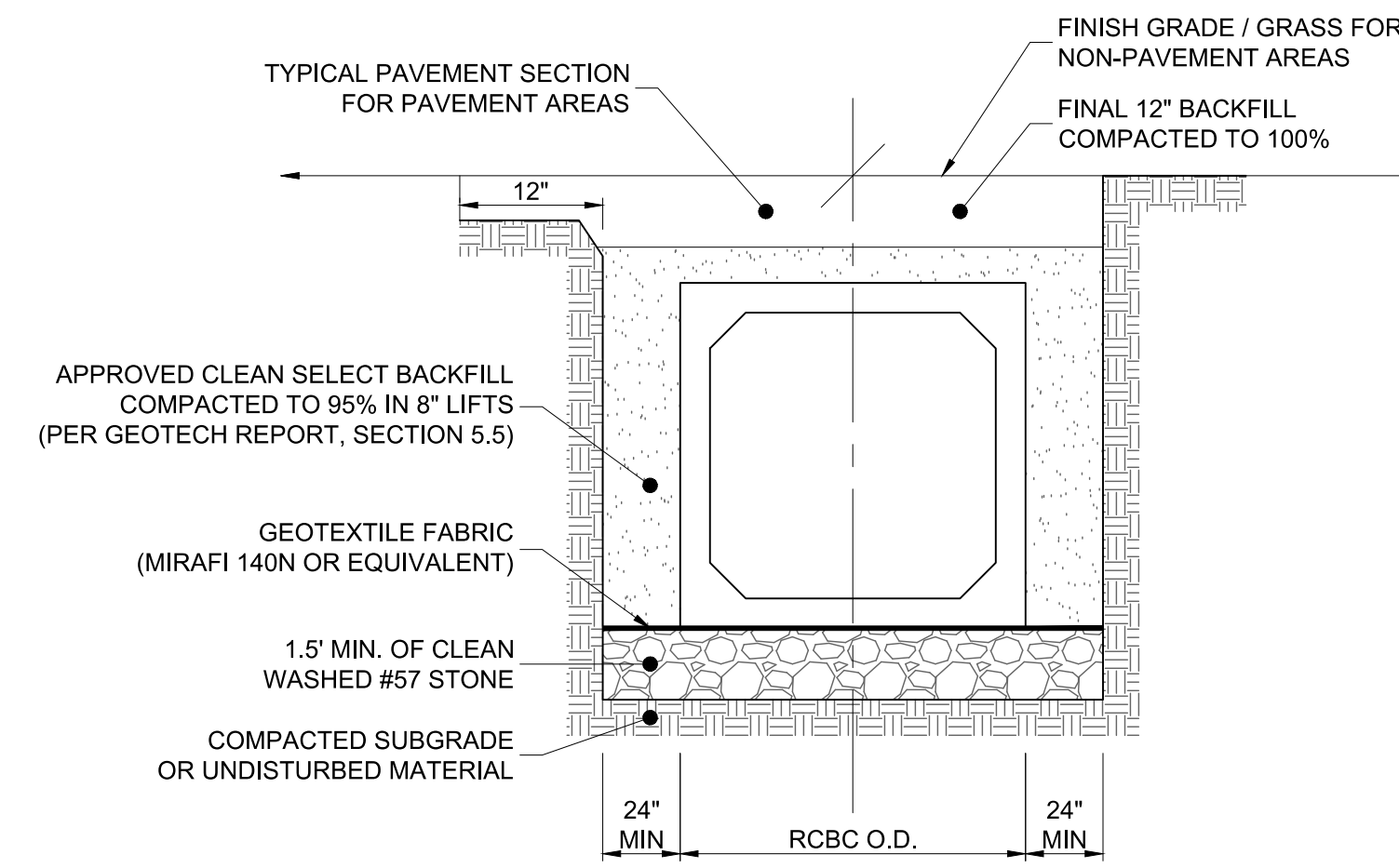
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D1 CURB NOSE DOWN DETAIL
NOT TO SCALE

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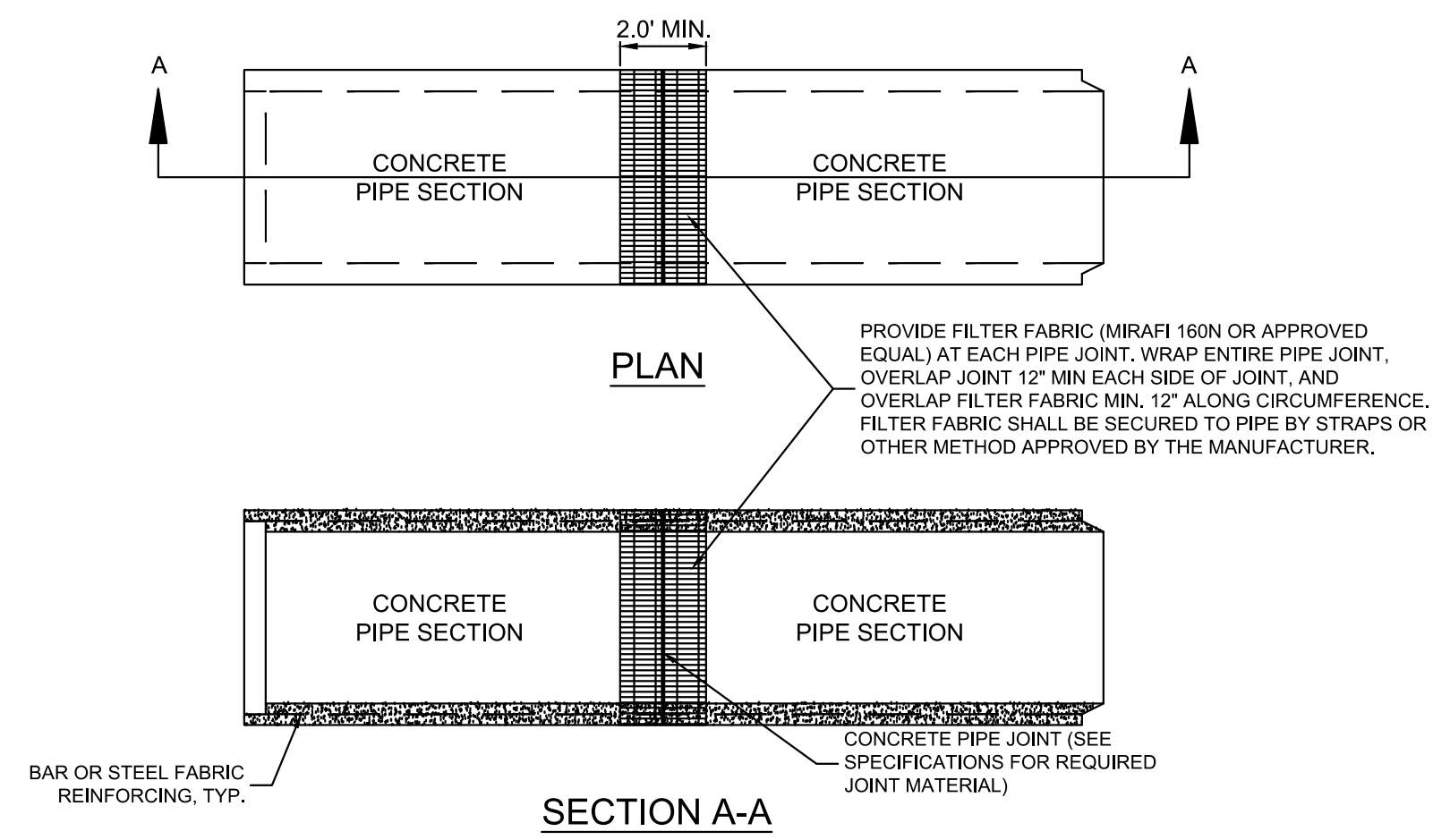
7
D2
STORM DRAIN PIPE TRENCH DETAIL
NOT TO SCALE



8
D2
RCBC TRENCH DETAIL
NOT TO SCALE

NOTES:

1. THE PRECAST UNITS SHALL BE CAREFULLY POSITIONED ON THE PREPARED FOUNDATION. FEMALE END UPGRADE WITH MALE END FULLY INSERTED AND EACH JOINT CHECKED FOR ALIGNMENT. SATISFACTORY FITTING AND PROPER GRADE SHALL BE MAINTAINED AS THE WORK PROCEEDS.
2. CARE SHALL BE TAKEN DURING BACKFILL AND COMPACTION TO MAINTAIN ALIGNMENT AND PREVENT DAMAGE TO THE JOINTS. UNITS THAT BECOME MISALIGNED, SHOW EXCESSIVE SETTLEMENT OR HAVE OTHERWISE BEEN DAMAGED SHALL, AT THE DISCRETION OF THE ENGINEER, BE REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
3. ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS.
4. A MINIMUM OF 24 INCHES FROM OUTSIDE DIAMETER OF BOX CULVERT TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTION OF FILL MATERIAL. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE BOX CULVERT IS LAID. THE FILL AROUND THE THE BOX CULVERT SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES. UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE CULVERT HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY. EACH AND EVERY LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY COMPACTIONED INTO PLACE.



9
D2
CONCRETE PIPE JOINT DETAIL
NOT TO SCALE

PLANS PREPARED BY:



community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
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PLANS PREPARED FOR:
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PROJECT:
**PUBLIC WORKS STORMWATER
PIPE IMPROVEMENTS PHASE 1
GREENVILLE, NORTH CAROLINA**

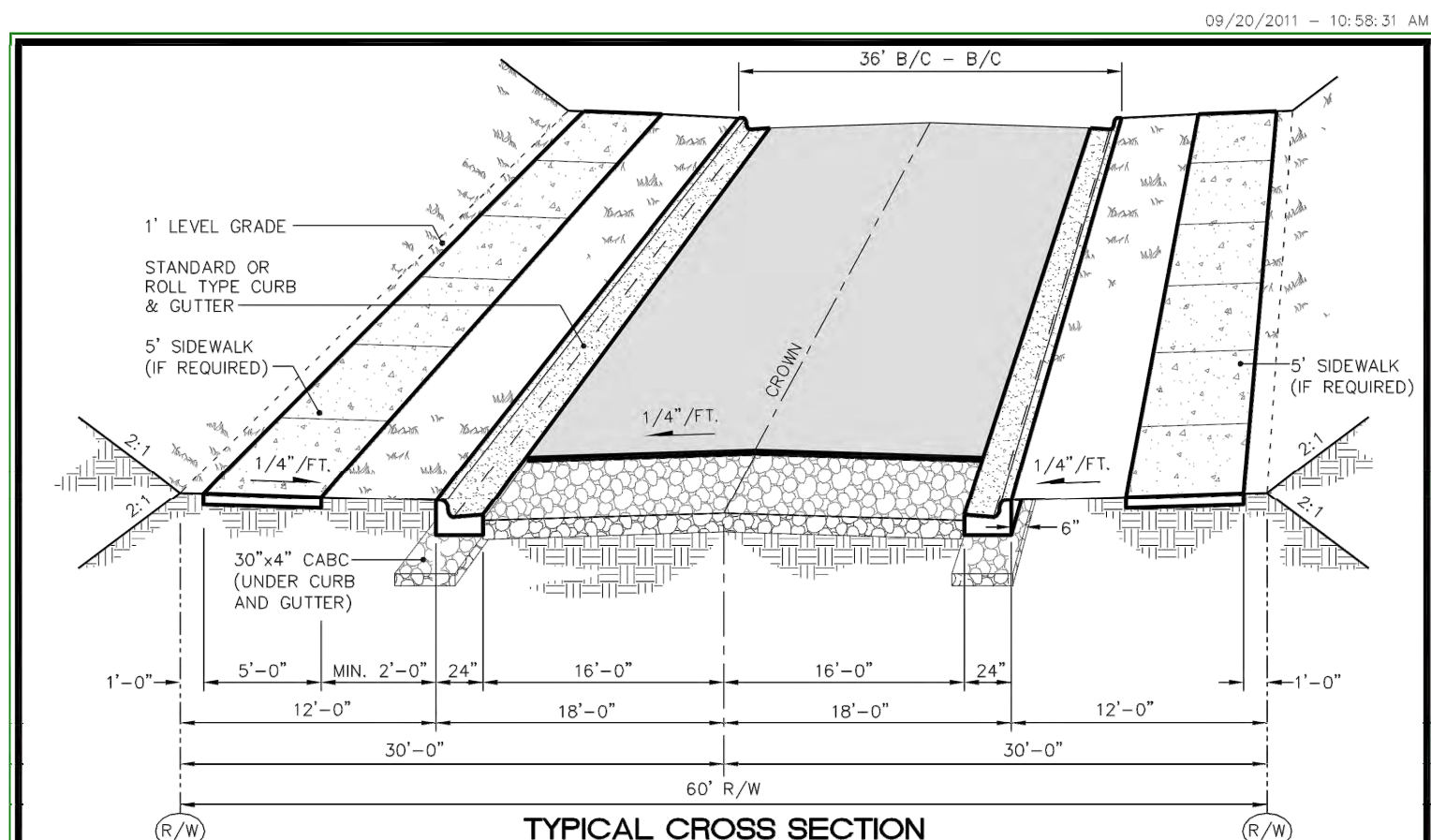
TITLE:
SITE DETAILS

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20220983.00.RA
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D2

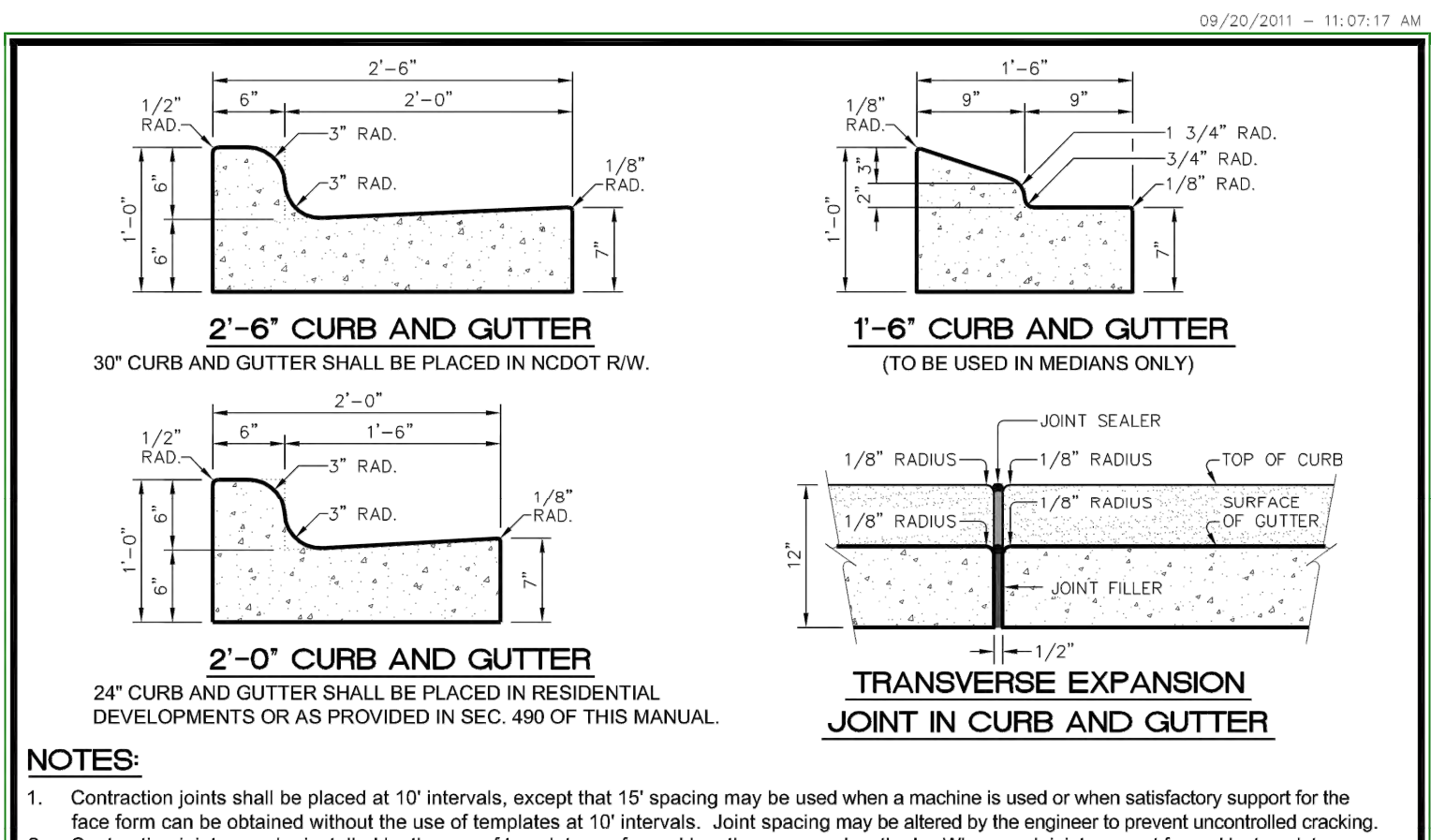
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NOTES:

- Pavement design to be according to procedure described in Std. detail No. 490.01.
- May only be used in cases where projected traffic volumes will not exceed 1500 - 3500 ADT based on trip generation factors shown on Std. detail No. 491.02.

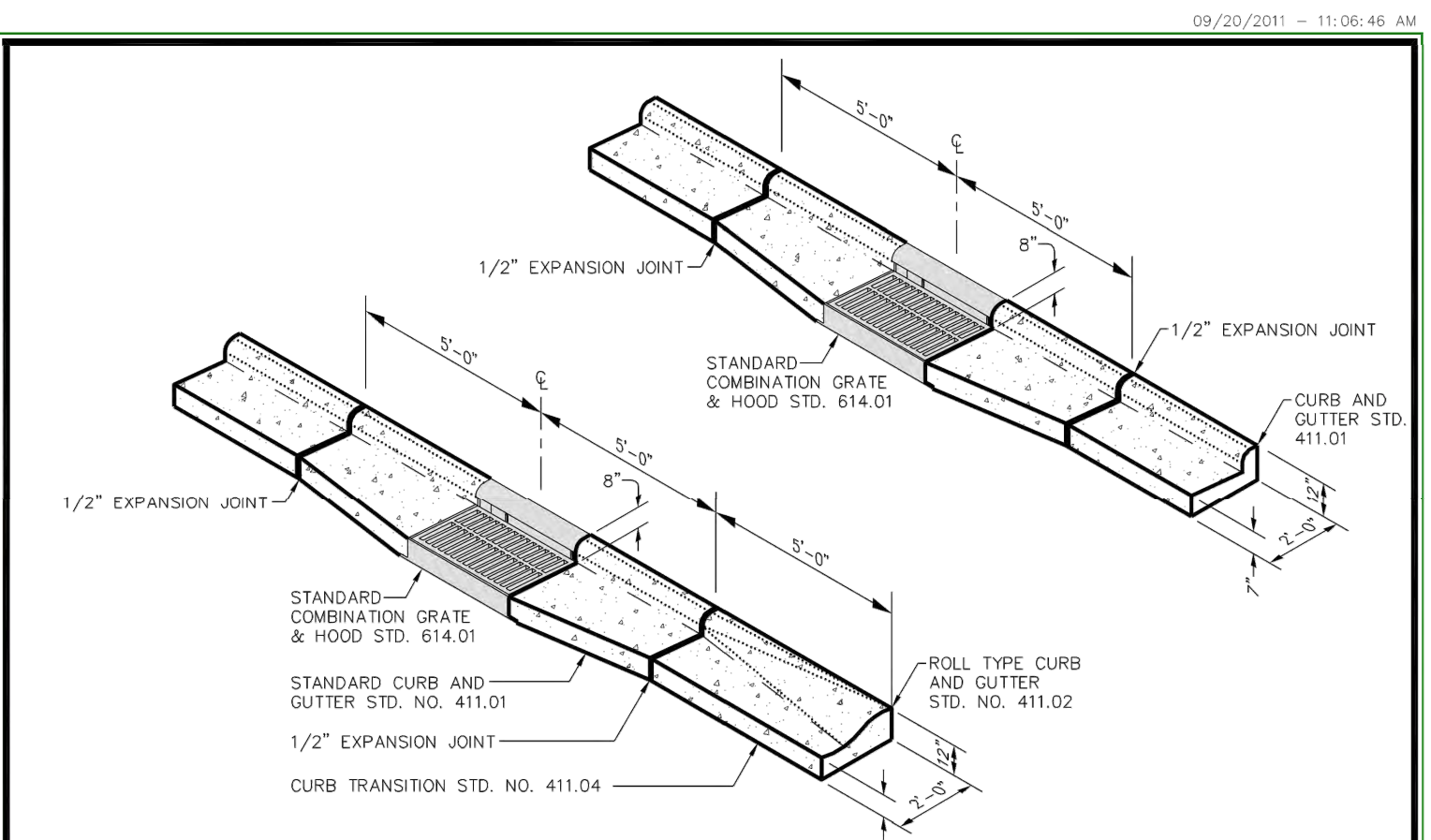
PUBLIC WORKS DEPARTMENT 1500 Beatty Street Greenville, North Carolina 27834	CITY OF GREENVILLE, N.C. USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY	www.greenvilenc.gov	No. 1 1/16/11	Date APPROVAL	Scale Not to scale	Sheet # 1 of 2	Drawn by JTD	Checked by JTD	411.05
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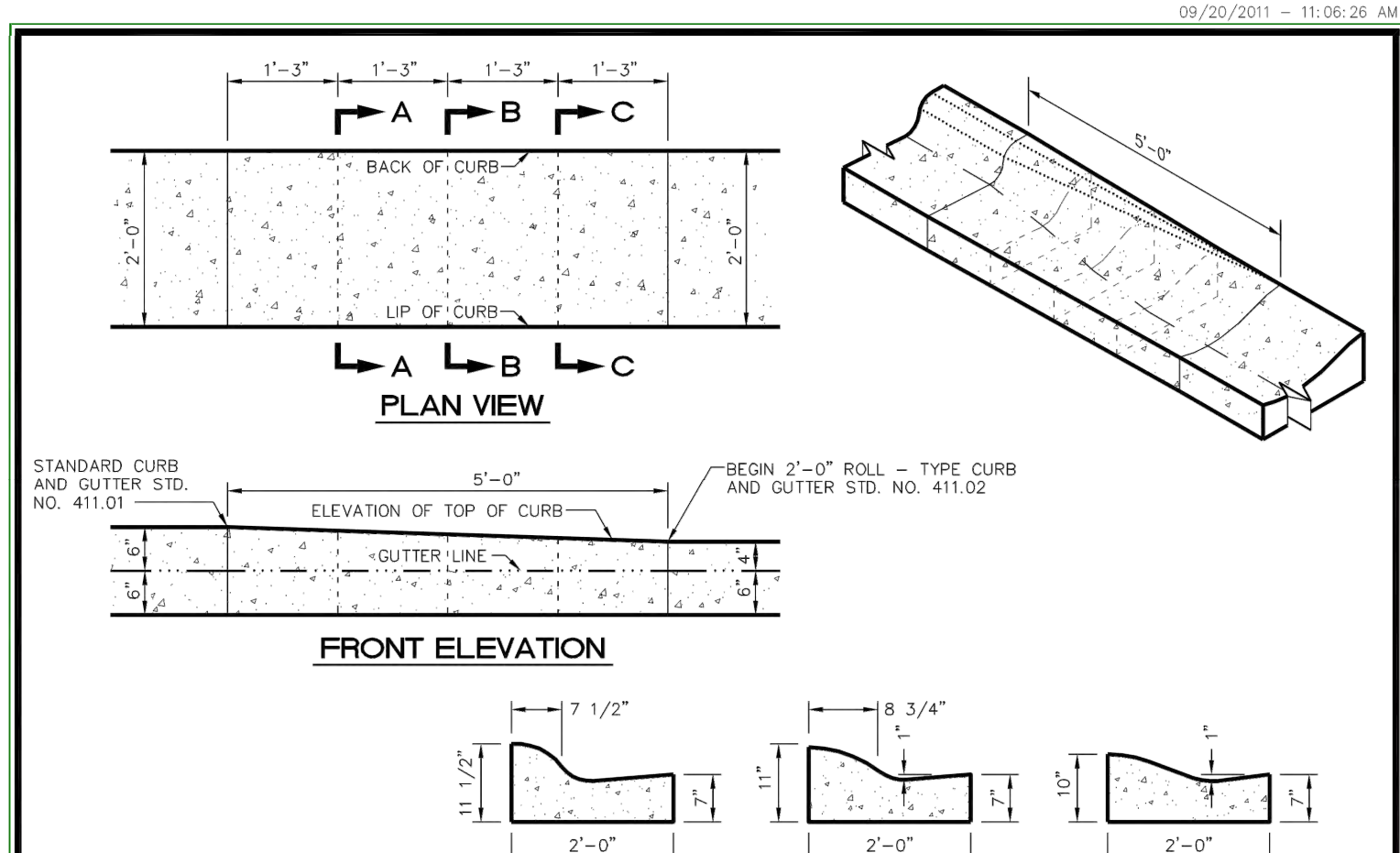
NOTES:

- Contraction joints shall be placed at 10' intervals, except that 15' spacing may be used when a machine is used or when satisfactory support for the face form can be obtained without the use of templates at 10' intervals. Joint spacing may be altered by the engineer to prevent uncontrolled cracking.
- Contraction joints may be installed by the use of templates or formed by other approved methods. Where such joints are not formed by templates, a minimum depth of 1 1/2" shall be obtained.
- All contraction joints shall be filled with joint filler.
- Expansion joints shall be spaced at 90' intervals, and adjacent to all rigid objects.
- All curb and gutters are to be poured with class "A" concrete (3,000 PSI).
- Flexible forms are to be used when radius is less than 200'.

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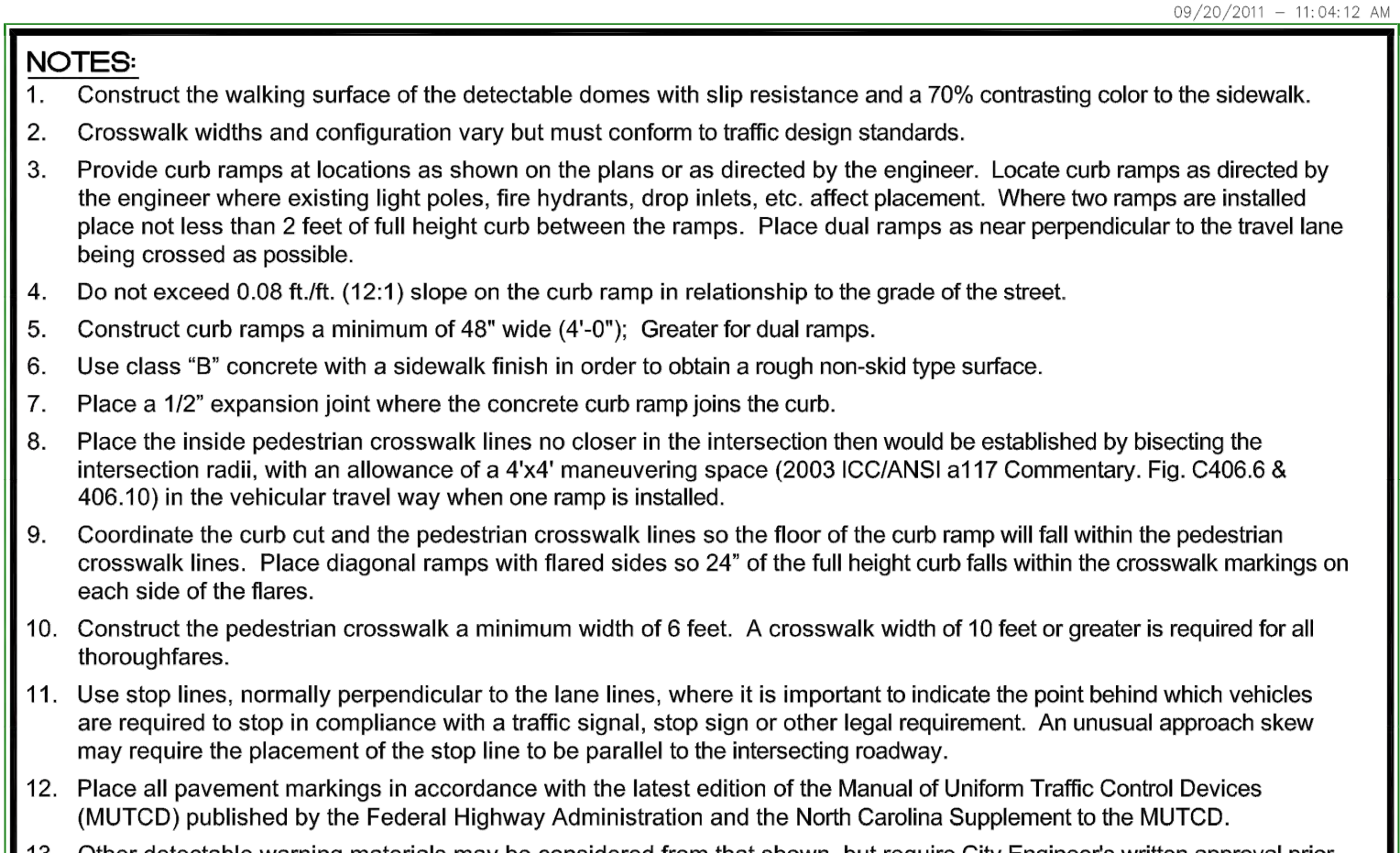
PUBLIC WORKS DEPARTMENT 1500 Beatty Street Greenville, North Carolina 27834	CITY OF GREENVILLE, N.C. USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY	www.greenvilenc.gov	No. 1 1/16/11	Date APPROVAL	Scale Not to scale	Sheet # 1 of 1	Drawn by JTD	Checked by JTD	411.03
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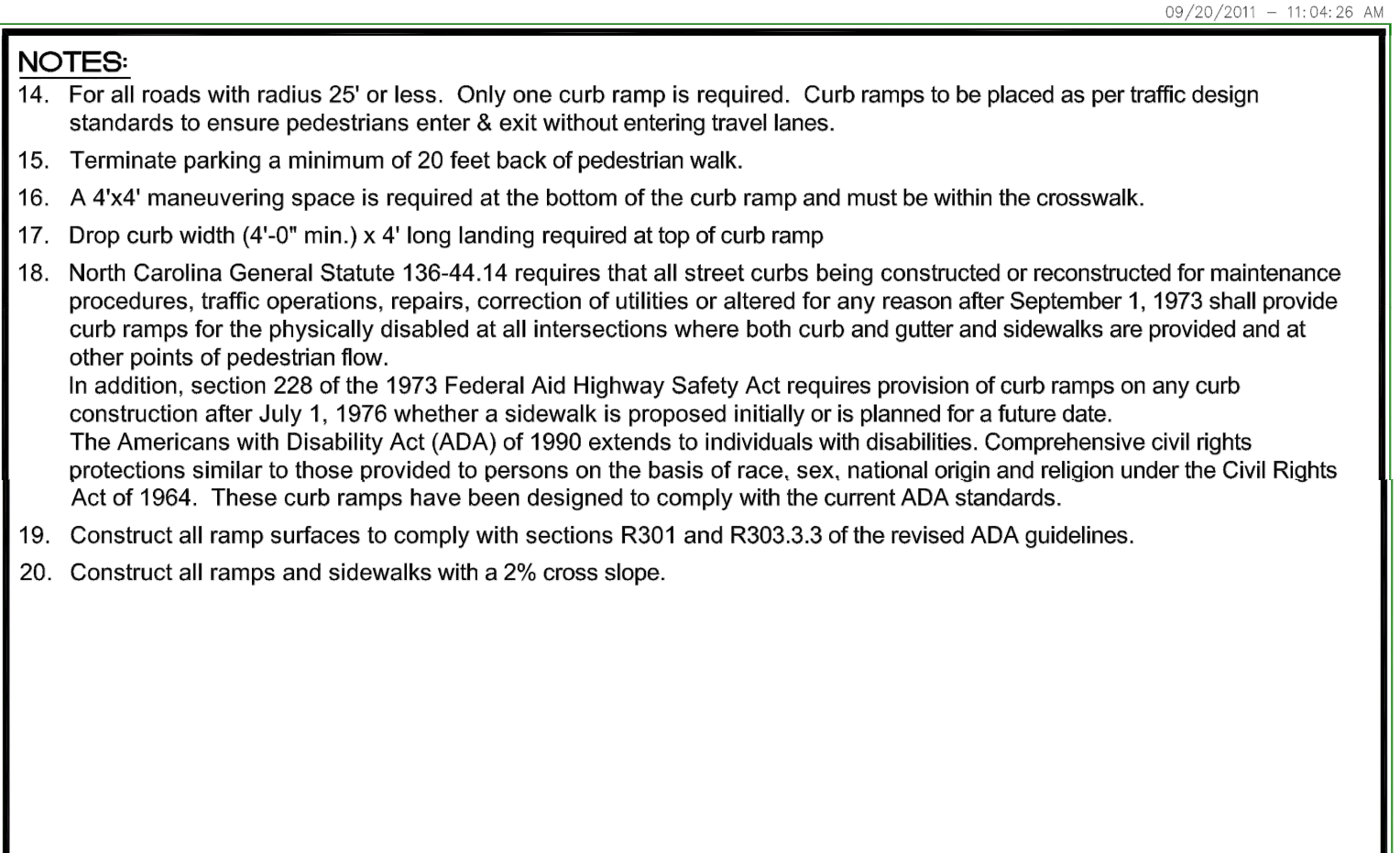
NOTES:

- Transition is NOT to be located within the curb radius.

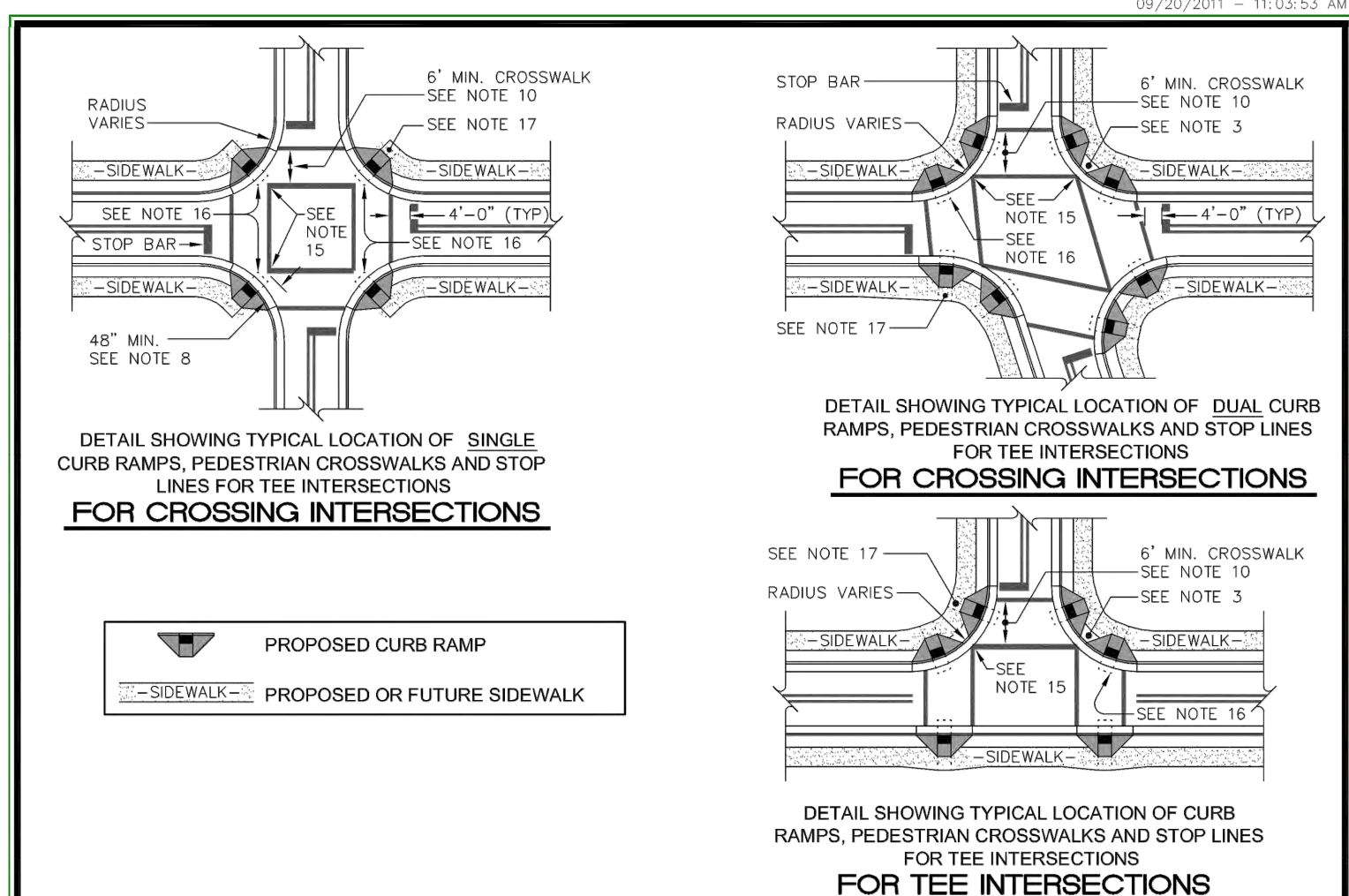
PUBLIC WORKS DEPARTMENT 1500 Beatty Street Greenville, North Carolina 27834	CITY OF GREENVILLE, N.C. USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY	www.greenvilenc.gov	No. 1 1/16/11	Date APPROVAL	Scale Not to scale	Sheet # 1 of 1	Drawn by JTD	Checked by JTD	411.04
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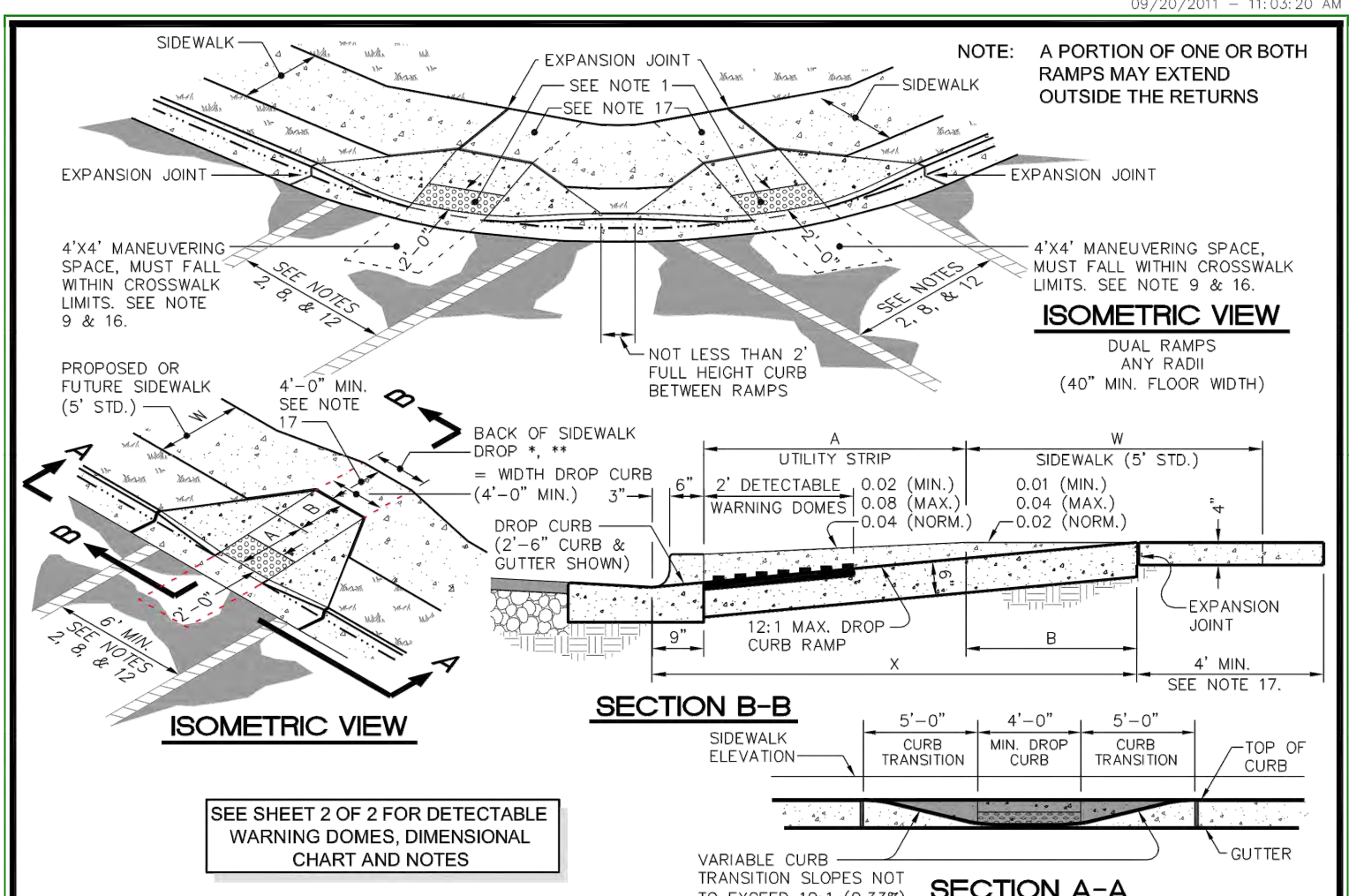
PUBLIC WORKS DEPARTMENT 1500 Beatty Street Greenville, North Carolina 27834	CITY OF GREENVILLE, N.C. USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY	www.greenvilenc.gov	No. 1 1/16/11	Date APPROVAL	Scale Not to scale	Sheet # 1 of 2	Drawn by JTD	Checked by JTD	413.01
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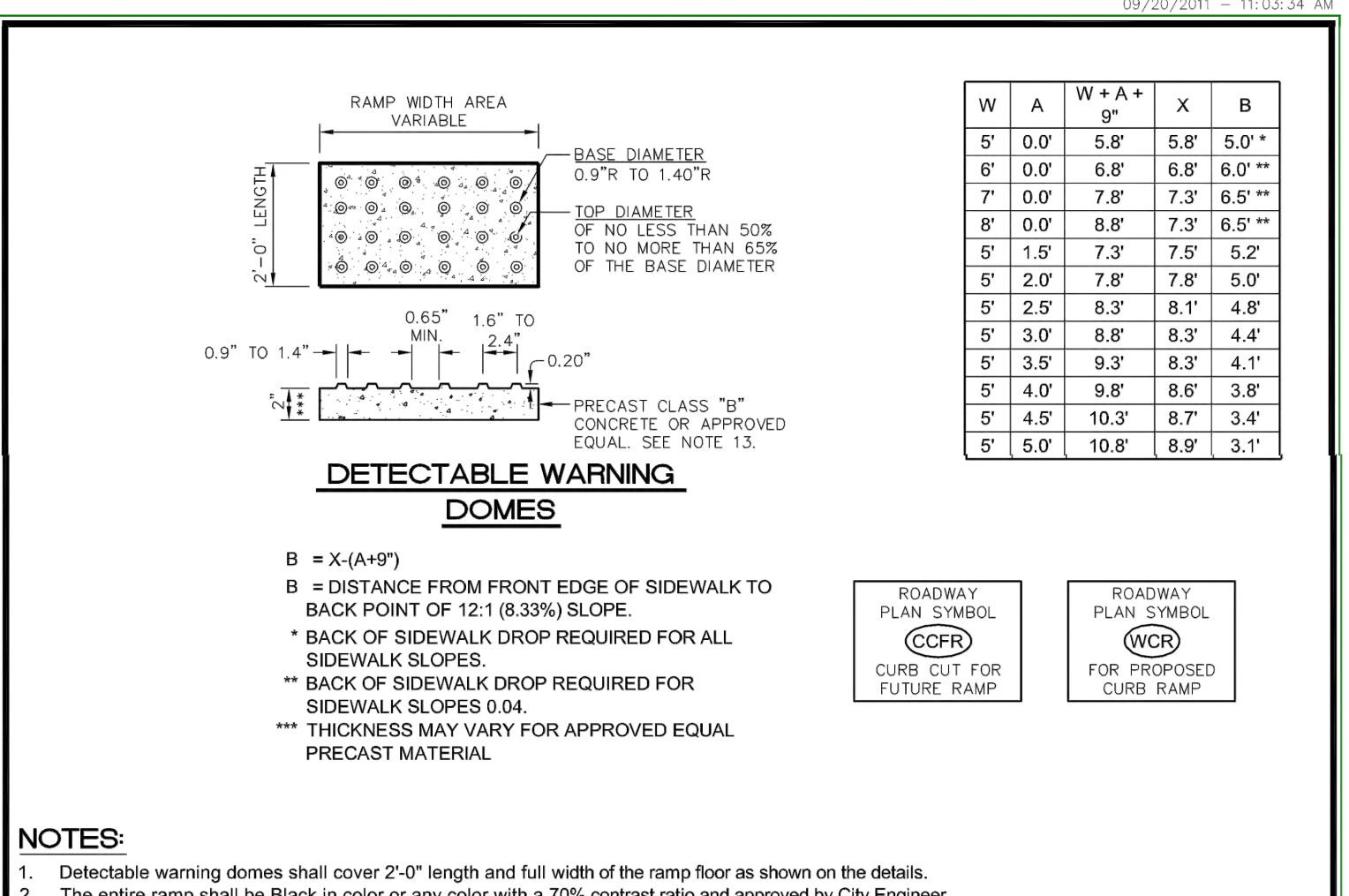
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NOTES:

- Detectable warning domes shall cover 2'-0" length and full width of the ramp floor as shown on the details.
- The entire ramp shall be Black in color or any color with a 70% contrast ratio and approved by City Engineer.

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PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0465
www.wkdickson.com
N.C. LICENSE NO. E0374

PROFESSIONAL SEAL
NORTH CAROLINA
ENGINEER
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041392
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PLANS PREPARED FOR:
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NORTH CAROLINA
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PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

WPKD PROJECT:
20220983.00.RA

DATE:
7/11/2023

100% PLANS

COG DETAILS

09/20/2011 - 11:23:15 AM

CATCH BASIN & JUNCTION BOX STANDARD NOTES

- Mortar Joints 1/2" ± 1/8" thick. Concave tool all exposed mortar joints.
- Class "A" concrete to be used. Chamfer all exposed corners 1".
- The pouring of floor slab to be accomplished by forming.
- All catch basins over 3'-6" in depth shall be provided with steps 1' on centers. Steps shall be in accordance with std. detail No. 615.01.
- Concrete brick may be used in lieu of clay brick. Jumbo brick will be permitted.
- Engineered pre-cast boxes are permitted with the City Engineer's approval.
- For 8'-0" in height or less use 8" wall. Over 8'-0" in height use 12" wall to 6'-0" from top of wall, and 8" wall for the remaining 6'-0". Adjust quantities accordingly.
- Leave weep holes as directed by the engineer.
- Construct with pipe crowns matching.
- All drawings not to scale.

MANHOLE STANDARD NOTES

- Mortar Joints 1/2" ± 1/8" thick. Concave tool all exposed mortar joints.
- Class "A" concrete to be used. Chamfer all exposed corners 1".
- Forms to be used for the construction of the base.
- Where the manhole top is exposed to road traffic, the top of the manhole is to be flush with the ground. At other locations it should be a minimum of 9" above the ground.
- Manholes over 3'-6" in depth shall be provided with steps 1' on centers. Steps shall be in accordance with Std. detail No. 615.01.
- Over 36" pipe design requires City Engineer's approval.
- For manholes over 12 ft. vertical wall depth, brick masonry wall thickness shall be 12"
- For manholes with a vertical wall depth less than 12 ft., brick masonry wall thickness shall be 8".
- All drawings not to scale.

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 1 of 1 Detail 610.01

STANDARD CATCH BASIN AND MANHOLE NOTES

09/20/2011 - 11:21:50 AM

SECTION X-X SECTION Y-Y PLAN

WHERE UP TO 24\"/>

2\"/>

NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

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1500 Beatty Street
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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 1 of 4 Detail 610.02

STANDARD BRICK CATCH BASIN (15\"/>

09/20/2011 - 11:22:03 AM

SECTION J-J SECTION Z-Z PLAN

WHERE 30\"/>

2\"/>

NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

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Scale: not to scale Sheet # 2 of 4 Detail 610.02

STANDARD BRICK CATCH BASIN (15\"/>

09/20/2011 - 11:22:16 AM

SECTION L-L SECTION M-M PLAN

WHERE 42\"/>

2\"/>

NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 3 of 4 Detail 610.02

STANDARD BRICK CATCH BASIN (15\"/>

09/20/2011 - 11:22:30 AM

DIMENSIONS AND QUANTITIES FOR BRICK CATCH BASIN

PIPE	DIMENSIONS OF BOX & PIPE			COVER DIMENSIONS	REINFORCEMENT			TOTAL	CUBIC YARDS OF CONCRETE IN BOX			BRICK MASONRY	
	SPAN	WIDTH	HEIGHT		MIN. H	MIN. H ²	BARS-U		BARS-V	BARS-W	TOP SLAB	FLOOR	TOTAL
15"	3'-0"	2'-2"	-	2'-6"	-	-	-	-	0.281	0.281	0.562	0.321	ABOVE MIN. H ¹
18"	3'-0"	2'-2"	-	2'-10"	-	-	-	-	0.281	0.281	0.562	0.321	ABOVE MIN. H ¹
24"	3'-0"	2'-2"	-	3'-4"	-	-	-	-	0.281	0.281	0.562	0.321	ABOVE MIN. H ¹
30"	3'-0"	2'-2"	3'-4"	3'-2"	1'-10"	4'-4"	4 1'-6"	3 4'-1"	0.147	0.374	0.521	1.306	
36"	3'-0"	2'-2"	3'-10"	3'-8"	2'-4"	4'-4"	4 2'-0"	4 4'-1"	0.187	0.415	0.602	1.598	0.321
42"	3'-0"	2'-2"	4'-6"	4'-4"	2'-11"	3'-6"	4 1'-9"	3 3'-3"	0.135	0.373	0.508	1.811	
48"	3'-0"	2'-2"	5'-0"	4'-10"	2'-8"	3'-6"	4 2'-6"	4 3'-3"	0.173	0.410	0.583	2.148	
54"	3'-0"	2'-2"	5'-7"	5'-4"	3'-3"	3'-6"	6 3'-3"	4 3'-3"	0.211	0.448	0.659	2.510	

SCALE: 1"=20"

PLAN

ELEVATION

SECTION R-R SECTION S-S

NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 4 of 4 Detail 610.02

STANDARD BRICK CATCH BASIN (15\"/>

09/20/2011 - 11:21:33 AM

SECTION X-X SECTION Y-Y DETAIL PLAN

DIMENSIONS OF BOX AND PIPE

PIPE	SPAN	WIDTH	HEIGHT	W 10
15"	3'-0"	2'-2"	2'-6"	2'-10"
18"	3'-0"	2'-2"	2'-10"	2'-10"
24"	3'-0"	2'-2"	3'-4"	2'-10"

W=(D+12")*(.58)

NOTES:
1. See Std. detail No. 610.01 for standard notes.

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Scale: not to scale Sheet # 1 of 1 Detail 610.03

STANDARD BRICK DOUBLE CATCH BASIN (15\"/>

09/20/2011 - 11:26:54 AM

PARTIAL SECTION

NOTES:
1. See Std. detail No. 610.01 for standard notes.

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 1 of 1 Detail 612.03

STANDARD PRECAST MANHOLE (15\"/>

09/20/2011 - 11:26:23 AM

SECTION X-X SECTION Y-Y PLAN

SECTION C-C OR D-D

15\"/>

NOTES:
1. See sheet 2 of 2 for dimensions.

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Scale: not to scale Sheet # 1 of 2 Detail 613.01

BRICK JUNCTION BOX WITH MANHOLE

09/20/2011 - 11:26:37 AM

DIMENSIONS AND QUANTITIES FOR BRICK JUNCTION BOXES

PIPE	DIMENSIONS OF BOX & PIPE			COVER DIMENSIONS	REINFORCEMENT			TOTAL	CUBIC YARDS OF CONCRETE IN BOX			BRICK MASONRY		DEDUCTIONS FOR ONE PIPE CU. YDS.	
	SPAN	WIDTH	HEIGHT		MIN. H	MIN. H ²	BARS-U		BARS-V	BARS-W	TOP SLAB	FLOOR	TOTAL	CU. YDS.	PER FT. OF HEIGHT
15"	2'-0"	2'-0"	2'-6"	12	3'-11"	3'-4"	3'-4"	0.412	0.657	0.263	0.331	0.947			
18"	2'-4"	2'-4"	2'-6"	14	3'-2"	3'-6"	3'-6"	0.496	0.814	0.296	0.344	0.985			
24"	3'-0"	3'-0"	3'-3"	16	4'-1"	4'-4"	4'-4"	0.695	1.176	0.362	0.078	1.133			
30"	3'-4"	3'-4"	3'-9"	16	4'-5"	4'-8"	4'-8"	0.807	1.481	0.395	0.122	1.170			
36"	4'-0"	4'-0"	4'-3"	20	5'-11"	5'-4"	5'-4"	1.053	1.959	0.461	0.176	2.238			
42"	4'-6"	4'-6"	4'-9"	22	5'-9"	6'-0"	6'-0"	1.333	2.503	0.527	0.240	3.233			
48"	5'-0"	5'-0"	5'-3"	24	6'-1"	6'-4"	6'-4"	1.486	2.940	0.560	0.313	4.422			
54"	5'-6"	5'-6"	5'-9"	26	6'-7"	6'-10"	6'-10"	1.729	3.502	0.609	0.396	5.535			
60"	6'-0"	6'-0"	6'-3"	28	7'-1"	7'-4"	7'-4"	1.992	4.118	0.658	0.489	6.660			
66"	6'-6"	6'-6"	6'-9"	30	7'-7"	7'-10"	7'-10"	2.278	4.778	0.708	0.591	7.798			

NOTES:
1. Use #5 bar dowels at 12" centers.
2. If reinforced concrete pipe is used in base slab of box, add to base as shown on std. detail 610.03.
3. Adjust the steel, concrete and brick masonry quantities to include the addition of the manhole (i.e. diagonal bars shortened around opening in top slab, additional variable height brick masonry, opening in top slab).
4. Maximum depth of this structure from top to bottom slab to top elevation is 12'-0".
5. See Std. detail No. 610.01 for standard notes.

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Scale: not to scale Sheet # 2 of 2 Detail 613.01

BRICK JUNCTION BOX WITH MANHOLE

PLANS PREPARED BY:
WK DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0465
(919) 782-9672
www.wkdickson.com
N.C. LICENSE NO. F0374

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041392
MARC I. HORSTMAN

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PLANS PREPARED FOR:
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PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
COG DETAILS

WKD PROJECT:
20220983.00.RA

DATE:
7/11/2023

100% PLANS

D4

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09/20/2011 - 11:25:51 AM

STANDARD CATCH BASIN ASSEMBLY FRAME, HOOD & GRATE

NOTES:
1. All hoods must be stamped "FLOWS TO RIVER"
2. All grates must be "MADE/MANUFACTURED IN USA" and indicated on grate.
3. All castings shall be coated with coal tar pitch varnish while hot.

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No. 1 Date 9/16/11 Description APPROVAL
Scale: not to scale Sheet # 1 of 1 614.01

09/20/2011 - 11:26:07 AM

DIMENSIONS AND QUANTITIES FOR BRICK JUNCTION BOXES

PIPE	DIMENSIONS OF BOX & PIPE			HEIGHT
	SPAN	WIDTH	HEIGHT	
D	A	B	H	
72"	7'-0"	7'-0"	7'-0"	MIN 8'-0"
84"	8'-0"	8'-0"	8'-0"	
96"	9'-0"	9'-0"	9'-0"	
108"	10'-0"	10'-0"	10'-0"	MAX 12'-0"
120"	11'-0"	11'-0"	11'-0"	

NOTES:
1. See Std. detail No. 610.01 for standard notes.
2. Detail for dimension purposes only.
All boxes of this type to be designed by professional engineer.

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No. 1 Date 9/16/11 Description APPROVAL
Scale: not to scale Sheet # 2 of 2 613.02

09/20/2011 - 11:25:46 AM

STD. BRICK JUNCTION BOX (72" THRU 120" PIPE)

NOTES:
1. See Std. detail No. 610.01 for standard notes.
2. See sheet 2 of 2 for dimensions.
3. Detail for dimension purposes only.
All boxes of this type to be designed by professional engineer.

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Scale: not to scale Sheet # 2 of 2 613.02

09/20/2011 - 11:24:23 AM

STANDARD STEPS

NOTES:
1. Steps differing in dimensions, configuration, or materials from those shown may also be used provided the contractor has furnished the City with details of the proposed steps and has received written approval from the city for the use of such steps.
2. All steps shall protrude from inside face of structural wall.

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Scale: not to scale Sheet # 1 of 1 615.01

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STANDARD MANHOLE FRAME & COVER

NOTES:
1. Approximate cover weight 383 pounds.
2. All castings shall be made of clean even grain, tough gray cast iron. Casting shall be smooth, true to pattern and free from projections, sand holes, warp and other defects.
3. All castings shall be coated with coal tar pitch varnish while hot.
4. The iron used for these castings shall conform to the specifications of ASTM Designation A48 for Class 30 Gray Iron.
5. All castings used for storm drain structures shall have "STORM SEWER" cast on them.
6. All covers must be "MADE/MANUFACTURED IN USA" and indicated on cover.

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No. 1 Date 9/16/11 Description APPROVAL
Scale: not to scale Sheet # 1 of 1 614.04

09/20/2011 - 11:24:58 AM

STANDARD MANHOLE FRAME & COVER

NOTES:
1. Approximate cover weight 205 pounds.
2. All castings shall be made of clean even grain, tough gray cast iron. Casting shall be smooth, true to pattern and free from projections, sand holes, warp and other defects.
3. All castings shall be coated with coal tar pitch varnish while hot.
4. The iron used for these castings shall conform to the specifications of ASTM Designation A48 for Class 30 Gray Iron.
5. All castings used for storm drain structures shall have "STORM SEWER" cast on them.
6. All covers must be "MADE/MANUFACTURED IN USA" and indicated on cover.

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No. 1 Date 9/16/11 Description APPROVAL
Scale: not to scale Sheet # 3 of 1 614.03



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SIDE SYSTEM STRUCTURE TABLE				
STRUCTURE ID	RIM/TOP	INV. IN	INV. OUT	STRUCTURE DIMENSIONS
JB201	50.72'	TBD (24" SE) (SEE NOTE 1)	40.96' (24" N)	DEPTH: 9.76' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. JB W/ MH PER COG 613.01
CB202	49.24'	TBD (6" N) (SEE NOTE 1)	41.37' (18" S)	DEPTH: 7.87' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
CB203	49.21'	-	41.89' (18" S)	DEPTH: 7.32' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
JB204	50.13'	44.15' (24" S) (SEE NOTE 1)	41.08' (24" N)	DEPTH: 9.05' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. JB W/ MH PER COG 613.01
CB205	48.51'	-	41.33' (18" S)	DEPTH: 7.18' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
JB206	50.60'	TBD (24" SE) (SEE NOTE 1)	41.55' (24" N)	DEPTH: 9.05' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. JB W/ MH PER COG 613.01
CB207	50.15'	-	42.71' (18" S)	DEPTH: 7.44' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
CB208	50.80'	TBD (15" NW) (SEE NOTE 1)	42.04' (18" S)	DEPTH: 8.76' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
MH209	51.30'	TBD (42" NW) (SEE NOTE 1)	40.97' (42" S)	DEPTH: 10.33' INNER STRUCTURE DIMENSIONS: 72 INCH DIAMETER STRUCTURE DETAIL: PROP. MH PER NCDOT 840.52
CB210	51.72'	-	42.90' (18" S)	DEPTH: 8.76' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
JB211	52.43'	48.10' (15" S) (SEE NOTE 1)	42.18' (18" N)	DEPTH: 10.25' INNER STRUCTURE DIMENSIONS: 28 X 28 INCH RECTANGULAR STRUCTURE DETAIL: PROP. JB W/ MH PER COG 613.01
DI212	51.90'	-	42.18' (18" S)	DEPTH: 9.72' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. TB DROP INLET PER NCDOT 840.35

NOTES:

- CONTRACTOR SHALL VERIFY PIPE SIZE AND INVERTS PRIOR TO SHOP DRAWING SUBMITTAL.

CHIMNEY STRUCTURE TABLE				
STRUCTURE ID	RIM/TOP	-	TOP OF RCBC	STRUCTURE DIMENSIONS
CB101	49.72'	-	46.45'	DEPTH: 3.27' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
CB102	49.38'	-	46.55'	DEPTH: 2.83' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
MH103	50.20'	-	46.67'	DEPTH: 3.53' INNER STRUCTURE DIMENSIONS: 48 INCH DIAMETER STRUCTURE DETAIL: PROP. MH RISER PER COG 612.03
CB104	50.26'	-	46.90'	DEPTH: 6.36' INNER STRUCTURE DIMENSIONS: 26 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. CB W/ CI PER COG 610.02
MH105	50.95'	-	46.99'	DEPTH: 3.96' INNER STRUCTURE DIMENSIONS: 48 INCH DIAMETER STRUCTURE DETAIL: PROP. MH RISER PER COG 612.03
DI106	49.67'	-	47.13'	DEPTH: 2.54' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. TB DROP INLET PER NCDOT 840.35
DI107	50.35'	-	47.20'	DEPTH: 3.15' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. TB DROP INLET PER NCDOT 840.35
DI108	51.42'	-	47.37'	DEPTH: 4.05' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. TB DROP INLET PER NCDOT 840.35
MH109	51.66'	-	47.42'	DEPTH: 4.24' INNER STRUCTURE DIMENSIONS: 48 INCH DIAMETER STRUCTURE DETAIL: PROP. MH RISER PER COG 612.03

SEWER SYSTEM STRUCTURE TABLE				
STRUCTURE ID	RIM/TOP	INV. OUT	SUMP	STRUCTURE DIMENSIONS
DI301	51.14'	49.32' (6" W)	47.32'	DEPTH: 3.82' INNER STRUCTURE DIMENSIONS: 36 X 36 INCH RECTANGULAR STRUCTURE DETAIL: PROP. TB DROP INLET PER NCDOT 840.35

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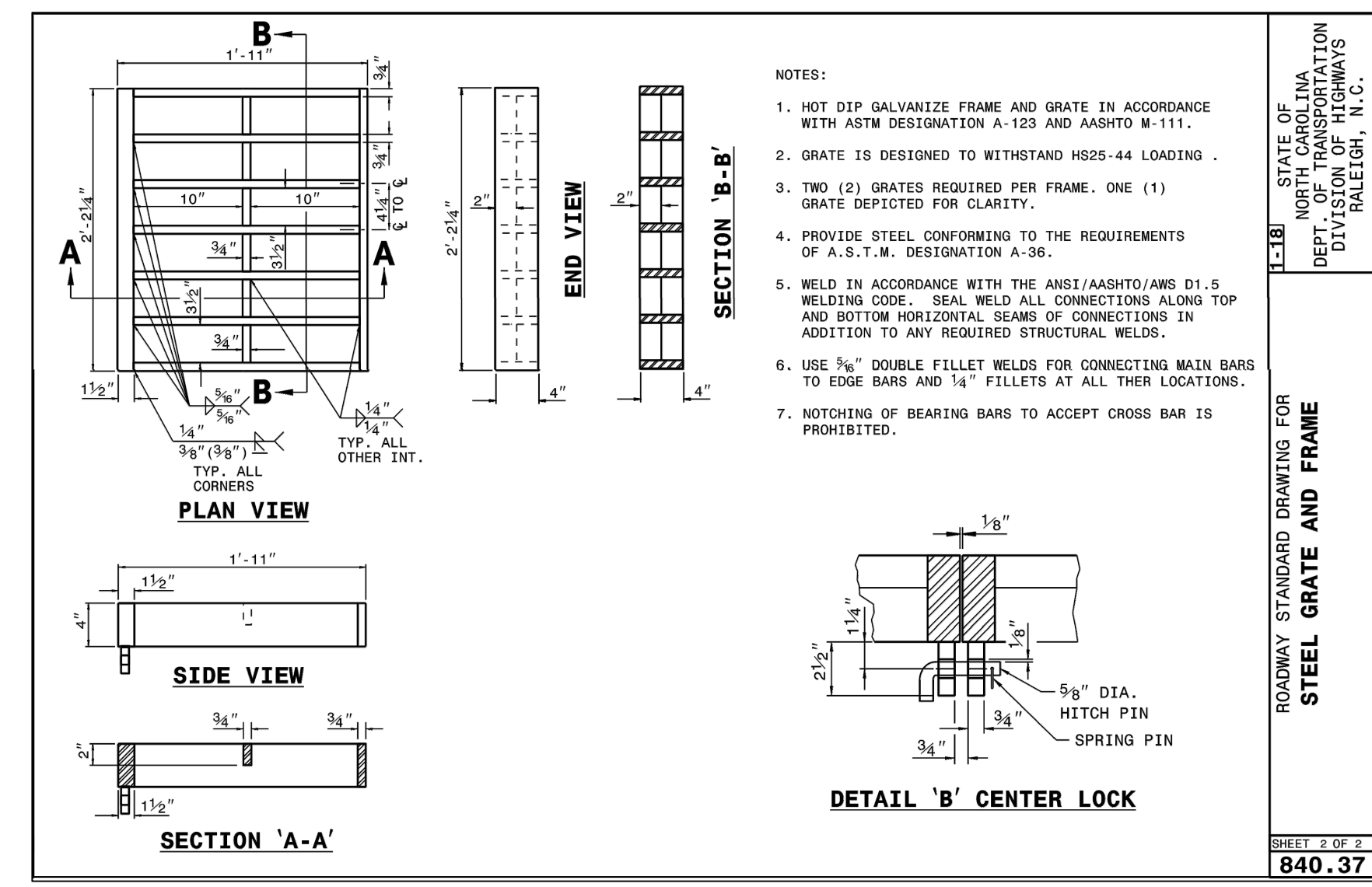
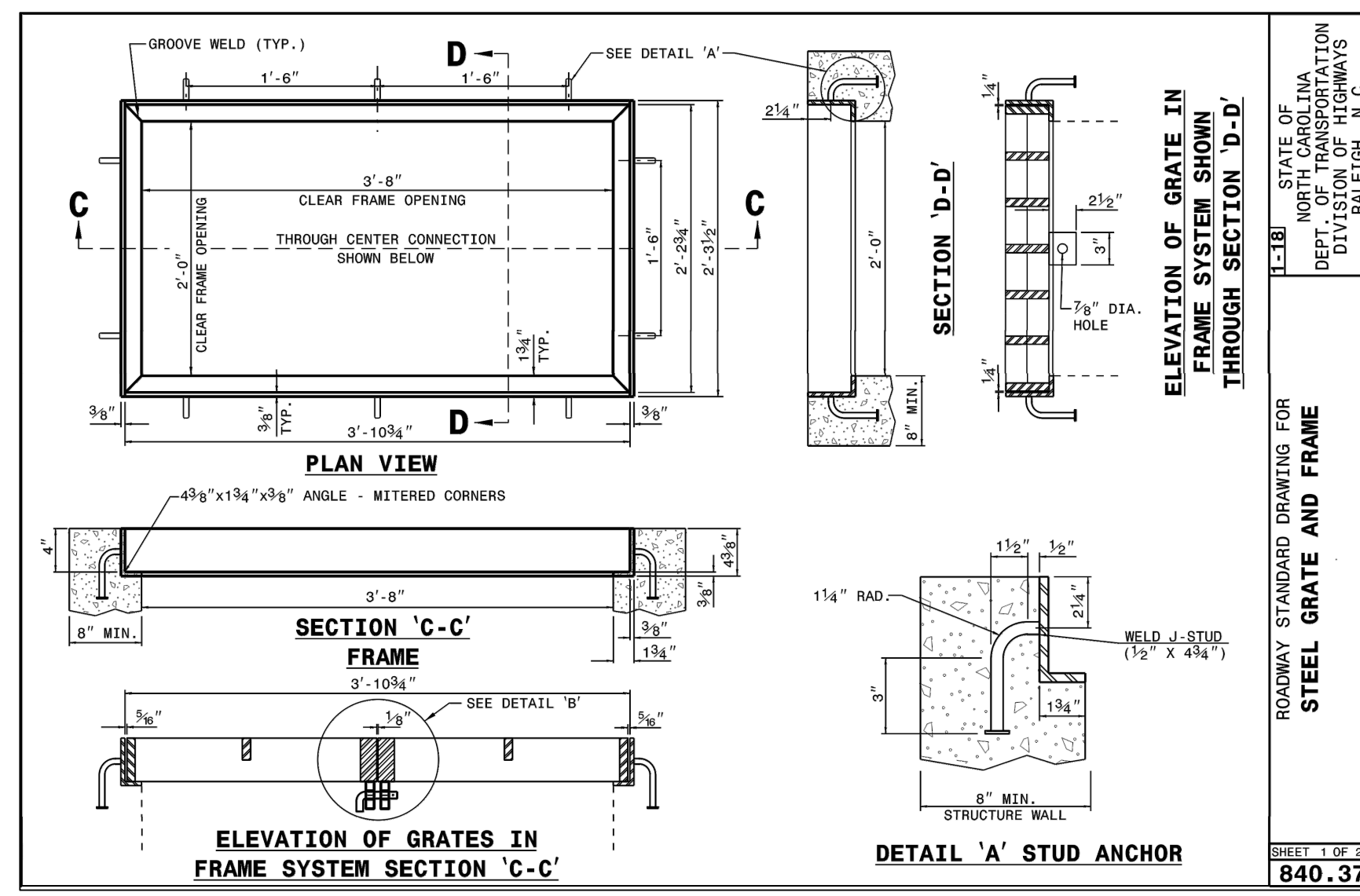
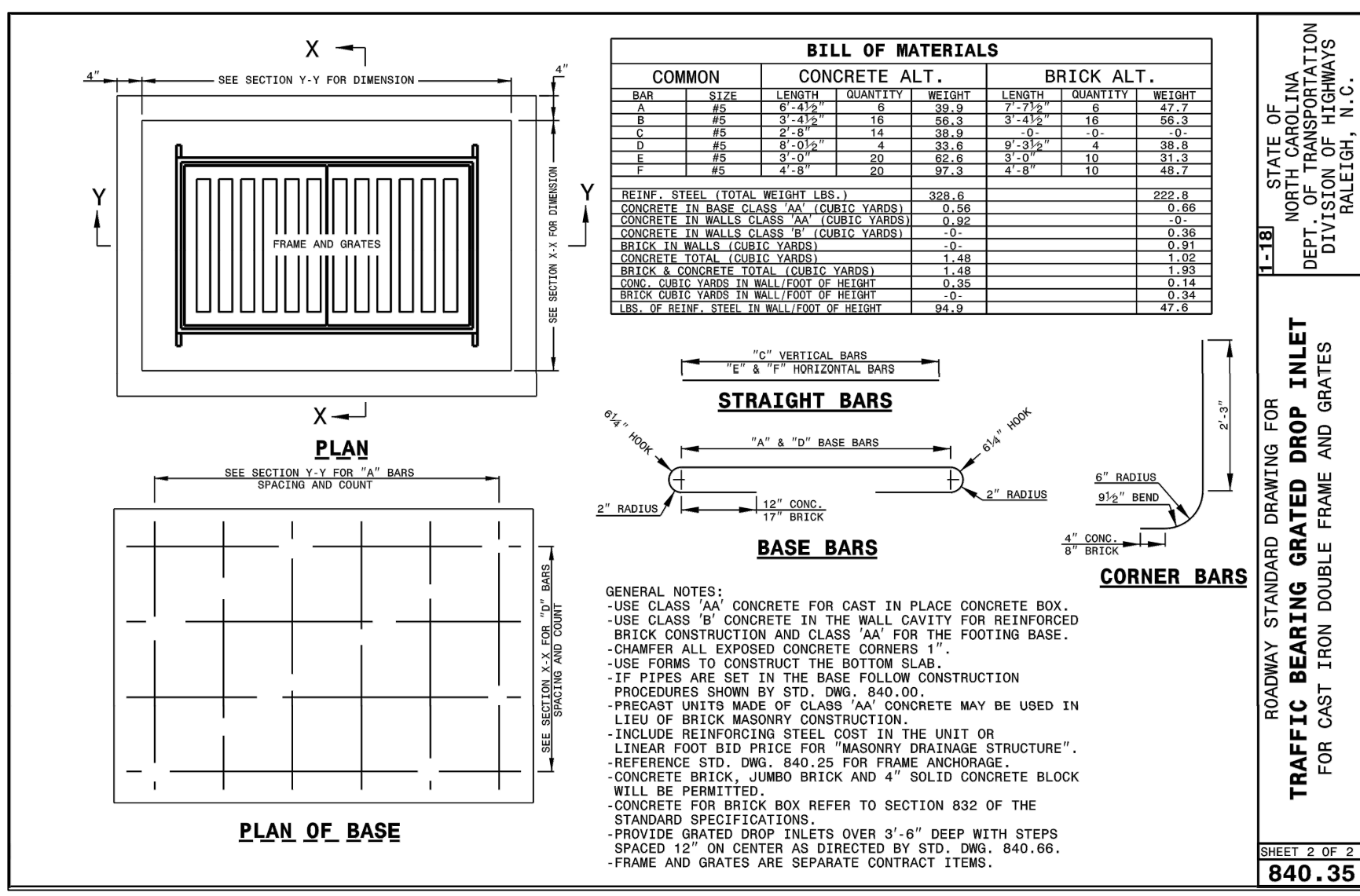
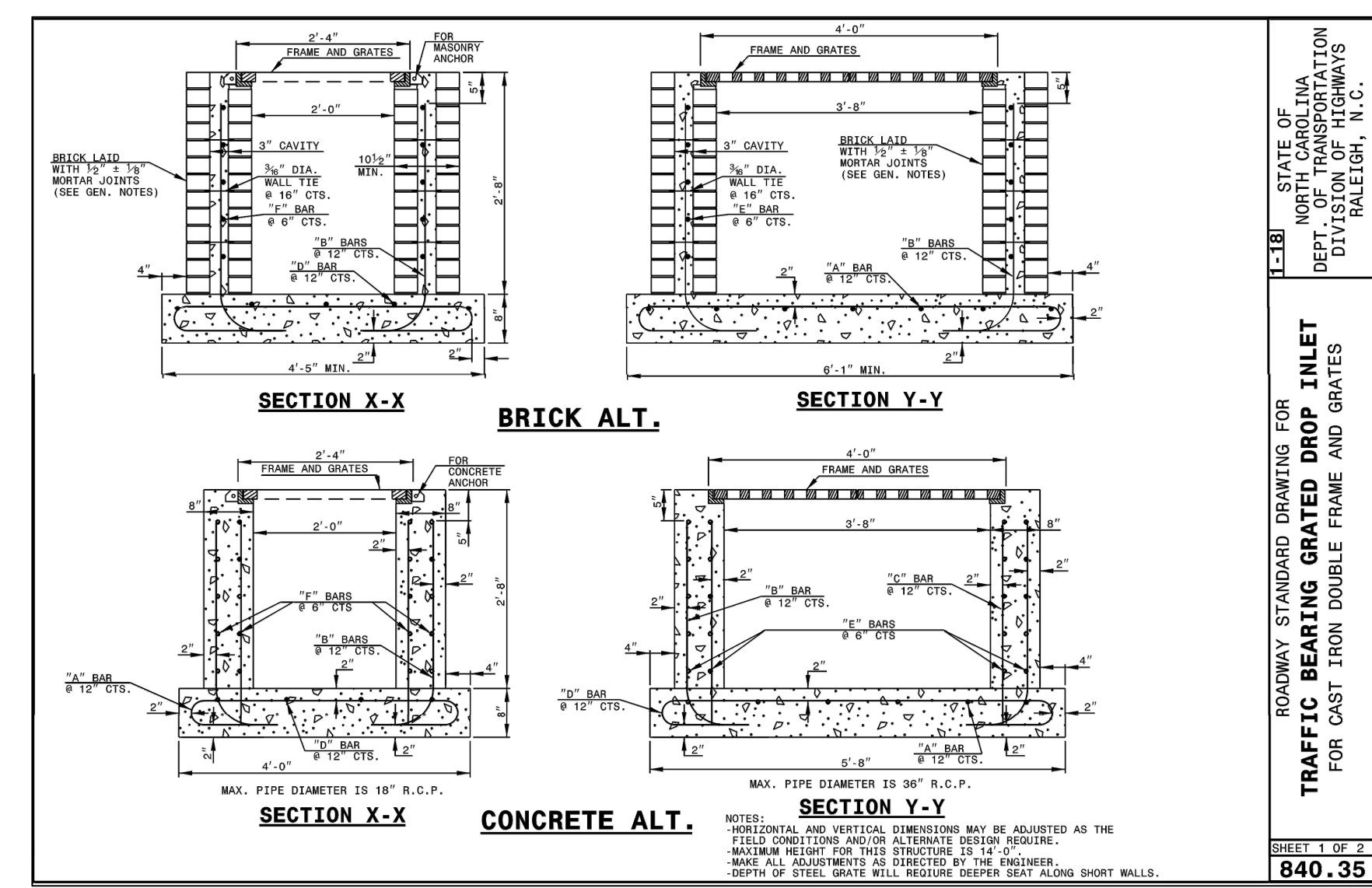
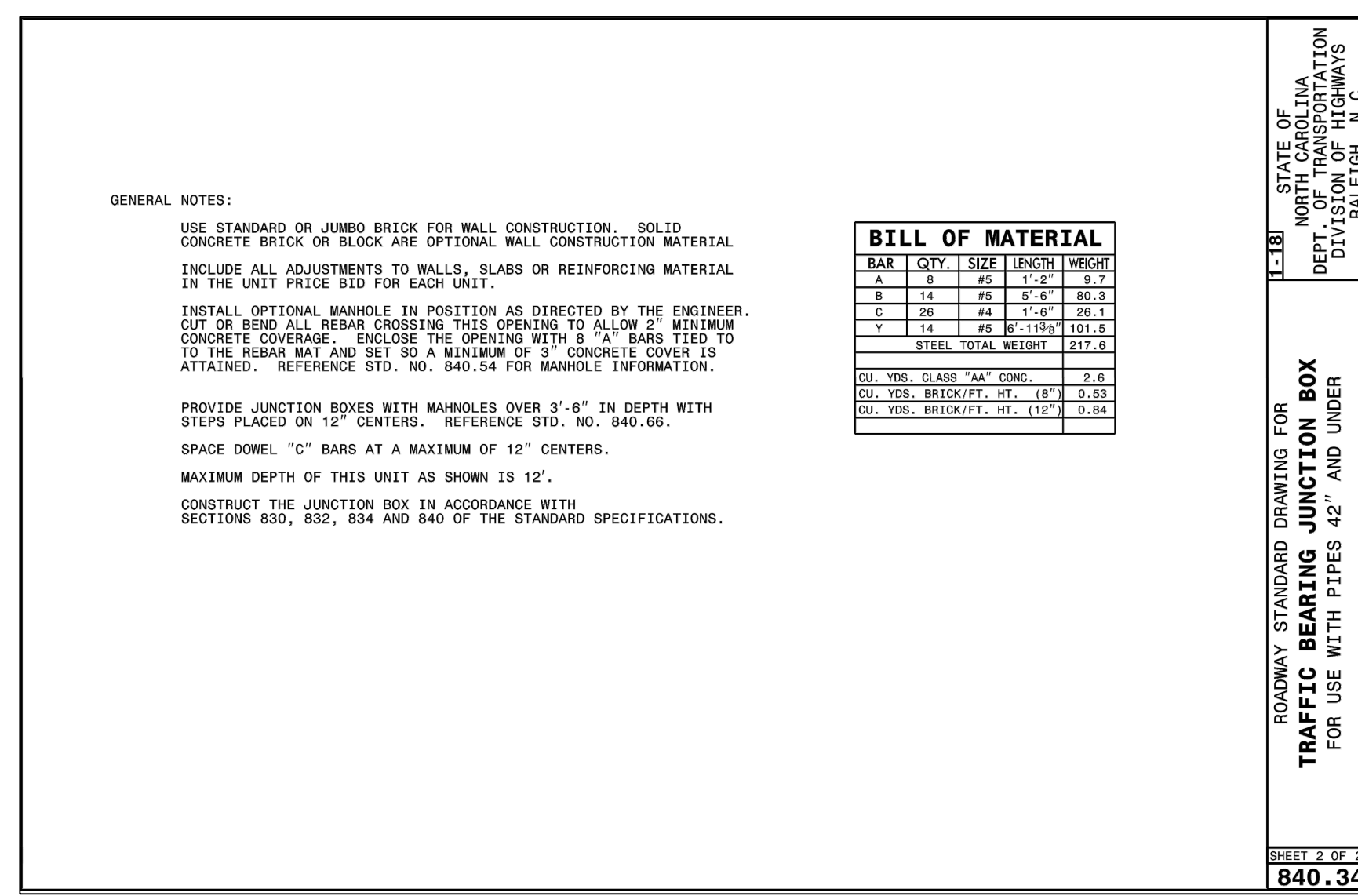
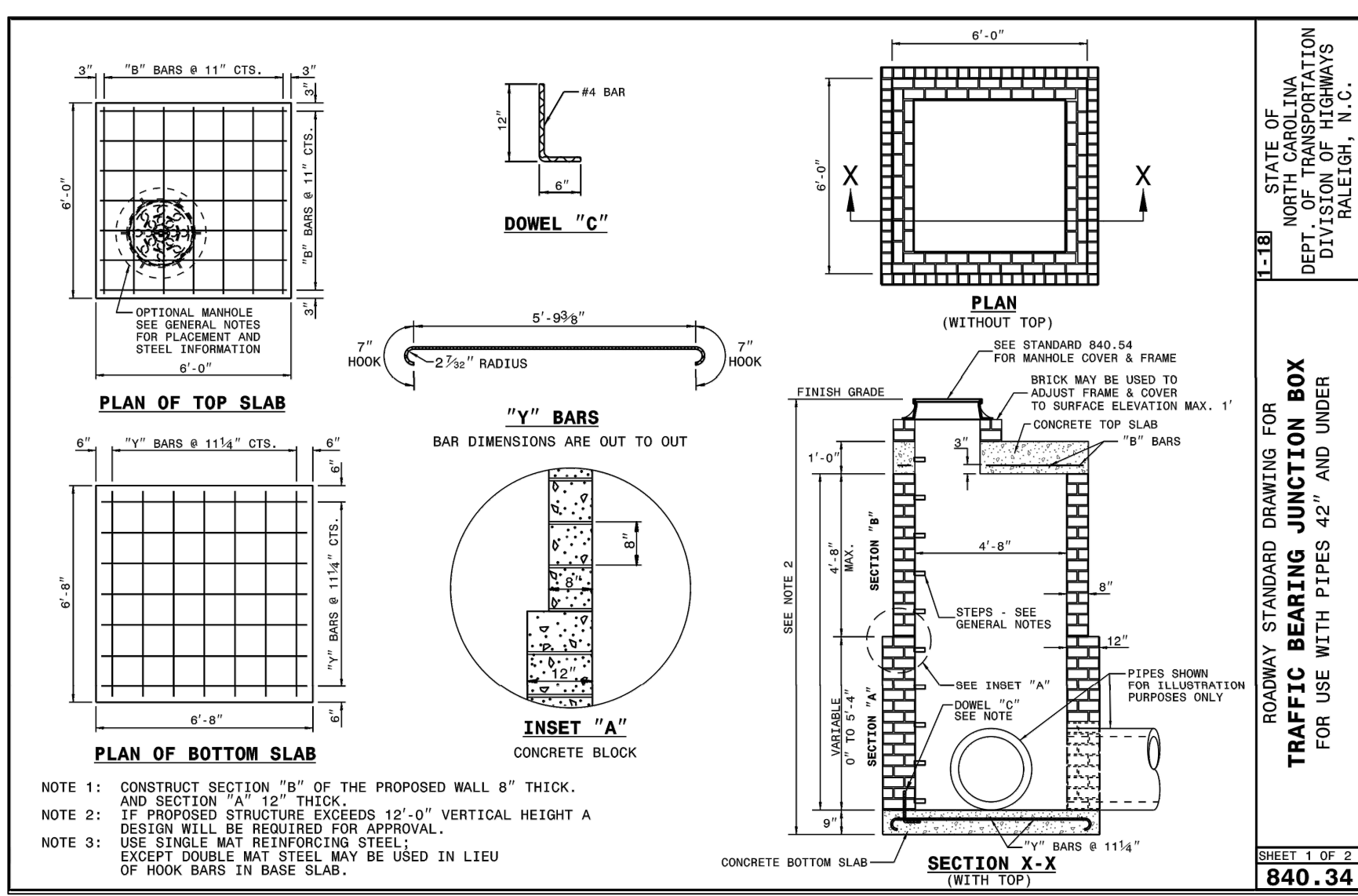
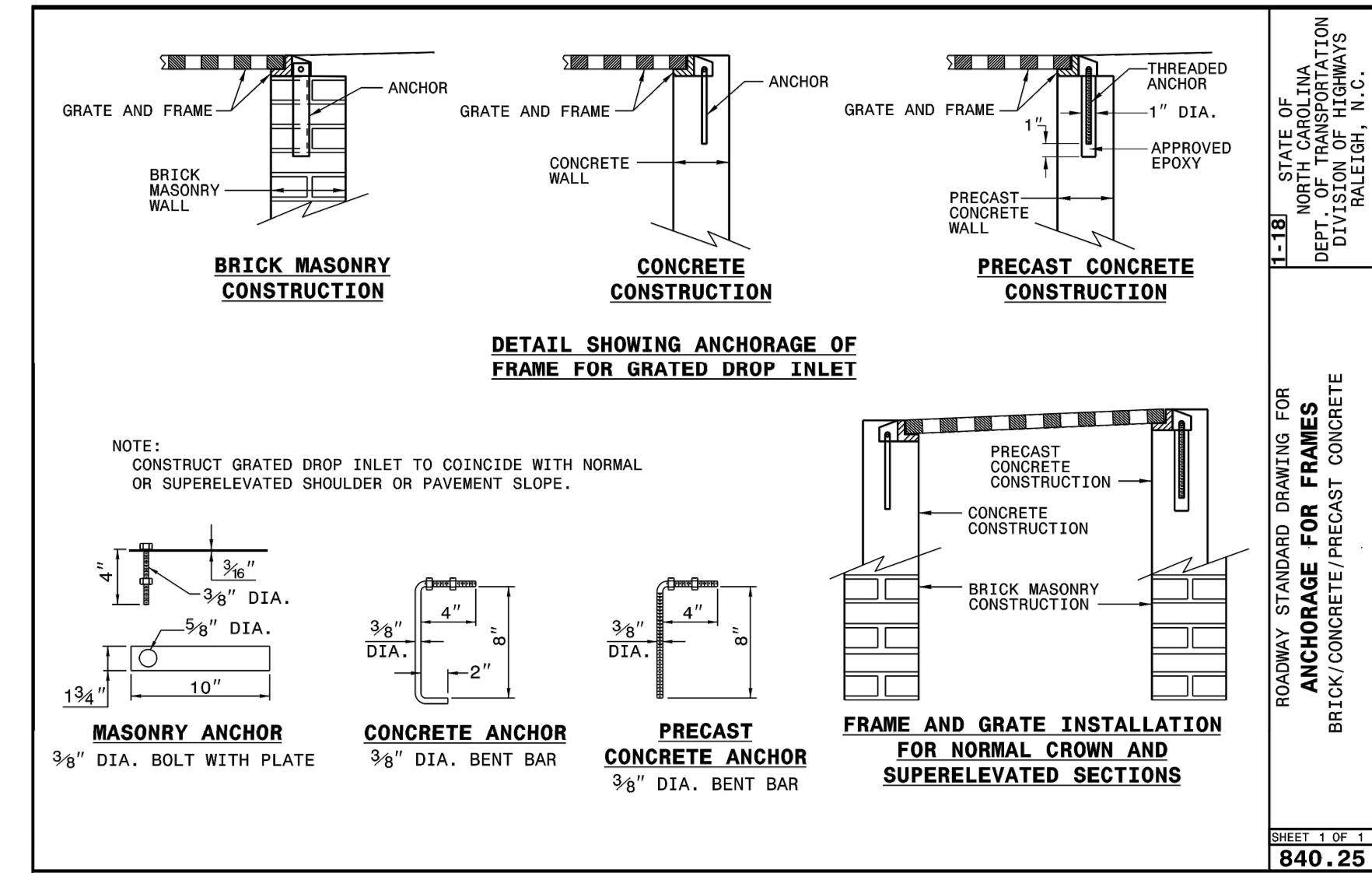
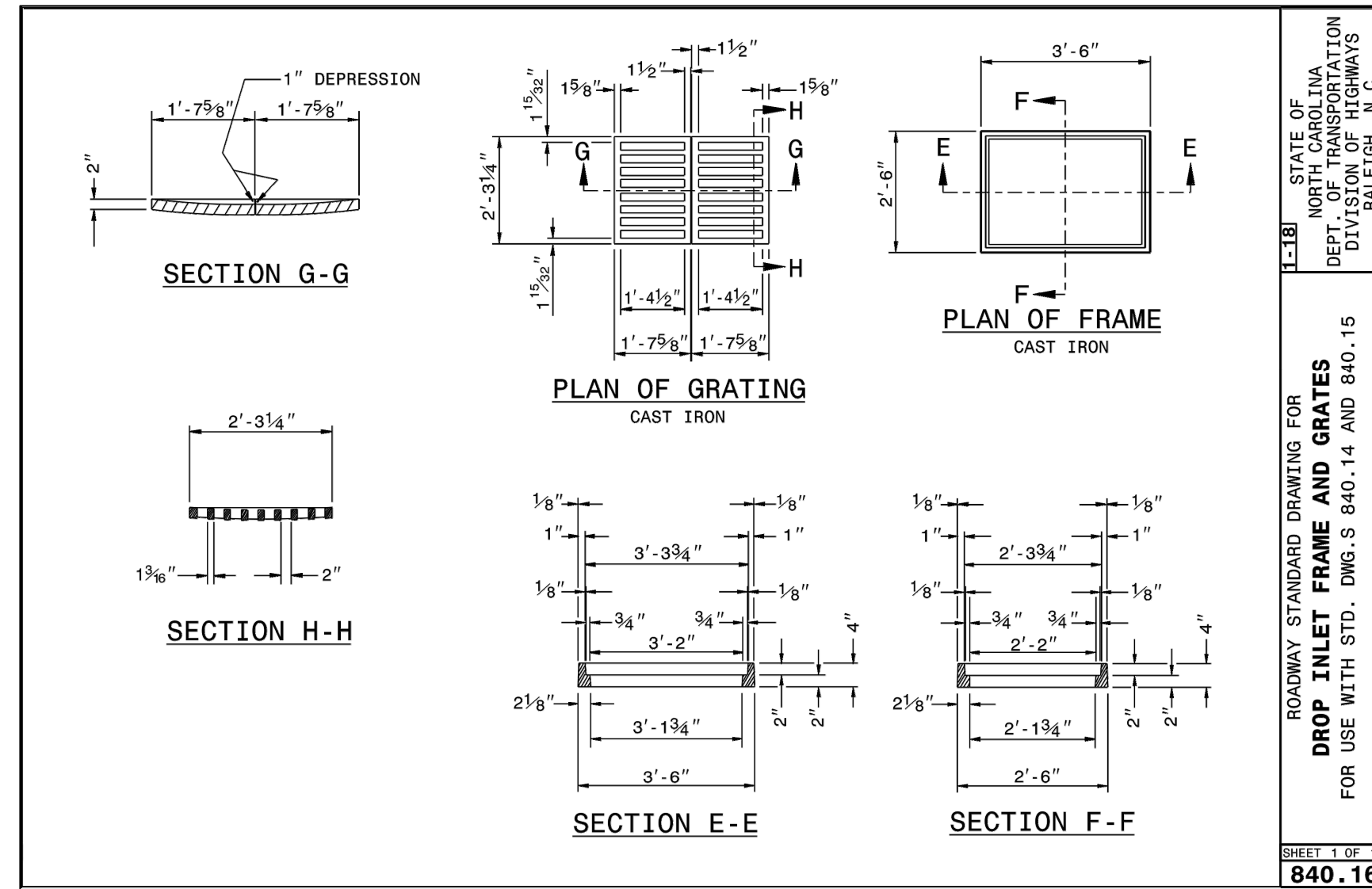
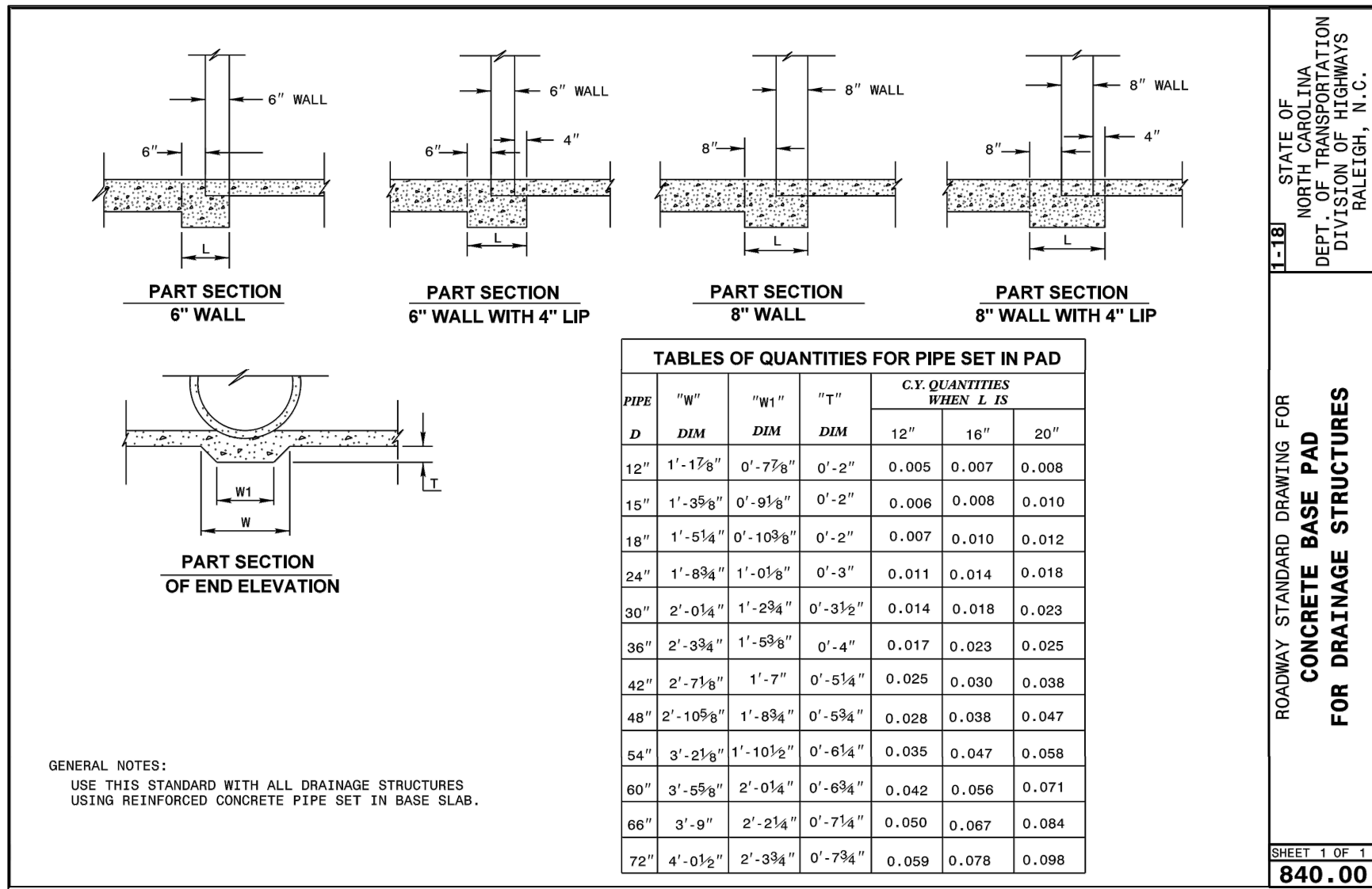
PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA

TITLE:
 STORM STRUCTURES TABLE

WKD PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

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D6



PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-3455
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F0374

PROFESSIONAL SEAL
NORTH CAROLINA
MARC T. HORSTMAN
041392

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PLANS PREPARED FOR:
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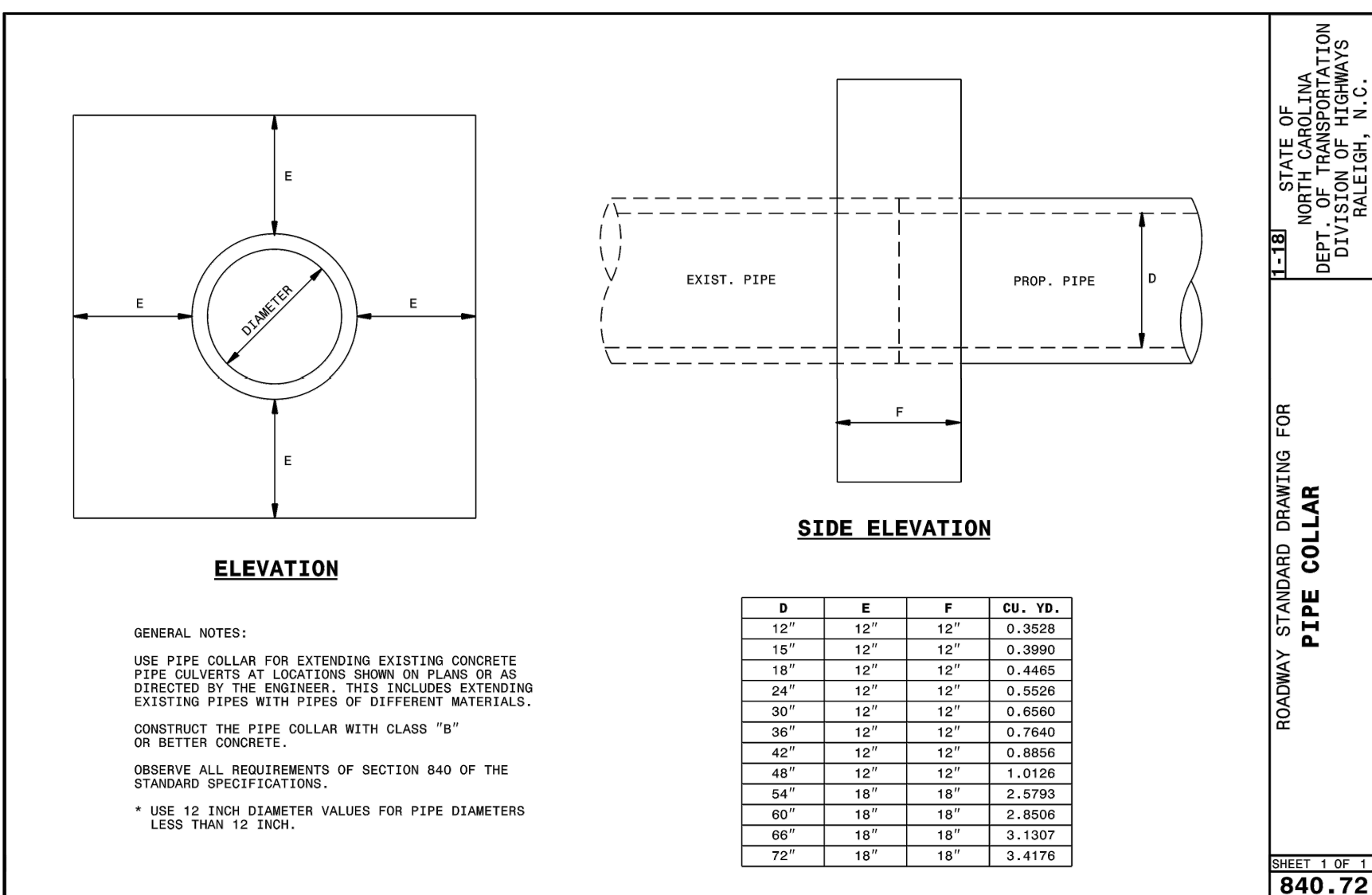
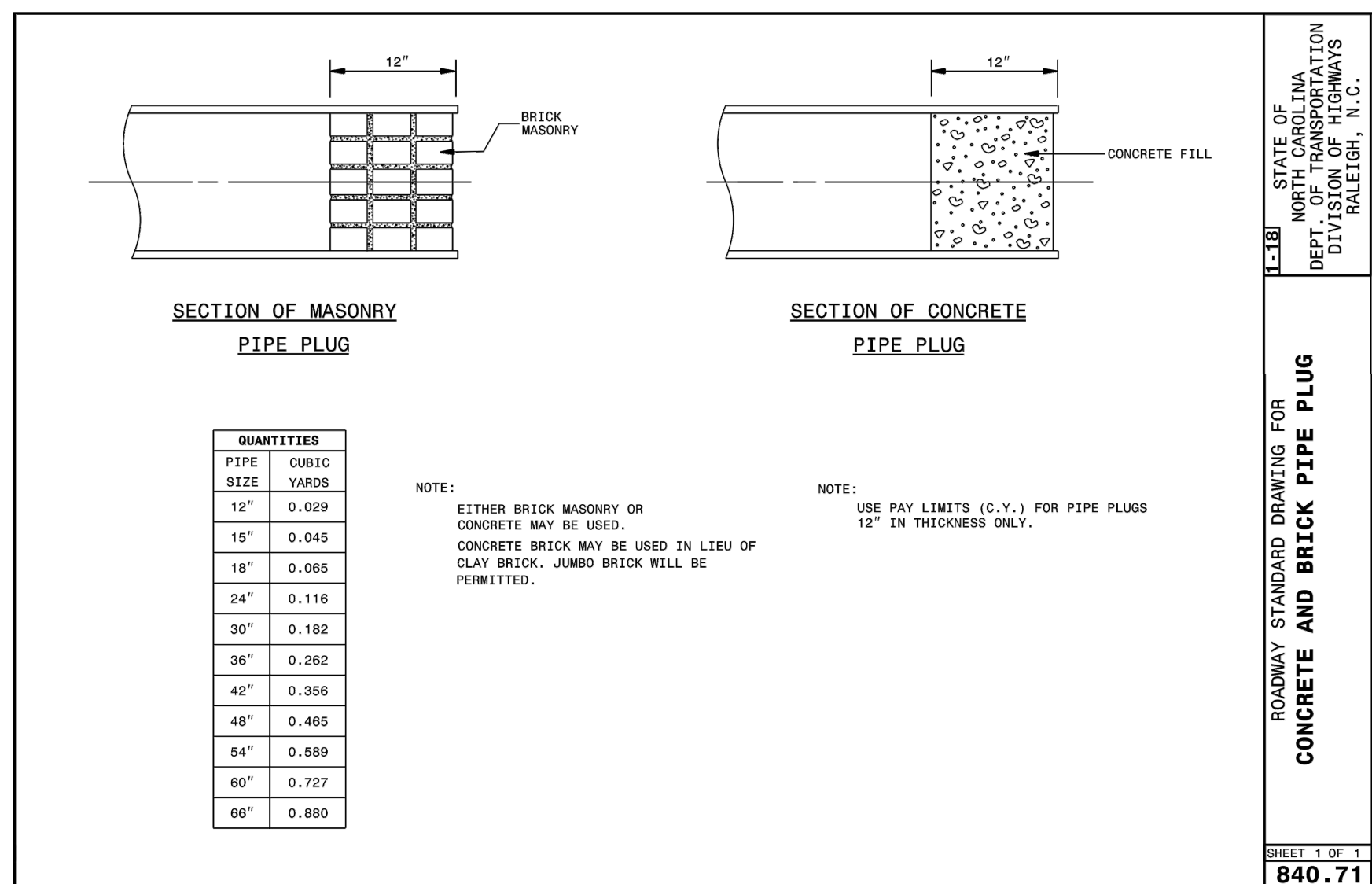
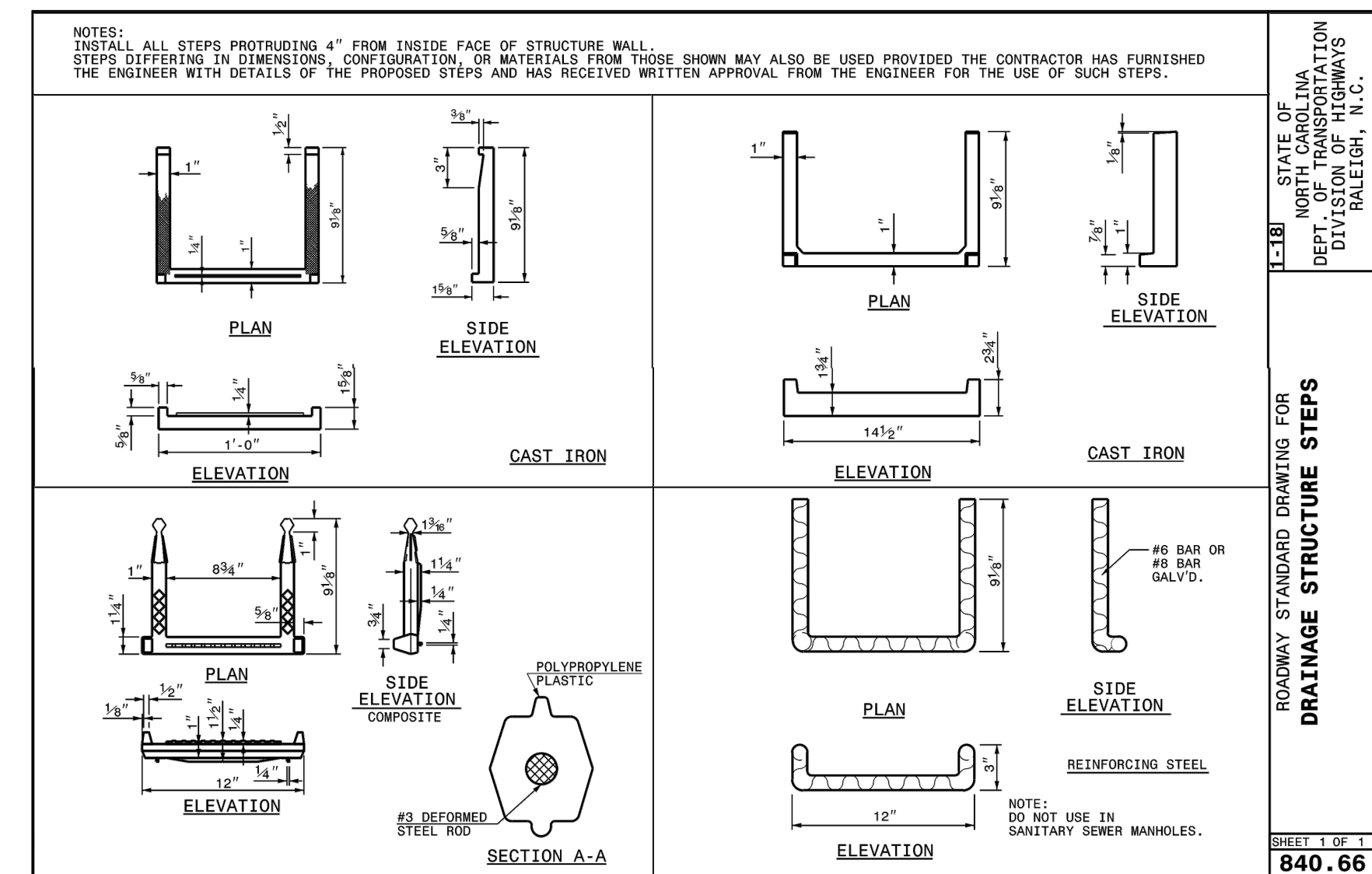
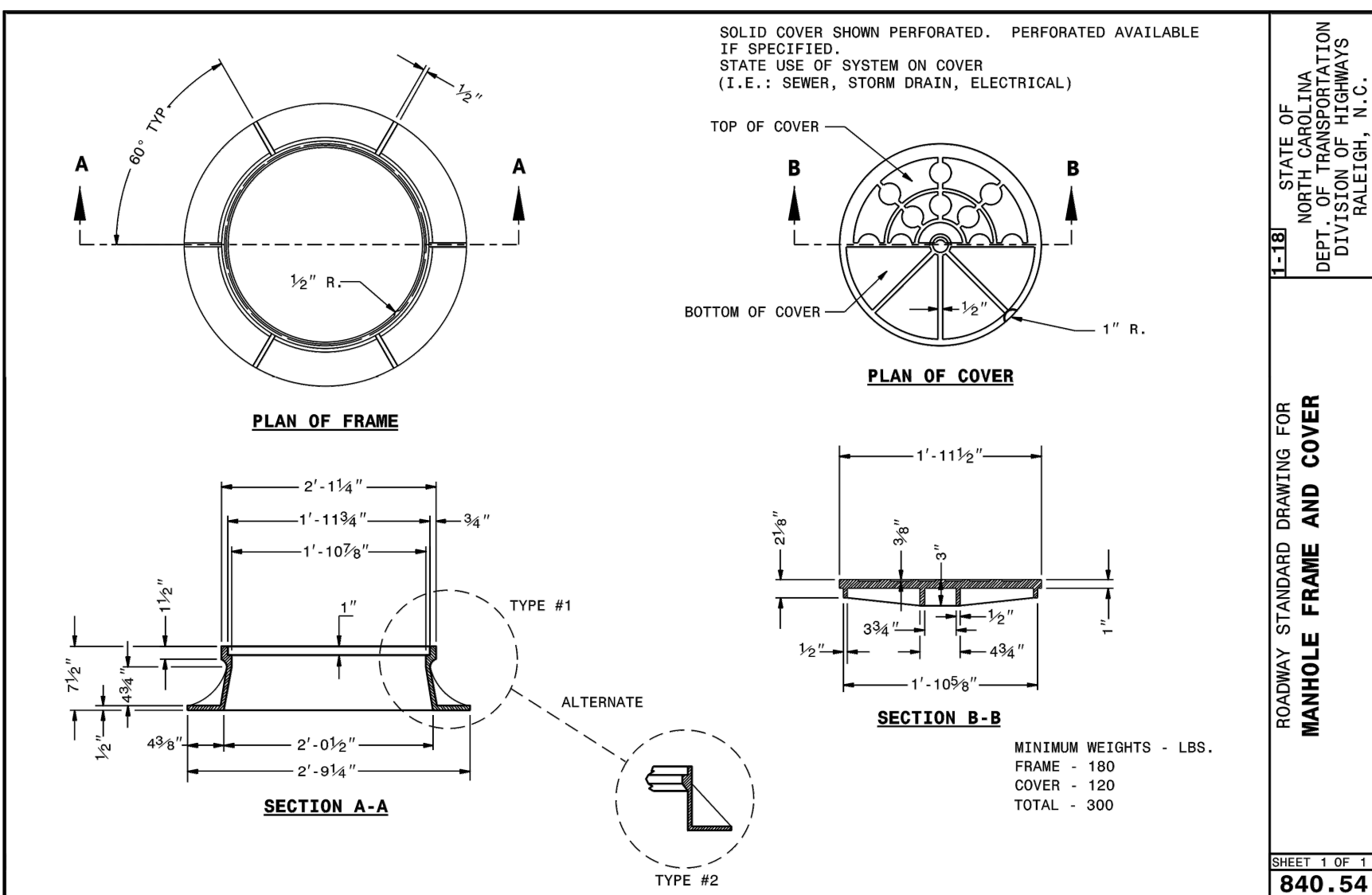
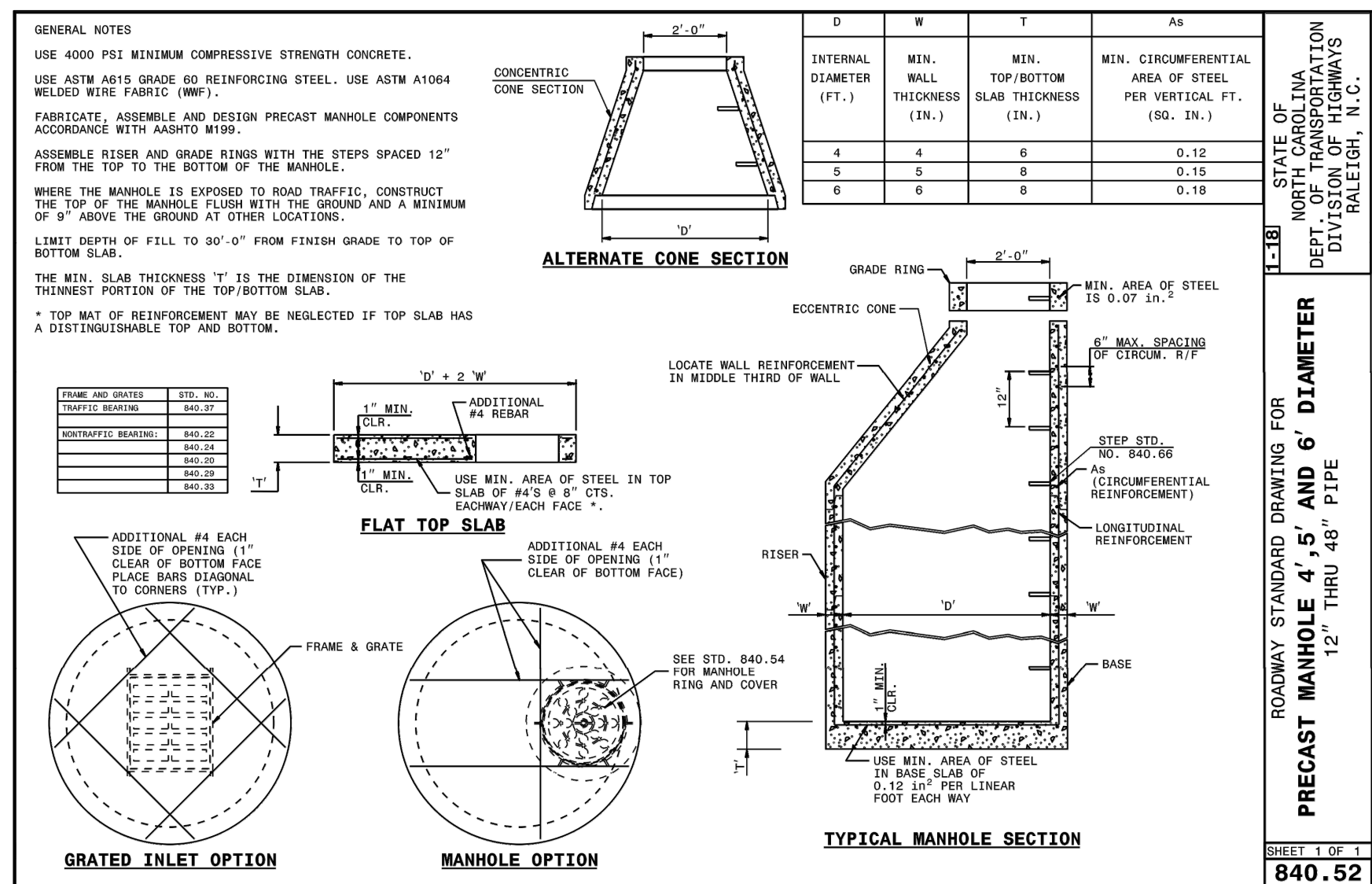
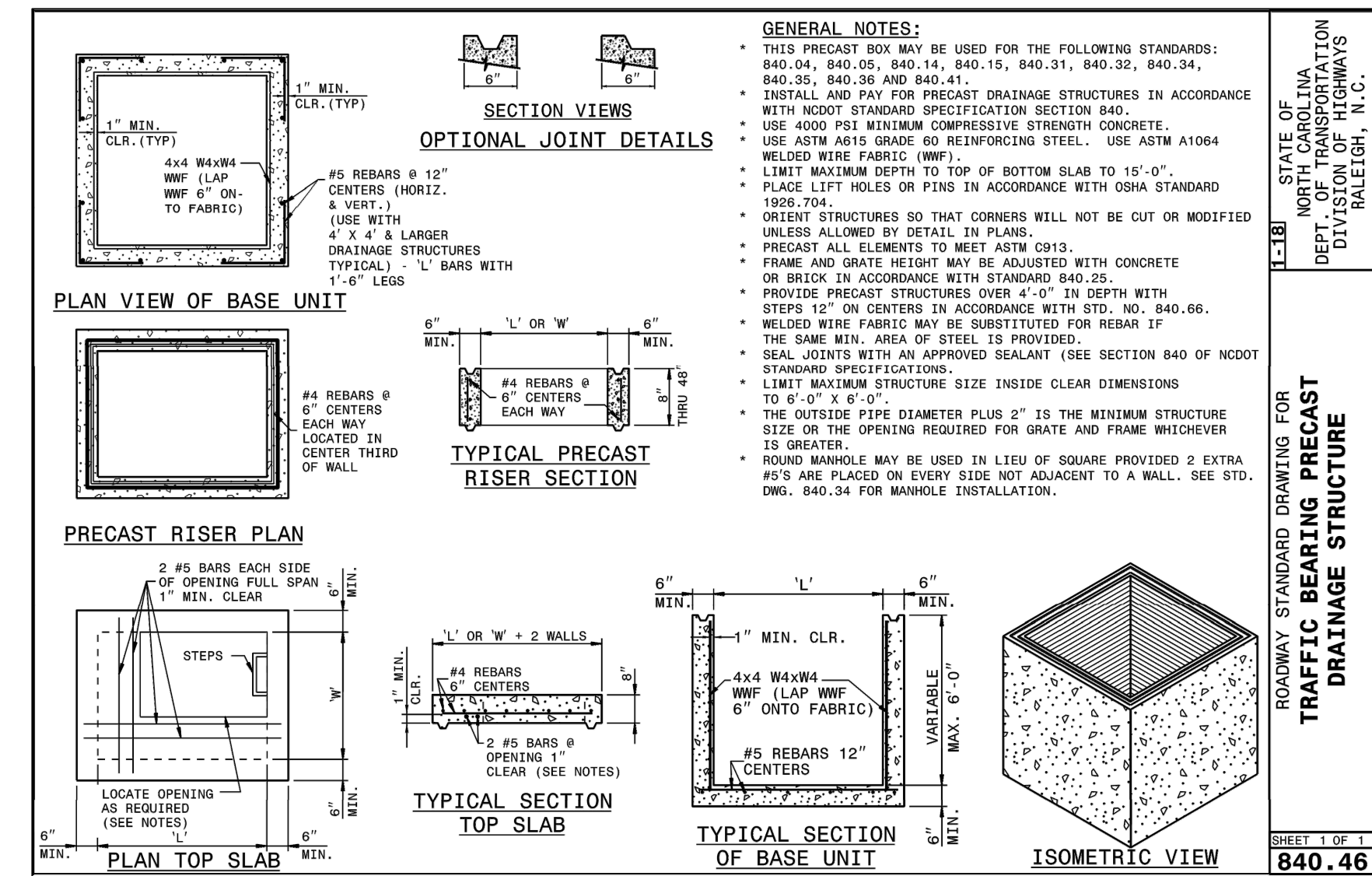
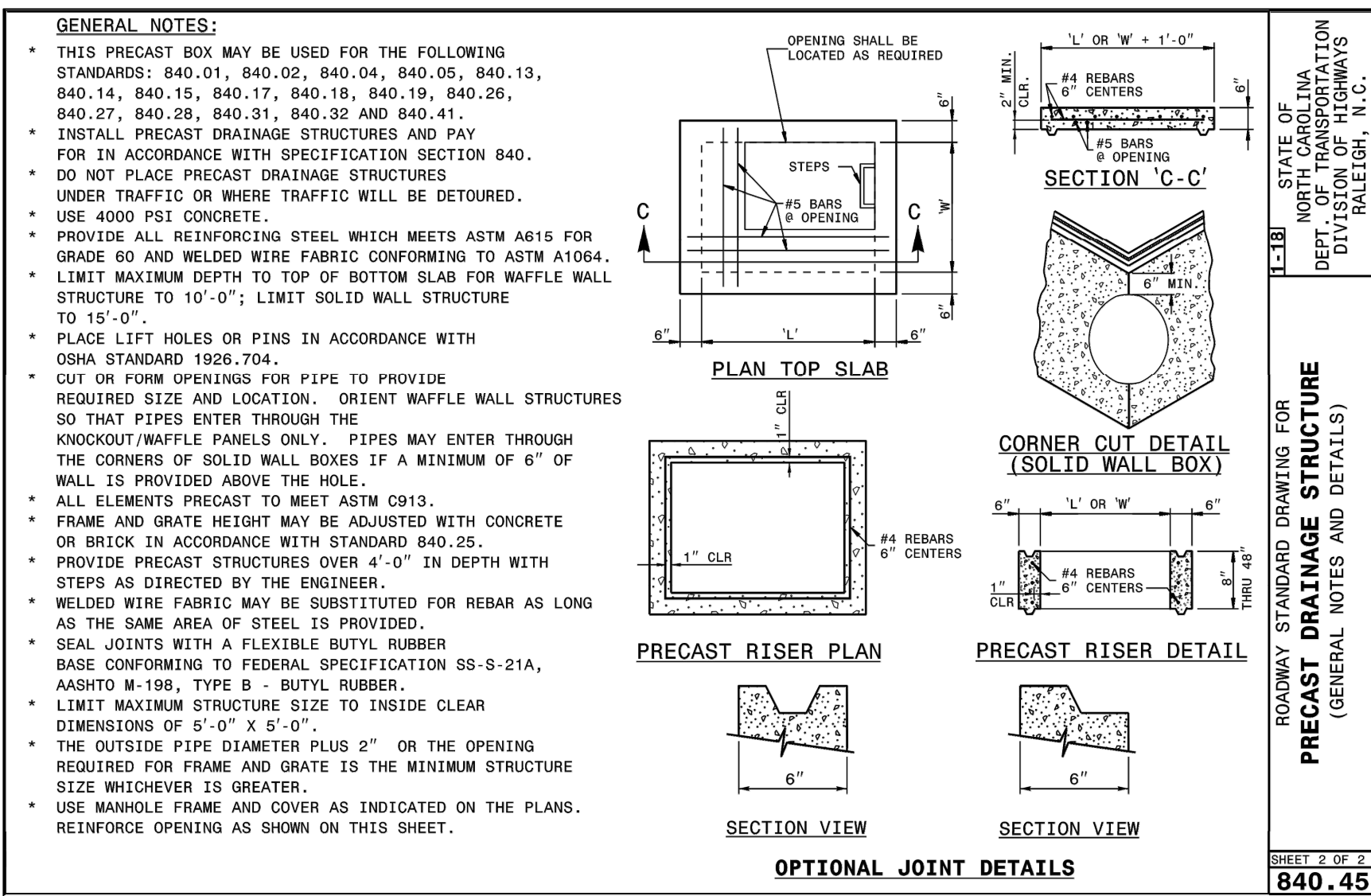
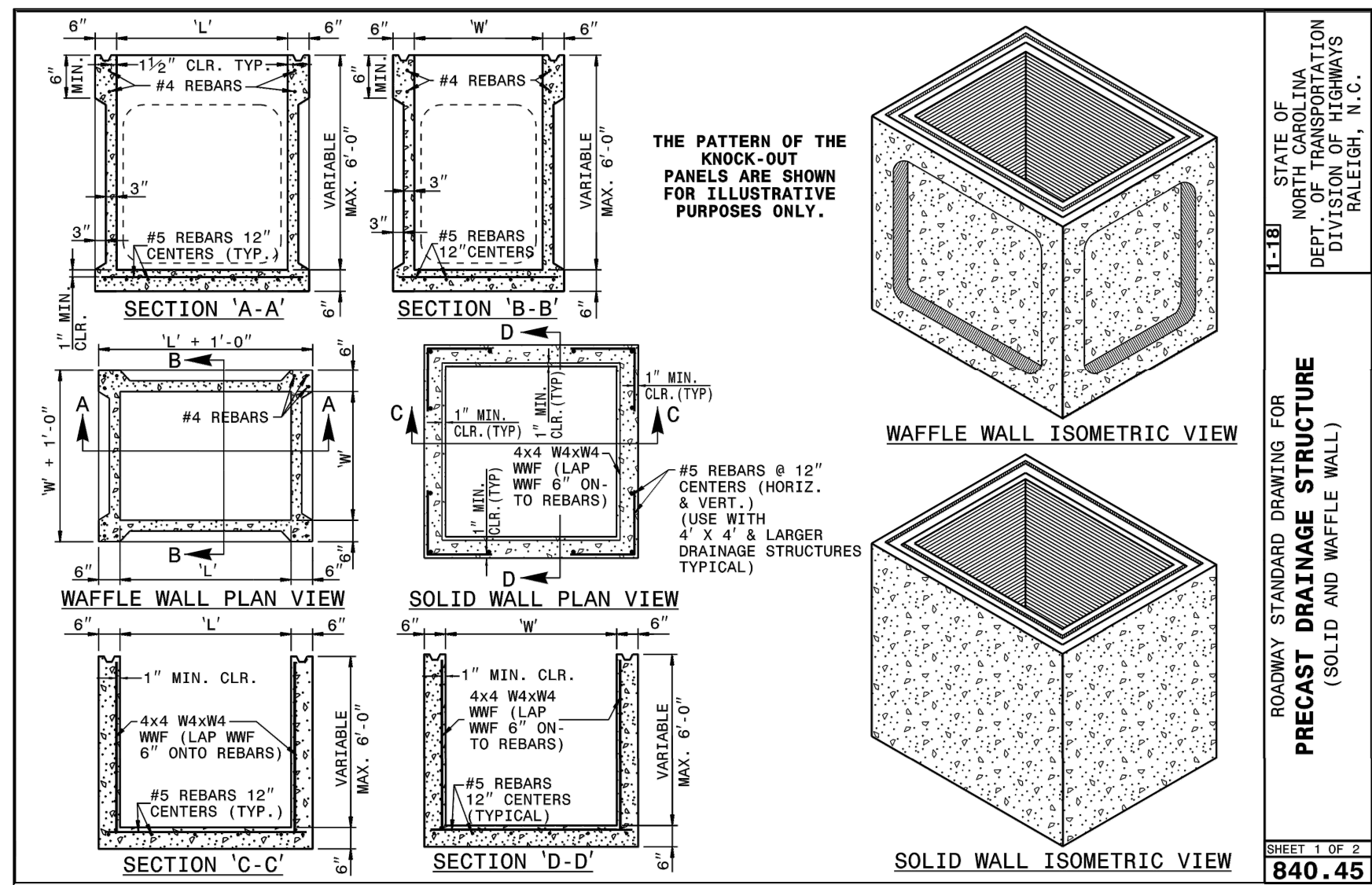
PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
NCDOT DETAILS

DATE:
7/11/2023

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D7



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GENERAL STRUCTURAL NOTES:

I. FOUNDATIONS:

- FOUNDATION DESIGN IS BASED ON ALLOWABLE SOIL BEARING PRESSURES AS STATED IN A SUBSURFACE EXPLORATION REPORT NO. 668-0006 REVISION 1 PREPARED BY FROEHLING & ROBERTSON, INC. DATED MAY 22, 2023.

II. STRUCTURAL CONCRETE:

- CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI, UNLESS NOTED OTHERWISE.
- NORMAL-WEIGHT CONCRETE SHALL HAVE A MAXIMUM UNIT WEIGHT OF 145 PCF, UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GR60, INCLUDING TIES AND STIRRUPS.
- MINIMUM CONCRETE COVER SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - UNFORMED SURFACES IN CONTACT WITH THE GROUND..... 3"
 - FORMED SURFACES EXPOSED TO EARTH OR WEATHER..... 2"
 - FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER..... 1 1/2"
- FINISHES SHALL CONFORM TO REQUIREMENTS OF ACI 301.

III. MISCELLANEOUS:

- STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH CIVIL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
- NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL-ENGINEER-OF-RECORD.
- NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL-ENGINEER-OF-RECORD.
- OPENINGS 14" AND LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO CIVIL DRAWINGS FOR SUCH OPENINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOADS APPLIED TO THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE APPLIED.
- DO NOT SCALE THESE DRAWINGS; USE DIMENSIONS.
- ELEVATIONS OF TOP SLABS SHALL BE INTERPRETED AS PLUS OR MINUS WITH THE INTENT THAT THE CONTRACTOR WILL HAVE SOME FLEXIBILITY IN THE FIELD.
- CONTRACTOR SHALL CONTACT TESTING AGENCY OR WK DICKSON (919-782-0495) TO CHECK REBAR PRIOR TO CONCRETE POUR.

GRADES, ELEVATIONS AND LOCATION SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. WEEPHOLES ARE TO BE CONSTRUCTED IN ALL DRAINAGE STRUCTURES. WEEPHOLES SHOULD BE ON 8' CENTER WITH A MINIMUM OF 1 WEEPHOLE PER WALL. WEEPHOLES ARE TO BE COVERED ON THE OUTSIDE OF THE STRUCTURE BY A BAG MADE OF FILTER FABRIC FILLED WITH #78 STONE. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK. OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE GRATE FOR CATCH BASINS. UPON APPROVAL BY THE ENGINEER, CONTRACTOR MAY SUBSTITUTE BRICK STRUCTURES WITH PRECAST STRUCTURES.

BAR SIZE	Ld (INCHES)	HOOK LEG
3	13	7
4	17	9
5	21	11
6	26	14
7	37	16
8	43	18
9	53	23
10	65	25
11	78	28

DEVELOPMENTAL LENGTH FOR STANDARD REINFORCING BARS

NOTES:

- SEAL THE EXTERNAL JOINT WITH AN OUTSIDE SEALER WRAP THAT IS AT LEAST 12 INCHES WIDE AND COVERS THE JOINT COVERING ALL THREE SIDES OF THE BOX SECTION. USE CONWRAP CS-212 FROM CONCRETE SEALANTS, INC. EZ-WRAP FROM PRESS-SEAL GASKET CORPORATION. SEAL WRAP FROM MAR-MAC MANUFACTURING CO., INC. CADILLOC EXTERNAL PIPE JOINT FROM CADILLOC, OR AN APPROVED EQUAL FOR THE OUTSIDE SEALER WRAP. IF THE OUTSIDE SEALER WRAP IS NOT APPLIED IN A CONTINUOUS STRIP ALONG THE ENTIRE JOINT, A 12 INCH MINIMUM LAP OF THE OUTSIDE SEALER WRAP IS PERMITTED. BEFORE PLACING THE OUTSIDE SEALER WRAP, CLEAN AND PRIME THE AREA RECEIVING THE OUTSIDE SEALER WRAP IN ACCORDANCE WITH THE SEALER WRAP MANUFACTURER RECOMMENDATIONS. THE JOINT WRAP MANUFACTURER INSTALLATION RECOMMENDATION SHALL BE INCLUDED WITH THE SHOP DRAWINGS SUBMITTED FOR REVIEW. THE EXTERNAL JOINT WRAP SHALL BE INSTALLED IN TWO PIECES AS SHOWN IN FIGURE 1.
- COVER THE EXTERNAL JOINT SEALER WITH A 3 FOOT STRIP OF FILTER FABRIC CONFORMING TO TYPE 4 REQUIREMENTS IN SECTION 1056 OF THE NCDOT STANDARD SPECIFICATIONS.

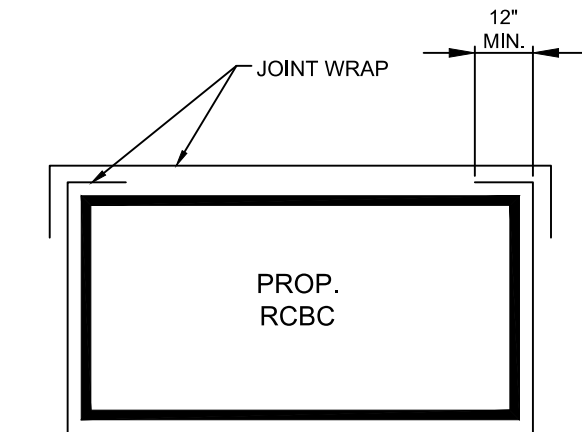
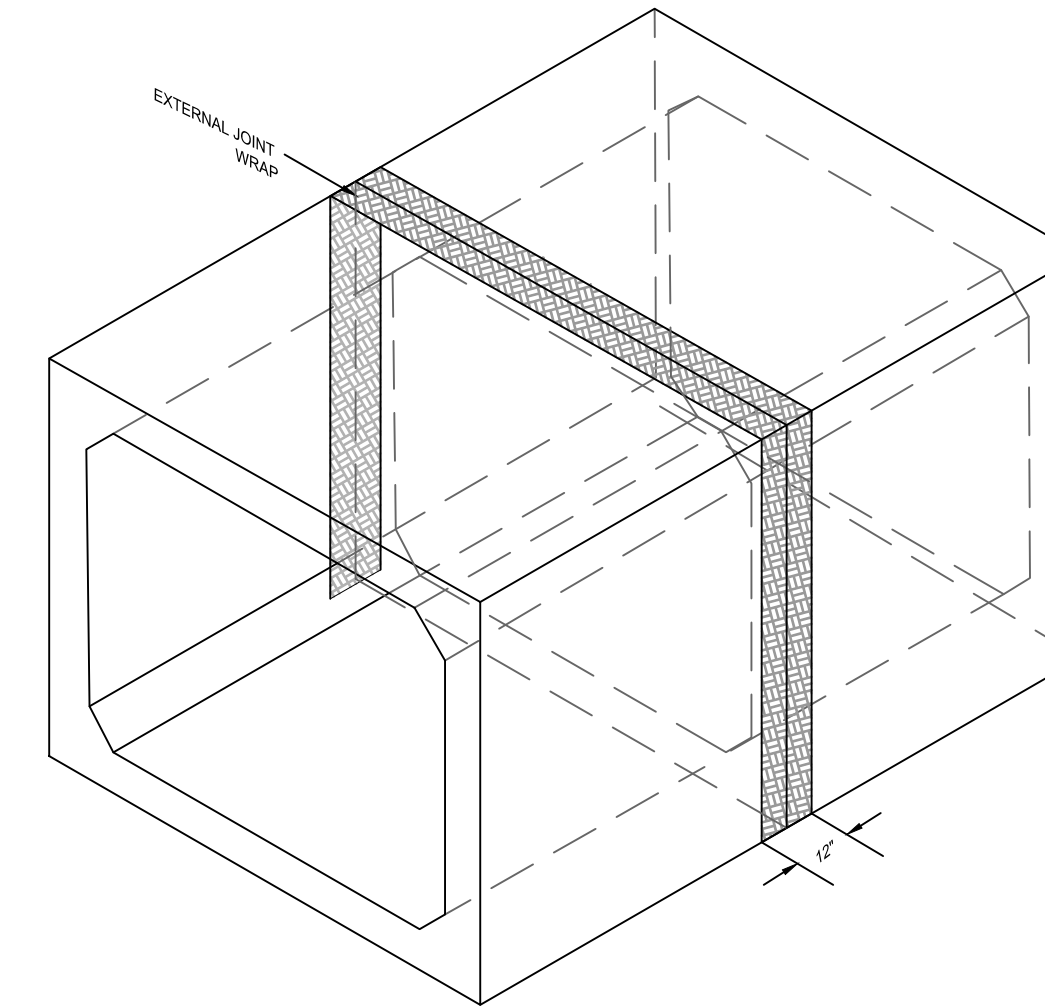


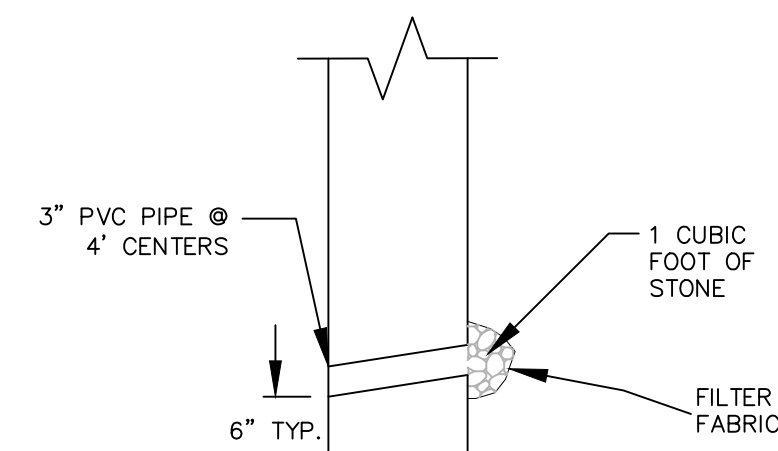
FIGURE 1



1
S1

RCBC AND EXTERNAL JOINT WRAP DETAIL

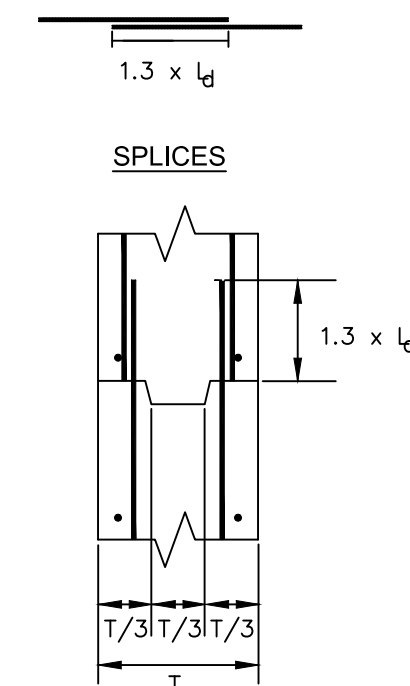
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2.1
S1

WEEP HOLE SECTION DETAIL

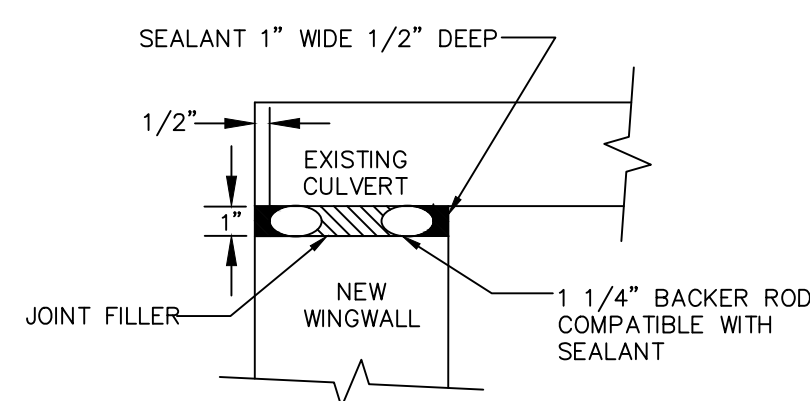
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2.2
S1

OPTIONAL WALL OR SLAB CONSTRUCTION JOINT

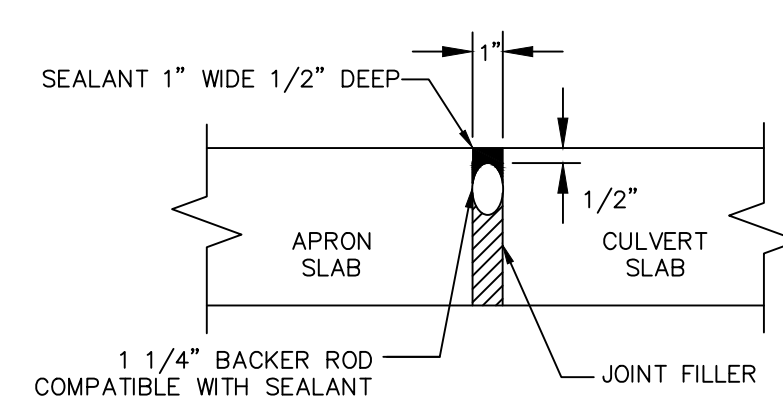
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2.3
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ISOLATION JOINT BETWEEN WING WALL AND CULVERT DETAIL

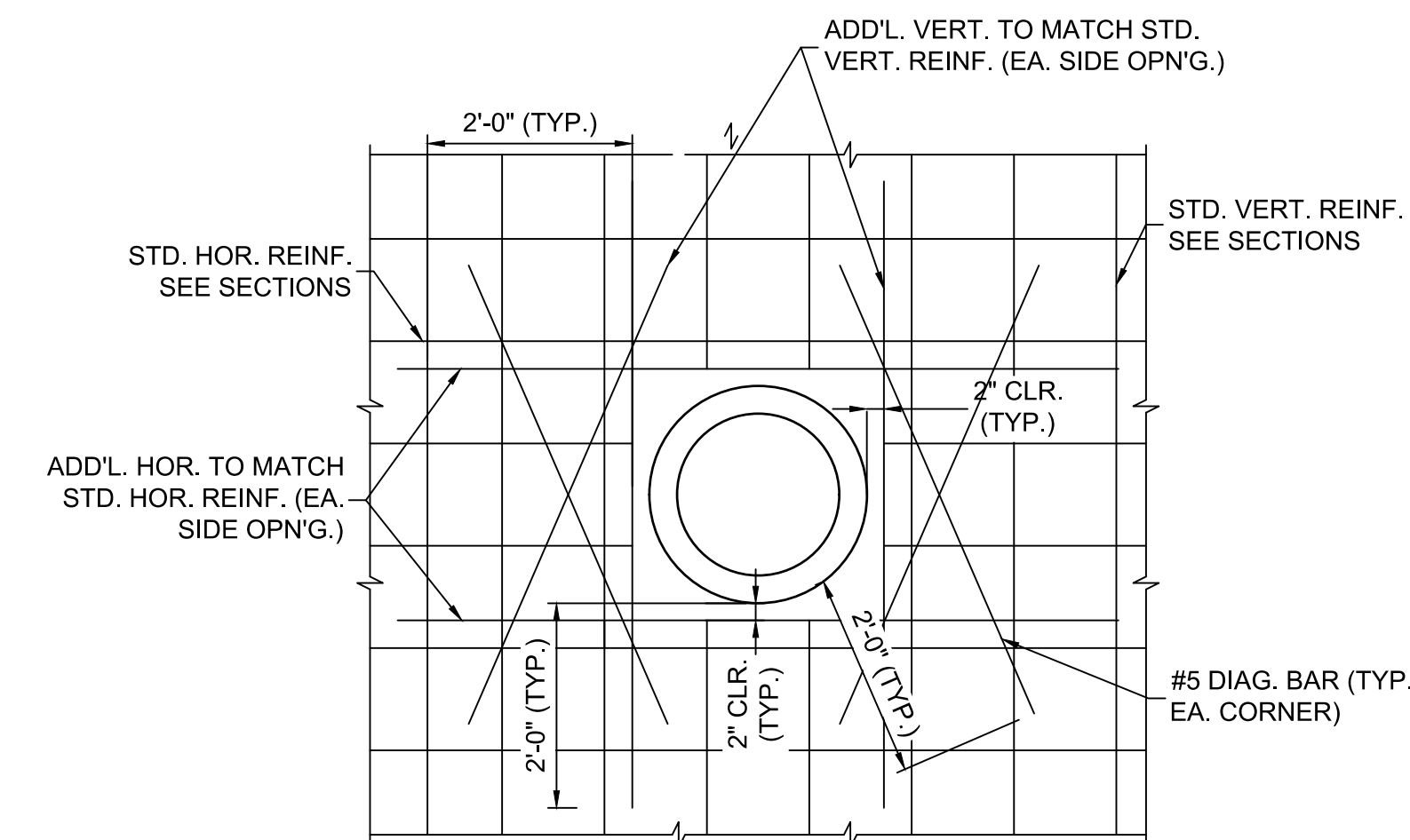
NOT TO SCALE



2.4
S1

ISOLATION JOINT BETWEEN APRON AND CULVERT SLAB

NOT TO SCALE



3
S1

TYP. CIRCULAR PIPE CONCRETE WALL OPENING

NOT TO SCALE

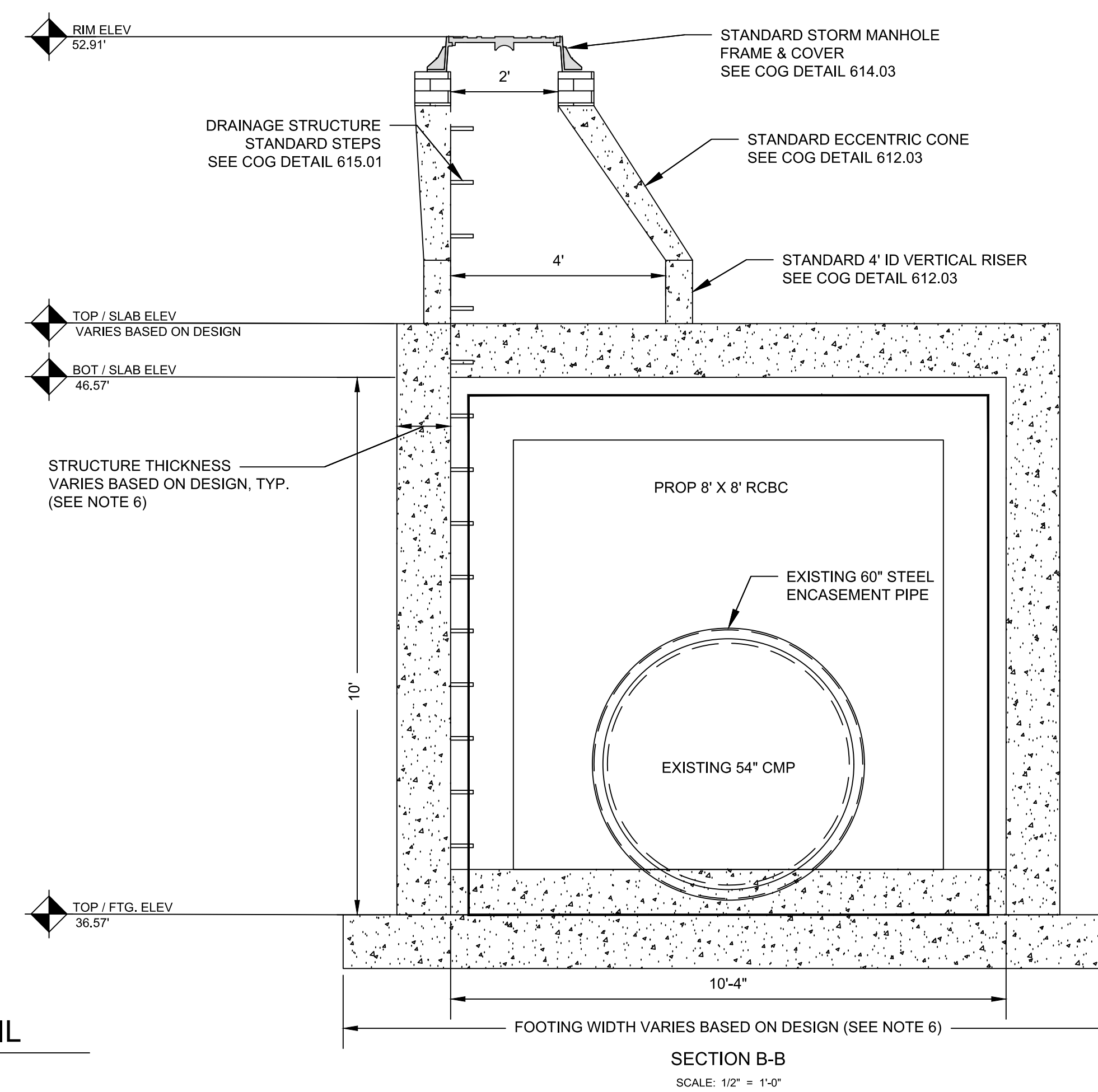
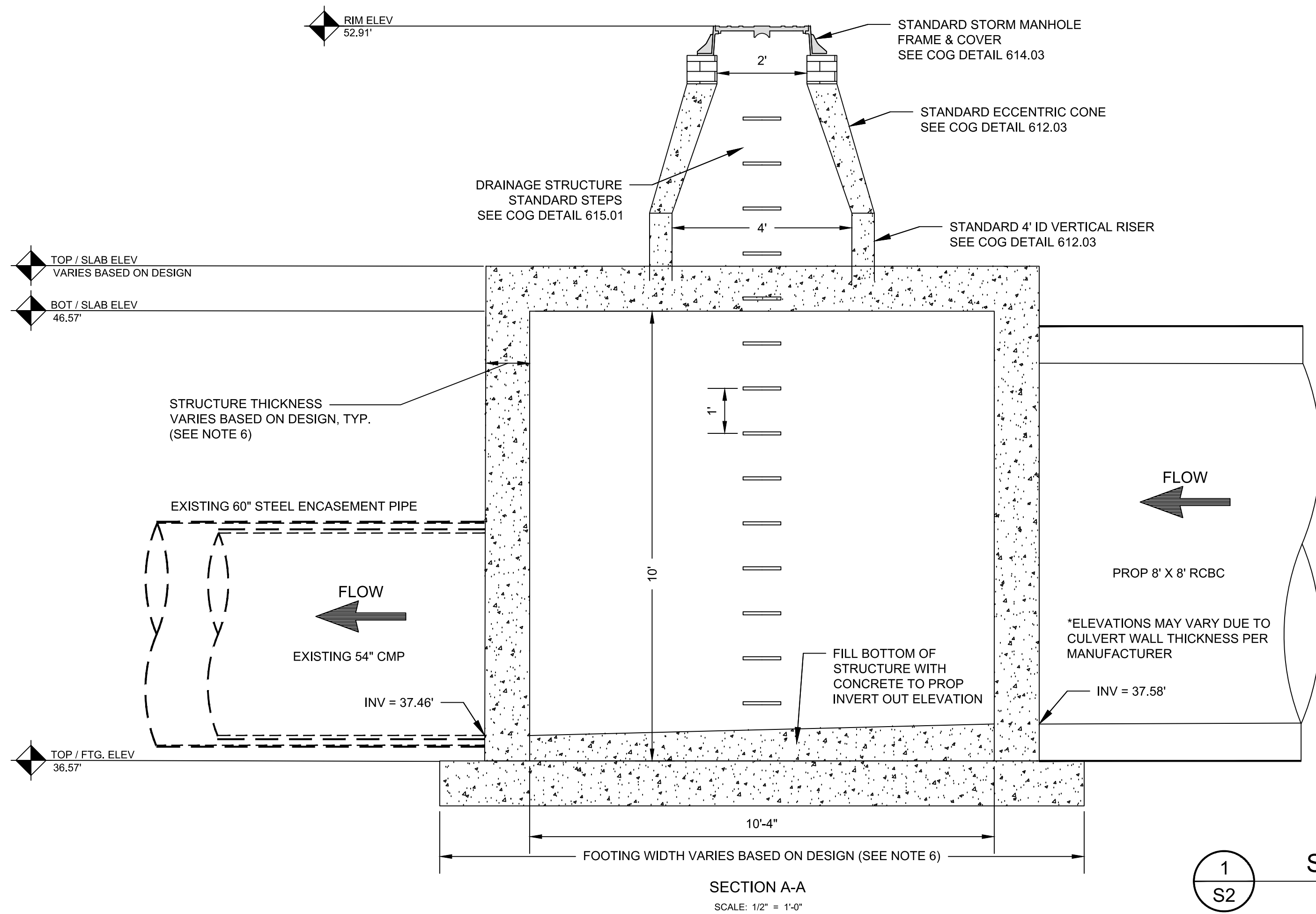
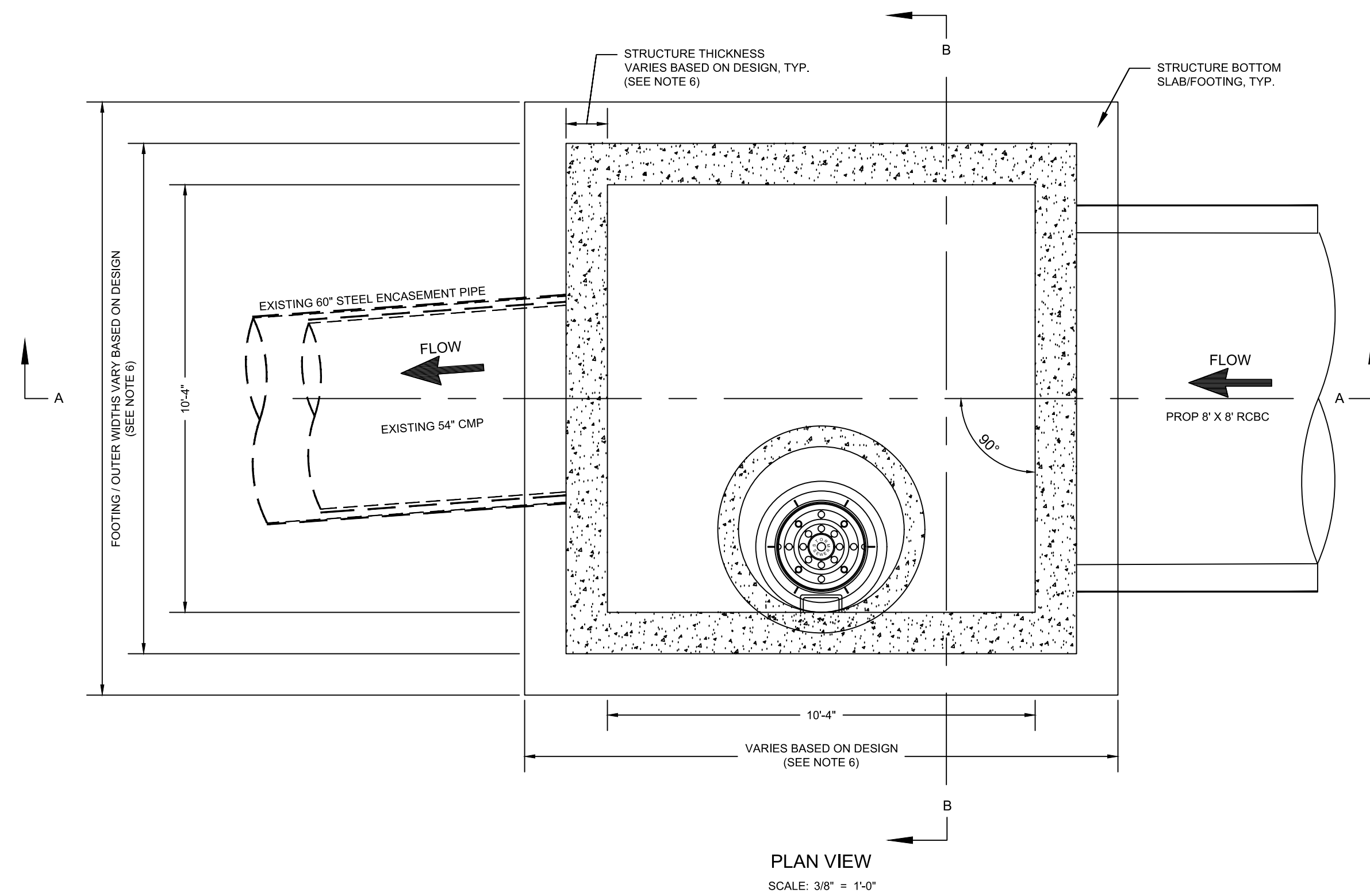
NO.	DATE	REVISIONS



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NOTES:

- REFER TO STORM DRAIN PROFILES FOR PIPE INVERT ELEVATIONS AND STRUCTURE TOP/RIM ELEVATIONS. FOOTING ELEVATIONS VARY DEPENDING ON PIPE THICKNESS AND STRUCTURE VERTICAL DIMENSIONS.
- THE DESIGN TO INCLUDE REQUIRED REINFORCING, DETAILS, AND SHOP DRAWINGS FOR CUSTOM TRAFFIC RATED STRUCTURES SHALL BE PROVIDED BY THE PRECAST MANUFACTURER. THE DESIGN CALCULATIONS AND SHOP DRAWINGS ARE SUBJECT TO APPROVAL BY THE ENGINEER.
- LOCATIONS OF PREFABRICATED HOLES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD MEASURE AND SUPPLY THE PRECAST MANUFACTURER EXACT LOCATIONS FOR FINAL SHOP DRAWINGS.
- PLEASE REFER TO THE REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION PREPARED BY FROEHLING & ROBERTSON, INC. DATED 22 MAY 2023, FOR ALL SUBSURFACE RECOMMENDATIONS. SOIL TEST BORING LOCATIONS SHOWN ON PLANS ARE APPROXIMATE.
- STRUCTURE WALL THICKNESS, TOP SLAB AND BOTTOM SLAB/FOOTING FOUNDATION DIMENSIONS, AND STRUCTURE VERTICAL DIMENSIONS ARE APPROXIMATE. FINAL WALL THICKNESS, SLAB/FOOTING DIMENSIONS, AND STRUCTURE VERTICAL DIMENSIONS ARE TO BE DETERMINED BY PRECAST MANUFACTURER. INSIDE HORIZONTAL DIMENSIONS SHALL NOT BE CHANGED UNLESS APPROVED BY THE ENGINEER.
- THE CONTRACTOR MUST PROVIDE A SHOP DRAWING SEALED BY A NORTH CAROLINA PROFESSIONAL ENGINEER THAT INDICATES THE PRE-CAST STRUCTURE MEETS OR EXCEEDS THE DESIGN PARAMETERS SHOWN ON THESE STRUCTURAL SHEETS. THE CONTRACTOR MUST SUBMIT ANTI-FLOTATION CALCULATIONS WITH THIS SHOP DRAWING SUBMITTAL.



1
S2
STRUCTURE 1 DETAIL
NOT TO SCALE

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PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
find yourself in good company
CITY OF GREENVILLE

PROJECT:
**PUBLIC WORKS STORMWATER
PIPE IMPROVEMENTS PHASE 1
GREENVILLE, NORTH CAROLINA**

TITLE:
STRUCTURE 1 DETAIL

W.K.D. PROJECT:
20220983.00.RA
DATE:
7/11/2023
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NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
 NORTH CAROLINA
 find yourself in good company
 CITY OF GREENVILLE

PROJECT:
**PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA**

TITLE:
STRUCTURE 2 DETAIL

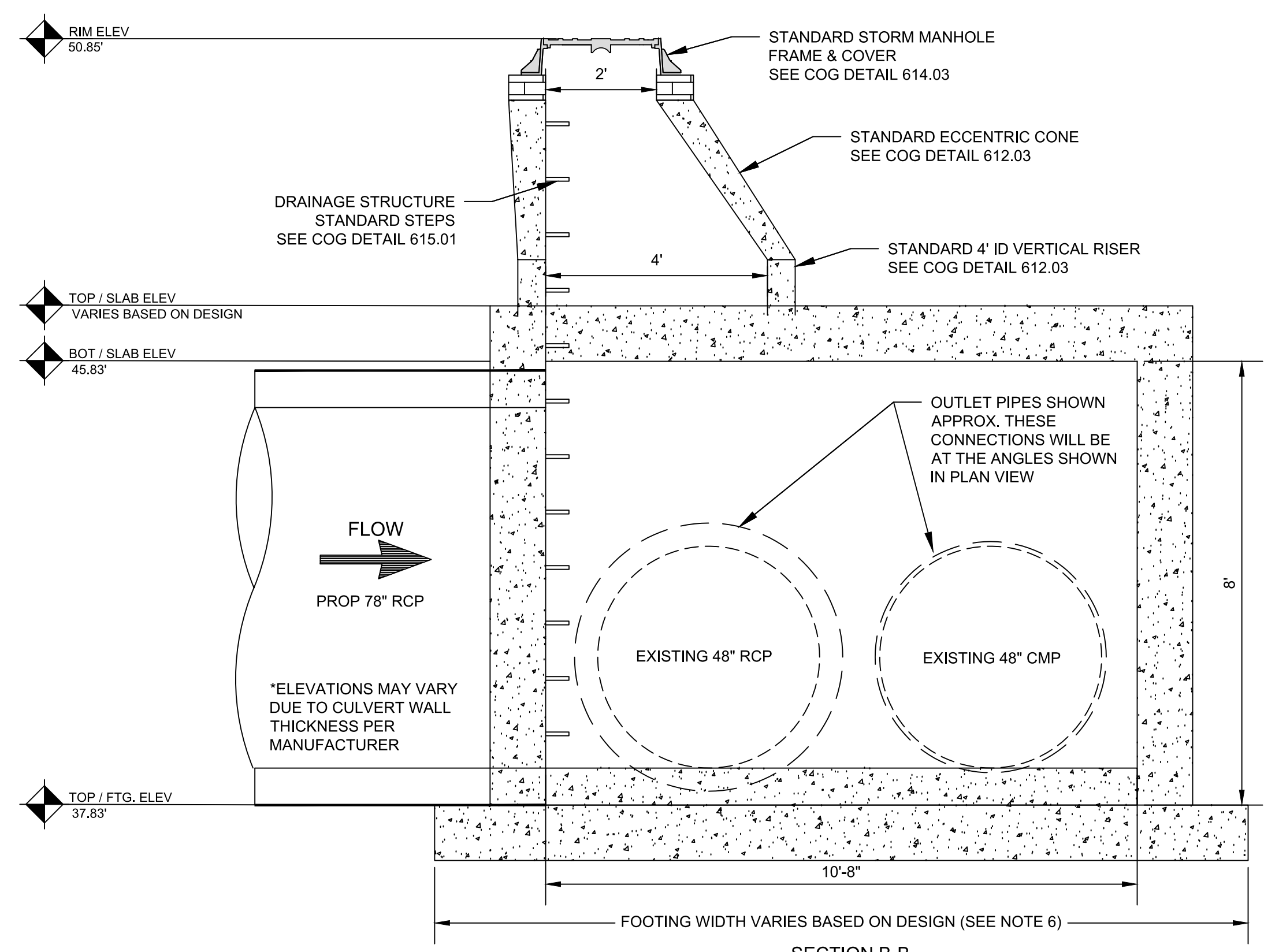
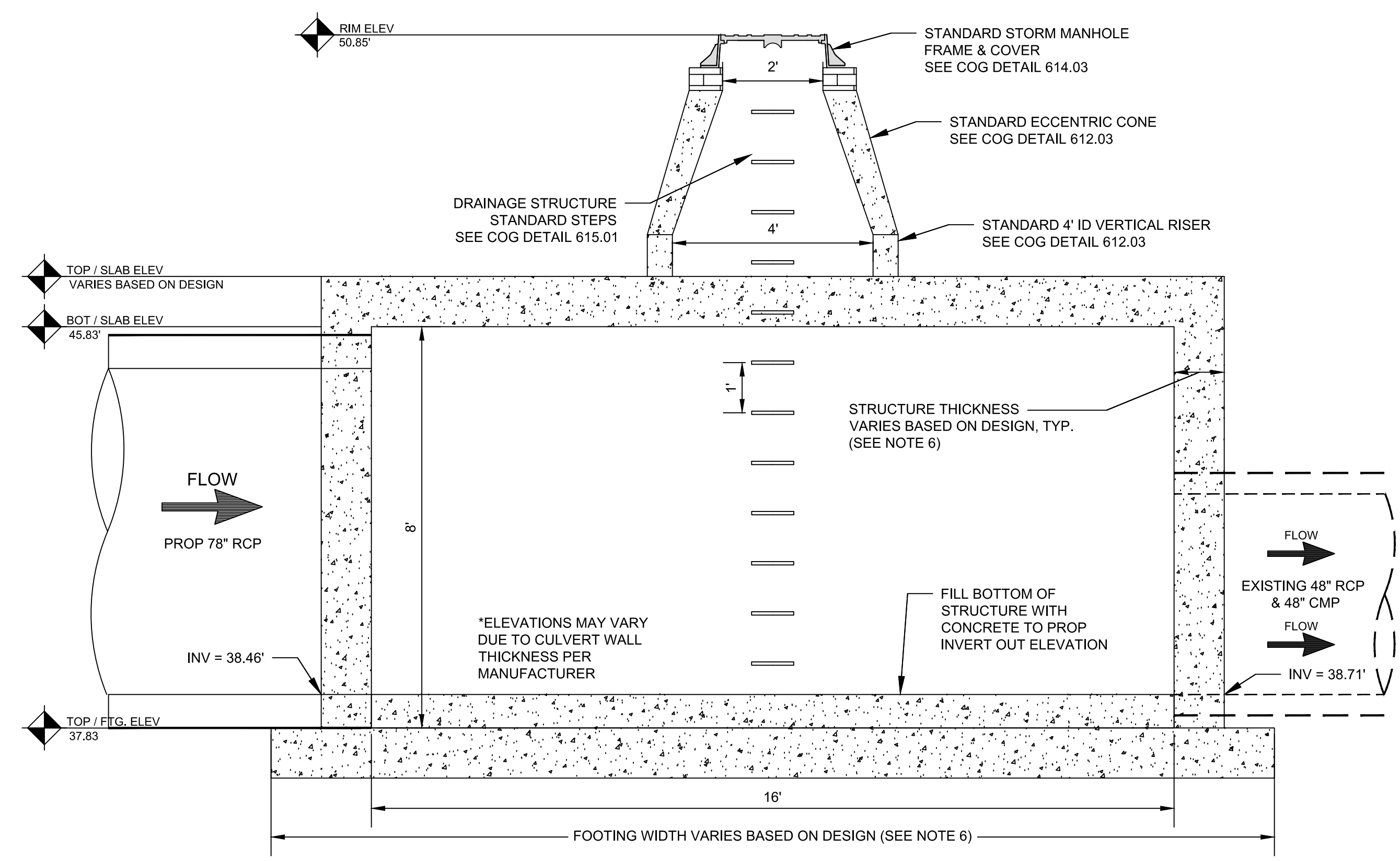
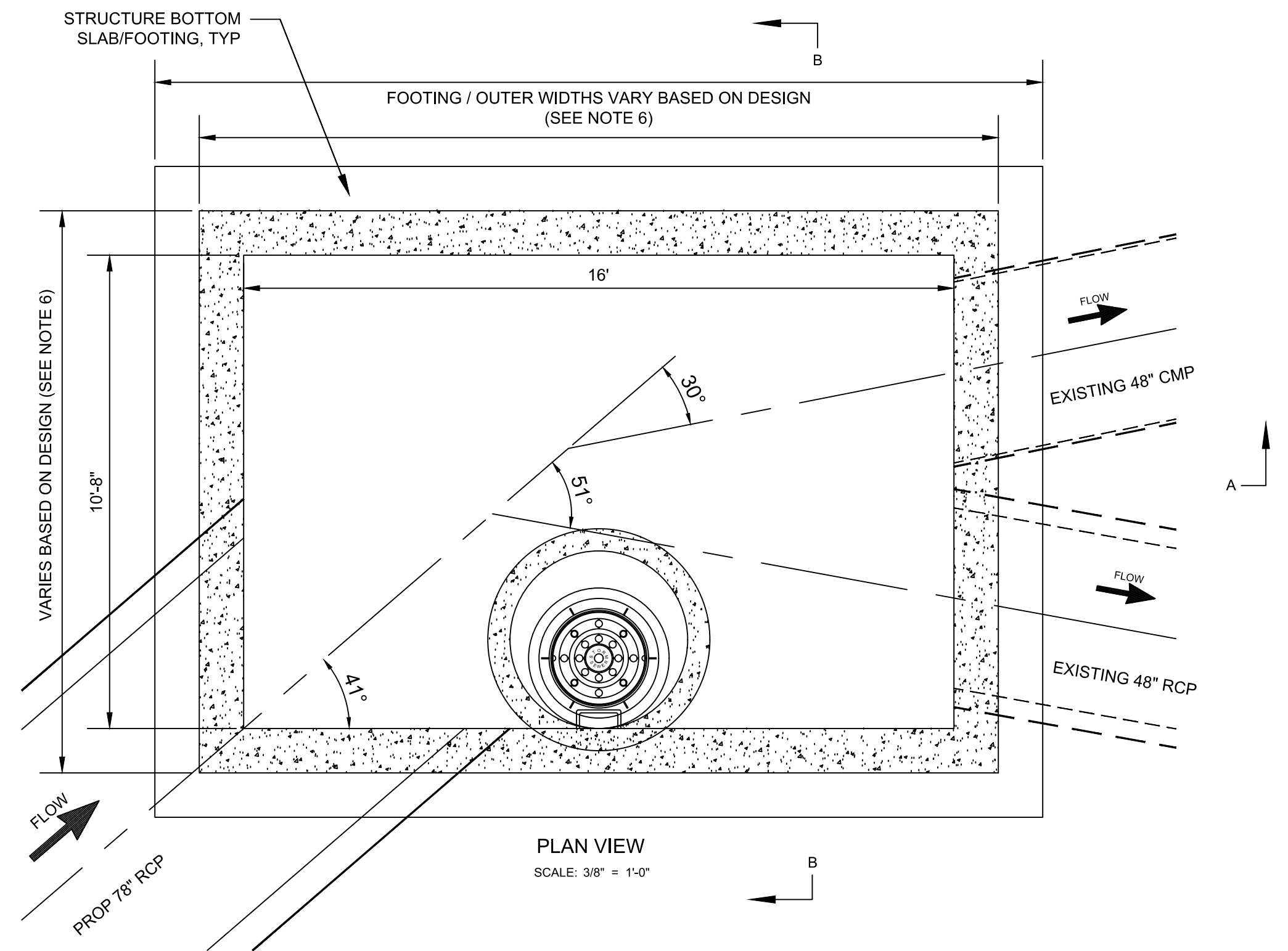
W.K.D. PROJECT:
20220983.00.RA
 DATE:
7/11/2023

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S3

NOTES:

- REFER TO STORM DRAIN PROFILES FOR PIPE INVERT ELEVATIONS AND STRUCTURE TOP/RIM ELEVATIONS. FOOTING ELEVATIONS VARY DEPENDING ON PIPE THICKNESS AND STRUCTURE VERTICAL DIMENSIONS.
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- THE CONTRACTOR MUST PROVIDE A SHOP DRAWING SEALED BY A NORTH CAROLINA PROFESSIONAL ENGINEER THAT INDICATES THE PRE-CAST STRUCTURE MEETS OR EXCEEDS THE DESIGN PARAMETERS SHOWN ON THESE STRUCTURAL SHEETS. THE CONTRACTOR MUST SUBMIT ANTI-FLOTATION CALCULATIONS WITH THIS SHOP DRAWING SUBMITTAL.



1
 S3
STRUCTURE 2 DETAIL
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PLANS PREPARED FOR:

CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER
PIPE IMPROVEMENTS PHASE 1
GREENVILLE, NORTH CAROLINA

TITLE:
OIL-WATER SEPARATOR DETAIL

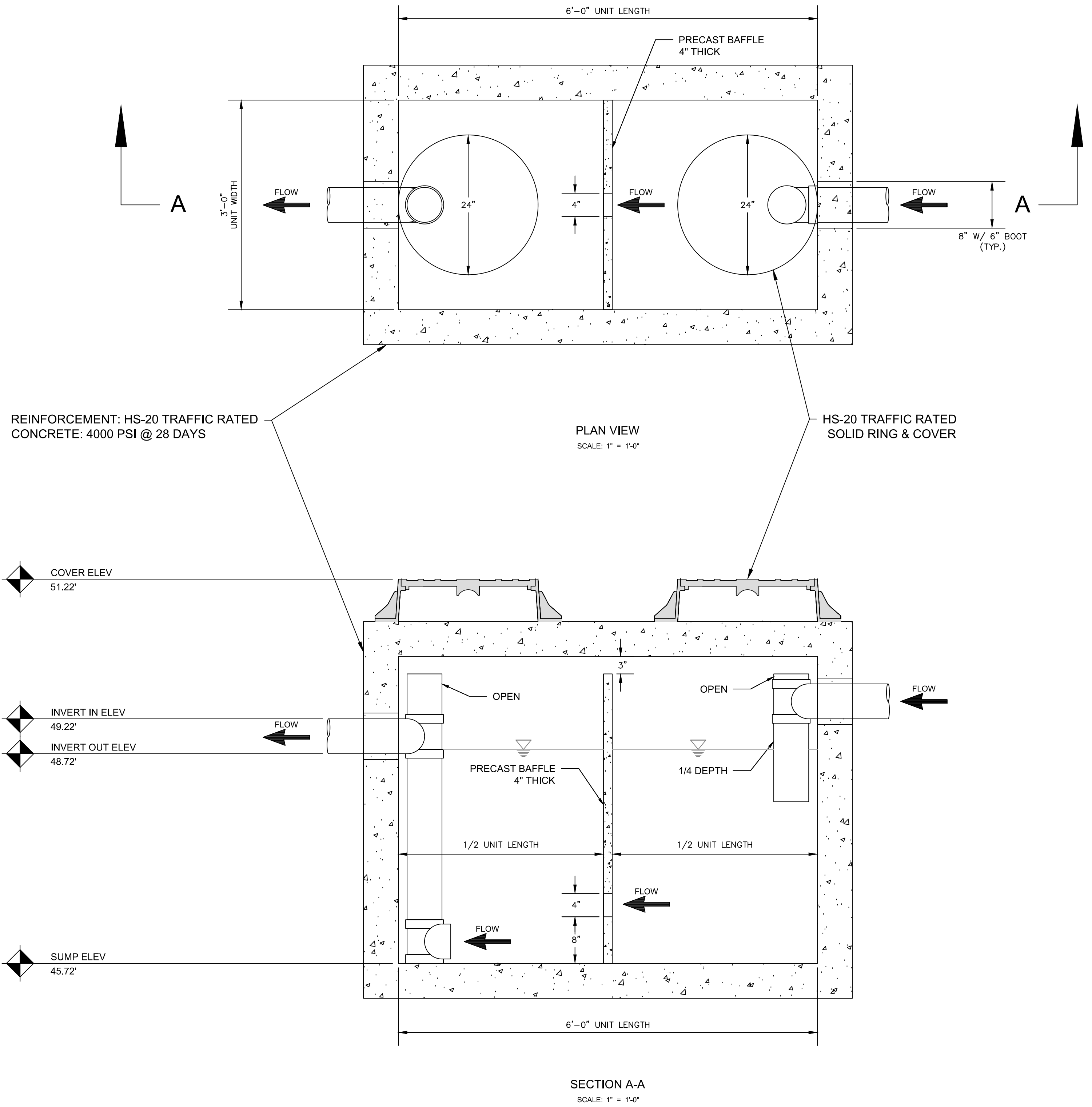
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DATE:
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S4

NOTES:

- REFER TO STORM DRAIN PROFILES FOR PIPE INVERT ELEVATIONS AND STRUCTURE TOP/RIM ELEVATIONS. FOOTING ELEVATIONS VARY DEPENDING ON PIPE THICKNESS AND STRUCTURE VERTICAL DIMENSIONS.
- THE DESIGN TO INCLUDE REQUIRED REINFORCING, DETAILS, AND SHOP DRAWINGS FOR CUSTOM TRAFFIC RATED STRUCTURES SHALL BE PROVIDED BY THE PRECAST MANUFACTURER. THE DESIGN CALCULATIONS AND SHOP DRAWINGS ARE SUBJECT TO APPROVAL BY THE ENGINEER. STRUCTURE SHALL BE DESIGNED FOR H-20 TRAFFIC LOADING.
- LOCATIONS OF PREFABRICATED HOLES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD MEASURE AND SUPPLY THE PRECAST MANUFACTURER EXACT LOCATIONS FOR FINAL SHOP DRAWINGS.
- PLEASE REFER TO THE REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION PREPARED BY FROEHLING & ROBERTSON, INC. DATED 22 MAY 2023, FOR ALL SUBSURFACE RECOMMENDATIONS. SOIL TEST BORING LOCATIONS SHOWN ON PLANS ARE APPROXIMATE.
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- THE CONTRACTOR MUST PROVIDE A SHOP DRAWING SEALED BY A NORTH CAROLINA PROFESSIONAL ENGINEER THAT INDICATES THE PRE-CAST STRUCTURE MEETS OR EXCEEDS THE DESIGN PARAMETERS SHOWN ON THESE STRUCTURAL SHEETS. THE CONTRACTOR MUST SUBMIT ANTI-FLOTATION CALCULATIONS WITH THIS SHOP DRAWING SUBMITTAL.



1
S4

STRUCTURE 3 DETAIL
(OIL-WATER SEPARATOR)

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PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1

GREENVILLE, NORTH CAROLINA WATER & SEWER UTILITY RELOCATION

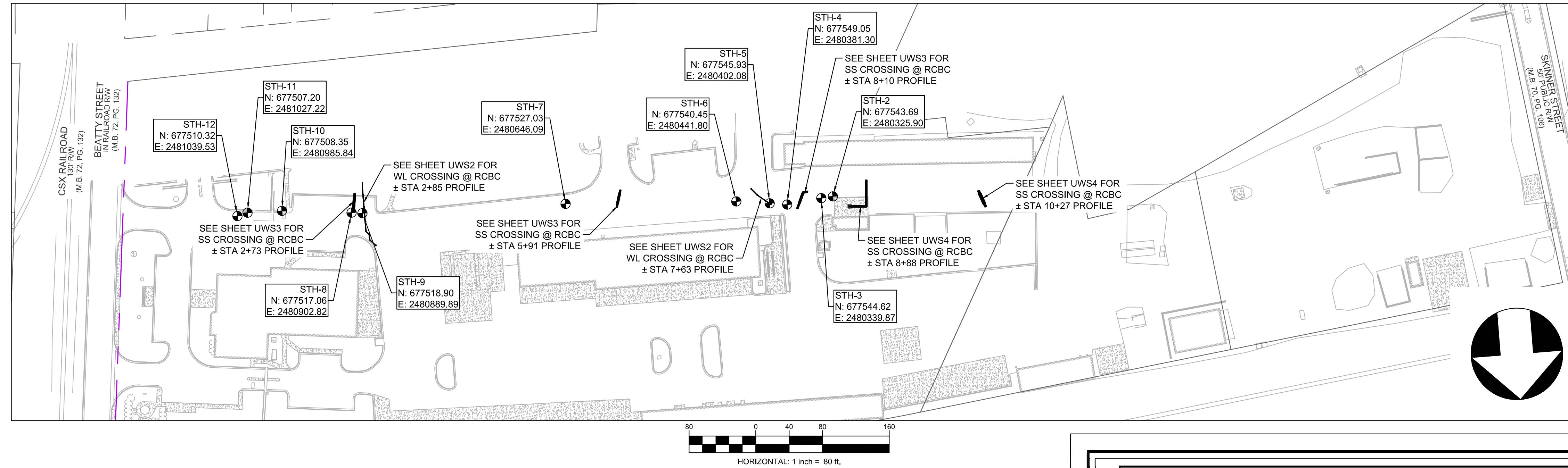


PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F-0374



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GENERAL CONSTRUCTION SEQUENCE FOR SEWER MAIN WORK:

1. THE CONSTRUCTION SEQUENCE NOTES LISTED ON THIS SHEET ARE ONLY A SUGGESTED SEQUENCE. CONTRACTOR SHALL REVIEW SUGGESTED CONSTRUCTION SEQUENCE NOTES, ANY ALTERNATIVE OPTIONS, AND THEN SUBMIT A WORK SEQUENCE PLAN (WHICH SHALL INCLUDE A DETAILED BYPASS PUMPING PLAN) FOR APPROVAL TO OWNER PRIOR TO CONSTRUCTION. REMOVAL OF BYPASS PUMPING IS NOT SPECIFICALLY DEFINED AFTER EACH SEGMENT OF WORK IS COMPLETED AND FLOW IS DIVERTED. IT IS INTENDED AT THAT POINT BYPASS PUMPING COULD CEASE.
2. AFTER THE WORK SEQUENCE PLAN HAS BEEN APPROVED BY THE OWNER, THE CONTRACTOR SHALL NOTIFY OWNER AND RECEIVE APPROVAL A MINIMUM OF 48 HOURS PRIOR TO EACH EXCAVATION AND ANY UTILITY WORK.
3. CONTRACTOR SHALL INSTALL AND MAINTAIN ALL TRAFFIC CONTROL AND OTHER TEMPORARY FACILITIES FOR SAFE AND PROTECTED WORK AREA. CONTRACTOR SHALL COORDINATE ALL WATER AND SEWER RELOCATION WITH TEMPORARY AND FINAL STORMWATER INSTALLATIONS AND TEMPORARY ROAD AND LANE CLOSURES. COORDINATION OF TEMPORARY ROAD CLOSURE IS OF CRITICAL IMPORTANCE WHERE WATER AND SEWER UTILITY RELOCATION WORK IS IN ADVANCE OF STORMWATER INSTALLATION.
4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ADVANCE OF THE TRENCHING FOR THE SEWER MAIN AND STORM DRAIN SYSTEM.
5. CONTRACTOR SHALL LOCATE ALL EXISTING SEWER SERVICES THAT WILL BE IMPACTED BY THE SEWER MAIN REPLACEMENT AND STORM DRAIN SYSTEM INSTALLATION WORK.
6. CONTRACTOR SHALL INSTALL AND TEST BYPASS PUMPING AND PIPING PRIOR TO INITIATING SEWER REPLACEMENT.
7. BYPASS PUMPING AND PIPING SHALL BE CONSISTENT WITH CONTRACTOR'S APPROVED BYPASS PUMPING PLAN AND PROVIDE MEASURES TO PROVIDE CONTINUOUS SERVICE TO IMPACTED AREAS. CONTRACTOR SHALL USE BYPASS PUMPING TO DIVERT FLOW AROUND TO WORK AREAS. ALTERNATIVELY, CONTRACTOR WILL BE PERMITTED TO EMPLOY ACCEPTABLE METHODS AND MEANS TO CONNECT THE EXISTING SYSTEM TO NEW SYSTEM DURING NON-WORK HOURS PROVIDED CONNECTION IS WATER-TIGHT. CONTRACTOR'S METHODS AND SEQUENCE SHALL SECURE AN INSTALLATION THAT IS VOID OF SANITARY SEWER OVERFLOWS, SURCHARGING AND FACILITATES TESTING OF THE NEW SEWER MAIN AND MANHOLES.
8. CONTRACTOR SHALL VERIFY THAT 12" VERTICAL AND HORIZONTAL SEPARATION OCCURS WITH ALL CROSSING UTILITIES.
9. CONTRACTOR SHALL RECONNECT EXISTING LATERALS TO THE NEW LATERAL IMMEDIATELY AFTER ACCEPTABLE TESTING OF THE SUBJECT SEWER MAIN AND MANHOLES.
10. UPON SUCCESSFUL TESTING OF THE NEW SEWER MAINS AND MANHOLES AND PRIOR TO BYPASS PUMPING AND PIPING REMOVAL AND OR RELOCATION, CONTRACTOR SHALL CONDUCT POST-CONSTRUCTION TELEVISION INSPECTION TO DOCUMENT PIPE LINE INSTALLATION.
11. CONTRACTOR SHALL REMOVE BYPASS PUMPING AND PIPING AND COMPLETE RESTORATION.
12. CONTRACTOR SHALL REFER TO PLAN AND PROFILE FOR ALL EXISTING STORM DRAINAGE AND UTILITIES THAT ARE TO BE REMOVED AND ABANDONED. PROPOSED STORM DRAINAGE AND EXISTING UTILITIES SHOWN IN WATER AND SEWER PROFILES ARE SHOWN FOR CLARITY AS PROPOSED WATER AND SEWER WILL GENERALLY BE INSTALLED AFTER INSTALLATION OF PROPOSED STORM DRAIN IMPROVEMENTS.

GENERAL CONSTRUCTION SEQUENCE FOR WATER MAIN WORK:

1. THE CONTRACTOR SHALL NOTIFY OWNER AND RECEIVE APPROVAL A MINIMUM OF 48 HOURS PRIOR TO EACH EXCAVATION AND ANY UTILITY WORK.
2. ISOLATION/KILL-OUT VALVES IF REQUIRED WILL BE INSTALLED BY GUC PRIOR TO WATER MAIN REMOVAL, REPLACEMENT, AND OR RELOCATION. CONTRACTOR SHALL NOT OPERATE ANY WATER VALVE WITHOUT RECEIVING APPROVAL FROM GUC.
3. INSTALL AND CONTINUOUSLY MAINTAIN EROSION AND SEDIMENTATION CONTROL DEVICES.
4. CONTRACTOR SHALL INSTALL AND MAINTAIN ALL TRAFFIC CONTROL AND OTHER TEMPORARY FACILITIES FOR SAFE AND PROTECTED WORK AREA. CONTRACTOR SHALL BE REQUIRED TO REMOVE ONLY THAT PORTION OF ASPHALT IN ROAD BY MILLING WITH ZIPPER TYPE EQUIPMENT THAT CAN THEN BE EITHER PERMANENTLY PATCHED OR SAFELY PLATED AT THE END OF THE WORKING DAY.
5. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ADVANCE OF THE TRENCHING FOR THE WATER MAIN AND STORM DRAIN SYSTEM.
6. CONTRACTOR SHALL ENSURE CONTINUOUS WATER SERVICE TO PROPERTIES DURING STORM DRAIN INSTALLATION, WATER REPLACEMENT AND OR WATER RELOCATION.
7. CONTRACTOR SHALL COMPLETE THE INSTALLATION OF WATER LINE RELOCATION WITH ALL RECONNECTED METERED SERVICES AND ASSOCIATED ALTERATIONS AND HAVE OPERATIONAL BEFORE SEWER RELOCATION WORK CAN BE INITIATED.
8. INSTALL WATER LINE AND APPURTENANCES AND CONNECT TO EXISTING WATER LINE. PROVIDE ALL TEMPORARY BLOW OFF ASSEMBLIES FOR TESTING AND FLUSHING.
9. PRESSURE TEST WATER LINE AND APPURTENANCES.
10. DISINFECT AND FLUSH WATER LINE AND APPURTENANCES.
11. UPON OWNER AND STATE APPROVAL, SWITCH EXISTING WATER SERVICES OVER TO WATER LINE.
12. ITEMS 7 THROUGH 11 MAY BE CONDUCTED ON A VALVE TO VALVE OR INTERSECTION TO INTERSECTION ARRANGEMENT. CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL VALVES OR LINE STOP ARRANGEMENTS WHERE CONTRACTOR PLANS TO ISOLATE OR SEQUENCE WORK DIFFERENTLY, UNLESS OTHERWISE APPROVED BY OWNER.

WATER MAIN SPECIFICATIONS:

1. TRACER WIRE
 - 1.1. ALL PRESSURE MAINS SHALL BE PROVIDED TRACING WIRE AND TEST PORTS IN SUCH A MANNER AS TO BE ABLE TO PROPERLY TRACE ALL MAINS WITHOUT LOSS OR DETERIORATION OF SIGNAL OR WITHOUT THE TRANSMITTED SIGNAL MIGRATING OFF THE TRACE WIRE.
 - 1.2. TRACER WIRE SHALL BE COPPERHEAD® STEEL CORE COPPER WIRE #12 AWG WITH HIGH DENSITY POLYETHYLENE COATING OR EQUAL. IT SHALL BE ADEQUATELY SECURED OR FASTENED TO THE PIPE IN THE 3 O-CLOCK POSITION.
 - 1.3. THE TRACER WIRE SHALL BE SECURELY BONDED TOGETHER AT ALL WIRE JOINTS WITH AN APPROVED INDUSTRIAL CRIMP CONNECTOR TO PROVIDE ELECTRICAL CONTINUITY. IT SHALL BE ACCESSIBLE AT ALL TRACER WIRE TEST PORTS.
 - 1.4. TEST PORTS SHALL BE LOCATED ADJACENT TO ALL VALVES, BRANCHES AND TIES BACK INTO THE EXISTING SYSTEM AS SHOWN SYMBOLICALLY ON THE DRAWINGS. THE TEST PORT SHALL CONSIST OF A STANDARD VALVE BOX, SHALL BE H-20 TRAFFIC LOAD RATED FLUSH WITH GRADE IN NON-PAVED AREAS AND FLUSH WITH FINAL ASPHALT OR CONCRETE PAVEMENT ELEVATION. THE VALVE BOX SHALL BE EQUIPPED WITH A LID STAMPED "TS". AT EACH TEST PORT, A LOOP OF WIRE SHALL BE BROUGHT UP AND LOOPED INSIDE THE BOX. THE LOOP OF WIRE INSIDE THE BOX SHALL BE A MINIMUM OF THREE FEET.
 - 1.5. CONTRACTOR SHALL PERFORM A CONTINUITY TEST ON ALL TRACER WIRE IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE. IF THE TRACER WIRE IS FOUND TO BE NOT CONTINUOUS AFTER TESTING, CONTRACTOR SHALL REPAIR OR REPLACE THE FAILED SEGMENT OF WIRE AT HIS OWN EXPENSE.

GREENVILLE PUBLIC WORKS YARD UTILITY TEST HOLES										
TH#	PT#	NORTHING	EASTING	SURFACE ELEVATION (FT)	TYPE	DEPTH (FT)	OWNER	MATERIAL	OD (IN)	TOP OF UTILITY ELEVATION (FT)
STH-1	N/A	UTILITY NOT FOUND VIA ELECTROMAGNETIC OR GROUND PENETRATING RADAR DETECTION								
STH-2	31006	677,543.694	2,480,325.898	51.02	ELEC	2.00	PRIVATE	PVC	1	49.02
STH-3	31005	677,544.615	2,480,339.867	50.37	GAS	1.90	PRIVATE	PVC	1	48.47
STH-4	31004	677,549.054	2,480,381.299	49.54	ELEC	2.70	PRIVATE	PVC	2	46.84
STH-5	31003	677,545.928	2,480,402.083	49.84	WATER	1.64	CITY	DIP	6	48.20
STH-6	31002	677,540.455	2,480,441.800	49.70	GAS	1.54	PRIVATE	PVC	1	48.16
STH-7	31001	677,527.027	2,480,646.094	50.61	ELEC	1.38	PRIVATE	PVC	1	49.23
STH-8	31008	677,517.055	2,480,902.824	49.94	SEWER	4.35	CITY	PVC	6	45.59
STH-9	31007	677,518.898	2,480,889.885	49.82	WATER	4.28	CITY	ACP	6	45.54
STH-10	31009	677,508.354	2,480,985.843	50.13	ELEC	1.58	PRIVATE	PVC	2	48.55
STH-11	31015	677,507.201	2,481,027.217	49.66	F/O	2.62	AT&T	PVC	2	47.04
STH-12	31014	677,510.322	2,481,039.526	49.89	GAS	3.58	PRIVATE	PVC	1	46.31

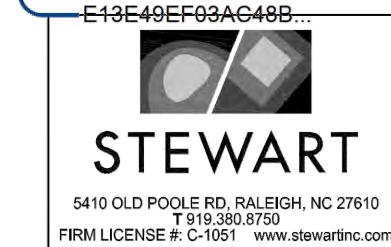
GREENVILLE PUBLIC WORKS YARD SURVEY CONTROL				
TRAV#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	677,484,418	2,481,216,790	53.55	TRAV-1-REBAR WDISC
11	677,515,123	2,480,630,914	50.54	TRAV-11-NL WDISC

THIS LETTER IS TO CERTIFY THAT A FIELD SURVEY HAS BEEN PERFORMED ON THE TEST HOLE LOCATIONS SHOWN ABOVE. THE FOLLOWING COORDINATES SHOWN HEREON ARE TIED TO EXISTING SITE CONTROL FOR "GREENVILLE PW YARD AND STORMWATER IMPROVEMENTS" AS LISTED ABOVE.

I, JORDAN M. SCHOFF, NC PLS # 4939, CERTIFY THAT THIS SURVEY WAS PERFORMED UNDER MY RESPONSIBLE CHARGE IN COMPLIANCE WITH THE STANDARDS OF PRACTICE FOR LAND SURVEY (21-56.1600) FOR THE PURPOSE OF LOCATING SUE LEVEL A TEST HOLES, WITNESS MY HAND AND SEAL THIS 19th DAY OF MAY, IN THE YEAR 2023.



DocuSigned by:
Jordan M. Schoff
E43E48EF08A6488



GREENVILLE PW YARD & STORMWATER IMPROVEMENTS LEVEL A TEST HOLES EXCAVATION DATE: 05-10-23 PITT COUNTY, GREENVILLE, NC

PVC POLYVINYL CHLORIDE
DIP DUCTILE IRON PIPE
ACP ASBESTOS CEMENT PIPE
ELEC ELECTRIC
F/O FIBER OPTIC
STH STEWART TEST HOLE

Project No: G23004 Date: 05-19-23
Scale: N/A Revision:
Drawn By: WJT Drawing No:
Checked By: JMS
Surveyed By: EB 1 of 1

PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
Find yourself in good company
CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
TITLE: WATER & SEWER UTILITY RELOCATION

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023
100% PLANS

UWS1

BID DOCUMENT - NOT FOR CONSTRUCTION



Jul 11 2023 11:08 AM SEAL

SEAL

NO.	DATE	REVISIONS

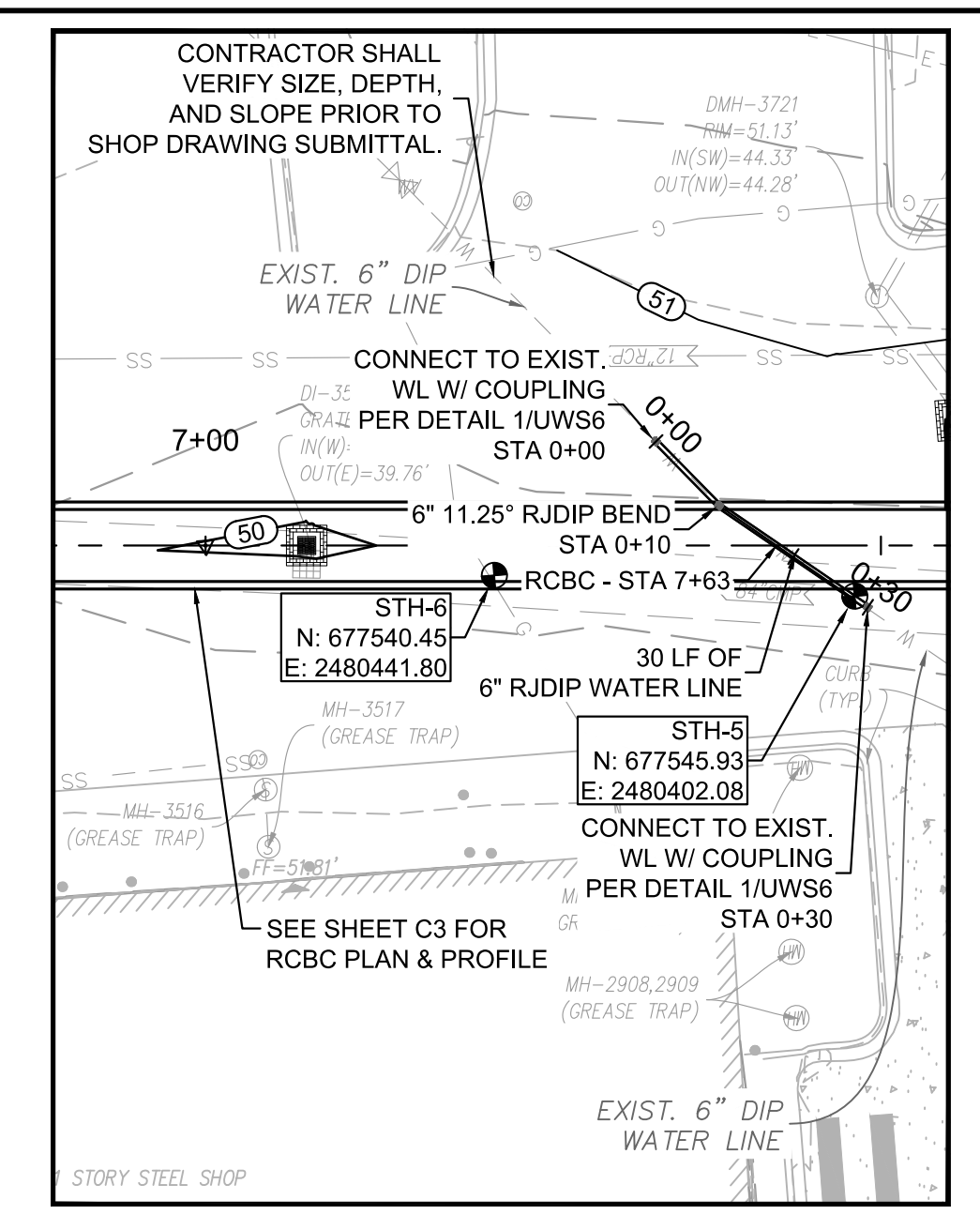
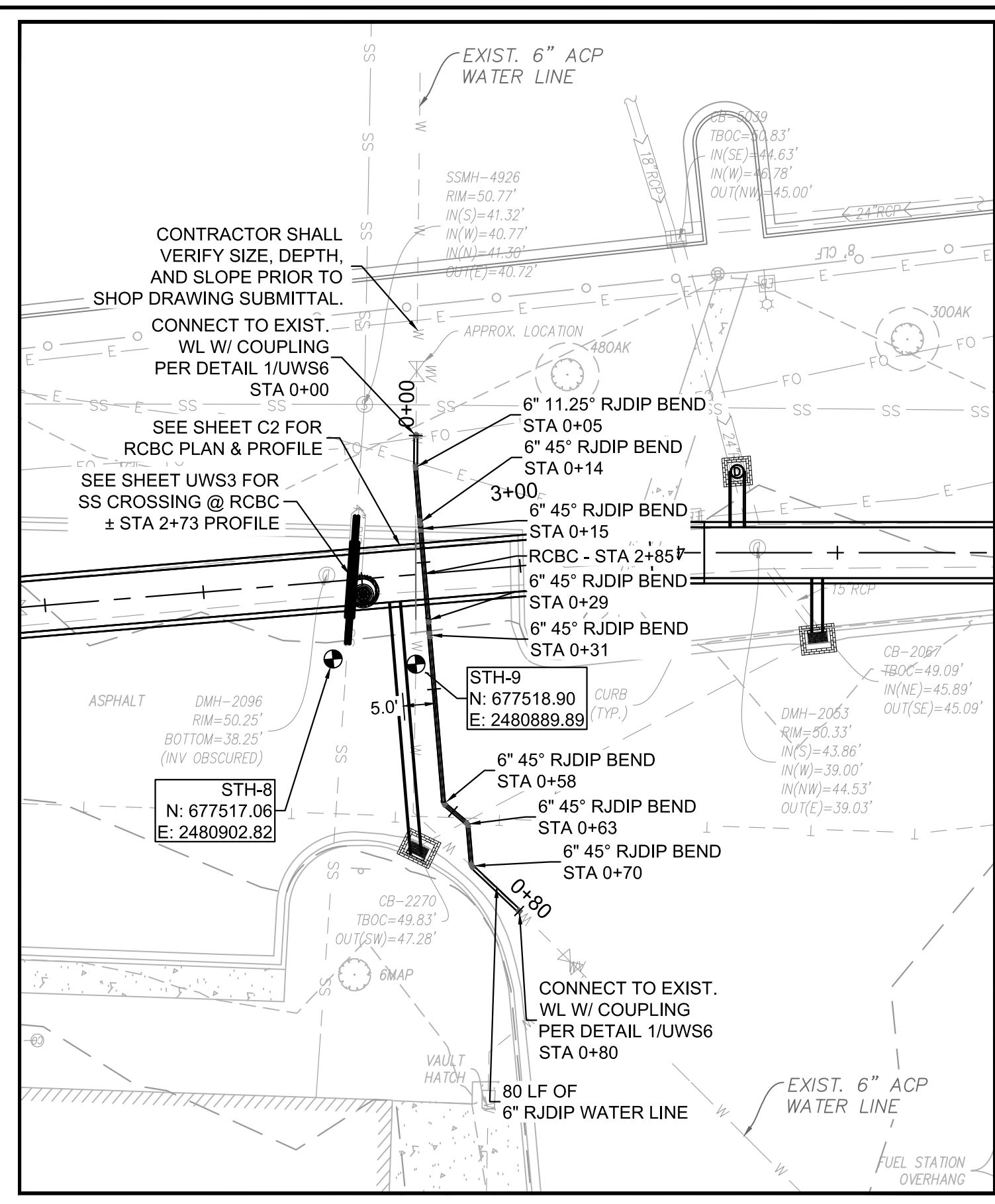
PLANS PREPARED FOR:
Greenville
find yourself in good company
 CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
 TITLE: **WATER UTILITY RELOCATION**

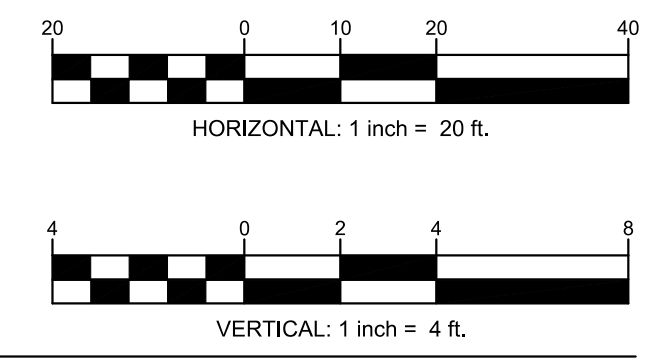
WKD PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

100% PLANS

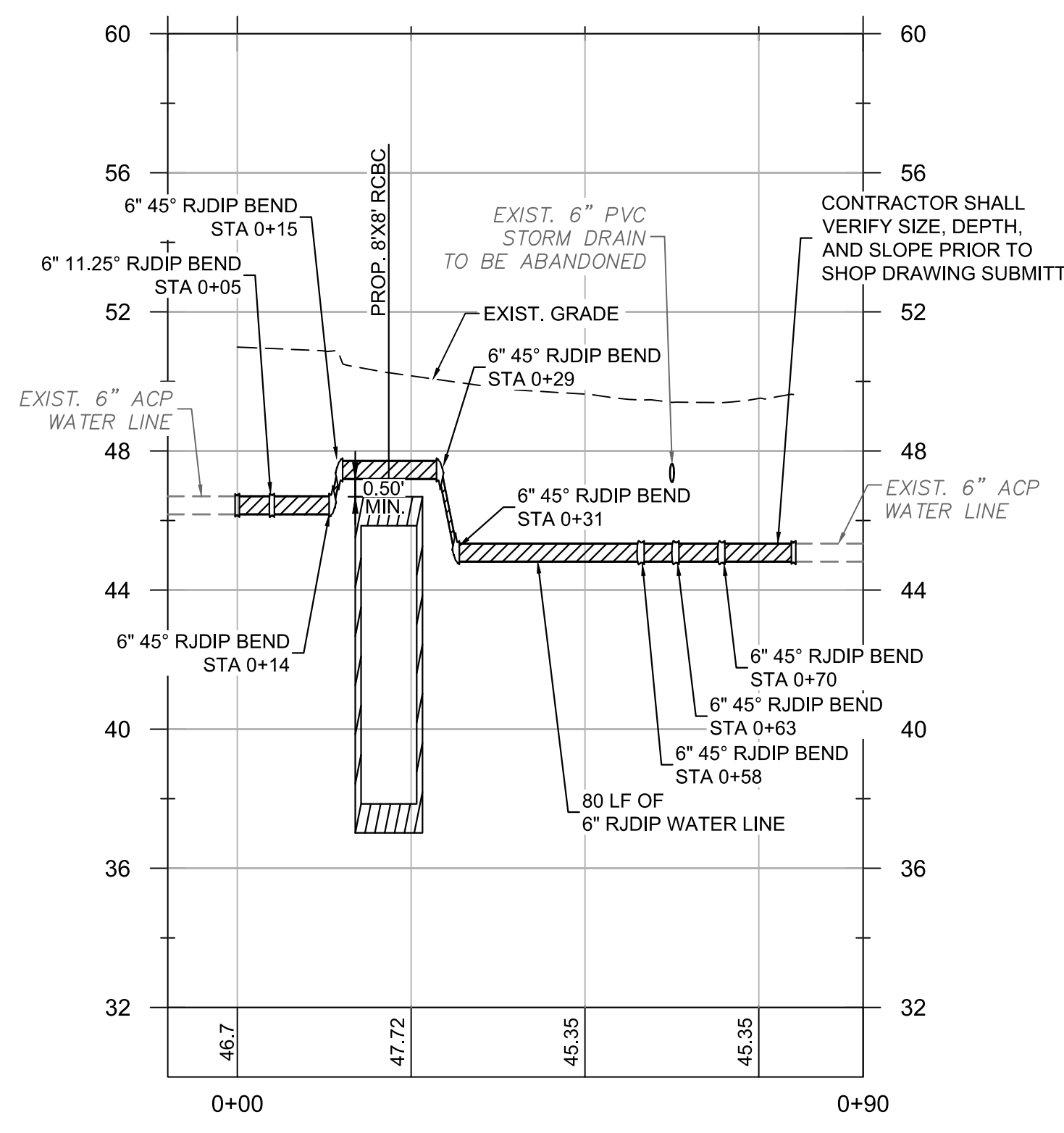
UWS2



GREENVILLE PUBLIC WORKS YARD UTILITY TEST HOLES										
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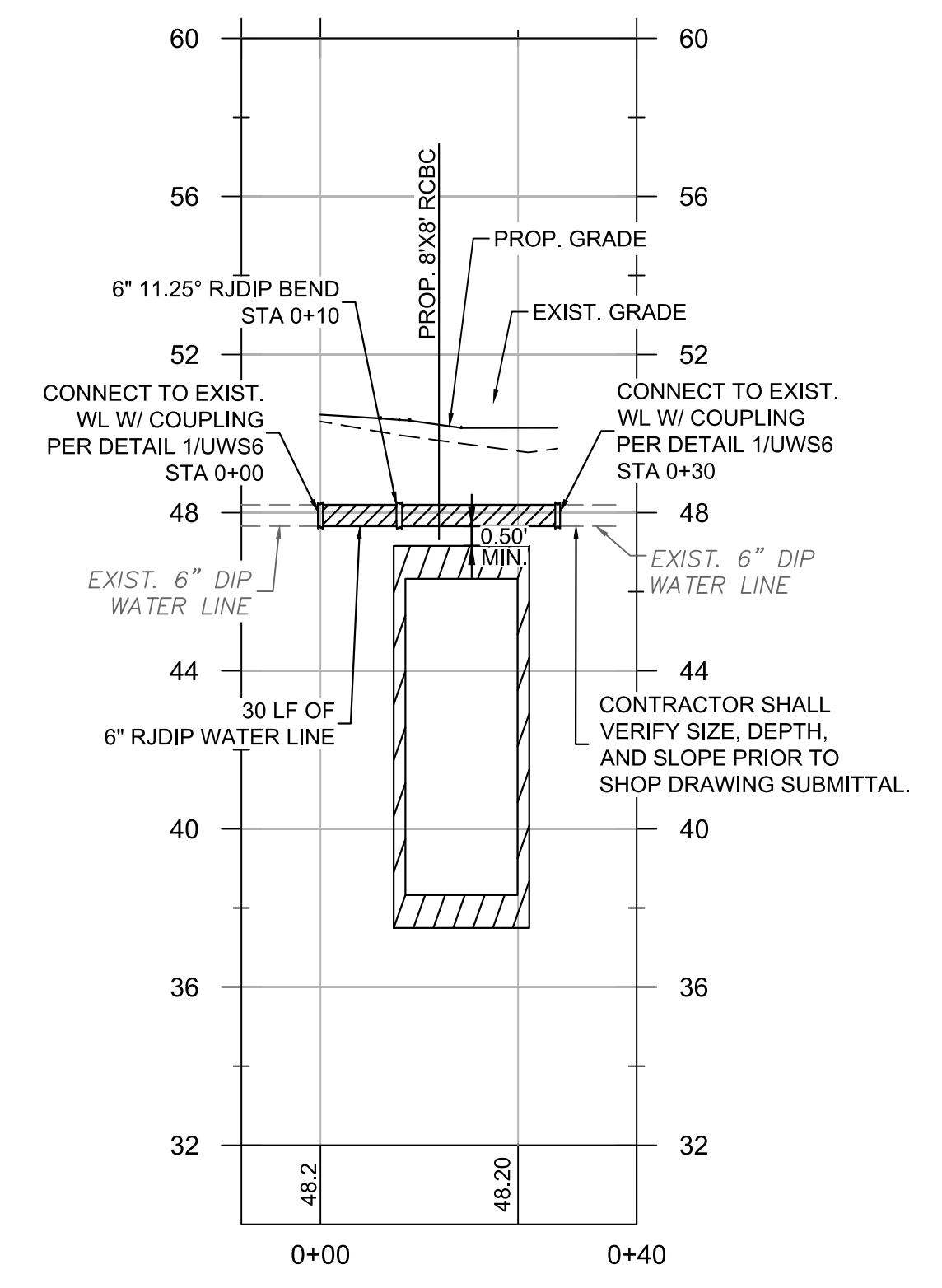


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 - SEE SHEETS UWS5 AND UWS6 FOR DETAILS.



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

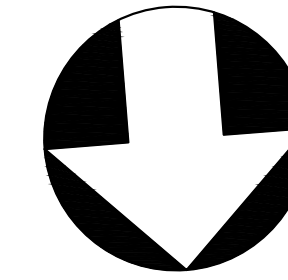
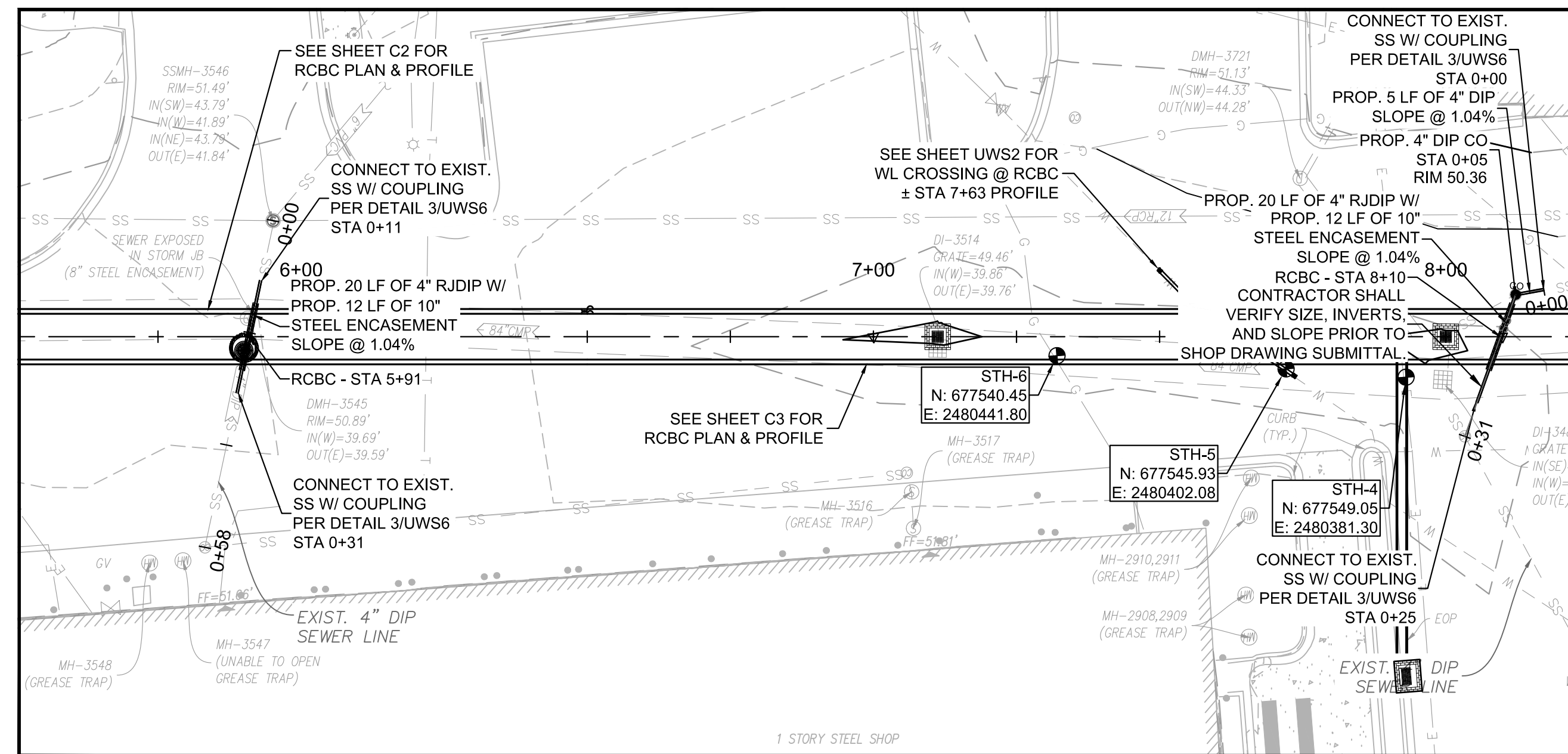
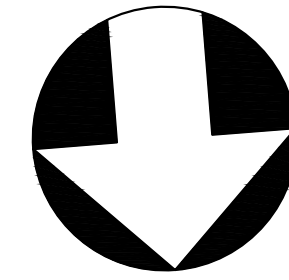
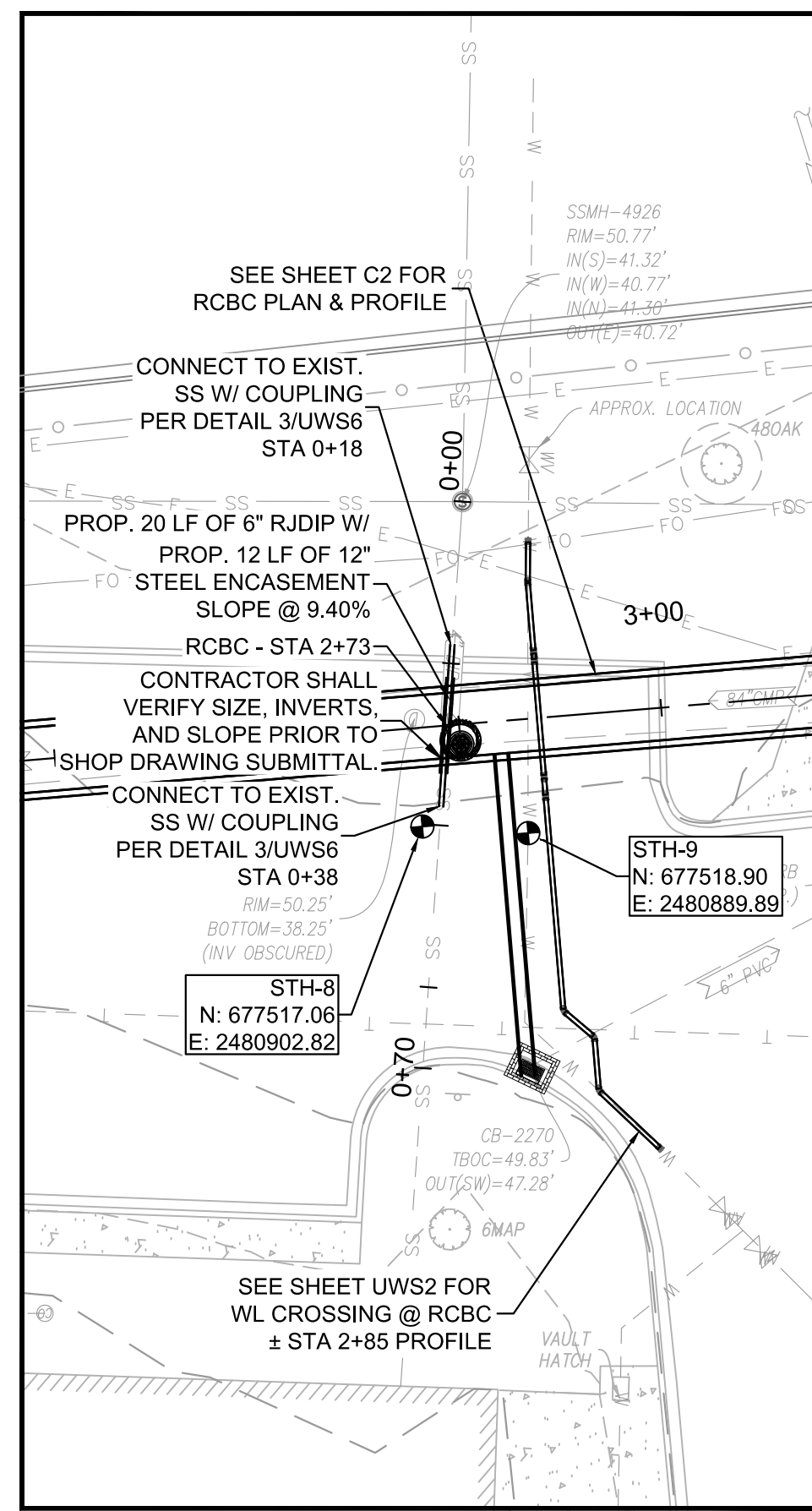
WL CROSSING @ RCBC ± STA 2+85



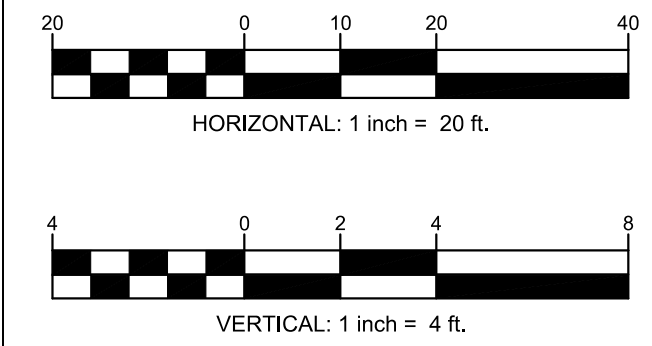
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WL CROSSING @ RCBC ± STA 7+63

BID DOCUMENT - NOT FOR CONSTRUCTION

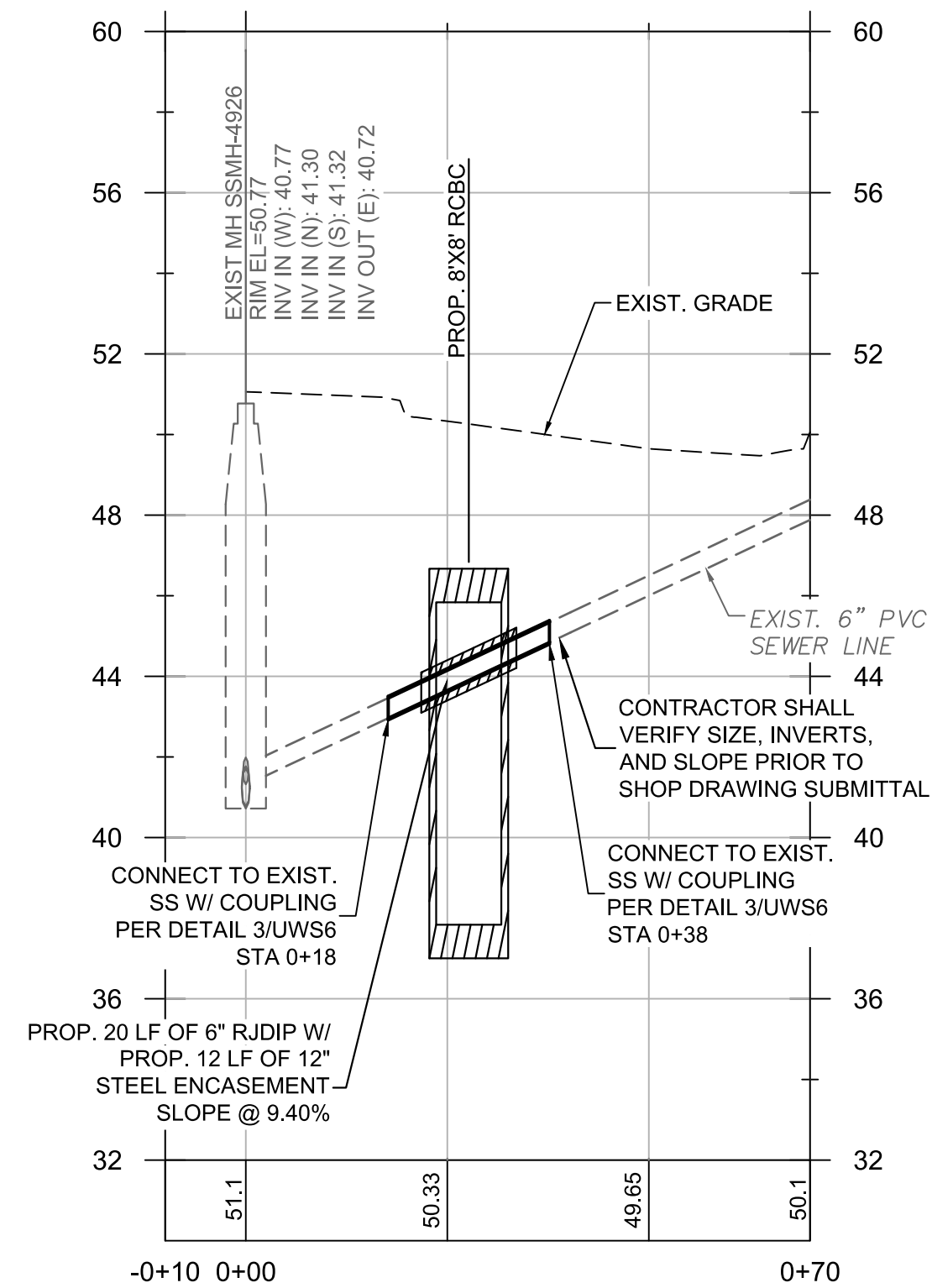


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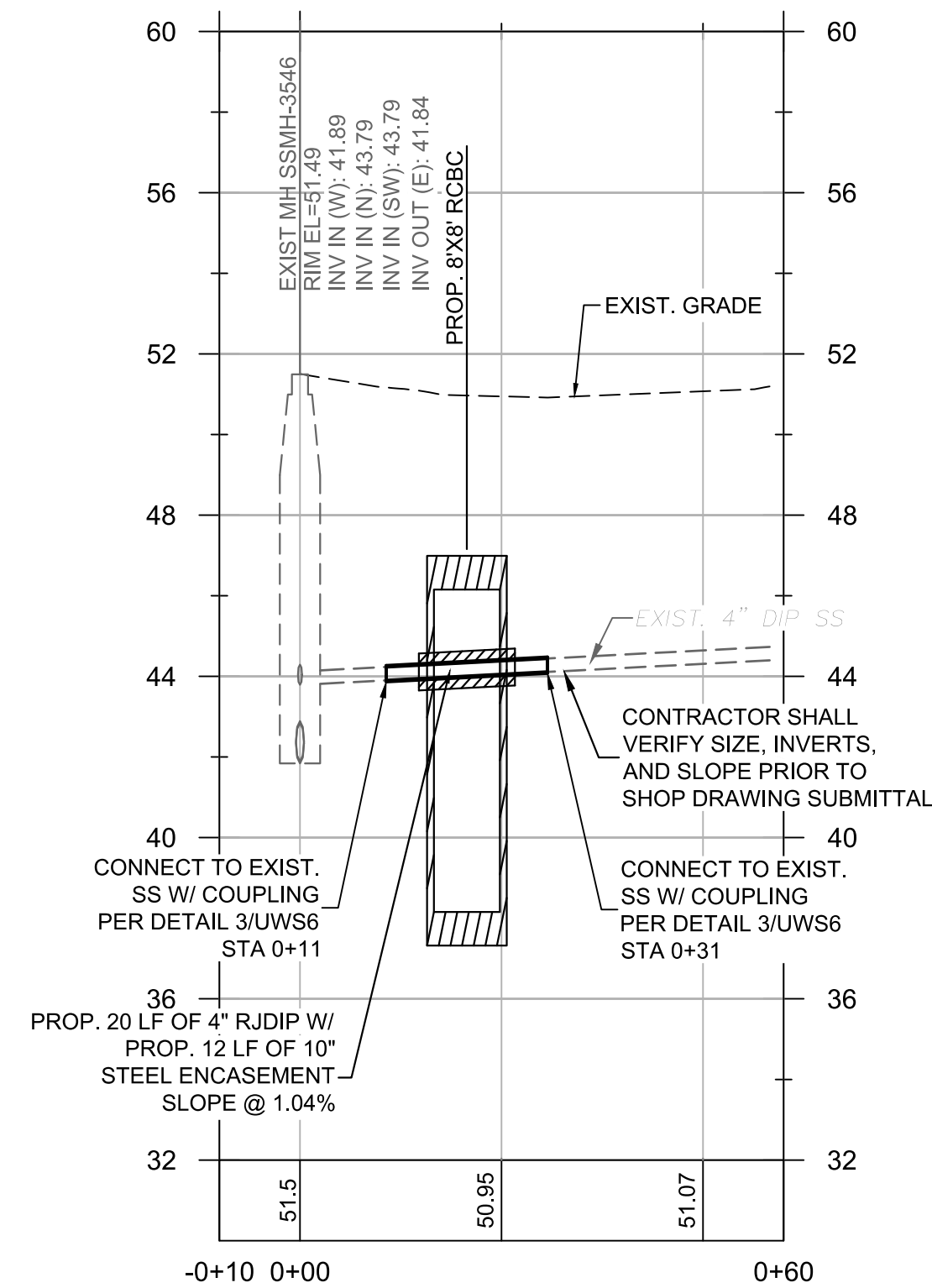
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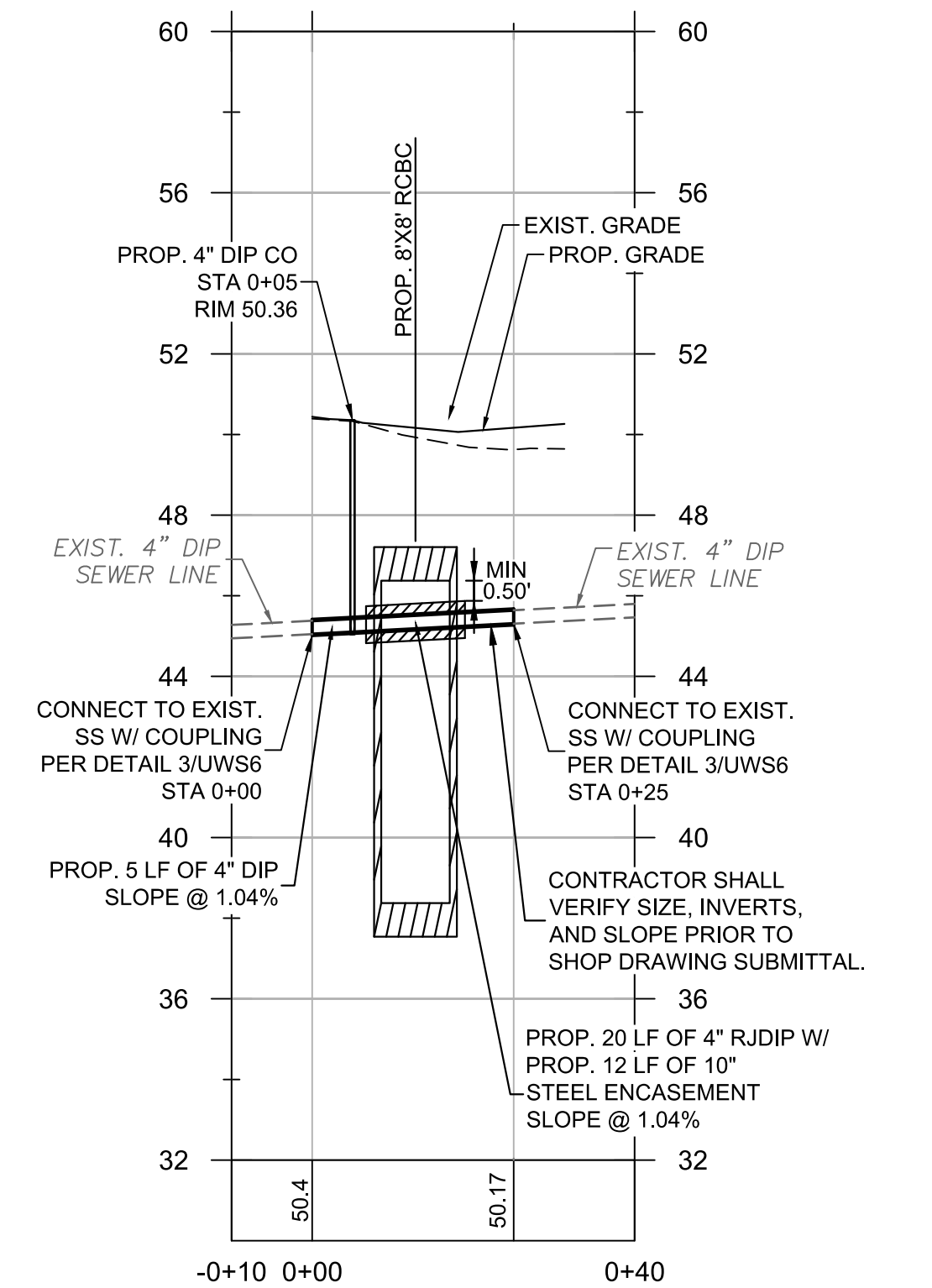
SCALE: HOR 1"=20'; VERT 1"=4'

SS CROSSING @ RCBC ± STA 2+73



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

SS CROSSING @ RCBC ± STA 5+91



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

SS CROSSING @ RCBC ± STA 8+10

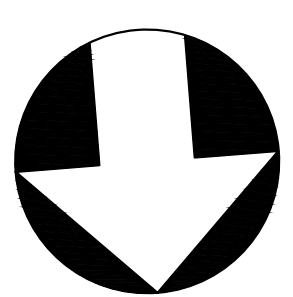
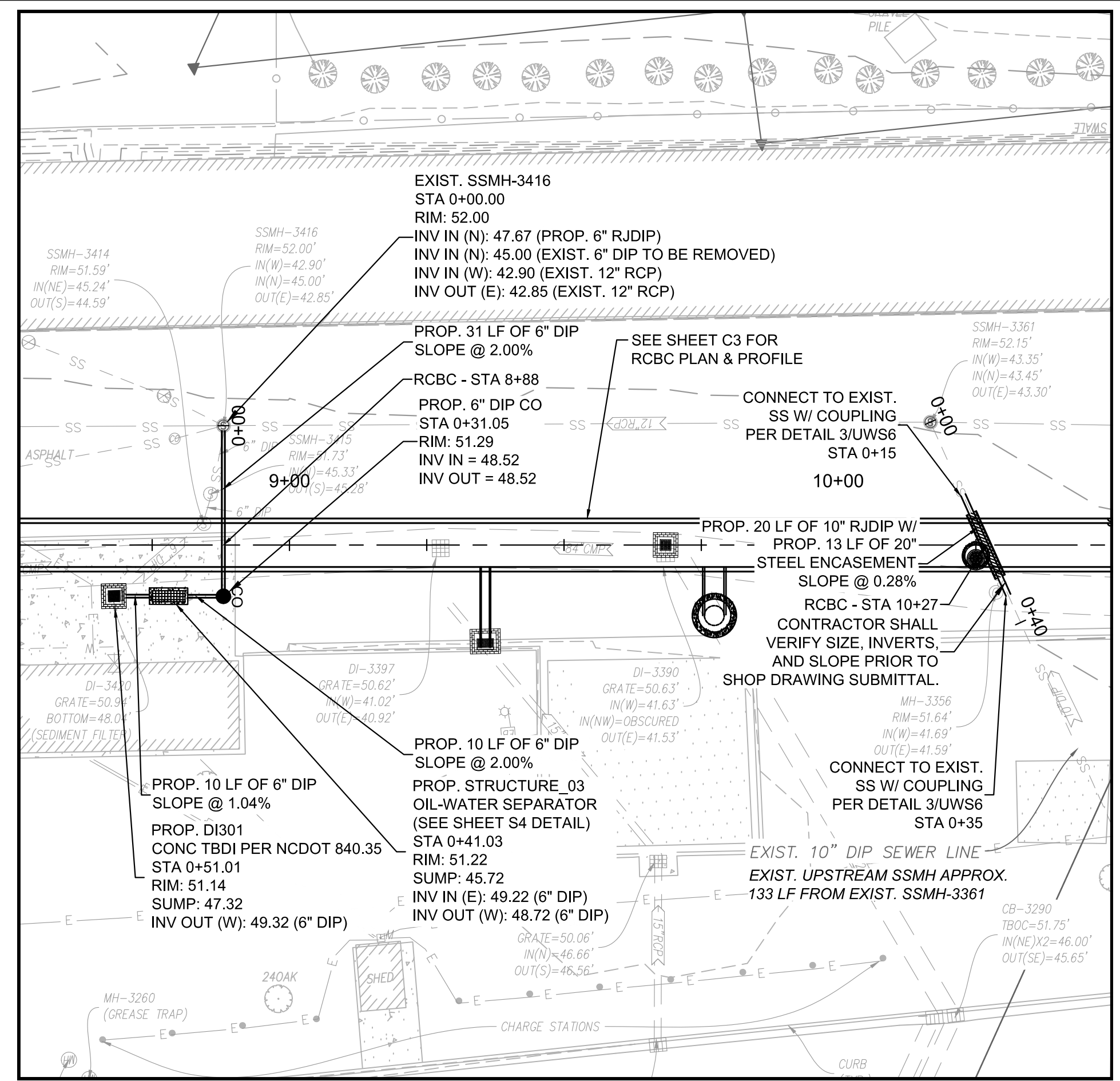


Jul 11 2023 11:09 AM SEAL

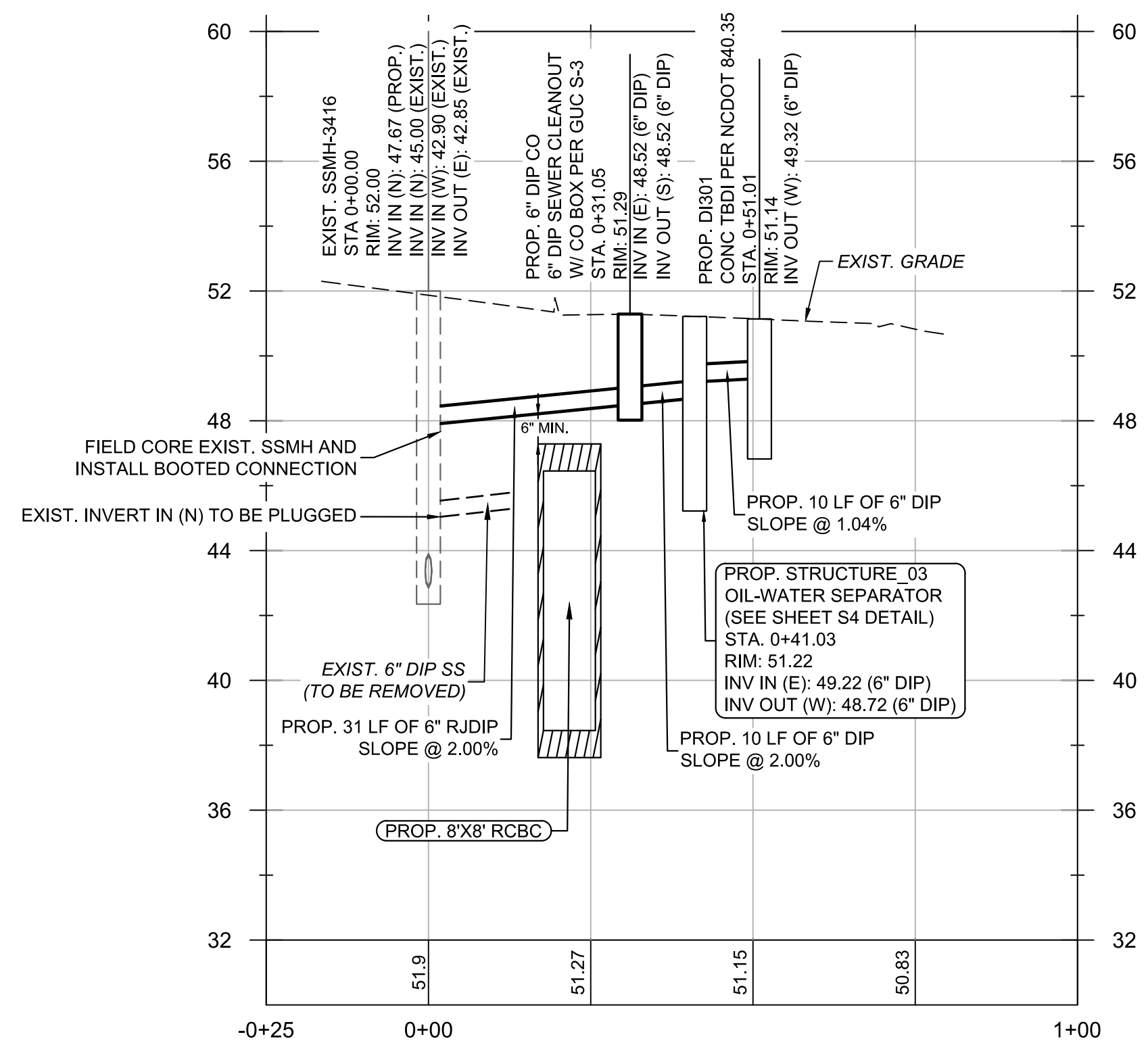
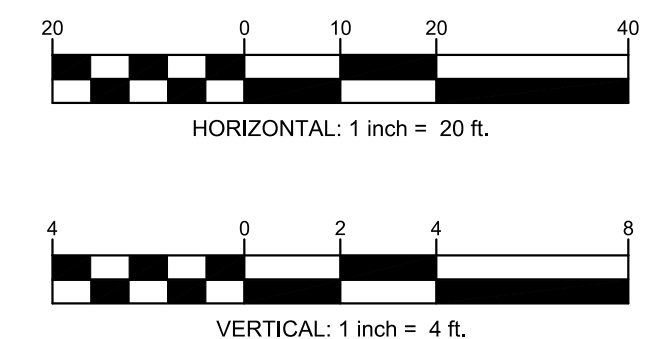
SEAL

NO.	DATE	REVISIONS

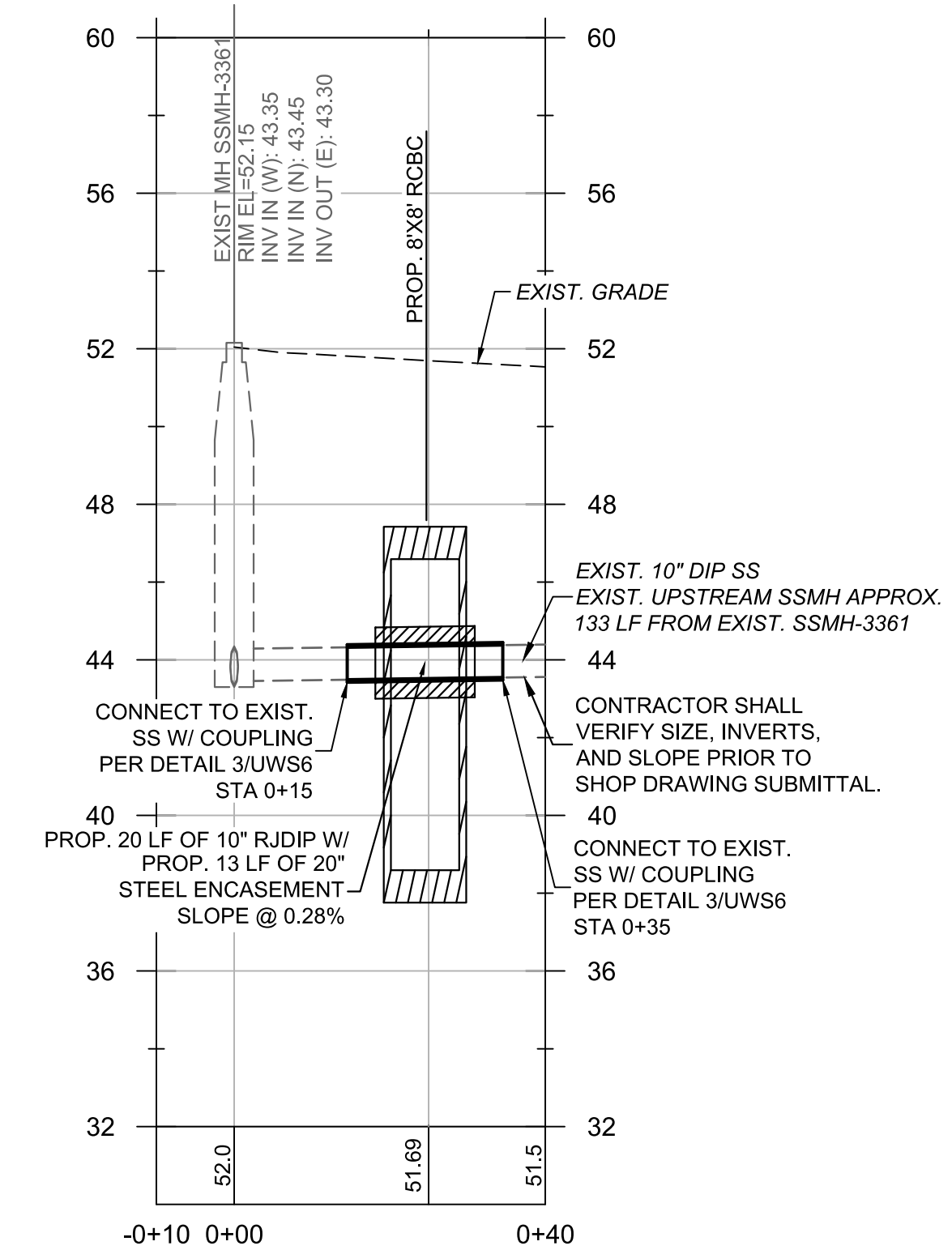
BID DOCUMENT - NOT FOR CONSTRUCTION



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SCALE: HOR 1"=20'; VERT 1"=4'
SS CROSSING @ RCBC STA ± 8+88



SCALE: HOR 1"=20'; VERT 1"=4'
SS CROSSING @ RCBC STA ± 10+27

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 - SEE SHEETS UWS5 AND UWS6 FOR DETAILS.

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
 NORTH CAROLINA
find yourself in good company
 CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
 TITLE:
SEWER UTILITY RELOCATION

WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023
 100% PLANS

UWS4

BID DOCUMENT - NOT FOR CONSTRUCTION

RESULTANT THRUST AT FITTING AT 100 PSI WATER PRESSURE

NOM. PIPE DIA.	TOTAL POUNDS				
	90°	45°	22-1/2°	11-1/4°	
4"	2,700	3,500	2,100	1,300	530
6"	8,600	8,000	4,500	2,800	1,100
8"	9,700	13,800	7,400	3,800	1,800
10"	14,500	20,500	11,100	5,700	2,800
12"	20,500	28,000	15,700	8,000	4,000
14"	27,800	38,000	21,100	11,000	5,400
16"	35,700	50,400	27,500	14,000	7,000
18"	44,800	63,400	34,400	17,500	8,800
20"	55,000	77,000	42,100	21,500	10,800
24"	78,500	110,000	60,000	31,600	15,400
30"	120,600	170,800	92,300	47,100	23,800
36"	172,600	244,400	132,300	67,500	33,900
42"	233,300	330,000	178,800	91,000	45,700
48"	304,000	430,000	232,700	118,600	59,600
54"	384,100	543,800	294,000	149,000	75,300

TYPES OF THRUST BLOCKING

SOIL BEARING LOAD (LB./SQ. FT.)

SOIL	BEARING LOAD (LB./SQ. FT.)
MUCK	0
SOFT CLAY	1,000
SANDY SILT	1,500
SANDY CLAY	2,000
SAND	3,000
SANDY CLAY	4,000
HARD CLAY	6,000
HARD CLAY	8,000

THRUST BLOCKING DETAIL

SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

THRUST RESTRAINT WITH ANCHOR RING

MIN. BEARING AREA (SQ. FT.)

PIPE SIZE	MIN. BEARING AREA (SQ. FT.)				
	SOFT CLAY	SILT	SANDY SILT	SAND	HARD CLAY
4	2.7	1.8	1.0	1.0	1.0
6	8.6	5.7	1.9	1.4	1.0
8	9.7	6.4	3.2	2.4	1.6
10	12	10	4.9	3.4	1.6
12	21	14	6.6	5.1	2.3
14	29	18	9.2	6.9	3.1
16	35	24	12	9.2	4.0
18	45	30	15	11	5.0
20	55	37	18	14	6.1
24	78	52	25	20	8.7
30	121	81	40	30	13
36	173	115	58	43	19

THRUST RESTRAINT DETAIL

SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

WATER MAIN AND STORM DRAIN CROSSING

MANHOLE INVERTS

SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

CLEANOUT DETAIL FOR PAVED AREAS

CLEANOUT DETAIL

SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

SANITARY SEWER ENCASEMENT DETAIL

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SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

MANHOLE INVERTS

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SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

PVC SEWER SERVICE CONNECTION

PVC SEWER SERVICE CONNECTION

SHEET	DWG. NO.	DWG. N. WOOTEN	GREENVILLE UTILITIES	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-12-99	APP. H. COREY			

PLANS PREPARED BY:
W.K. DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0465
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F-0374

PROFESSIONAL SEAL
 NORTH CAROLINA
 W.K. DICKSON
 ENGINEER
 041392
 JUL 11 2023 11:11

REVISIONS

NO. DATE

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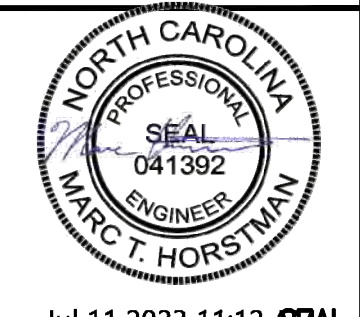
PROJECT:
 PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA

TITLE:
 GUC UTILITY DETAILS

W.K.D. PROJECT:
 20220983.00.RA
 DATE:
 7/11/2023

100% PLANS

UWS5



Jul 11 2023 11:12 AM SEAL

SEAL

NO.	DATE	REVISIONS

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PROJECT:
**PUBLIC WORKS STORMWATER
 PIPE IMPROVEMENTS PHASE 1
 GREENVILLE, NORTH CAROLINA**

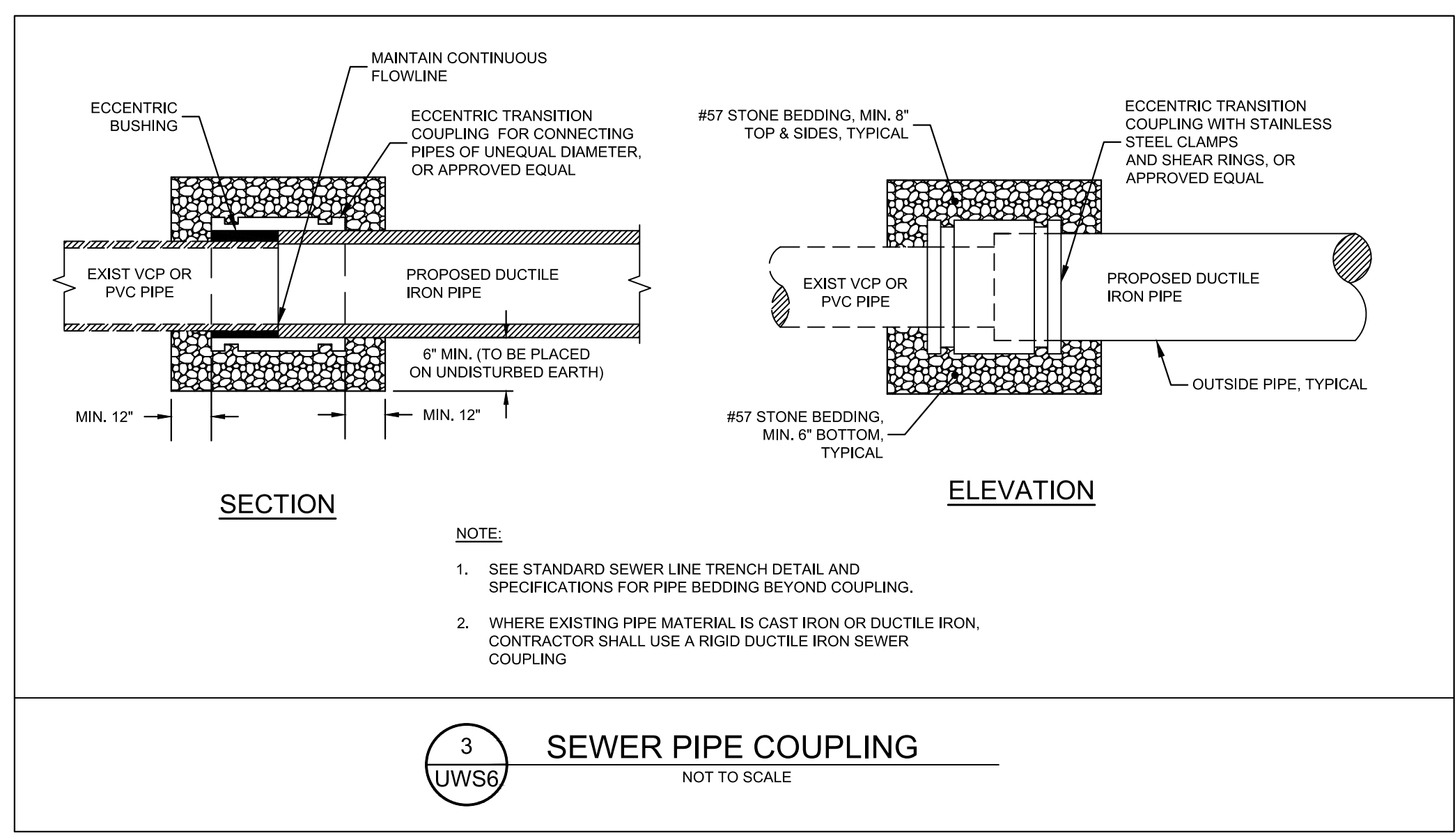
TITLE:
UTILITY DETAILS

WKD PROJECT:
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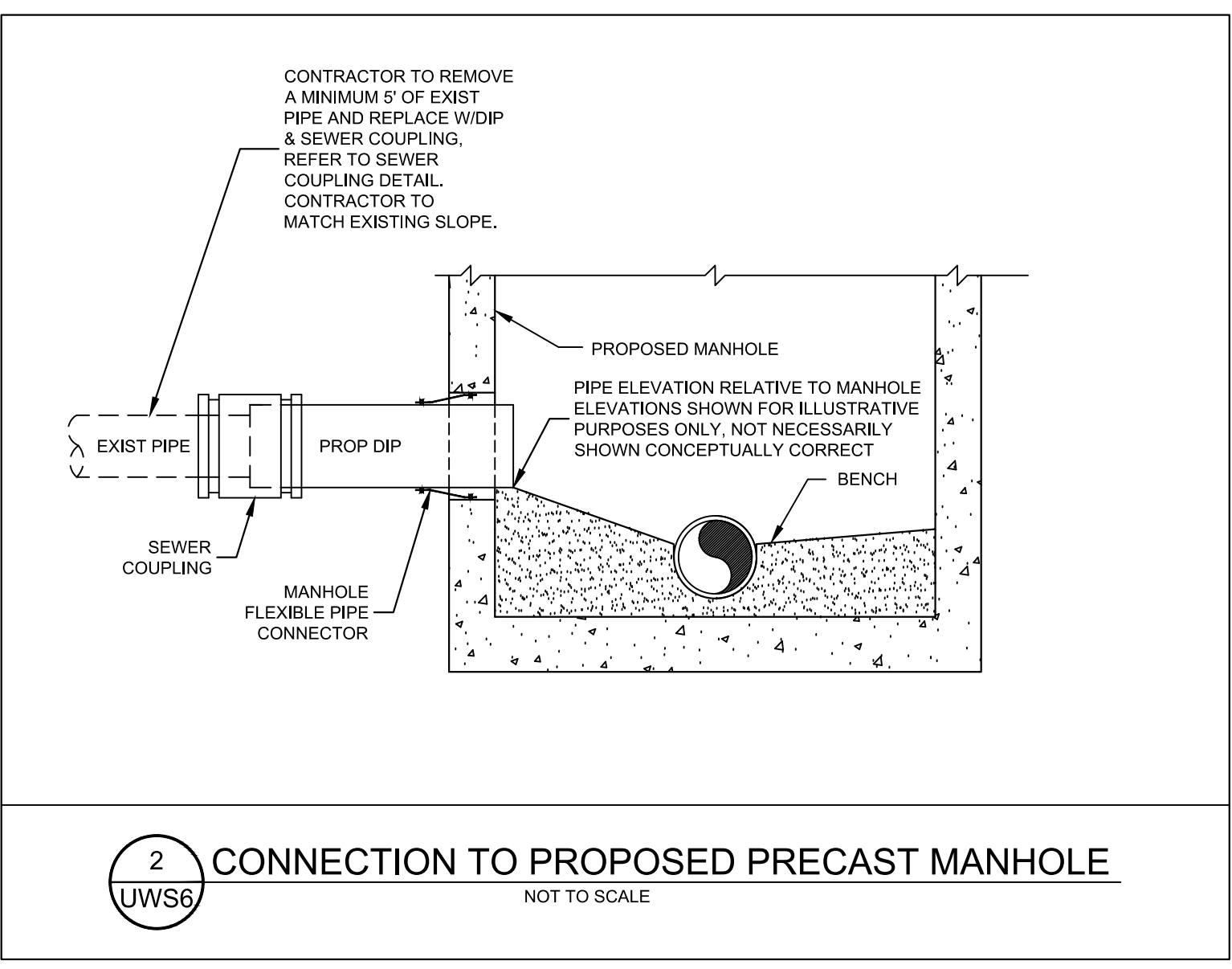
100% PLANS

UWS6

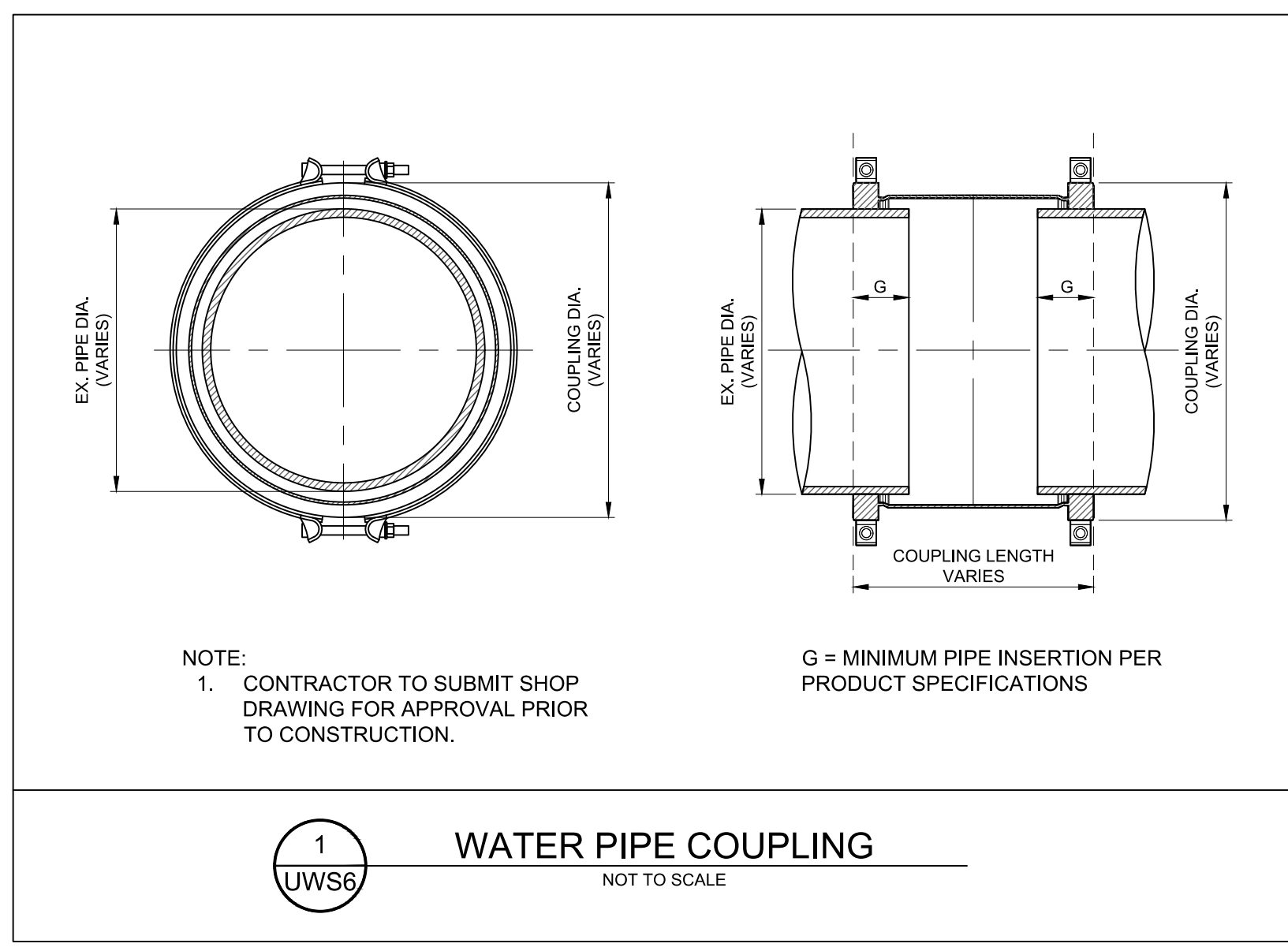
BID DOCUMENT - NOT FOR CONSTRUCTION



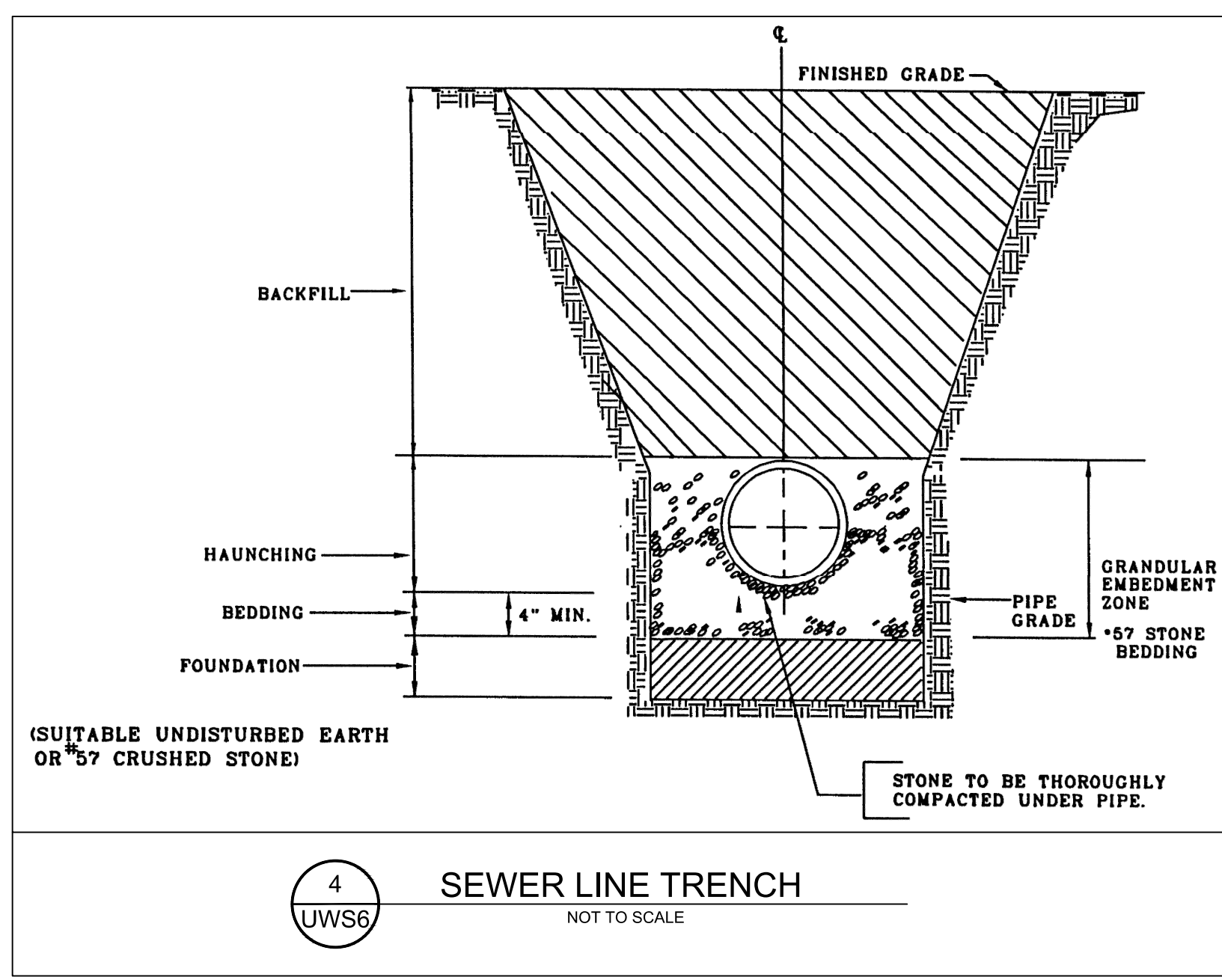
3 SEWER PIPE COUPLING
 UWS6 NOT TO SCALE



2 CONNECTION TO PROPOSED PRECAST MANHOLE
 UWS6 NOT TO SCALE



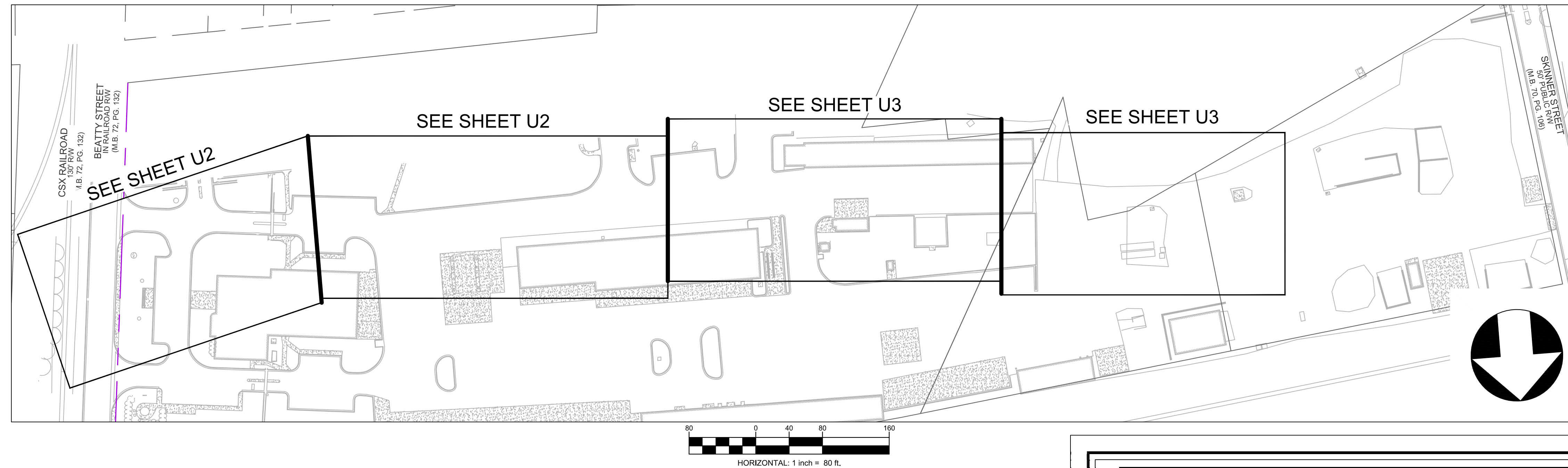
1 WATER PIPE COUPLING
 UWS6 NOT TO SCALE



4 SEWER LINE TRENCH
 UWS6 NOT TO SCALE

PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1

GREENVILLE, NORTH CAROLINA UTILITY RELOCATION



UTILITY COORDINATION NOTES:

- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING ALL APPROPRIATE UTILITY OWNERS AND ASSURING THAT UTILITIES ARE LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. NOTIFY UTILITY OWNERS A MINIMUM OF 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CALL NC ONE-CALL (PREVIOUSLY 811) AT 811 FOR UTILITY LOCATING SERVICES A MINIMUM OF 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- IN THE EVENT OF CONFLICTS WITH EXISTING UTILITIES OR IF FURTHER VERIFICATION OF FACILITIES OR TEMPORARY DISRUPTION OF SERVICE IS NECESSARY, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY AND SHALL FULLY COORDINATE ANY NECESSARY MODIFICATIONS WITH THE CITY OF GREENVILLE AND THE APPROPRIATE UTILITY.
- IF UTILITIES NEED TO BE RELOCATED DUE TO EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION WORK AND COST OF THE WATER AND SEWER (WET UTILITIES) ONLY. IF OTHER UTILITIES (DRY UTILITIES) ARE REQUIRED TO BE RELOCATED, THE UTILITY OWNER(S) SHALL BE RESPONSIBLE FOR THE WORK AND COST OF THE RELOCATION.
- ANY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A PROFESSIONAL SURVEYOR AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- MINIMUM SEPARATIONS BETWEEN EXISTING AND PROPOSED UTILITIES SHALL BE AS SPECIFIED IN STANDARD UTILITY NOTES THIS SHEET. IF UTILITY SEPARATION CONFLICTS OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE REQUIRED ADJUSTMENTS WITH THE CITY OF GREENVILLE PRIOR TO PROCEEDING WITH WORK. THE CONTRACTOR SHALL WORK AROUND EXISTING UTILITIES.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR THE USE OF THE CONTRACTOR IN PROVIDING PROTECTIONS FOR THE UTILITIES DURING CONSTRUCTION OPERATION. THE CITY, DESIGN CONSULTANT, AND/OR AGENT SHALL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OR LOCATION, SIZE, DEPTH OR COMPLETENESS OF THE INFORMATION. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT EACH OF THE UTILITY OWNERS IN THE AREA OF CONSTRUCTION RELATIVE TO THEIR UTILITY LOCATIONS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES FROM DAMAGE CAUSED BY CONSTRUCTION OPERATIONS AND/OR RELATED WORK OF THE CONTRACTOR OR HIS AGENTS. THE CONTRACTOR SHALL HOLD THE CITY HARMLESS FOR ANY INCONVENIENCE OR DELAY CAUSED BY THE OPERATIONS OF OTHERS PERFORMING THE ABOVE WORK. NECESSARY ADJUSTMENT OR RELOCATION OF EXISTING UTILITIES, EXCEPT FOR CONTRACT ITEMS, SHALL BE COORDINATED BY THE CONTRACTOR AND BE PERFORMED BY THE UTILITY SERVICE PROVIDER. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHERS IN ORDER TO PROVIDE SATISFACTORY PROGRESS OF THE PROJECT.
- THE CONTRACTOR SHALL SUPPORT AND PROTECT ANY EXISTING UNDERGROUND UTILITIES ENCOUNTERED DURING TRENCH EXCAVATION AND/OR PIPE INSTALLATION. CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING IN AREAS NEAR OVERHEAD POWER TRANSMISSION LINES.
- THE CITY OF GREENVILLE STREET SUPERINTENDENT/CONSTRUCTION INSPECTOR SHALL BE INCLUDED IN THE PRE-CONSTRUCTION MEETING AND ALL SUBSEQUENT CONSTRUCTION COORDINATION MEETINGS.
- THE LOCATIONS, ELEVATION, SIZE, AND MATERIAL OF EXISTING UTILITIES AS SHOWN ON PLAN AND PROFILE ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD-VERIFY, BY METHOD OF NON-DESTRUCTIVE EXCAVATION, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AND SERVICES (SHOWN OR NOT SHOWN) WHICH LIE WITHIN OR ADJACENT TO EXCAVATION OF BORE PITS AND PIPE TRENCH PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY REPORT FINDINGS TO CITY'S REPRESENTATIVE SO UTILITY CONFLICTS, IF ANY, CAN BE CONFIRMED AND APPROPRIATE ADJUSTMENTS MADE. CONTRACTOR SHALL PERFORM UTILITY EXCAVATION EARLY IN PROJECT (FOLLOWING NTP) IN THE EVENT UTILITY RELOCATIONS ARE REQUIRED (MINIMUM 60 DAYS PRIOR TO CONSTRUCTION IN THAT AREA). ANY DAMAGE TO UTILITIES INCURRED DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

GENERAL UTILITY CONTACTS

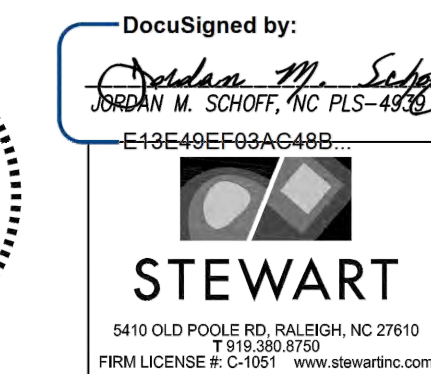
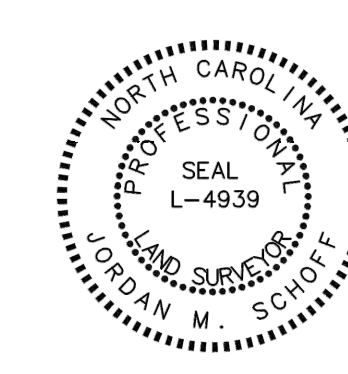
UTILITY	OWNER	CONTACT	PHONE
ELECTRIC	GUC ELECTRIC	JACOB BARNES	252.329.2155
WATER & SEWER	GUC WATER RESOURCES	SCOTT FARMER	252.551.1529
GAS	GUC GAS	DILLON WADE	252.551.1594
TEL/FIBER OPTIC	CENTURYLINK	TODD BRYANT	252.902.9849
TELECOM	MCNC	SCOTT WILLIFORD	336.937.1743
TELECOM	SUDDENLINK	SCOTT BARKER	252.341.5677
FIBER OPTIC	CITY OF GREENVILLE	GENTRY COWARD	252.329.4050
TRAFFIC CONTROL	CITY OF GREENVILLE	RICHARD DICESARE	252.329.4066
FIRE DEPARTMENT	CITY OF GREENVILLE	CITY OF GREENVILLE	252.329.4390
POLICE DEPARTMENT	CITY OF GREENVILLE	CITY OF GREENVILLE	252.329.4315

GREENVILLE PUBLIC WORKS YARD UTILITY TEST HOLES										
TH#	PT#	NORTHING	EASTING	SURFACE ELEVATION (FT)	TYPE	DEPTH (FT)	OWNER	MATERIAL	OD (IN)	TOP OF UTILITY ELEVATION (FT)
STH-1	N/A	UTILITY NOT FOUND VIA ELECTROMAGNETIC OR GROUND PENETRATING RADAR DETECTION								
STH-2	31006	677,543.694	2,480,325.898	51.02	ELEC	2.00	PRIVATE	PVC	1	49.02
STH-3	31005	677,544.615	2,480,339.867	50.37	GAS	1.90	PRIVATE	PVC	1	48.47
STH-4	31004	677,549.054	2,480,381.299	49.54	ELEC	2.70	PRIVATE	PVC	2	46.84
STH-5	31003	677,545.928	2,480,402.083	49.84	WATER	1.64	CITY	DIP	6	48.20
STH-6	31002	677,540.455	2,480,441.800	49.70	GAS	1.54	PRIVATE	PVC	1	48.16
STH-7	31001	677,527.027	2,480,646.094	50.61	ELEC	1.38	PRIVATE	PVC	1	49.23
STH-8	31008	677,517.055	2,480,902.824	49.94	SEWER	4.35	CITY	PVC	6	45.59
STH-9	31007	677,518.898	2,480,889.885	49.82	WATER	4.28	CITY	ACP	6	45.54
STH-10	31009	677,508.354	2,480,985.843	50.13	ELEC	1.58	PRIVATE	PVC	2	48.55
STH-11	31015	677,507.201	2,481,027.217	49.66	F/O	2.62	AT&T	PVC	2	47.04
STH-12	31014	677,510.322	2,481,039.526	49.89	GAS	3.58	PRIVATE	PVC	1	46.31

GREENVILLE PUBLIC WORKS YARD SURVEY CONTROL				
TRAV#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	677,484,418	2,481,216,790	53.55	TRAV-1-REBAR WDISC
11	677,515,123	2,480,630,914	50.54	TRAV-11-NL WDISC

THIS LETTER IS TO CERTIFY THAT A FIELD SURVEY HAS BEEN PERFORMED ON THE TEST HOLE LOCATIONS SHOWN ABOVE. THE FOLLOWING COORDINATES SHOWN HEREON ARE TIED TO EXISTING SITE CONTROL FOR "GREENVILLE PW YARD AND STORMWATER IMPROVEMENTS" AS LISTED ABOVE.

I, JORDAN M. SCHOFF, NC PLS # 4939, CERTIFY THAT THIS SURVEY WAS PERFORMED UNDER MY RESPONSIBLE CHARGE IN COMPLIANCE WITH THE STANDARDS OF PRACTICE FOR LAND SURVEY (21-56.1600) FOR THE PURPOSE OF LOCATING SURVEY LEVEL A TEST HOLES, WITNESS MY HAND AND SEAL THIS 19th DAY OF MAY, IN THE YEAR 2023.



STEWART
5410 OLD POOLE RD. RALEIGH, NC 27610
T 919.380.9750
WWW.STEWARTINC.COM

Project No: G23004 Date: 05-19-23
Scale: N/A Revision:
Drawn By: WJT Drawing No:
Checked By: JMS
Surveyed By: EB 1 of 1

PLANS PREPARED BY:
WK DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
(919) 782-8672
WWW.WKDICKSON.COM
NC LICENSE NO. F-03074



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SEAL

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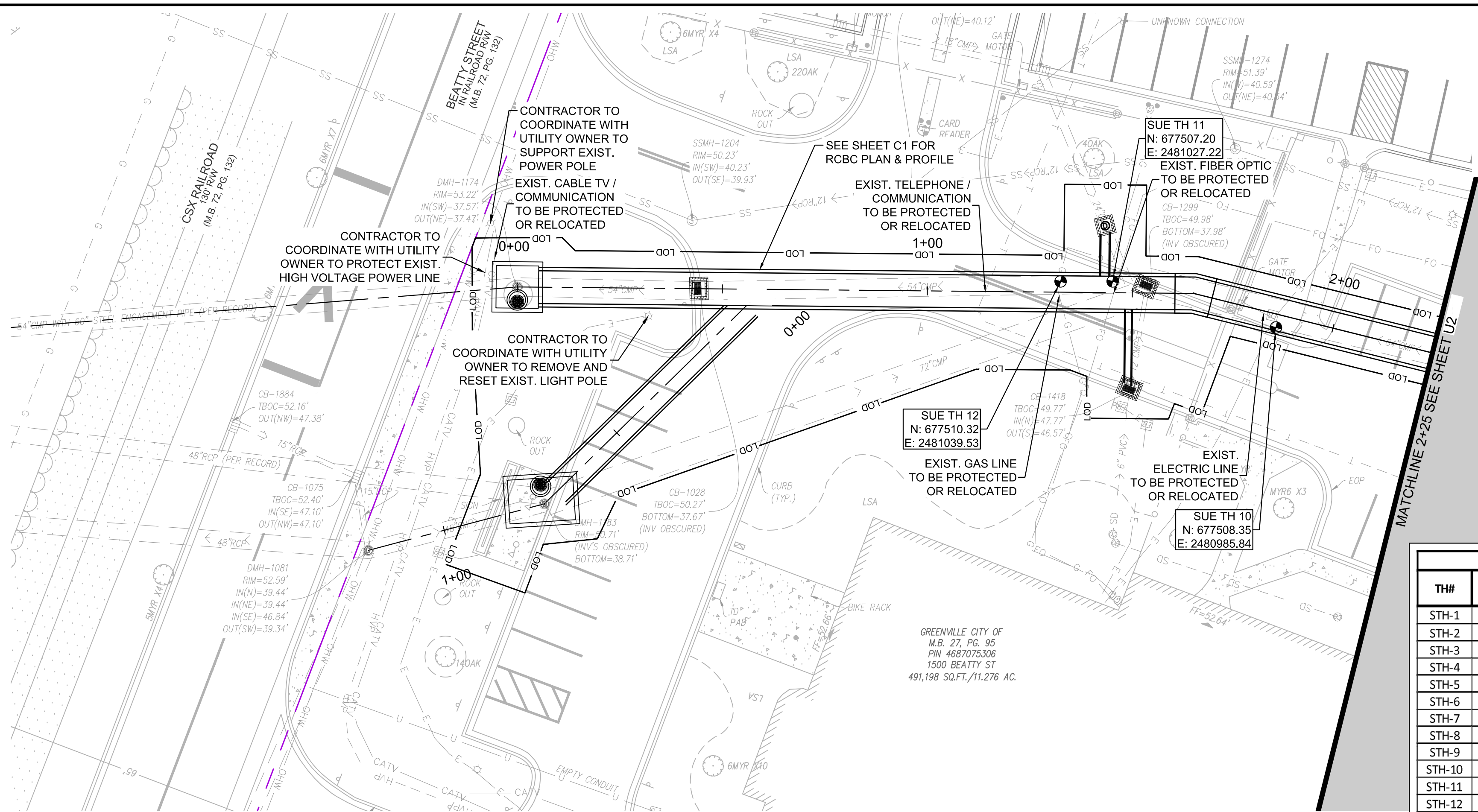
PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
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CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
TITLE:
UTILITY RELOCATION

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023
100% PLANS

U1

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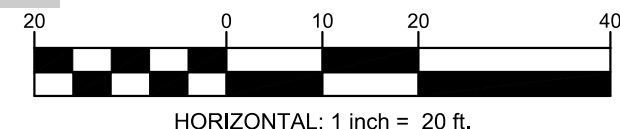
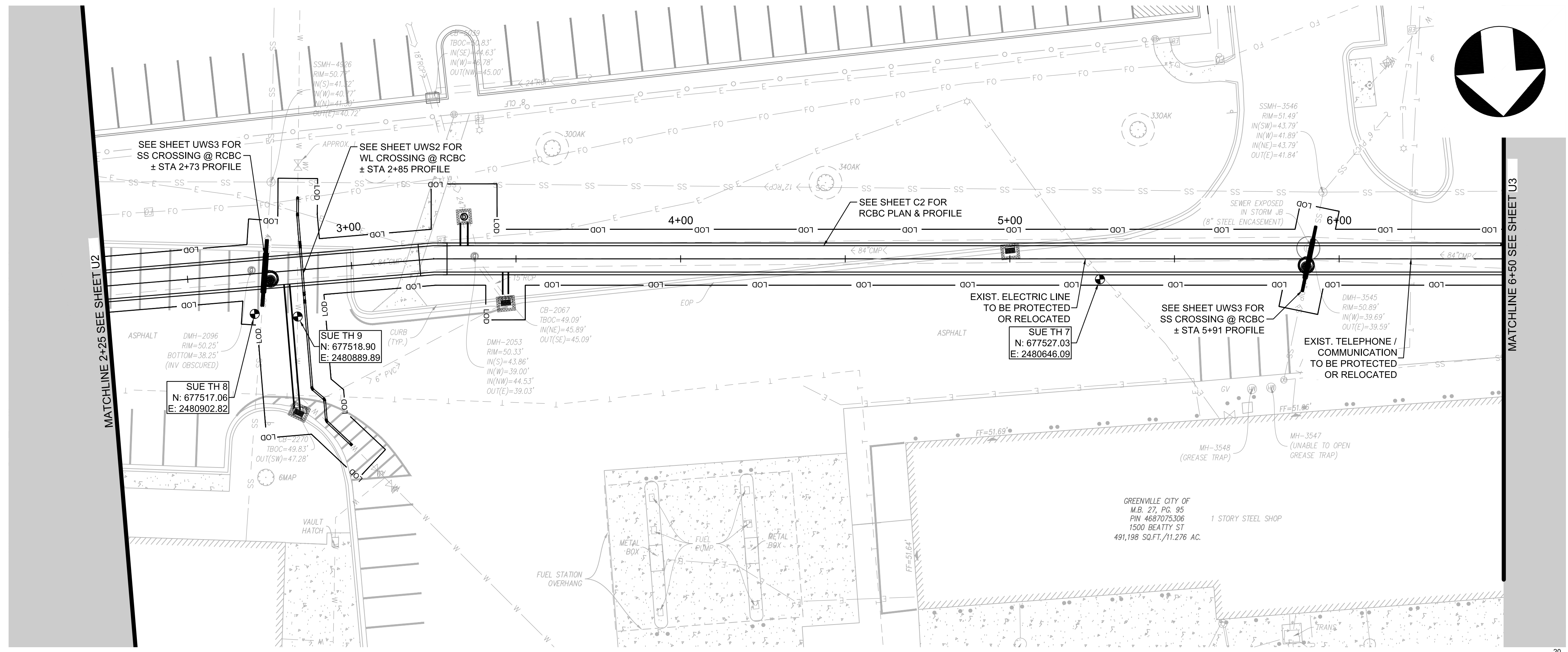
UTILITY SHEET NOTE:
 1. THE CONTRACTOR SHALL COORDINATE WITH OWNER ON ALL UTILITY CROSSINGS WITHIN THE PIPE TRENCH. COST FOR PROTECTION OR RELOCATION IS OUTLINE IN SP.33.

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 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0495
 (919) 782-9672
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 NC LICENSE NO. F0374



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GREENVILLE PUBLIC WORKS YARD UTILITY TEST HOLES											
TH#	PTH	NORTHING	EASTING	SURFACE ELEVATION (FT)	TYPE	DEPTH (FT)	OWNER	MATERIAL	OD (IN)	TOP OF UTILITY ELEVATION (FT)	
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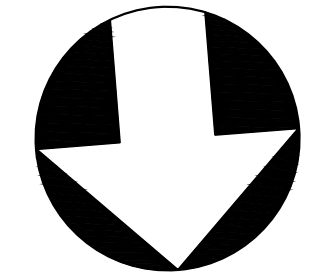
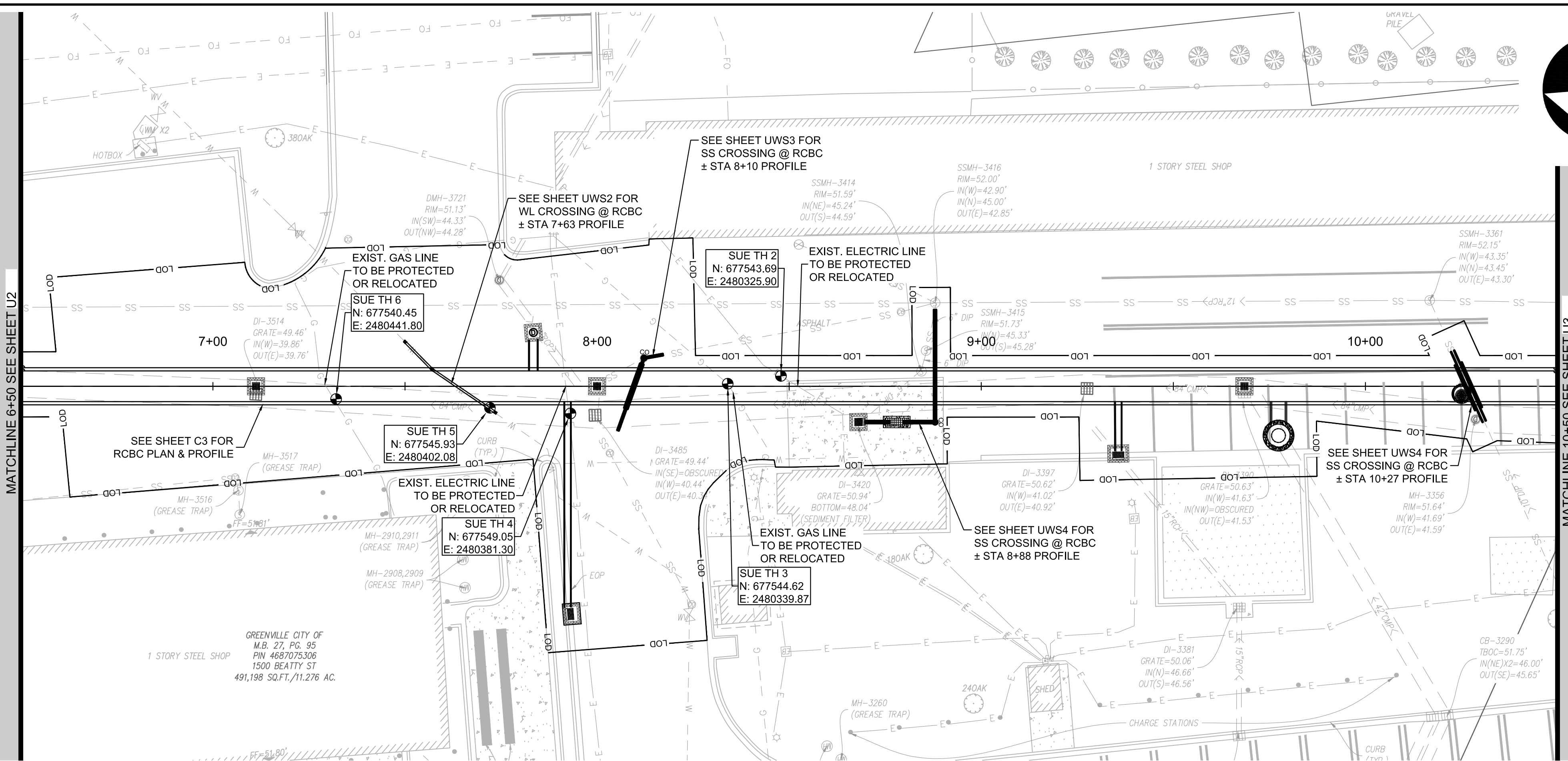
PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
 TITLE:
UTILITY RELOCATION

WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023

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U2

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UTILITY SHEET NOTE:
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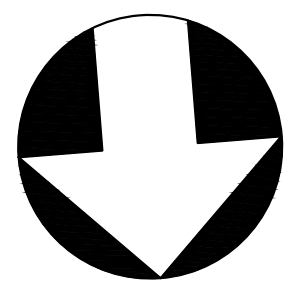
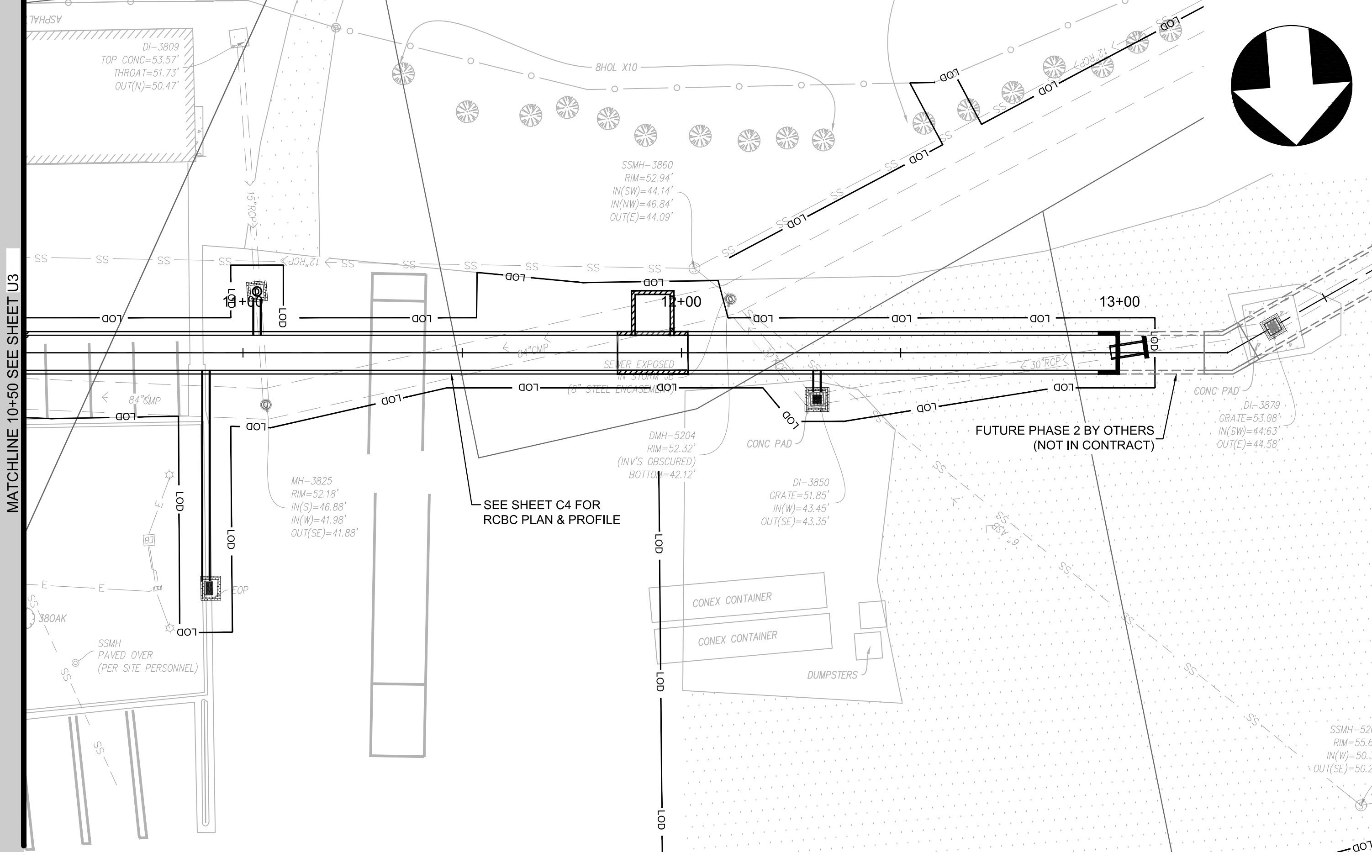
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MATCHLINE 6+50 SEE SHEET U2

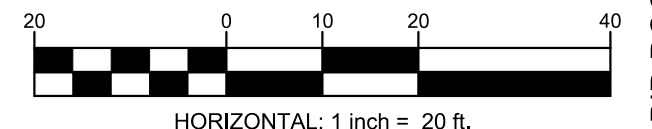
MATCHLINE 10+50 SEE SHEET U3



GREENVILLE PUBLIC WORKS YARD UTILITY TEST HOLES										
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MATCHLINE 10+50 SEE SHEET U3

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PROJECT:
 PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
TITLE:
 UTILITY RELOCATION

WKD PROJECT:
 20220983.00.RA
DATE:
 7/11/2023

100% PLANS

U3

EROSION CONTROL NOTES:

- REFER TO SHEETS G2 - GENERAL NOTES AND EC2 - EROSION CONTROL NOTES FOR ADDITIONAL NOTES.
- LIMIT OF DISTURBED AREA:**
0.98 AC (42,793 SF)
- NO ON-SITE BURIAL OF VEGETATION OR CONSTRUCTION DEBRIS WILL BE PERMITTED.
- ANY DISTURBANCE BEYOND THE CONSTRUCTION LIMITS SHOWN ON THE PLANS IS A VIOLATION OF THE NORTH CAROLINA SEDIMENTATION POLLUTION CONTROL ACT AND THE CONTRACT SPECIFICATIONS.
- PLEASE REFERENCE PLAN SHEET DETAILS AND NCDENR STANDARDS FOR CONSTRUCTION OF EROSION CONTROL MEASURES.
- ALL DISTURBED AREAS SHALL BE SEEDED, USE TEMPORARY PLANT COVER, MULCHING, AND/OR STRUCTURES TO CONTROL RUNOFF AND PROTECT AREAS SUBJECT TO EROSION DURING CONSTRUCTION. CHANNEL BANKS SHALL BE SEEDED DAILY UPON COMPLETION OF FINAL GRADING.
- INSTALL PERMANENT VEGETATIVE COVER AND THE LONG-TERM EROSION PROTECTION MEASURES OR STRUCTURES AS SOON AS PRACTICAL IN THE CONSTRUCTION PROCESS. APPROPRIATE EROSION CONTROL MEASURES MUST BE PLACED BETWEEN THE DISTURBED AREA AND AFFECTED WATERWAY AND MAINTAINED UNTIL PERMANENTLY VEGETATED.
- AT A MINIMUM, EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL GOVERNING AGENCIES.
- IF IT IS DETERMINED DURING THE COURSE OF CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE (DESPITE THE PROPER IMPLEMENTATION AND MAINTENANCE OF EROSION CONTROL MEASURES), THE PERSON RESPONSIBLE FOR THE LAND DISTURBING ACTIVITY IS OBLIGATED TO TAKE ADDITIONAL PROTECTIVE ACTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF ANY SOIL TRACKED INTO THE PUBLIC RIGHT-OF-WAY.
- THE LOCATIONS OF SOME EROSION CONTROL MEASURES MAY HAVE TO BE ALTERED FROM THOSE SHOWN ON THE PLANS IF DRAINAGE PATTERNS CHANGE DURING CONSTRUCTION, SUBJECT TO THE REVIEW AND APPROVAL OF THE PROJECT ENGINEER.
- NO STOCKPILING SHALL OCCUR OVERNIGHT. REMOVE AND PROPERLY DISPOSE OF ALL DEBRIS FROM STOCKPILE AT THE END OF EACH WORKING DAY.
- STABILIZATION MEASURES SHALL BE INITIATED AT THE END OF EACH DAY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED EXCEPT WHERE CONSTRUCTION ACTIVITIES SHALL BE REINITIATED WITHIN 7 CALENDAR DAYS.
- SILT FENCING TO BE INSTALLED AROUND ALL SPOILS AREAS TO PREVENT LOSS OF SEDIMENT.
- SEE SHEET EC9 FOR SEEDING AND STABILIZATION DETAILS.
- NO WASTE, SPOIL, SOLIDS, OR FILL OF ANY KIND SHALL OCCUR IN WETLANDS, WATERS, OR RIPARIAN AREAS BEYOND THE FOOTPRINT OF THE IMPACTS DEPICTED IN THE PRE-CONSTRUCTION NOTIFICATION. ALL CONSTRUCTION ACTIVITIES, INCLUDING THE DESIGN, INSTALLATION, OPERATION, AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL BEST MANAGEMENT PRACTICES, SHALL BE PERFORMED SO THAT NO VIOLATIONS OF STATE WATER QUALITY STANDARDS, STATUTES, OR RULES OCCUR. [15A NCAC 02H .0501 AND .0502]
- THE OUTSIDE BUFFER, WETLAND OR WATER BOUNDARY AND ALONG THE CONSTRUCTION CORRIDOR WITHIN THESE BOUNDARIES APPROVED UNDER THIS AUTHORIZATION SHALL BE CLEARLY MARKED WITH ORANGE WARNING FENCING (OR SIMILAR HIGH VISIBILITY MATERIAL) FOR THE AREAS THAT HAVE BEEN APPROVED TO INFRINGE WITHIN THE BUFFER, WETLAND OR WATER PRIOR TO ANY LAND DISTURBING ACTIVITIES TO ENSURE COMPLIANCE WITH 15 NCAC 02H .0500, [15A NCAC 02H .0506 (B)(2) AND (C)(2) AND 15A NCAC 02H .0507(C)].

CONSTRUCTION SEQUENCE:

- THE CITY OF GREENVILLE SHALL CONDUCT THE PRE-CONSTRUCTION MEETING INCLUDING THE ENGINEER, THE CONTRACTOR'S SUPERINTENDENT, THE PROJECT INSPECTOR AND OTHER AFFECTED PARTIES. CALL THE CITY OF GREENVILLE ENGINEERING DIVISION (252) 329-4467 TO SCHEDULE THE MEETING. A MINIMUM 24-HOUR NOTICE IS REQUIRED. NO PERSON MAY INITIATE A LAND DISTURBANCE ACTIVITY BEFORE NOTIFYING THE CITY OF THE DATE OF THE LAND DISTURBING ACTIVITY. COORDINATE WITH THE CITY ON NOTIFYING NCDEQ PER ITEM #4 BELOW.
- A RAIN GAUGE WILL BE INSTALLED ON SITE & COPIES OF PLAN APPROVED BY NCDEQ, PLAN APPROVAL LETTER WITH ANY MODIFICATIONS OR PERFORMANCE RESERVATIONS, ANY 401/404 DOCUMENTATION, & A MINIMUM OF THE PAST 30 DAYS OF SELF-INSPECTION REPORTS WILL BE KEPT ON SITE UNTIL PROJECT IS CLOSED OUT BY THIS OFFICE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE MAINTAINED UNTIL ALL UPGRADE DRAINAGE AREAS HAVE BEEN STABILIZED WITH THE ESTABLISHMENT OF PERMANENT VEGETATION.
- TO FACILITATE IN CLEANUP OF PAVED SURFACES, A LAYER OF SAND, SCREENINGS OR FINES WILL BE PLACED BEFORE DEPOSITION OF ANY EXCAVATED MATERIAL OR USE BY EQUIPMENT/VEHICLES ASSOCIATED WITH THE PROJECT.
- ANY DEWATERING ON THE PROJECT IS TO BE DONE THROUGH A SILT BAG.
- AT THE BEGINNING OF THE WORK, INSTALL AND STABILIZE THE GRAVEL CONSTRUCTION ENTRANCES/EXIT PATHS AT THE LOCATION OF THE WORK SITE. THE CONSTRUCTION ENTRANCES/EXIT PATHS SHALL BE INSTALLED AS SHOWN ON THE PLANS AND DETAILS OR AS DIRECTED BY THE PROJECT INSPECTOR.
- AFTER ESTABLISHMENT OF THE CONSTRUCTION ENTRANCE/EXIT, ALL PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CLEARING AND GRUBBING/CONSTRUCTION INCLUDING SILT FENCE, TREE PROTECTION FENCE, AND CONSTRUCTION FENCE. INSTALL INLET PROTECTION ON ALL INLETS WITHIN LIMITS OF DISTURBANCE. ONLY CLEAR/DISTURB THE MINIMUM AREAS NECESSARY TO INSTALL THE EROSION CONTROL MEASURES.
- PRIOR TO CLEARING AND GRUBBING/CONSTRUCTION, THE CONTRACTOR SHALL REQUEST AN ON-SITE INSPECTION FROM THE PROJECT INSPECTOR. ONLY WITH PROJECT INSPECTOR APPROVAL, GRUBBING/CONSTRUCTION MAY BEGIN.
- INSTALL OPEN CHANNEL WITH PLANTINGS AND CLOSED STORM DRAINAGE SYSTEM WITH INLET PROTECTION AND RIPRAP OUTLET PROTECTION, WATER SYSTEM AND SEWER SYSTEM. IN GENERAL, CONSTRUCTION WILL BEGIN AT BEATTY STREET AND PROCEED IN THE UPSLOPE DIRECTION.
- PERFORM GRADING AND UTILITY CONSTRUCTION OPERATIONS IN A MANNER AND SEQUENCE SO AS TO REDUCE UNNECESSARY DISTURBANCE OF SURFACE COVER AND TO MINIMIZE INTERRUPTIONS OF WATER AND SEWER SERVICE. PROVIDE TEMPORARY STABILIZATION OF DISTURBED AREAS PER SEEDING PLAN.
- INSTALL CONCRETE WASHOUT. ACTUAL LAYOUT TO BE DETERMINED IN FIELD.
- CONTRACTOR SHALL COMPLETE REMAINING WORK ITEMS INCLUDING UTILITIES, SIDEWALK, DRIVEWAY, CURB AND GUTTER, PAVEMENT REPLACEMENT, MILL AND OVERLAY, FINAL GRADING, PLANTINGS, AND STABILIZATION.
- ONLY WITH PROJECT INSPECTOR APPROVAL, REMOVE REMAINING EROSION CONTROL MEASURES.
- ALL GROUND COVER TO BE APPLIED PER CONDITIONS OF THE NPDES PERMIT OR IN CRITICAL AREAS, AT THE END OF EACH DAY.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. CONTRACTOR SHALL REMOVE ALL TEMPORARY CONTROL DEVICES ONCE CONSTRUCTION IS COMPLETE, THE SITE IS STABILIZED, AND ONLY WITH PROJECT INSPECTOR APPROVAL.

MAINTENANCE:

FOLLOW THE CONSTRUCTION SEQUENCE THROUGHOUT PROJECT DEVELOPMENT. ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED, MAINTAINED, AND ADJUSTED AS NEEDED DURING THE DEMOLITION OR CLEARING AND GRUBBING PHASES AS WELL AS THROUGHOUT THE LIFE OF AND UNTIL PERMANENT VEGETATION ON THE PROJECT IS ESTABLISHED. WHEN CHANGES IN CONSTRUCTION ACTIVITIES ARE NEEDED, AMEND THE SEQUENCE SCHEDULE IN ADVANCE TO MAINTAIN MANAGEMENT CONTROL.

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM WAS CREATED. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT (SPCA) AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000, BEGINNING AUGUST 1, 2013, THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS.

THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE. [HTTPS://DEQ.NC.GOV/ABOUT/DIVISIONS/ENERGY-MINERAL-LAND-RESOURCES/EROSION-SEDIMENT-CONTROL/FORMS](https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms).

IF YOU HAVE QUESTIONS, CONTACT THE LAND QUALITY SECTION OF THE NCDEQ WASHINGTON REGIONAL OFFICE AT 252-946-6481. IF THE SAME PERSON CONDUCTS THE LAND DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY; UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED UNDER THE MINING ACT OF 1971 OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT. IF THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THROUGH THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT.

MAINTENANCE PLAN:

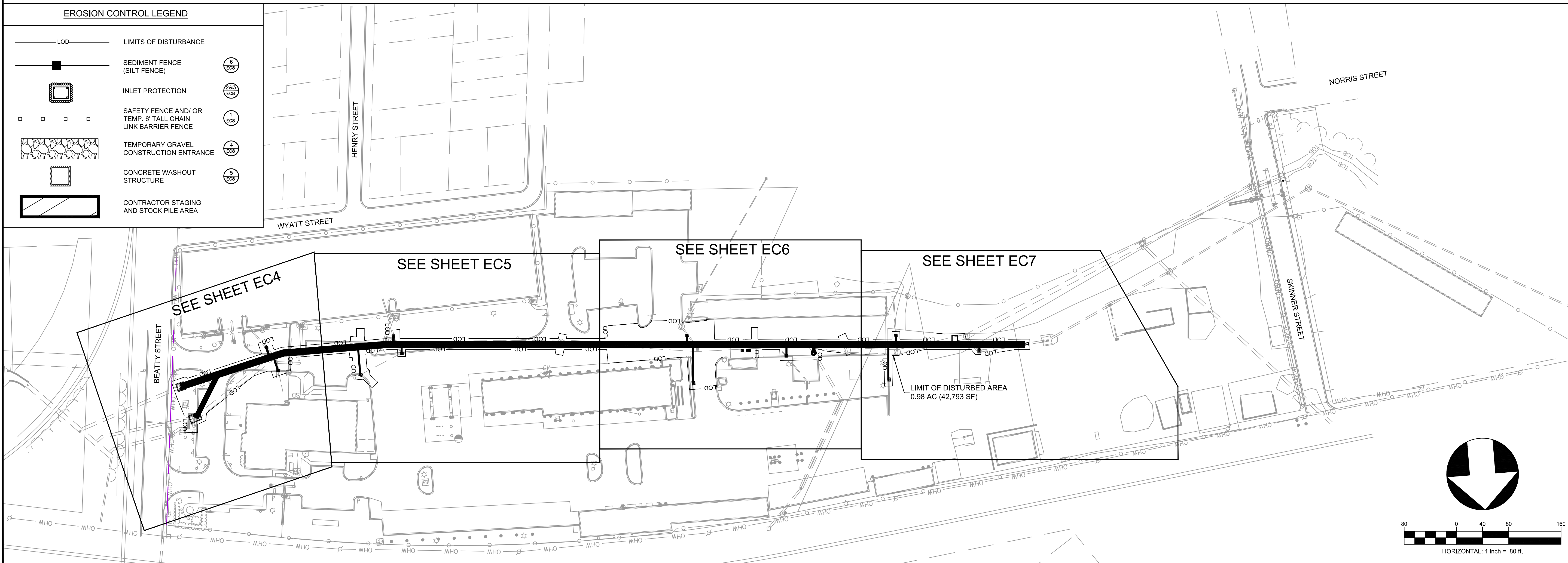
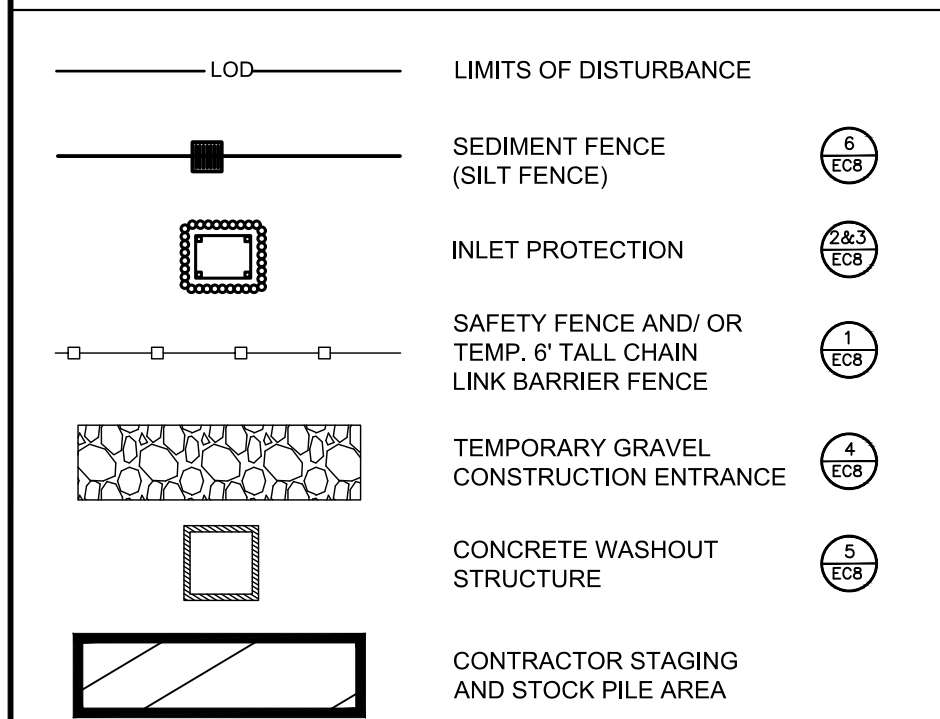
THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES FOR CORRECT OPERATION AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT GREATER THAN OR EQUAL TO 1.0 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. ANY REQUIRED REPAIRS WILL BE MADE IMMEDIATELY BY THE CONTRACTOR TO MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES AS DESIGNED. INSPECTIONS BY THE CONTRACTOR MUST BE MADE AND LOGGED ON THE REQUIRED FORM. ALSO PER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL STORMWATER PERMIT, A RAIN GAUGE MUST BE INSTALLED ON AND KEPT ON SITE.

- THE CONTRACTOR SHALL REMOVE SEDIMENT FROM EROSION CONTROL DEVICES WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOLS NO LONGER DRAIN PROPERLY.
- THE CONTRACTOR SHALL REMOVE SEDIMENT FROM BEHIND SILT FENCE WHEN IT BECOMES 0.5 FOOT DEEP AT THE FENCE. SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
- THE CONTRACTOR SHALL FERTILIZE, RESEED AS NECESSARY, AND MULCH ALL SEEDED AREAS ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

VEGETATIVE PLAN:

- EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- DISTURBED AREAS NOT AT FINAL GRADE AND LEFT IDLE SHALL BE TEMPORARILY VEGETATED PER THE GROUND COVER SCHEDULE SHOWN ON SHEET EC3. UPON COMPLETION OF FINAL GRADING, PERMANENT VEGETATION SHALL BE ESTABLISHED PER THE GROUND COVER SCHEDULE. GRADED SLOPES SHALL BE ESTABLISHED PER THE GROUND COVER SCHEDULE.
- ALL OTHER DISTURBED AREAS WILL BE STABILIZED BY PERMANENTLY VEGETATING WITH SEED AND MULCH AS RECOMMENDED BY THE PERMANENT SEEDING SPECIFICATIONS DUE TO THE RESTRAINTS ON THE LENGTH OF IMPROVEMENTS AND/OR DURATION OF EXPOSED DISTURBED AREAS.
- ONCE PERMANENT VEGETATION IS ESTABLISHED, THE CONTRACTOR SHALL SCHEDULE A FINAL INSPECTION IN ORDER TO OBTAIN A CERTIFICATE OF COMPLETION. AFTER APPROVAL, ALL REMAINING TEMPORARY EROSION CONTROL MEASURES SHOULD BE REMOVED.

EROSION CONTROL LEGEND



EROSION CONTROL SHEET INDEX

PLANS PREPARED BY:
W.K. DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0465
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F0374



Jul 11 2023 11:14 AM SEAL

SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
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PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
EROSION CONTROL COVER

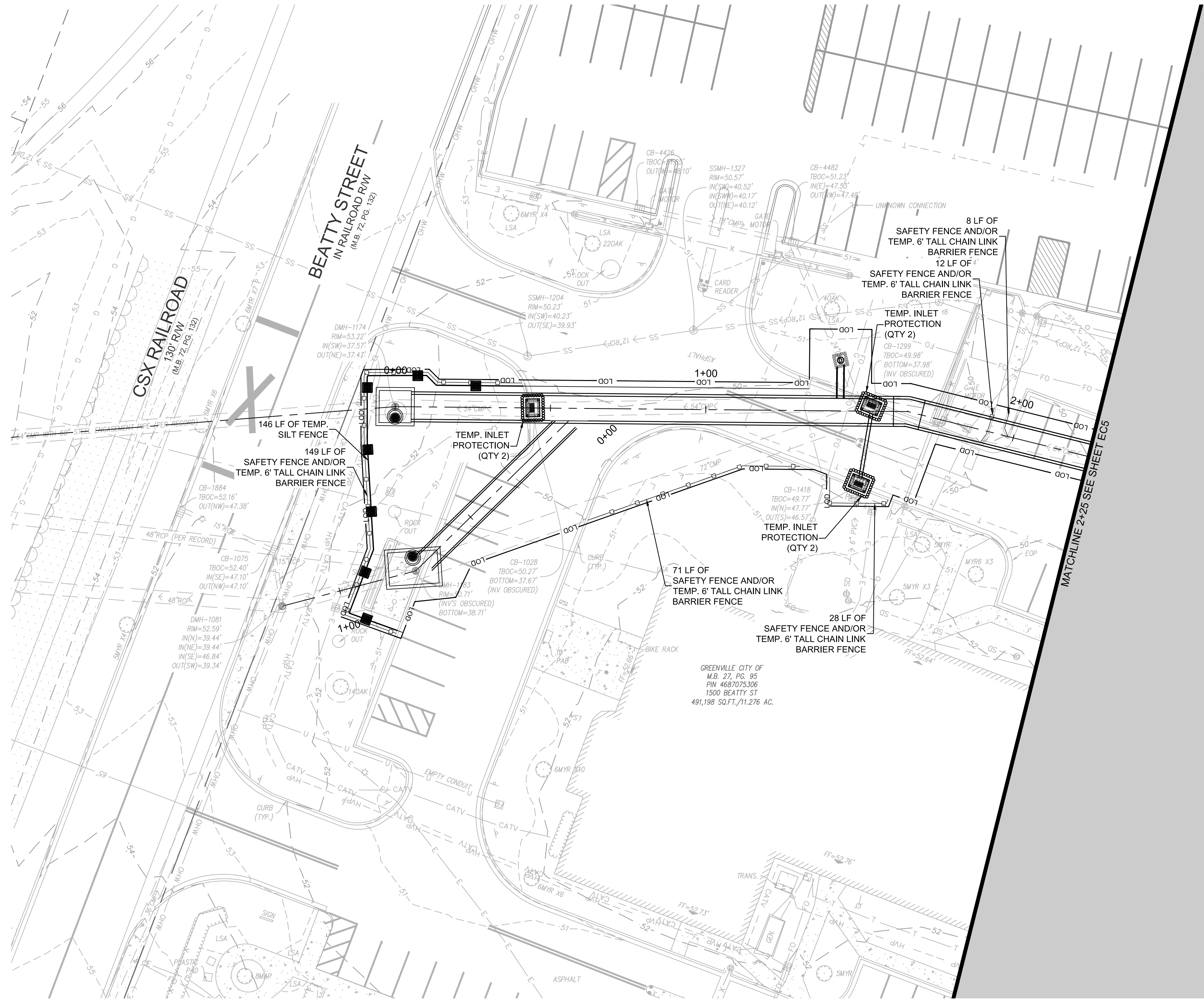
W.K.D. PROJECT:
20220983.00.RA

DATE:
7/11/2023

100% PLANS

EC1

BID DOCUMENT - NOT FOR CONSTRUCTION



EROSION CONTROL LEGEND

	LOD	LIMITS OF DISTURBANCE
	SEDIMENT FENCE (SILT FENCE)	① ECF
	INLET PROTECTION	② ECF
	SAFETY FENCE AND/OR TEMP. 6' TALL CHAIN LINK BARRIER FENCE	③ ECF
	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	④ ECF
	CONCRETE WASHOUT STRUCTURE	⑤ ECF
	CONTRACTOR STAGING AND STOCK PILE AREA	

PLANS PREPARED BY:
WK DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F-00374



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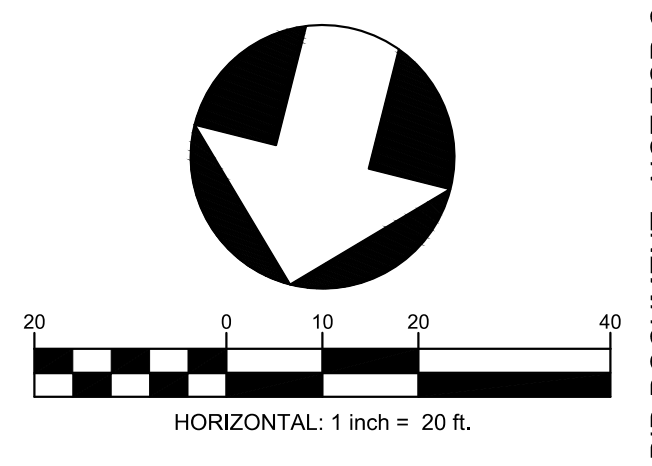
PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
EROSION CONTROL PLAN

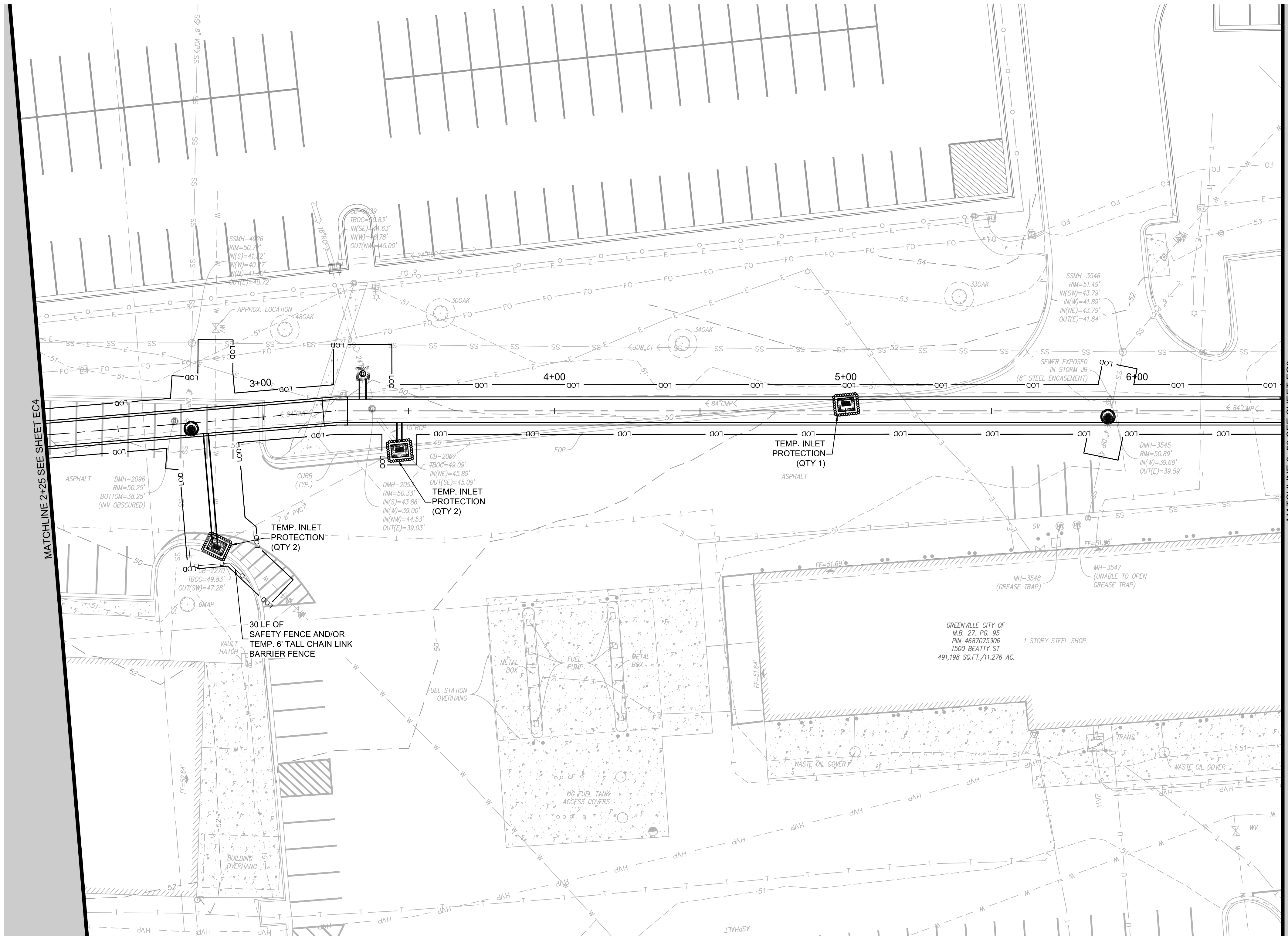
WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023

100% PLANS

EC4



BID DOCUMENT - NOT FOR CONSTRUCTION



EROSION CONTROL LEGEND

	LOD	LIMITS OF DISTURBANCE
	SEDIMENT FENCE (SILT FENCE)	1 ECF
	INLET PROTECTION	2A2 ECF
	SAFETY FENCE AND/OR TEMP. 6' TALL CHAIN LINK BARRIER FENCE	1 ECF
	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	1 ECF
	CONCRETE WASHOUT STRUCTURE	2 ECF
	CONTRACTOR STAGING AND STOCK PILE AREA	2 ECF

PLANS PREPARED BY:
WK DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0465
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F0374



NO.	DATE	REVISIONS

MATCHLINE 2+25 SEE SHEET EC4

MATCHLINE 6+50 SEE SHEET EC6

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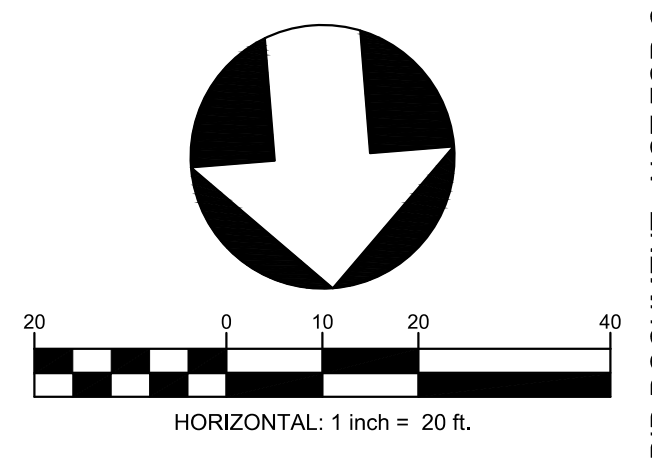
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PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
EROSION CONTROL PLAN

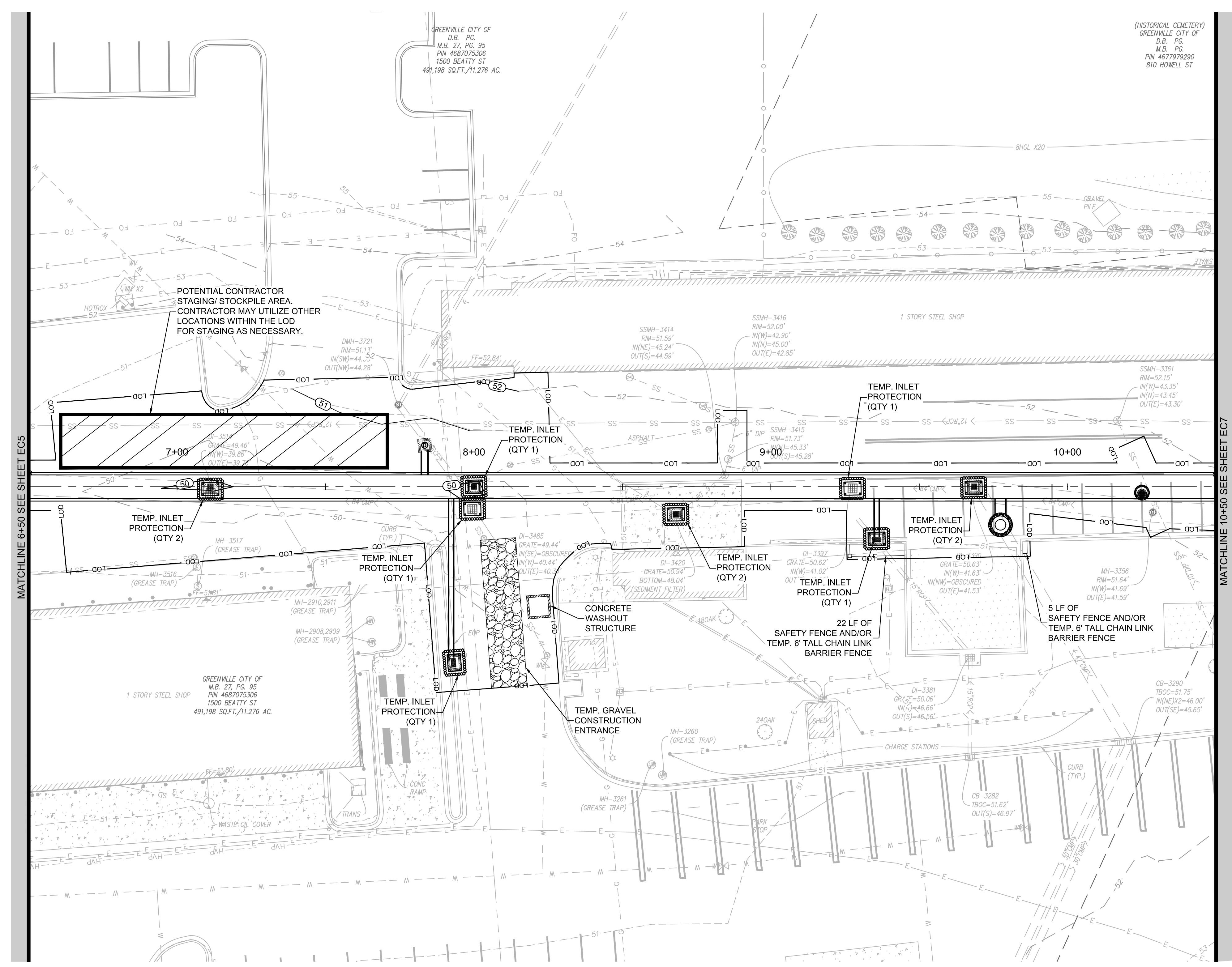
WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023

100% PLANS

EC5



BID DOCUMENT - NOT FOR CONSTRUCTION



EROSION CONTROL LEGEND

	LIMITS OF DISTURBANCE	
	SEDIMENT FENCE (SILT FENCE)	1 ECF
	INLET PROTECTION	2A2 ECF
	SAFETY FENCE AND/OR TEMP. 6' TALL CHAIN LINK BARRIER FENCE	1 ECF
	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	1 ECF
	CONCRETE WASHOUT STRUCTURE	2 ECF
	CONTRACTOR STAGING AND STOCK PILE AREA	2 ECF

PLANS PREPARED BY:
WK DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F03074



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PLANS PREPARED FOR:
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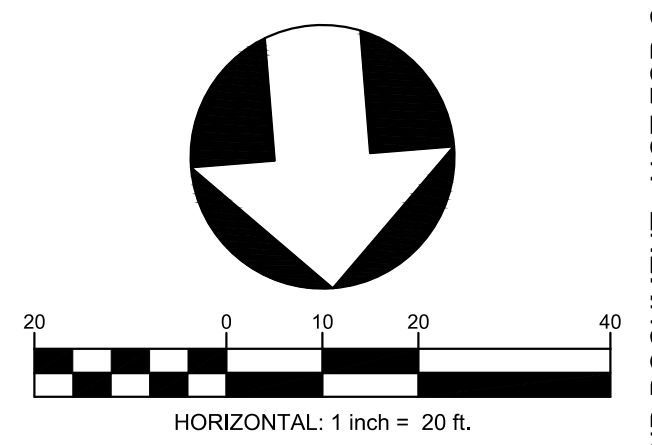
PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

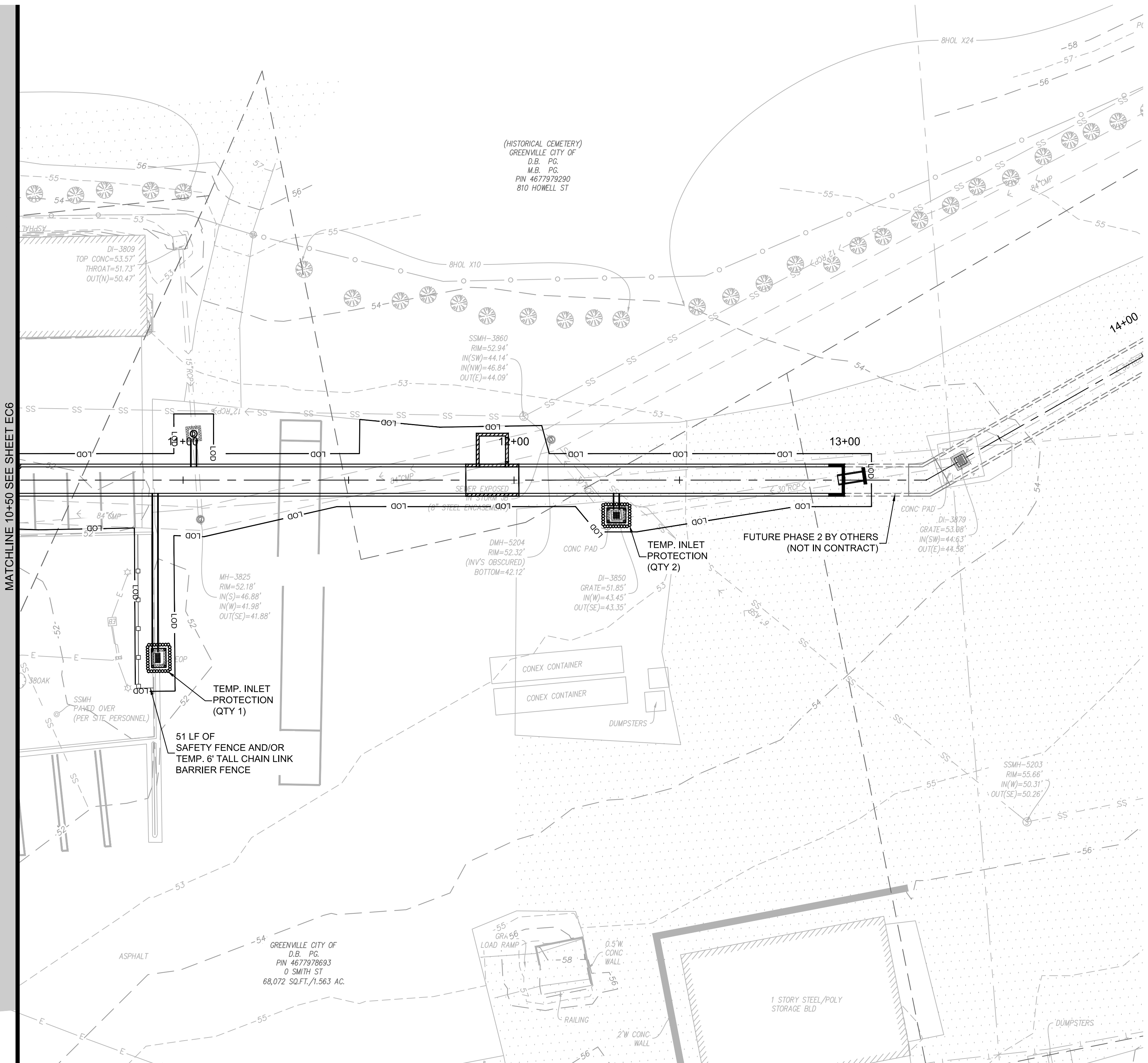
TITLE:
EROSION CONTROL PLAN

WKD PROJECT:
20220983.00.RA
 DATE:
7/11/2023

100% PLANS

EC6

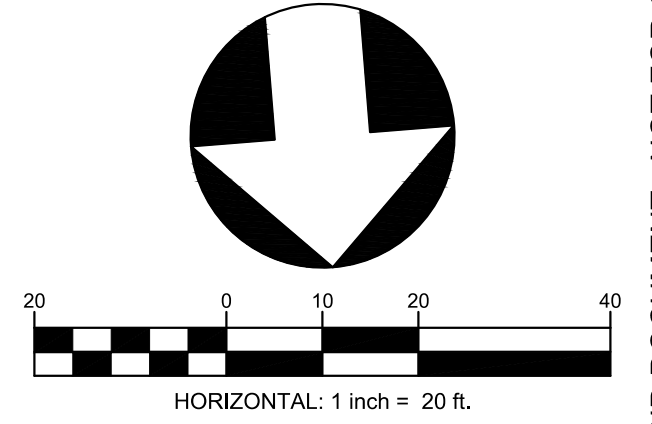




EROSION CONTROL LEGEND

	LOD	LIMITS OF DISTURBANCE
		SEDIMENT FENCE (SILT FENCE)
		INLET PROTECTION
		SAFETY FENCE AND/OR TEMP. 6' TALL CHAIN LINK BARRIER FENCE
		TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
		CONCRETE WASHOUT STRUCTURE
		CONTRACTOR STAGING AND STOCK PILE AREA

MATCHLINE 10+50 SEE SHEET EC6



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PLANS PREPARED BY:
W.K. DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0455
 (919) 782-8672
 www.wkdickson.com
 NC LICENSE NO. F-0374

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NO.	DATE	REVISIONS

PLANS PREPARED FOR:

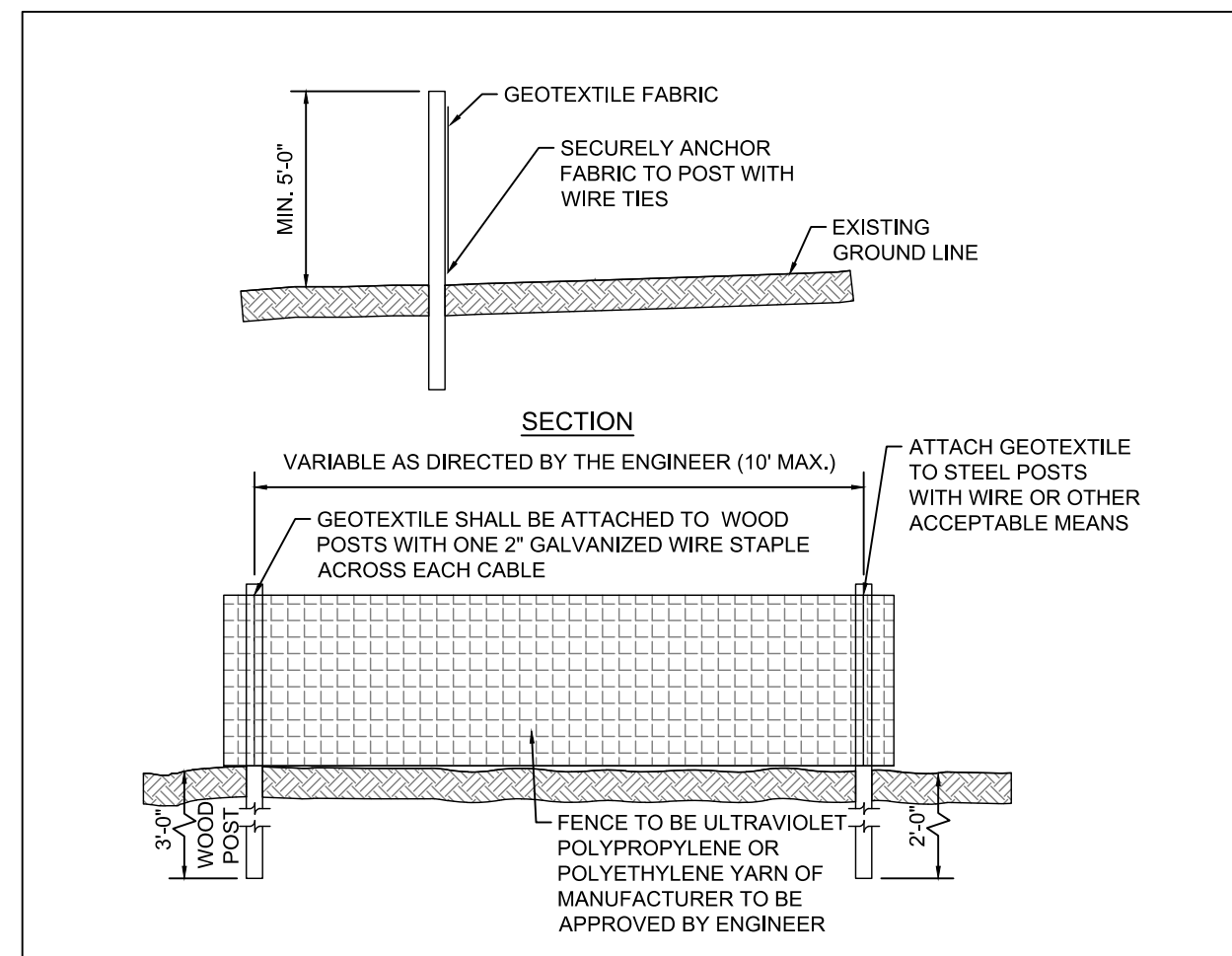
 CITY OF GREENVILLE

PROJECT:
 PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
 EROSION CONTROL PLAN

WKD PROJECT: 20220983.00.RA
 DATE: 7/11/2023
100% PLANS

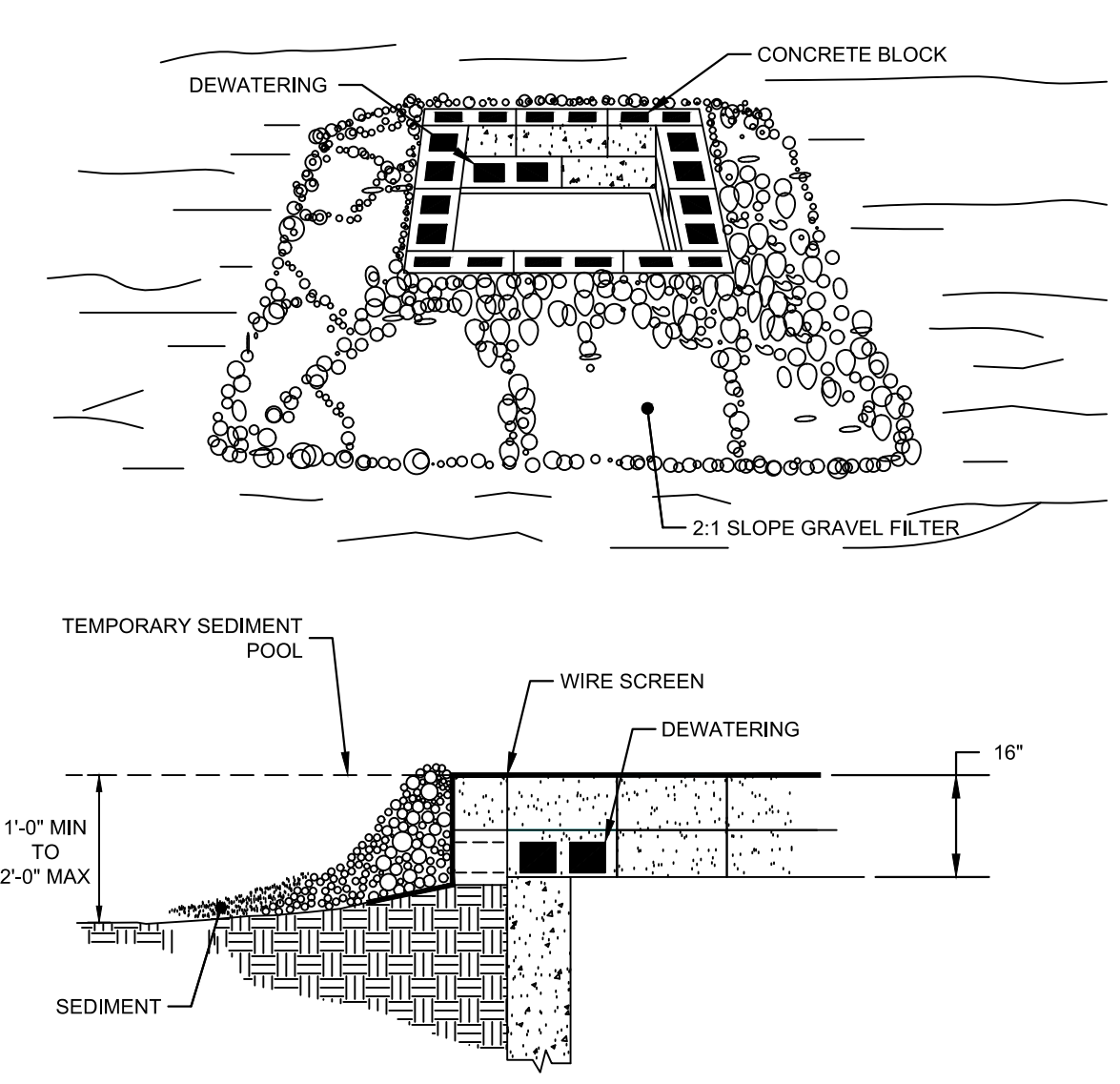
EC7



- NOTES:**
- POLYETHYLENE OR POLYPROPYLENE FENCE SHALL BE A HIGHLY VISIBLE PRECONSTRUCTED SAFETY FENCE APPROVED BY THE ENGINEER. THE FENCE MATERIAL SHALL HAVE AN ULTRAVIOLET COATING.
 - EITHER WOOD POSTS OR STEEL POSTS MAY BE USED. WOOD POSTS SHALL BE HARDWOOD WITH A WEDGE OR PENCIL TIP AT ONE END, AND SHALL BE AT LEAST 5 FT. IN LENGTH WITH A MINIMUM NOMINAL 2" X 2" CROSS SECTION. STEEL POSTS SHALL BE AT LEAST 5 FT. IN LENGTH, AND HAVE A MINIMUM WEIGHT OF 0.85 LB/FT OF LENGTH.
 - POSTS SHALL BE SET AT A MAXIMUM SPACING OF 10 FT., MAINTAINED IN A VERTICAL POSITION AND HAND SET OR SET WITH A POST DRIVER. POSTS SHALL BE INSTALLED A MINIMUM OF 2 FT. INTO THE GROUND. IF HAND SET, ALL BACKFILL MATERIAL SHALL BE THOROUGHLY TAMPED. WOOD POSTS MAY BE SHARPENED TO A DULL POINT IF POWER DRIVEN. POSTS DAMAGED BY POWER DRIVING SHALL BE REMOVED AND REPLACED PRIOR TO FINAL ACCEPTANCE. THE TOPS OF ALL WOOD POSTS SHALL BE CUT AT A 30-DEGREE ANGLE. THE WOOD POSTS MAY, AT THE OPTION OF THE CONTRACTOR, BE CUT AT THIS ANGLE EITHER BEFORE OR AFTER THE POSTS ARE ERECTED.

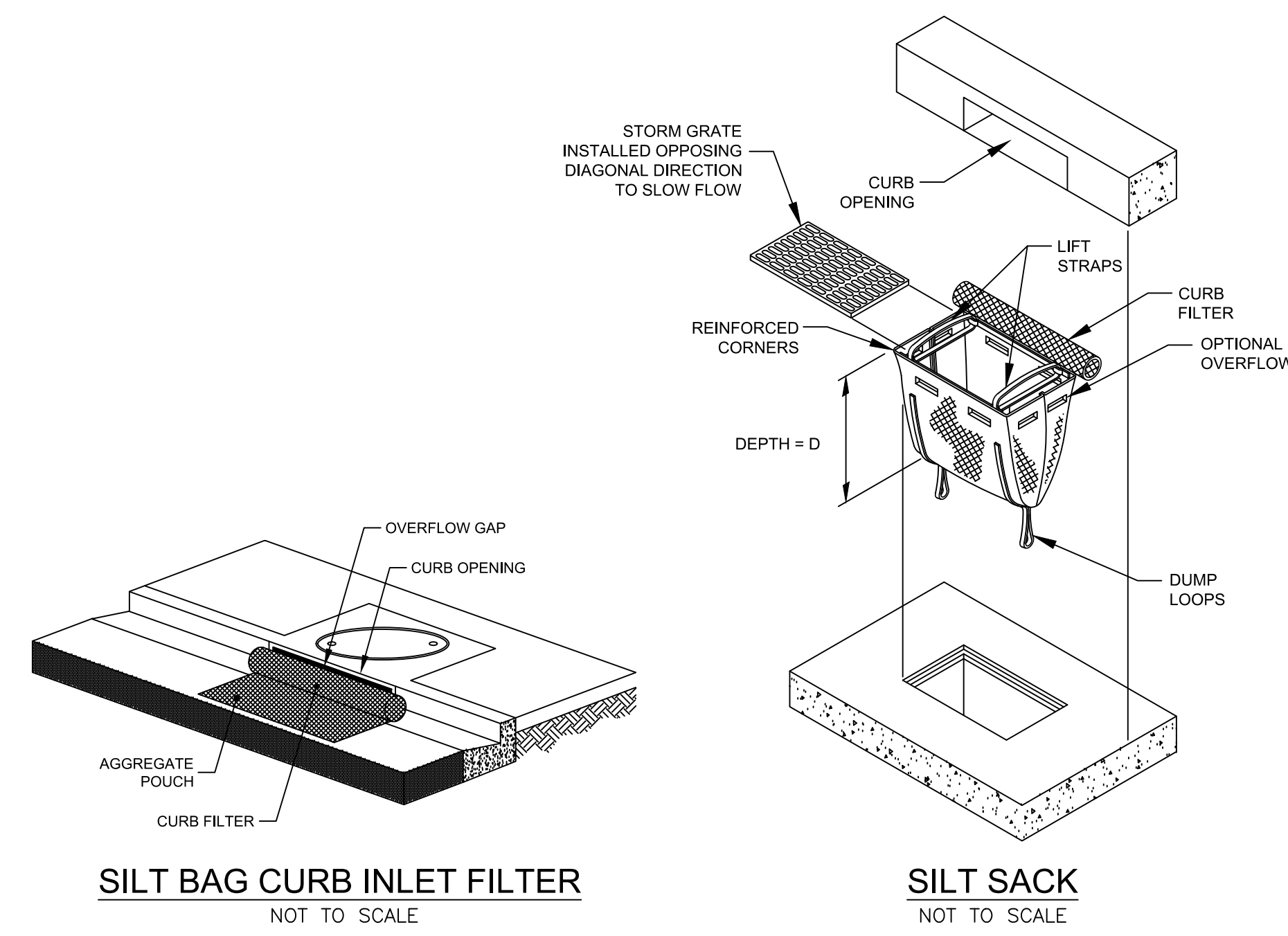
SAFETY FENCE		NO.	DATE	REVISION
SHEET NO. 1 OF 1	SCALE: NOT TO SCALE	DWG. BY: WKD		
	DATE: 5/18/2015	PATH AND FILENAME:		

1 SAFETY FENCE
EC8 NOT TO SCALE

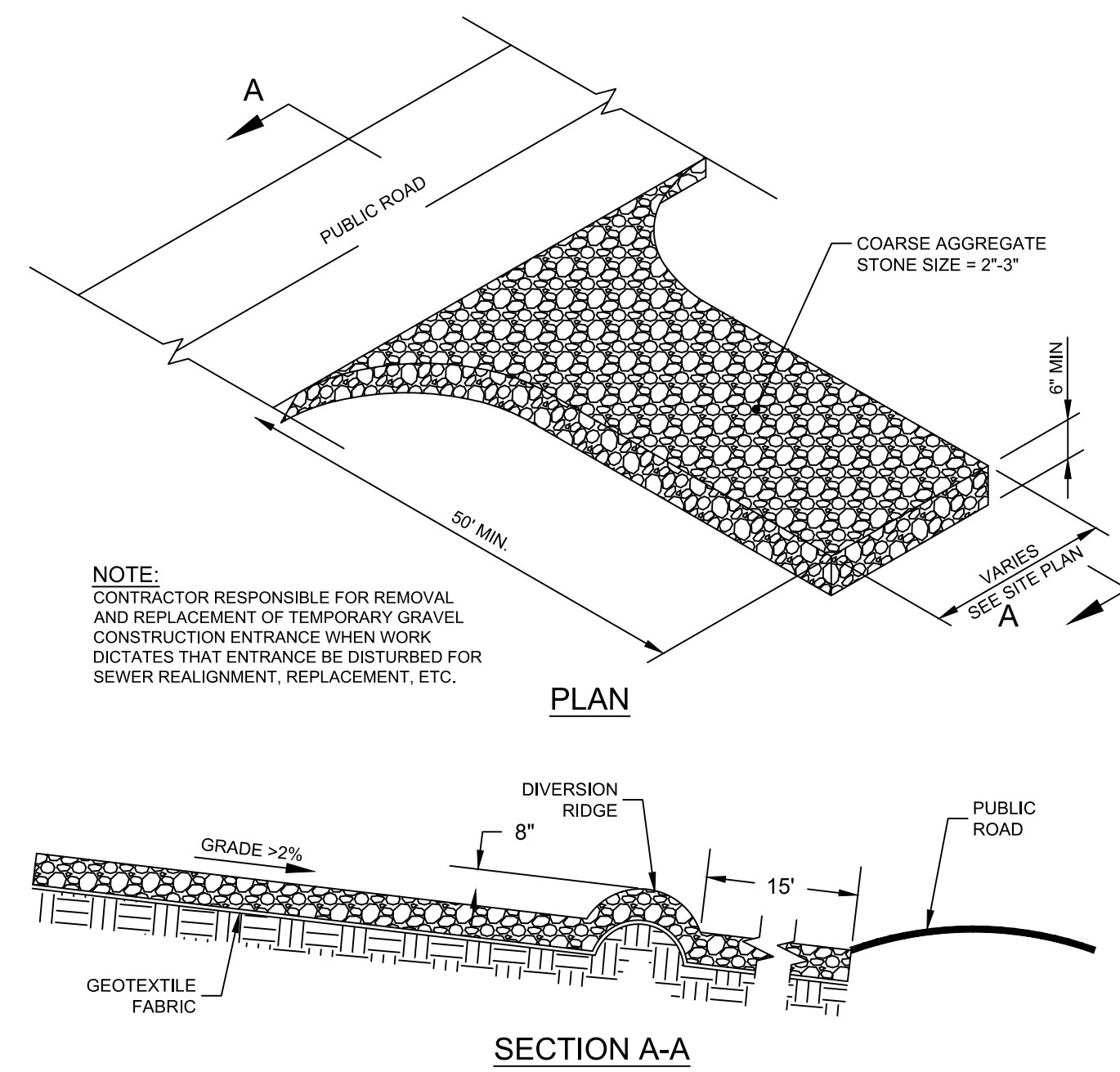


- CONSTRUCTION SPECIFICATIONS**
- NOTES:**
- LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF BLOCKS AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2 X 4 WOOD STUDS THROUGH BLOCK OPENINGS.
 - CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.
 - USE CLEAN GRAVEL, 3/4 TO 1/2 INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.

2 BLOCK AND GRAVEL INLET PROTECTION
EC8 NOT TO SCALE



3 TEMPORARY INLET PROTECTION
EC8 NOT TO SCALE



INSTALLATION

AVOID CURVES IN PUBLIC ROADS AND STEEP SLOPES. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE AND CROWN FOUNDATION FOR POSITIVE DRAINAGE.

IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6 TO 8 INCHES HIGH WITH 3:1 SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FT FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.

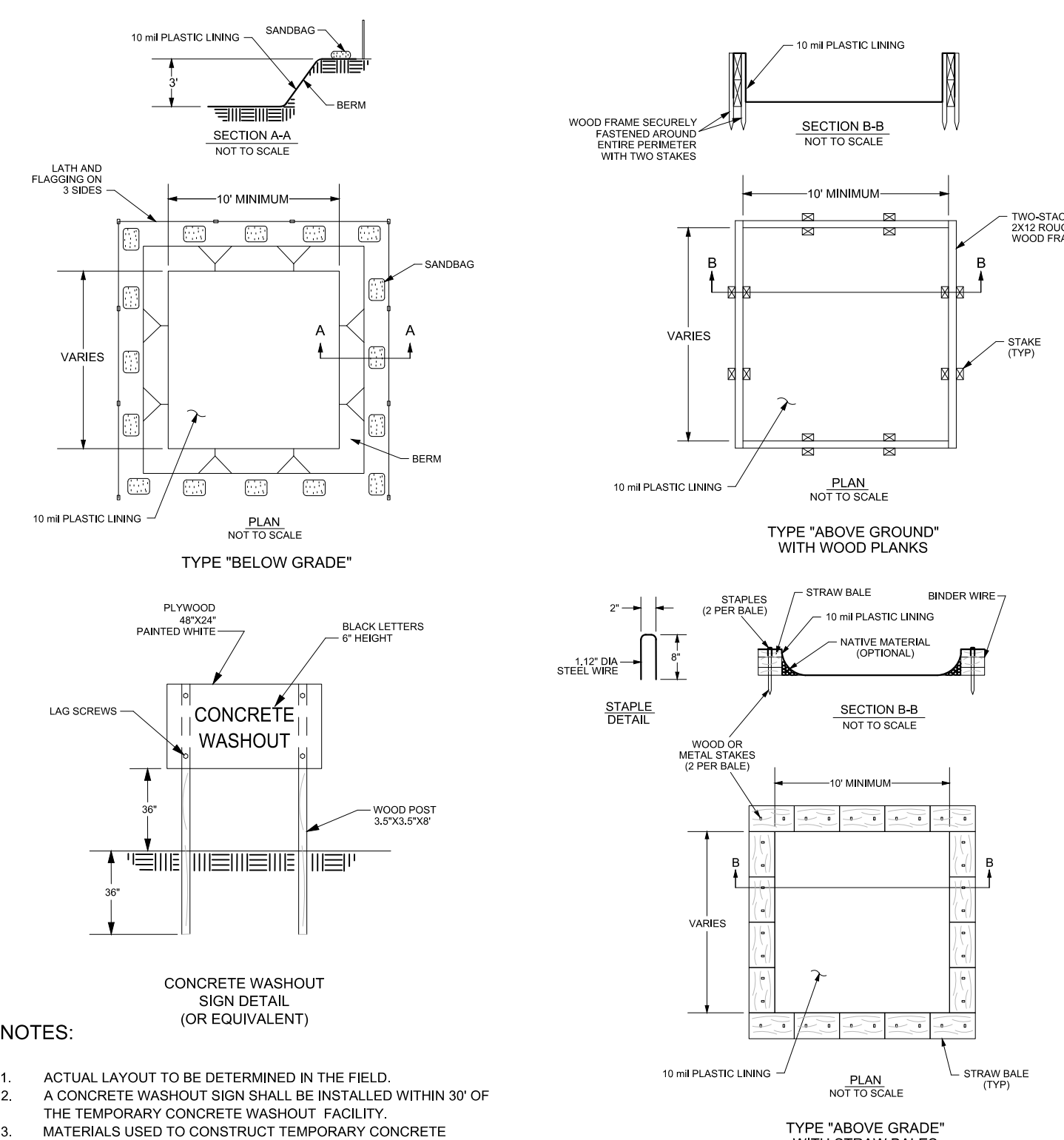
PLACE GEOTEXTILE FABRIC ON GRADED FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.

DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

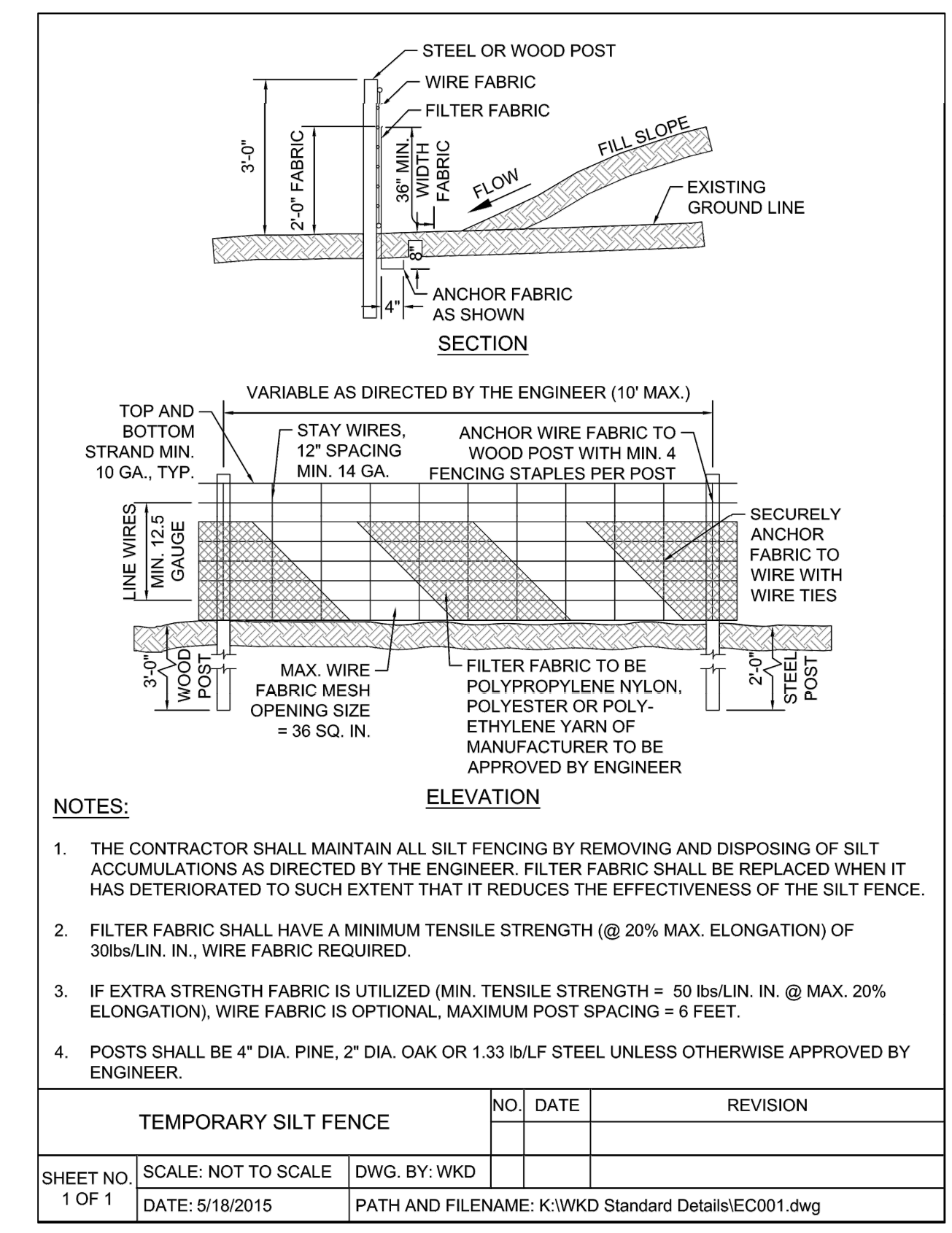
INSTALL PIPE UNDER PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

4 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
EC8 NOT TO SCALE



- NOTES:**
- ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
 - A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 - MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
 - HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.
 - MUST BE LOCATED >50 FT AWAY FROM INLETS/WATERWAYS UNLESS THERE IS NO OTHER PRACTICAL ALTERNATIVE.

5 CONCRETE WASHOUT STRUCTURE
EC8 NOT TO SCALE



- NOTES:**
- THE CONTRACTOR SHALL MAINTAIN ALL SILT FENCING BY REMOVING AND DISPOSING OF SILT ACCUMULATIONS AS DIRECTED BY THE ENGINEER. FILTER FABRIC SHALL BE REPLACED WHEN IT HAS DETERIORATED TO SUCH EXTENT THAT IT REDUCES THE EFFECTIVENESS OF THE SILT FENCE.
 - FILTER FABRIC SHALL HAVE A MINIMUM TENSILE STRENGTH (@ 20% MAX. ELONGATION) OF 30 LBS/LIN. IN., WIRE FABRIC REQUIRED.
 - IF EXTRA STRENGTH FABRIC IS UTILIZED (MIN. TENSILE STRENGTH = 50 LBS/LIN. IN. @ MAX. 20% ELONGATION), WIRE FABRIC IS OPTIONAL. MAXIMUM POST SPACING = 6 FEET.
 - POSTS SHALL BE 4\"/>

6 TEMPORARY SILT FENCE
EC8 NOT TO SCALE

NO.	DATE	REVISIONS

NO.	DATE	REVISIONS

TEMPORARY SEEDING

LATE WINTER/EARLY SPRING

TEMPORARY SEEDING MIXTURE

SPECIES	RATE (lb/acre)
RYE(GRAIN)	120
ANNUAL LESPEDEZA (KOBÉ IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)	50

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

SEEDING DATES
COASTAL PLAIN - DEC.1-APR. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

SUMMER

SPECIES	RATE (lb/acre)
GERMAN MILLET	40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE.

SEEDING DATES
COASTAL PLAIN - APR. 15-AUG. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS AN ANCHORING TOOL.

MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

GROUND COVER SCHEDULE		
SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

FALL

SPECIES	RATE(LB/ACRE)
RYE	120

SEEDING DATES
COASTAL PLAIN AND PIEDMONT - AUG. 15-DEC. 30

SOIL AMENDMENTS
FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBÉ (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

CHANNEL SEEDING

TEMPORARY SEED MIX

- LATE WINTER/EARLY SPRING
 - RYE (GRAIN) @ 120 LB/ACRE
- SUMMER
 - GERMAN MILLET @ 40 LB/ACRE
 - SUDANGRASS @ 50 LB/ACRE (AS A SUBSTITUTE)
- FALL
 - RYE (GRAIN) @ 120 LB/ACRE

PERMANENT RIPARIAN SEED MIX

- IDEALLY PLANTED EITHER AUG-SEPT OR MAR-APR
 - REDFLOW @ 7 LB/ACRE
 - SWITCH GRASS @ 50 LB/ACRE
 - SEDGE @ 10 LB/ACRE
 - RICE CUTGRASS @ 20 LB/ACRE

NOTE:
ALTERNATIVE SPECIES MAY BE USED UPON APPROVAL BY THE ENGINEER.

CONSTRUCTION NOTES:

- INSTALL EROSION CONTROL MEASURES AS SHOWN ON PLANS. THE CONTRACTOR MAY MODIFY OR RELOCATE EROSION CONTROL MEASURES TO MAKE ADJUSTMENTS FOR UNFORESEEN FIELD CONDITIONS. ALL RELOCATION SHALL HAVE THE APPROVAL OF THE ENGINEER.
- CLEAR AND GRUB AREA OF ALL TRASH AND EXOTIC/INVASIVE VEGETATION.
- STABILIZE GRADED BANKS WITH SEED AND MULCH.
- INSTALL EROSION CONTROL MATTING AND PLANTS AS NOTED ON SHEETS D4 AND EC5.

1
TEMPORARY & PERMANENT SEEDING DETAILS

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SEEDING AND MULCHING:

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

March 1 - August 31	September 1 - February 28
50# Tall Fescue	50# Tall Fescue
10# Centipede	10# Centipede
25# Bermudagrass (hulled)	35# Bermudagrass (hulled)
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Water and Borrow Locations

March 1 - August 31	September 1 - February 28
75# Tall Fescue	75# Tall Fescue
25# Bermudagrass (hulled)	35# Bermudagrass (hulled)
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

Approved Tall Fescue Cultivars:

2nd Millennium	Chipper	Focus	Masterpiece	Quest	Titan Ltd.
Avenge	Coronado	Grande II	Matador	Rebel Exada	Titanium
Barlexas	Coyote	Greenkeeper	Matador GT	Rebel Sentry	Tomhawk
Barlexas II	Davinci	Greystone	Millennium	Regiment II	Tacer
Barrera	Dynasty	Inferno	Montauk	Rembrandt	Trooper
Barrington	Dominion	Justice	Mustang 3	Rendition	Turbo
Biltmore	Duster	Jaguar 3	Olympic Gold	Scorpion	Ultimate
Bingo	Endeavor	Kalahari	Padre	Shelby	Watchdog
Bravo	Escalade	Kentucky 31	Paraiso	Sigbia	Wolfpack
Cayenne	Falcon II, III, IV & V	Kitty Hawk	Picasso	Silverstar	
Chapel Hill	Fidelity	Kitty Hawk 2000	Piedmont	Southern Choice II	
Chesapeake	Finesse II	Lexington	Pure Cold	Stetson	
Constitution	Firebird	Magellan	Prospect	Tarheel	

PUBLIC WORKS DEPARTMENT
1900 Beatty Street
Greenville, North Carolina 27834

CITY OF GREENVILLE, N.C.
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No.	Date	Description
1	9/16/11	APPROVAL

Scale: not to scale

Sheet # 2 of 3

310.01

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On cut and fill slopes 2:1 or steeper Centipede shall be applied at a rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 21.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on projects.

CRIMPING STRAW MULCH:

Crimping shall be required on projects adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately tacked with a sufficient amount of undiluted emulsified asphalt.

Straw mulch shall be sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 8'.

PUBLIC WORKS DEPARTMENT
1900 Beatty Street
Greenville, North Carolina 27834

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No.	Date	Description
1	9/16/11	APPROVAL

Scale: not to scale

Sheet # 3 of 3

310.01

PERMANENT SEEDING

PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0455
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F-0374



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SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
Find yourself in good company
CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

TITLE:
EROSION CONTROL DETAILS

WKD PROJECT:
20220983.00.RA

DATE:
7/11/2023

100% PLANS

EC9

BID DOCUMENT - NOT FOR CONSTRUCTION

GENERAL NOTES

ALL TRAFFIC CONTROL DEVICES AND PROCEDURES SHALL CONFORM TO THE CURRENT EDITION OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, THE NCDOT ROADWAY STANDARD DRAWINGS AND THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

ADAPT THE TRAFFIC CONTROL PLANS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR UNDESIRABLE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVING DEVICES.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL, RELOCATE, AND MAINTAIN ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNINGS AND/OR CHANNELIZING DEVICES FOR WORK SITES AND DETOUR ROUTES AS SHOWN IN TRAFFIC CONTROL PLANS UNLESS OTHERWISE SPECIFIED WITHIN THE TRAFFIC CONTROL PLANS. THE LOCATION AND POSITIONING OF THESE BARRICADES, SIGNS, ETC. SHALL BE APPROVED AND INSPECTED BY THE PROJECT INSPECTOR.

B) THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT INSPECTOR PRIOR TO BEGINNING ANY WORK THAT WILL REQUIRE THE PLACEMENT OF SIGNS OR OTHER TRAFFIC CONTROL DEVICES BY THE CONTRACTOR. ALL INFORMATION MUST BE IN WRITING TO THE ENGINEER REGARDING THE TRAFFIC CONTROL PLAN. THE CONTRACTOR IS TO NOTIFY THE ENGINEER 10 WORKING DAYS IN ADVANCE OF ANY ROAD CLOSURE.

C) THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT WITH WELL-MAINTAINED SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED DURING THE PROGRESS OF CONSTRUCTION AS APPROVED BY THE ENGINEER.

D) THE CONTRACTOR SHALL PROVIDE PROPERTY OWNERS AND TENANTS ACCESS TO THEIR PROPERTY THROUGHOUT THE PROJECT, INCLUDING INGRESS AND EGRESS FOR BUSINESSES.

E) TRAFFIC CONTROL PLANS (TCP) FOR THIS PROJECT CONSIST OF SEVERAL TYPICAL DRAWINGS AND STANDARDS SHOWING TRAFFIC CONTROL DEVICES TO BE USED WHERE VARIOUS TYPES OF CONSTRUCTION ACTIVITIES ARE OCCURRING ON THE PROJECT. THESE DRAWINGS ARE FOR TYPICAL SITUATIONS AND SHOULD BE ADAPTED TO THE ACTUAL FIELD CONDITIONS. UNFORESEEN FIELD SITUATIONS MAY PREVENT THE ADOPTION OF THE PRESCRIBED TYPICAL DRAWING OR STANDARD EXACTLY AS SHOWN. THE CONTRACTOR, AT THE DIRECTION OF THE ENGINEER, SHALL MOVE, SUPPLEMENT, CHANGE, AND/OR REMOVE THE TRAFFIC CONTROL DEVICES ASSOCIATED WITH THESE TYPICAL DRAWINGS AND/OR STANDARD DRAWINGS TO ENSURE THAT THE MOTORIST AND PEDESTRIANS CAN PASS THROUGH THE CONSTRUCTION AREA IN A SAFE AND EFFICIENT MANNER.

F) CONSTRUCTION PHASING MAY DICTATE THAT TWO OR MORE TYPICAL DRAWINGS OR STANDARDS BE USED IN ONE AREA OF CONSTRUCTION. CHANNELIZING DEVICES ASSOCIATED WITH THESE TYPICALS SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED BY THE CONSTRUCTION PHASING OF THE PLANS. THE LOCATION AND POSITIONING OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER TO ENSURE THAT THE MOTORIST DOES NOT RECEIVE FALSE INFORMATION WHEN TWO OR MORE TYPICALS AND/OR ROADWAY STANDARD DRAWINGS OVERLAP.

G) TEMPORARY OPERATIONAL SIGNS ARE GENERALLY MOUNTED ON PORTABLE SUPPORTS. THESE ARE NORMALLY USED FOR SHORT-TERM OPERATIONS TO WARN AND GUIDE TRAFFIC THROUGH OR AROUND CONSTRUCTION AREAS WITHIN A CONSTRUCTION ZONE. OPERATIONAL SIGNS SHALL BE INSTALLED PRIOR TO THE START OF OPERATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. SIGNS SHALL BE MAINTAINED IN PROPER POSITION AND KEPT CLEAN AND LEGIBLE AT ALL TIMES. INSTALL SAND BAG BALLAST, OR OTHER APPROVED DEVICES TO PREVENT MOVEMENT OF SIGNS BY WIND OR PASSING VEHICLES AS NEEDED. SIGNS SHALL BE REMOVED WHEN NOT APPLICABLE. THE BOTTOM OF THE SIGN SHALL BE A MINIMUM OF 1 FOOT ABOVE THE PAVEMENT SURFACE.

H) WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL OF THE REQUIRED SIGNS, BARRICADES, WARNING, AND/OR CHANNELIZING DEVICES ARE INSTALLED AND INSPECTED AND THEN APPROVED BY THE PROJECT INSPECTOR AND PERMITS HAVE BEEN ACQUIRED.

I) ANY EXISTING PAVEMENT MARKINGS DETERMINED BY THE ENGINEER TO BE MISLEADING OR IN CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR PRIOR TO PROCEEDING WITH ANY CONSTRUCTION ACTIVITY.

J) ALL TEMPORARY PAVEMENT MARKINGS APPLIED BY THE CONTRACTOR SHALL BE IN PAINT UNLESS OTHERWISE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS.

K) THE CONTRACTOR MUST BE PREPARED TO PROVIDE FLAGGERS DURING CONSTRUCTION ACTIVITY.

L) FLAGGERS' ATTIRE SHALL INCLUDE A FLUORESCENT VEST, SHIRT, OR JACKET WORN AS THE OUTER LAYER OF CLOTHING. THE FLAGGER SHALL BE EQUIPPED WITH A STOP/SLOW PADDLE (SEE MUTCD, PART VI, SECTION 6E, PAGE 6E-1). RED FLAGS WILL BE ACCEPTABLE IN LIEU OF THE PADDLE IN EMERGENCY SITUATIONS ONLY. FLAGGERS, PROPERLY EQUIPPED AND INSTRUCTED, WILL BE PROVIDED BY THE CONTRACTORS AND STATIONED AT THE LOCATIONS SPECIFIED OR AS DIRECTED BY THE ENGINEER. A FLUORESCENT CAP MAY BE REQUIRED.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

N) THE CONTRACTOR SHALL REPAIR ALL DRIVEWAYS, DRIVEWAY PIPES, CURB AND GUTTER, SIDEWALKS AND STREET TO EXISTING CONDITIONS OR BETTER.

O) PEDESTRIAN CONSIDERATIONS IN WORK ZONES:

THERE ARE THREE THRESHOLD CONSIDERATIONS IN PLANNING FOR PEDESTRIAN SAFETY IN TEMPORARY TRAFFIC CONTROL ZONES:

- 1) PEDESTRIANS SHOULD NOT BE LED INTO CONFLICT WITH WORK SITE VEHICLES, EQUIPMENT OR OPERATIONS.
- 2) PEDESTRIANS SHOULD NOT BE LED INTO DIRECT CONFLICTS WITH TRAFFIC MOVING THROUGH OR AROUND THE WORK SITE.
- 3) PEDESTRIANS SHOULD BE PROVIDED WITH A SAFE, CONVENIENT TRAVEL PATH THAT REPLICATES, AS NEARLY AS POSSIBLE, THE EXISTING PEDESTRIAN FACILITY THROUGH THE WORK SITE.

THE NEEDS OF ALL PEDESTRIANS, INCLUDING THE VISUALLY IMPAIRED, THE HEARING IMPAIRED AND THOSE WITH OTHER PHYSICAL DISABILITIES, MUST BE ACCOMMODATED AT WORK SITES.

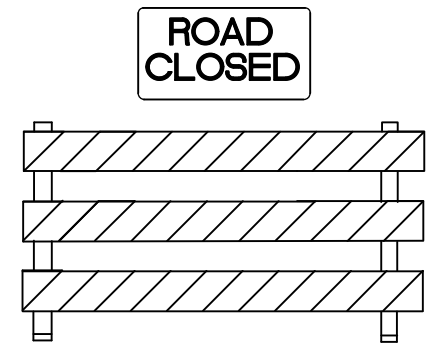

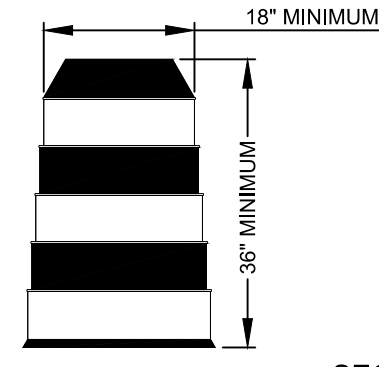

EVERY EFFORT SHOULD BE MADE TO SEPARATE PEDESTRIAN TRAFFIC FROM BOTH WORK SITE ACTIVITY AND ADJACENT TRAFFIC. PROTECTIVE BARRICADES, FENCING, HANDRAILS, AND BRIDGES, TOGETHER WITH WARNING AND GUIDANCE DEVICES AND SIGNS SHOULD BE UTILIZED SO THAT THE PASSAGEWAY FOR PEDESTRIANS IS SAFE AND WELL-DEFINED. WHERE IT IS NECESSARY TO DIVERT PEDESTRIANS INTO THE PARKING LANE OF A STREET, APPROVED BARRICADING AND DELINEATION SHALL BE PROVIDED TO SEPARATE THE PEDESTRIAN WALKWAY FROM THE ADJACENT TRAFFIC LANE. AT NO TIME SHALL PEDESTRIANS BE DIVERTED INTO A PORTION OF THE STREET WHICH IS OPEN TO VEHICULAR TRAFFIC. WHEN A SAFE PASSAGEWAY CAN BE PROVIDED AROUND A WORK SITE, SIGNING SHOULD BE USED TO DIRECT PEDESTRIANS TO SAFE STREET CROSSINGS IN ADVANCE OF THE WORK AREA. SIGNS SHOULD BE PLACED AT THE INTERSECTIONS NEAREST TO THE WORK SITE SO THAT PEDESTRIANS, PARTICULARLY IN HIGH TRAFFIC-VOLUME AREAS, ARE NOT CONFRONTED WITH MID-BLOCK WORK SITES THAT WILL ENCOURAGE THEM TO WALK ALONG OR THROUGH THE WORK ZONE OR TO MAKE A MID-BLOCK CROSSING. IT SHOULD BE RECOGNIZED THAT PEDESTRIANS GENERALLY WILL NOT RETRACE THEIR STEPS TO MAKE A SAFE CROSSING. CONSEQUENTLY, AMPLE ADVANCE NOTIFICATIONS OF SIDEWALK CLOSURES IS IMPORTANT. IN AREAS WHERE OVERHEAD CONSTRUCTION IS TAKING PLACE ADJACENT TO A PUBLIC PEDESTRIAN AREA, A COVERED WALKWAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTERS 11 AND 24 OF THE NORTH CAROLINA STATE BUILDING CODE. WHERE PEDESTRIAN ACCESS IS TO BE MAINTAINED ACROSS AN EXCAVATION, A BRIDGE DESIGNED TO SUPPORT A LOAD OF NOT LESS THAN 150 LBS/SQ. FT. SHALL BE CONSTRUCTED. SUITABLE RAMPS SHALL BE PROVIDED AT EACH END AND FENCES AND HANDRAILS SHALL BE PROVIDED ALONG EACH SIDE. (SEE SECTION 2401.1 OF THE NORTH CAROLINA STATE BUILDING CODE).

TRAFFIC CONTROL NOTES

1. PROJECT NOTES ARE NOT INTENDED TO BE USED AS GENERAL NOTES FOR THE PROJECT. THEY ARE TO BE USED AT SPECIFIC LOCATIONS AS REQUIRED BY THE DETAILS OF THE TRAFFIC CONTROL PLANS.
2. TRAFFIC CONTROL DEVICES SHALL BE LOCATED NO CLOSER THAN 5 FT. TO A TRENCH AT EXISTING GRADE, MEASURED FROM THE SIDE FACING TRAFFIC.
3. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES SHALL BE 20 FT. IN TANGENT AREAS, 20 FT. IN TAPERS, AND 10 FT. IN RADI UNLESS OTHERWISE INDICATED ON THE PLANS.
4. WHEN USING TYPE III BARRICADES WITH "ROAD CLOSED" SIGN ATTACHED, BARRICADES SHALL BE OF SUFFICIENT LENGTH TO CLOSE ROADWAY. UNLESS OTHERWISE APPROVED AT EACH ROAD CLOSURE LOCATION BY THE PROJECT INSPECTOR, ALL TYPE III BARRICADES SHALL INCLUDE FLASHING WARNING LIGHTS.
5. WHEN USING TYPE III BARRICADES WITH "ROAD CLOSED TO THRU TRAFFIC" SIGN ATTACHED, BARRICADES SHALL BE OF SUFFICIENT LENGTH TO CLOSE 1/2 ROADWAY. CONTRACTOR SHOULD BE AWARE THAT WHEN THE CONSTRUCTION AREA IS IN OR NEAR A VERTICAL CURVE OR HORIZONTAL CURVE, THE WORK AREA SHALL BE EXTENDED SO THAT LANE CLOSURE BEGINS IN ADVANCE OF THE CURVE AND MINIMUM STOPPING SIGHT DISTANCE IS MET.
6. WHEN TRAFFIC PROCEEDS THROUGH OR ADJACENT TO CONSTRUCTION ACTIVITY OR A WORK ZONE, FLAGGER(S) AND FLAGGER SYMBOL SIGN(S) (W20-7A) SHALL BE USED AS DIRECTED BY THE PROJECT INSPECTOR TO SLOW AND/OR STOP TRAFFIC AND DIRECT IT THROUGH THE WORK AREA. SIGN W20-7A SHALL NOT BE DISPLAYED EXCEPT WHEN FLAGGER IS PRESENT.
7. THE CONTRACTOR SHALL MAINTAIN A SMOOTH TRANSITION FROM EXISTING PAVEMENT TO PROPOSED PAVING OPERATION.
8. INSTALL ADVANCE WARNING DEVICES FOR FULL ROAD CLOSURE.
9. CONTRACTOR SHALL SUPPLY AND INSTALL ALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL FOLLOW THE PHASING AS DESCRIBED HEREIN. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH CONSTRUCTION PHASE IN SEQUENCE. WHEN A CONSTRUCTION PHASE IS DIVIDED INTO STEPS, THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH STEP IN SEQUENCE. (EXAMPLE: THE REQUIREMENTS OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO PHASE II, THE REQUIREMENTS OF STEP 1 OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO STEP 2 OF PHASE I). ALL WORK DESCRIBED IN THE PROJECT PHASING SHALL BE PERFORMED BY THE CONTRACTOR, EXCEPT WHERE IT IS SPECIFIED FOR CERTAIN WORK TO BE PERFORMED BY OTHERS.
11. THE CONTRACTOR SHALL NOT BE ALLOWED TO STOP TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME IN ANY ONE DIRECTION, EXCEPT AS DIRECTED BY THE CONTRACT DOCUMENTS.
12. AT NIGHT AND DURING PERIODS OF CONSTRUCTION INACTIVITY FOR TRENCHING AND EXCAVATION WORK, THE DIFFERENCE IN ELEVATION BETWEEN LANES SHALL NOT EXCEED 1 INCH. A MAXIMUM OF 2 INCHES SHALL BE ALLOWED DURING PAVEMENT MILLING AND OVERLAY WORK.
13. IF DURING TRENCHING AND EXCAVATION WORK WITH A DIFFERENCE IN GRADE BETWEEN LANES GREATER THAN 1 INCH OR GREATER THAN 2 INCHES FOR PAVEMENT MILLING AND OVERLAY WORK IS TO REMAIN OVERNIGHT, BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE OR USE TRAFFIC BEARING STEEL PLATES.
14. FLAGGER(S) AND FLAGGER AHEAD SYMBOL SIGN(S) W20-7A MAY BE REQUIRED TO DIRECT TRAFFIC THROUGH CONSTRUCTION ZONE DURING PAVEMENT DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
15. THE CONTRACTOR SHALL REPLACE ANY EXISTING PAVEMENT MARKINGS WHICH HAVE BEEN OBLITERATED BY CONSTRUCTION ACTIVITIES AT THE END OF THE PROJECT CONSTRUCTION.
16. INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL BUSINESSES AND DWELLINGS AFFECTED BY THE PROJECT. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.
17. CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AT ALL TIMES.
18. THE CITY STANDARD WORK HOURS ARE MONDAY THRU FRIDAY 8:00 AM TO 5:00 PM. NO WORK SHALL COMMENCE OUTSIDE OF STANDARD WORK HOURS OR DURING THE WEEKEND WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER OR THEIR AUTHORIZED AGENT.

TRAFFIC CONTROL PLAN:

1. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN AND PHASING PLAN TO BE REVIEWED AND APPROVED BY W.K. DICKSON AS PART OF THE SHOP DRAWING REVIEW PROCESS. THE TRAFFIC CONTROL PLAN AND PHASING PLAN SHALL DETAIL THE CONTRACTOR'S APPROACH FOR REMOVAL AND INSTALLATION OF NEW CONSTRUCTION MATERIALS TO INCLUDE WHEN SPECIFIC WORK WILL BE PERFORMED, WHAT TIME OF DAY (I.E. NIGHTTIME, DAYTIME) AND WHEN ROADS WILL BE TEMPORARILY CLOSED.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO UPDATE THE CITY'S REPRESENTATIVE WEEKLY, AND PROVIDE INFORMATION ON THE UPCOMING WORK WEEK AND TEMPORARY ROAD CLOSURES WITH A MINIMUM OF 72 HOURS ADVANCE NOTICE PRIOR TO ANY TEMPORARY ROAD CLOSURE.
3. REFER TO PROJECT MANUAL FOR MORE DETAILS ON THE TRAFFIC CONTROL PLAN.

SIGN LEGEND	
①	 <p style="text-align: center;">TYPE III BARRICADE (R11-2) 48" x 30"</p>
②	 <p style="text-align: center;">(R9-9) 24" x 12"</p>
③	 <p style="text-align: center;">SEE SECTION 6F.62 DRUM CHANNELIZING DEVICE</p>
④	 <p style="text-align: center;">(G20-5aP) 24" x 18"</p>

PLANS PREPARED BY:
W.K. DICKSON
community infrastructure consultants
720 Corporate Center Drive
Raleigh, NC 27607
(919) 782-0465
(919) 782-9672
www.wkdickson.com
NC LICENSE NO. F0374



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SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:
Greenville
NORTH CAROLINA
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CITY OF GREENVILLE

PROJECT:
PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA

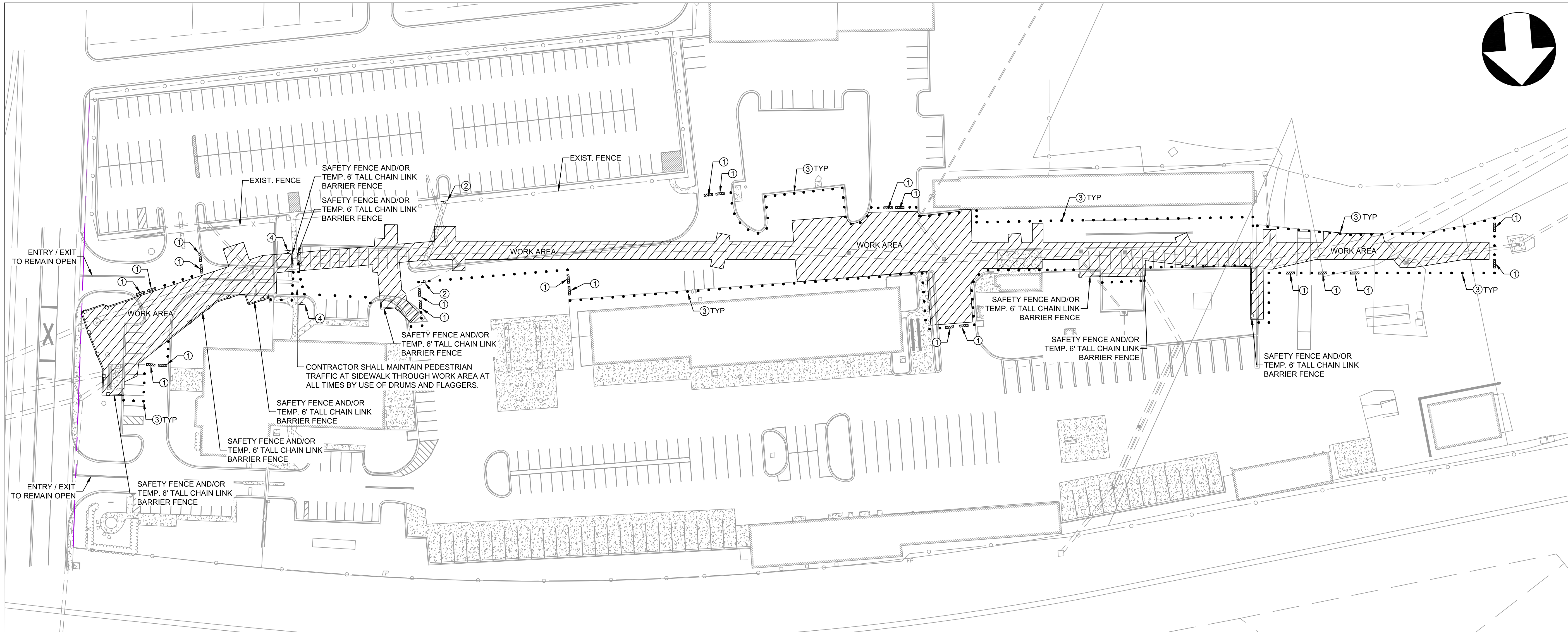
TITLE:
TRAFFIC CONTROL NOTES

WKD PROJECT:
20220983.00.RA
DATE:
7/11/2023

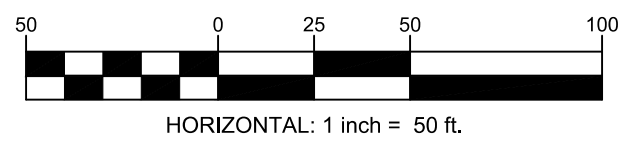
100% PLANS

TC1

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TRAFFIC CONTROL PLAN



PLANS PREPARED BY:
WK DICKSON
 community infrastructure consultants
 720 Corporate Center Drive
 Raleigh, NC 27607
 (919) 782-0495
 (919) 782-9672
 www.wkdickson.com
 NC LICENSE NO. F-0374



Jul 11 2023 11:25 AM SEAL

NO.	DATE	REVISIONS

PLANS PREPARED FOR:	CITY OF GREENVILLE
PROJECT:	PUBLIC WORKS STORMWATER PIPE IMPROVEMENTS PHASE 1 GREENVILLE, NORTH CAROLINA
TITLE:	TRAFFIC CONTROL PLAN

PLANS PREPARED FOR:
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 CITY OF GREENVILLE

NOTES:

- SEE SHEET TC1 FOR SIGN LEGEND AND NOTES.
- DIAGRAM SHOWN FOR REPRESENTATIONAL PURPOSES ONLY. REFER TO SHEET TC3 FOR NCDOT TRAFFIC CONTROL DETAILS FOR SIGN SPACING AND FURTHER INFORMATION.

WKD PROJECT: 20220983.00.RA
 DATE: 7/11/2023

100% PLANS

TC2

BID DOCUMENT - NOT FOR CONSTRUCTION

DRUM DIMENSIONS:
 TOP 18" DIAMETER (NOT TO EXCEED BASE DIAMETER)
 6" STRIPES TYPICAL
 2" MAX. TYPICAL BETWEEN STRIPES
 30" MINIMUM HEIGHT
 21" MIN. TO 24" MAX. DIAMETER

TIRE BALLAST DIMENSIONS:
 EXTERNAL DIAMETER: 35" (MIN) TO 36.5" (MAX)
 3" TYP. RADIUS

GENERAL NOTES:

- BALLASTING SHALL BE ACHIEVED BY THE SAND BAG, TIRE-SIDEWALL, OR PREFORMED WEIGHTED BASE METHODS. USE THE TIRE BALLAST AS SPECIFIED BY THE MANUFACTURER. DO NOT PLACE BALLAST ON TOP OF THE DRUM.
- IF NECESSARY PLACE THE NAME OF THE AGENCY, CONTRACTOR, OR SUPPLIER ON NON-RETROREFLECTIVE DRUM SURFACES. SHOW THE LETTERS AND NUMBERS USING A NON-RETROREFLECTIVE COLOR AND NOT OVER 2" IN HEIGHT.
- ALL DRUMS MUST BE LISTED ON THE DEPARTMENT'S APPROVED PRODUCT LIST.
- REFER TO THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR ADDITIONAL INFORMATION.

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR DRUMS

SHEET 1 OF 1 1130.01

TYPE III BARRICADE DIMENSIONS:
 8' MAXIMUM (SEE NOTE 2)
 12" MAX. RAIL SPACING
 6" MIN. RAIL HEIGHT
 8" TYP. RAIL WIDTH
 2" TYP. STRIPE WIDTH
 2" TYP. STRIPE SPACING

GENERAL NOTES:

- HORIZONTAL RAILS FOR MAY BE CONSTRUCTED OF APPROVED COMPOSITE, HOLLOW/CORRUGATED EXTRUDED RIGID POLYOLEFIN, HIGH DENSITY POLYETHYLENE, OR OTHER NCDOT APPROVED MATERIAL.
- BARRICADE SHALL BE LIMITED TO A MAXIMUM LENGTH OF 8 FT UNLESS NCHRP 350 CRASH TESTED FOR CATEGORY II DEVICES AND NCDOT APPROVED.
- ONLY NCDOT APPROVED COMPOSITE AND ROLL-UP SIGNS MAY BE MOUNTED ON THE BARRICADE RAILS. MOUNT SIGNS TO BARRICADE RAILS TO ENSURE SIGN WILL NOT BECOME DETACHED UNDER NORMAL WIND AND TRAFFIC CONDITIONS.
- SIGNS SHALL BE MOUNTED A MINIMUM OF 1 FOOT FROM THE GROUND TO THE BOTTOM OF THE SIGN UNLESS SIGNS R11-3 OR R11-4 ARE REQUIRED BY THE PLANS OR DIRECTED BY THE ENGINEER.
- BARRICADE MUST BE NCHRP 350 FOR CATEGORY II DEVICES AND NCDOT APPROVED WITH STABILIZER BAR OR ADEQUATE LATERAL BRACING.
- ASSEMBLY OF THE GENERIC BARRICADES MUST BE SELF CERTIFIED BY THE ASSEMBLER.
- BARRICADES USED TO CLOSE A ROADWAY SHALL EXTEND ACROSS THE ENTIRE ROADWAY. WHERE LOCAL TRAFFIC MUST BE MAINTAINED, THEY MAY BE PLACED IN A STAGGERED PATTERN.
- STRIPES ON WORK ZONE BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE RETROREFLECTIVE STRIPES, SLOPED DOWNWARD TOWARDS THE SIDE WHICH TRAFFIC IS TO PASS OR TURN IN DETOURING. WHERE NO TURNING ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES.
- USE RED AND WHITE STRIPES FOR PERMANENT BARRICADES.
- ALL BARRICADES MUST BE LISTED ON THE DEPARTMENT'S APPROVED PRODUCTS LIST.
- PLACE MANUFACTURER'S NAME AND FEDERAL HIGHWAY ADMINISTRATION'S NCHRP 350 APPROVAL LETTER NUMBER ON BARRICADE FRAME.
- PLACE SANDBAGS OR OTHER APPROVED BALLASTING METHODS ON THE FEET OF THE FRAME. DO NOT PLACE SANDBAGS ON TOP OF A STRIPED RAIL OR STABILIZER BAR. DO NOT BALLAST BARRICADES BY HEAVY OBJECTS SUCH AS ROCKS, CHUNKS OF CONCRETE OR OTHER ITEMS THAT WOULD CAUSE DAMAGE IF THE BARRICADE IS STRUCK BY A VEHICLE.

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR BARRICADES TYPE-III

SHEET 1 OF 1 1145.01

STOP/SLOW PADDLE DIMENSIONS:
 STOP: 18" x 18" with 1 1/2" border
 SLOW: 18" x 18" with 1 1/2" border

FLAGGER AND PADDLE PLACEMENT:
 SIGN TO BE ELEVATED 6'-7" FROM GROUND TO BOTTOM OF SIGN

GENERAL NOTES:

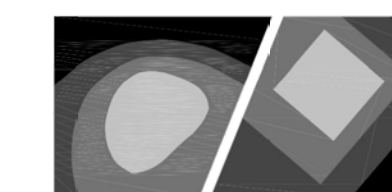
- USE HAND SIGNALING DEVICES SUCH AS STOP-SLOW PADDLES, FLASHLIGHTS TO CONTROL TRAFFIC. USE STOP-SLOW PADDLES AS THE PRIMARY DEVICE.
- FABRICATE STOP-SLOW PADDLES FROM SHEET METAL OR OTHER LIGHT SEMI RIGID MATERIAL. PROVIDE A RIGID HANDLE OF SUFFICIENT LENGTH SO THE PADDLE IS HELD AT 6-7' ABOVE GROUND LEVEL.
- PROVIDE STOPPING SIGHT DISTANCE TO EACH FLAGGER STATION. REFER TO RSD. 1101.11, SHEET 2.
- ILLUMINATE FLAGGER STATIONS DURING NIGHT OPERATIONS.
- FOLLOW FLAGGER QUALIFICATIONS AND METHODS OF HAND-SIGNALING PROCEDURES IN ACCORDANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ALL FLAGGERS MUST BE CERTIFIED BY AN NCDOT APPROVED TRAINING RESOURCE.

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR FLAGGERS

SHEET 1 OF 1 1150.01

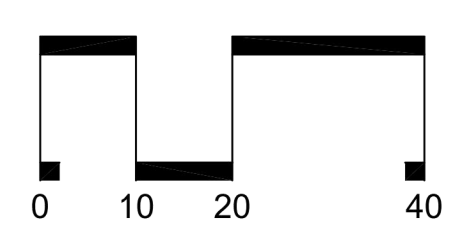
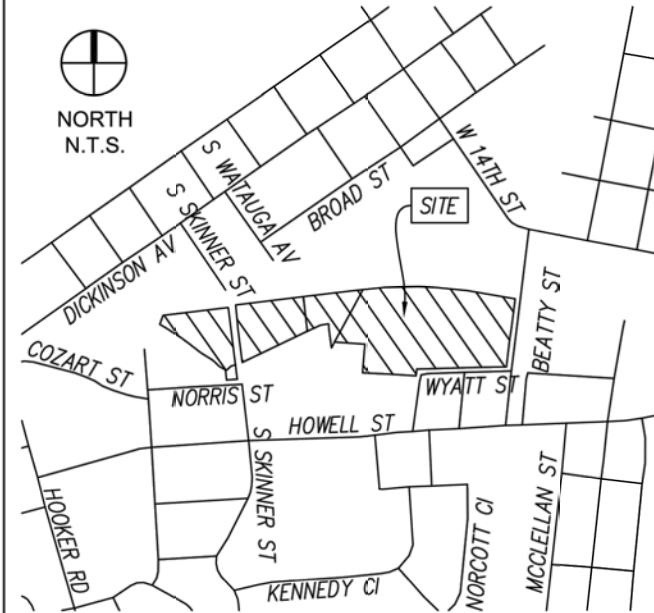
NO.	DATE	REVISIONS



STEWART

5410 OLD POOLE RD
RALEIGH, NC 27610
FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: G23004

Vicinity Map:



SCALE: 1" = 20'

Title:

EXISTING CONDITIONS SURVEY FOR:

GREENVILLE PW YARD STORM

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
DATE: 03/03/2023 SCALE: 1"=20'
CONTOUR INTERVAL = 1 FOOT
PREPARED FOR:
WK DICKSON

Revisions:

No.	Date	Description
01	03/24/2023	COMMENTS
02	03/29/2023	COMMENTS
03	06/13/2023	UTILITY UPDATE
04	07/03/2023	COMMENTS

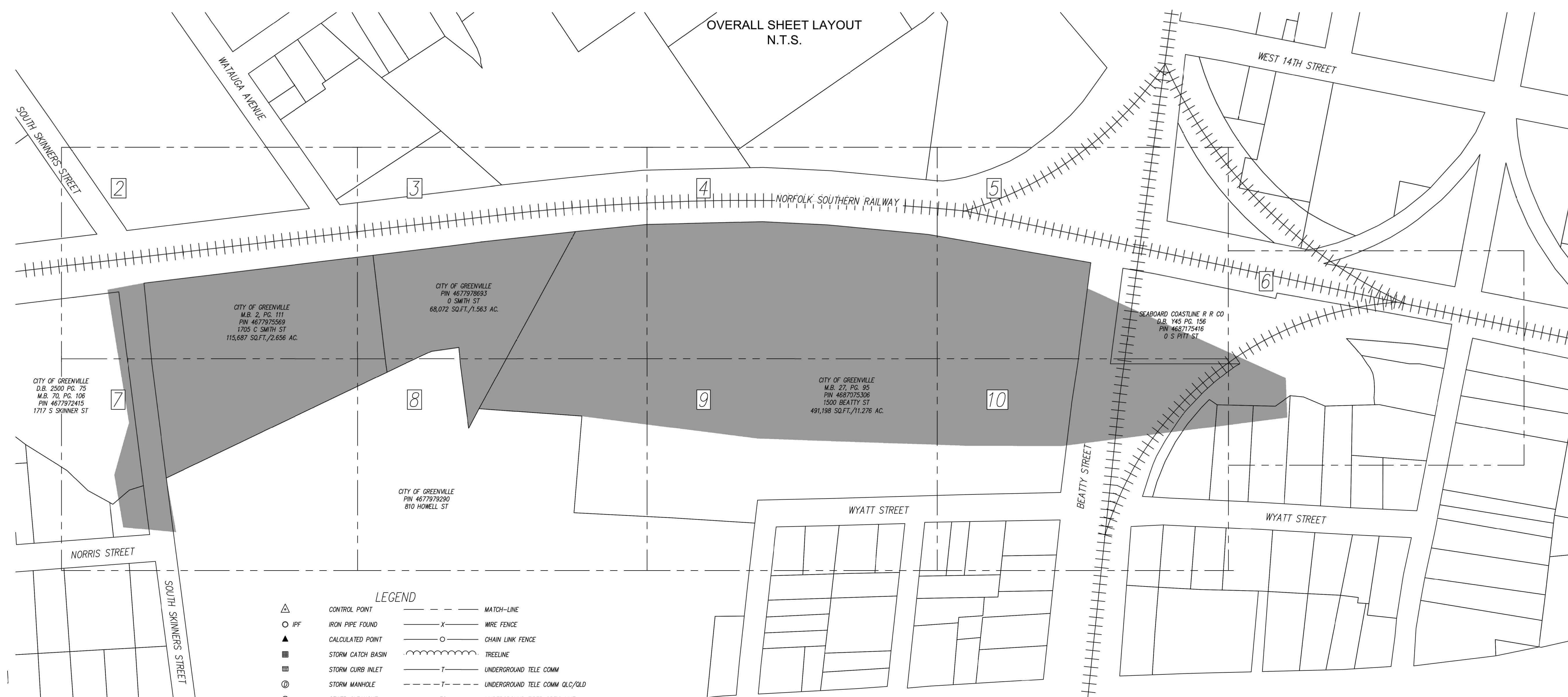
Seal:



Project number: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
Checked by: JMS

1 of 10
X1

OVERALL SHEET LAYOUT N.T.S.



LEGEND

△	CONTROL POINT	---	MATCH-LINE
○ IPF	IRON PIPE FOUND	-X-	WIRE FENCE
▲	CALCULATED POINT	○	CHAIN LINK FENCE
■	STORM CATCH BASIN	~	TREELINE
■	STORM CURB INLET	-T-	UNDERGROUND TELE COMM
⊙	STORM MANHOLE	-T-	UNDERGROUND TELE COMM QLC/QLD
⊙	SEWER CLEANOUT	-FO-	UNDERGROUND FIBER OPTIC LINE
⊙	SEWER MANHOLE	-FO-	UNDERGROUND FIBER OPTIC LINE QLC/QLD
⊙	SEWER VALVE	-G-	UNDERGROUND GAS LINE
⊙	FIRE DEPT. CONNECTION	-G-	UNDERGROUND GAS LINE QLC/QLD
⊙	FIRE HYDRANT	-E-	UNDERGROUND ELECTRIC LINE
⊙	HOTBOX	-E-	UNDERGROUND ELECTRIC LINE QLC/QLD
⊙	IRRIGATION VALVE	-HVP-	UNDERGROUND HIGH VOLTAGE
⊙	WATER METER	-W-	UNDERGROUND WATER LINE
⊙	WATER VALVE	-W-	UNDERGROUND WATER LINE QLC/QLD
⊙	GAS METER	-SS-	SANITARY SEWER LINE
⊙	GAS VALVE	-SS-	SANITARY SEWER LINE QLC/QLD
⊙	TEL-COM PEDESTAL	==	STORM DRAIN LINE
⊙	FIBER OPTIC BOX	-SD-	STORM DRAIN LINE QLC/QLD
⊙	FIBER OPTIC MARKER	-CATV-	CABLE TELEVISION
⊙	TRAFFIC SIGNAL BOX	-CATV-	CABLE TELEVISION QLC/QLD
⊙	POWER BOX/METER	-U-	UNIDENTIFIED LINE
⊙	POWER MARKER	-U-	UNIDENTIFIED LINE QLC/QLD
⊙	POWER METER	-OHW-	OVERHEAD WIRES
⊙	HANDHOLE	---	UNKNOWN DESTINATION
⊙	GUY WIRE	■	CONCRETE SURFACE
⊙	LIGHT POLE	■	GRAVEL SURFACE
⊙	UTILITY POLE	■	PROJECT LIMITS
⊙	BOLLARD	DIP	DUCTILE IRON PIPE
⊙	FINISH FLOOR ELEV.	PVC	POLYVINYL CHLORIDE PIPE
⊙	MAILBOX	RCP	REINFORCED CONCRETE PIPE
⊙	SIGN	CMP	CORRUGATED METAL PIPE
⊙	FLAG POLE	ASB	ASBESTOS PIPE
⊙	GATE	CLF	CHAIN LINK FENCE
⊙	BUSH	MYR	MYRTLE
⊙	HOLLY	OAK	OAK
⊙	MAP	MAPLE	MAPLE

GENERAL NOTES

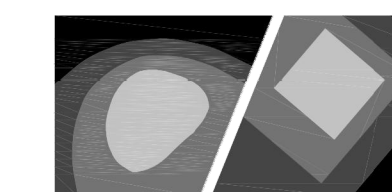
- THIS SURVEY MAP IS INTENDED TO REPRESENT THE EXISTING CONDITIONS/TOPOGRAPHY ON A PORTION OF THE PROPERTY OF CITY OF GREENVILLE, PIN 467792415, 467795569, 467798693, & 4687075306 AND IS NOT A BOUNDARY SURVEY. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE ALL ENCUMBRANCES UPON THE PROPERTY MAY NOT BE SHOWN.
- THE PROPERTY LINES SHOWN HEREON HAVE BEEN CONFIRMED FROM A PARTIAL SURVEY BY STEWART ENGINEERING. PROPERTY LINES SHOWN OFFSET FROM THE CENTERLINE OF BORDERING RAILROADS, ROAD RIGHT OF WAY CENTERLINES, AND OTHER REFERENCES LISTED HEREON.
- HORIZONTAL DATUM IS NAD 83 (2011) AND VERTICAL DATUM IS NAVD88. BASED ON GPS METHODS USING REAL-TIME KINEMATIC SOLUTIONS FOR THE SURVEY CONTROL POINTS SHOWN HEREON AND TIED TO NORTH CAROLINA GEODETIC SURVEY MONUMENT "TICKLEN".
"TICKLEN"
N 676570.4994'
E 2486875.2750'
EL 58.71'
- THE INITIAL STATE PLANE POSITIONS FOR THIS SURVEY WERE SCALED FROM GRID TO GROUND FROM A PROJECT LOCATION OF N:677484.418 E:2481216.790, AN ELEVATION OF 53.55'; (TRAV-1) USING A COMBINED FACTOR OF 0.9998362.
- THIS DRAWING DOES NOT CONFORM TO N.C. GS47-30 AND THEREFORE IS NOT FOR RECORDATION.
- ALL DISTANCES ARE IN U.S. SURVEY FEET. AREA COMPUTED BY COORDINATE METHOD.
- UTILITIES SHOWN HEREON ARE BASED ON ABOVE-GROUND VISIBLE EVIDENCE AND UTILITY DESIGNATION/MARKING SERVICES (LEVEL 9) PERFORMED AS A PART OF THIS SURVEY. ANY LINES LABELED AS QLC OR QLD ARE BASED ON RECORD INFORMATION. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION.
- TREES SHOWN HEREON MAY NOT REPRESENT ALL VEGETATION ON THE SUBJECT PROPERTY.
- THE SUBJECT PROPERTY IS ZONED "U" (CITY OF GREENVILLE).
- THE SUBJECT PROPERTY LIES IN ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE AND FUTURE CONDITIONS 1% ANNUAL CHANCE FLOODPLAIN), BASED ON THE FLOOD INSURANCE RATE MAP NUMBER 3720467700K AND 3720468700K DATED 07/07/2014. FRIS.NC.GOV.
- SITE ADDRESS: 1500 BEATTY STREET

SITE CONTROL TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	677484.42'	2481216.79'	53.55	TRAV-1-REBAR WDISC
3	677820.15'	2481014.89'	53.63	TRAV-3-NL WDISC
4	677857.81'	2480663.22'	55.28	TRAV-4-NL WDISC
5	677828.73'	2480272.47'	52.82	TRAV-5-NL WDISC
6	677787.61'	2479851.89'	57.74	TRAV-6-NL WDISC
7	677744.89'	2479417.87'	63.24	TRAV-7-NL WDISC
8	677405.38'	2479498.97'	53.87	TRAV-8-NL WDISC
9	677578.50'	2479827.11'	53.84	TRAV-9-NL WDISC
10	677537.40'	2480241.01'	51.41	TRAV-10-NL WDISC
11	677515.12'	2480630.91'	50.54	TRAV-11-NL WDISC

I, JORDAN M. SCHOFF, CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND SURVEY WAS PERFORMED AT THE 95 PERCENT CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC/PLANIMETRIC SURVEY TO THE ACCURACY OF CLASS B AND VERTICAL ACCURACY WHEN APPLICABLE TO THE CLASS B STANDARD, AND THAT THE ORIGINAL DATA WAS OBTAINED IN JANUARY AND FEBRUARY; THAT THE SURVEY WAS COMPLETED ON MARCH 3RD AND REVISED ON JULY 3, 2023; THAT CONTOURS SHOWN AS [CONTINUOUS LINES] MAY NOT MEET THE STATED STANDARD; AND ALL COORDINATES ARE BASED ON NAD83(2011) AND ALL ELEVATIONS ARE BASED ON NAVD 88.

DocuSigned by:
Jordan M. Schoff
JORDAN M. SCHOFF, PLS # 4939

G:\Projects\2023\G23004 - WKD-Greenville PW Yard Stormwater Improvements\DWG\G23004-EX.dwg Jul 03, 2023 - 10:38am

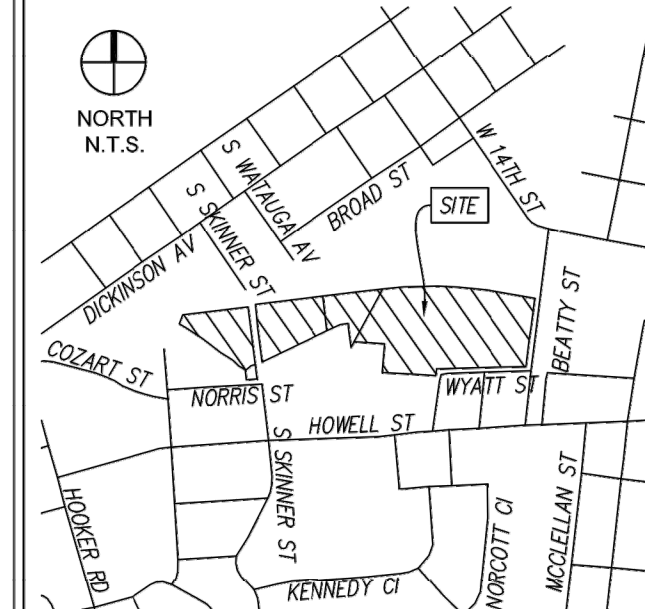


STEWART

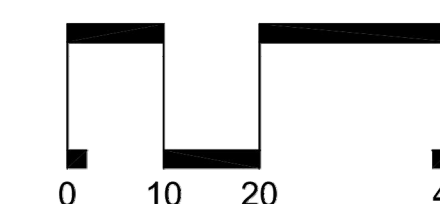
5410 OLD POOLE RD
RALEIGH, NC 27610
T 919.380.8750

FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: G23004

Vicinity Map:



NORTH
NAD83(2011)



SCALE: 1" = 20'

Title:

EXISTING CONDITIONS SURVEY FOR:

GREENVILLE PW YARD STORM

GREENVILLE TOWNSHIP, CITY OF GREENVILLE

PITT COUNTY, NORTH CAROLINA

DATE: 03/03/2023 SCALE: 1"=20'

CONTOUR INTERVAL = 1 FOOT

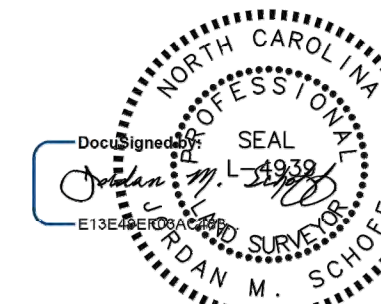
PREPARED FOR:

WK DICKSON

Revisions:

No.	Date	Description
01	03/24/2023	COMMENTS
02	03/29/2023	COMMENTS
03	06/13/2023	UTILITY UPDATE
04	07/03/2023	COMMENTS

Seal:



Project number: G23004 Sheet:

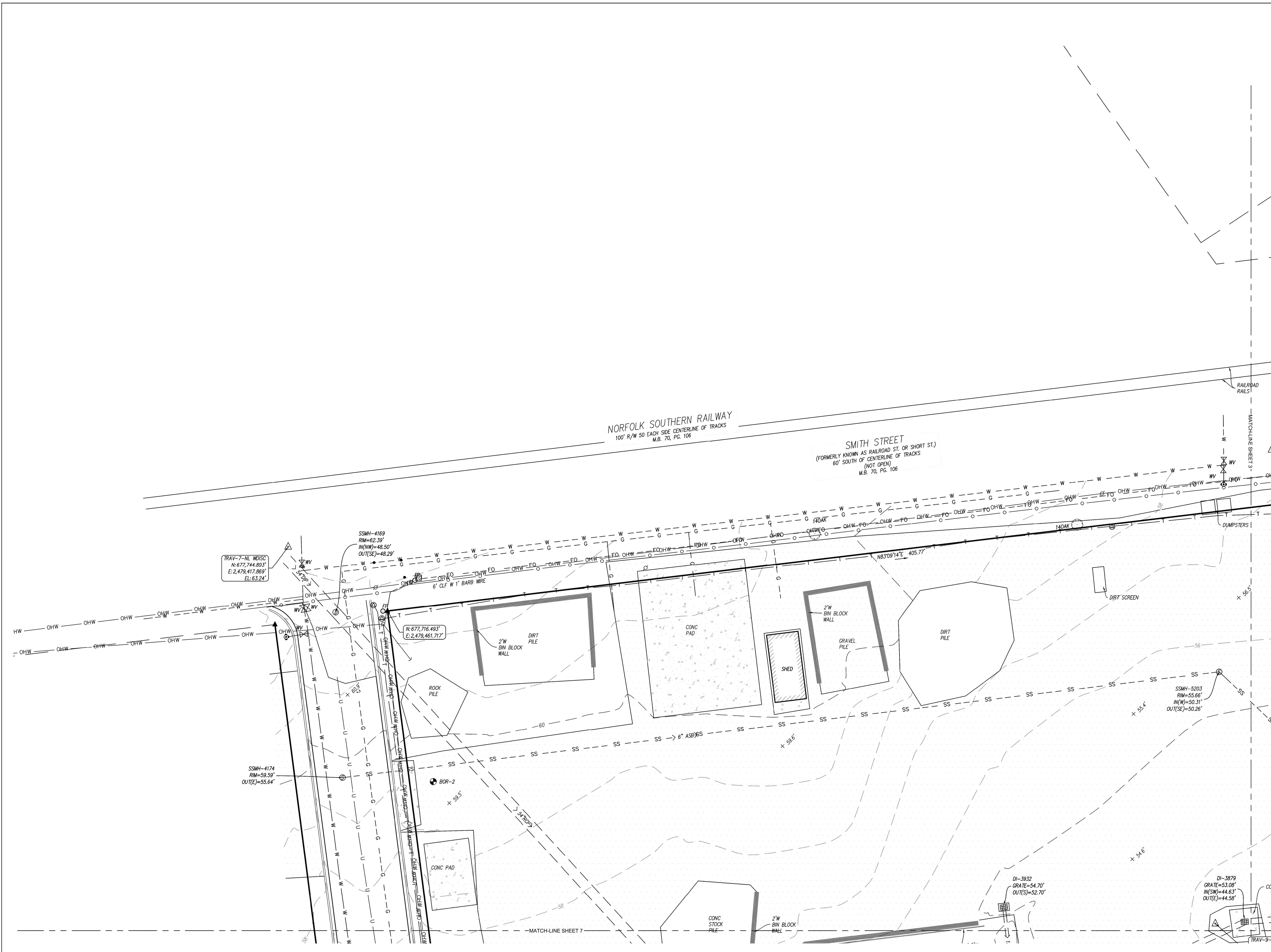
Date: 03/03/2023

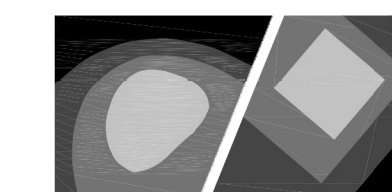
Drawn by: WJT

Checked by: JMS

2 of 10
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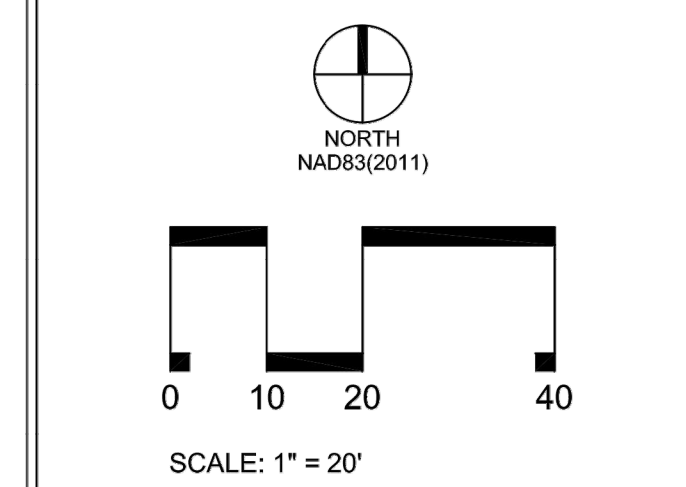
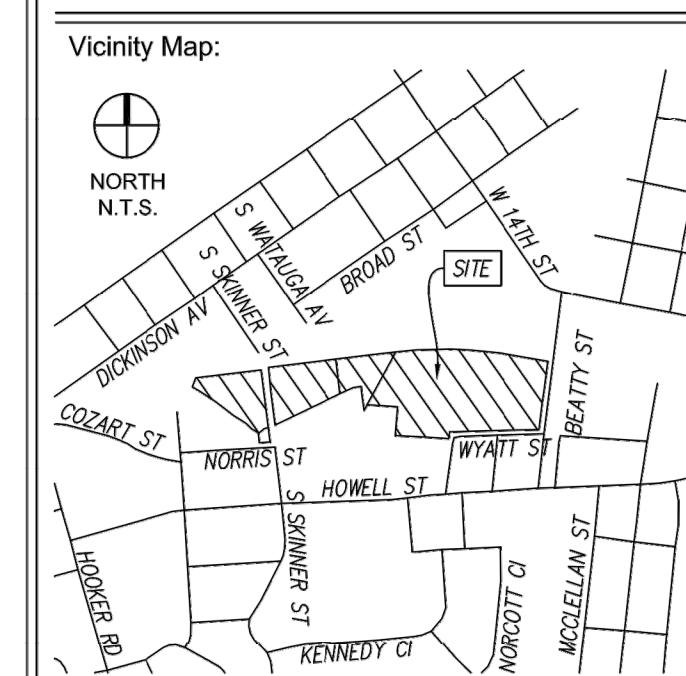




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T 919.380.8750

FIRM LICENSE # C-1061
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PROJECT # G23004



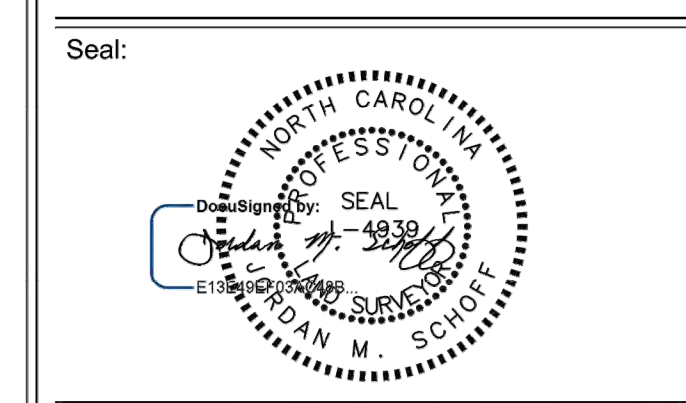
Title:
**EXISTING CONDITIONS
SURVEY FOR:**

GREENVILLE PW YARD STORM

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
DATE: 03/03/2023 SCALE: 1"=20'
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PREPARED FOR:
WK DICKSON

Revisions:

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03	06/13/2023	UTILITY UPDATE
04	07/03/2023	COMMENTS



Project name: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
Checked by: JMS

3 of 10
X3

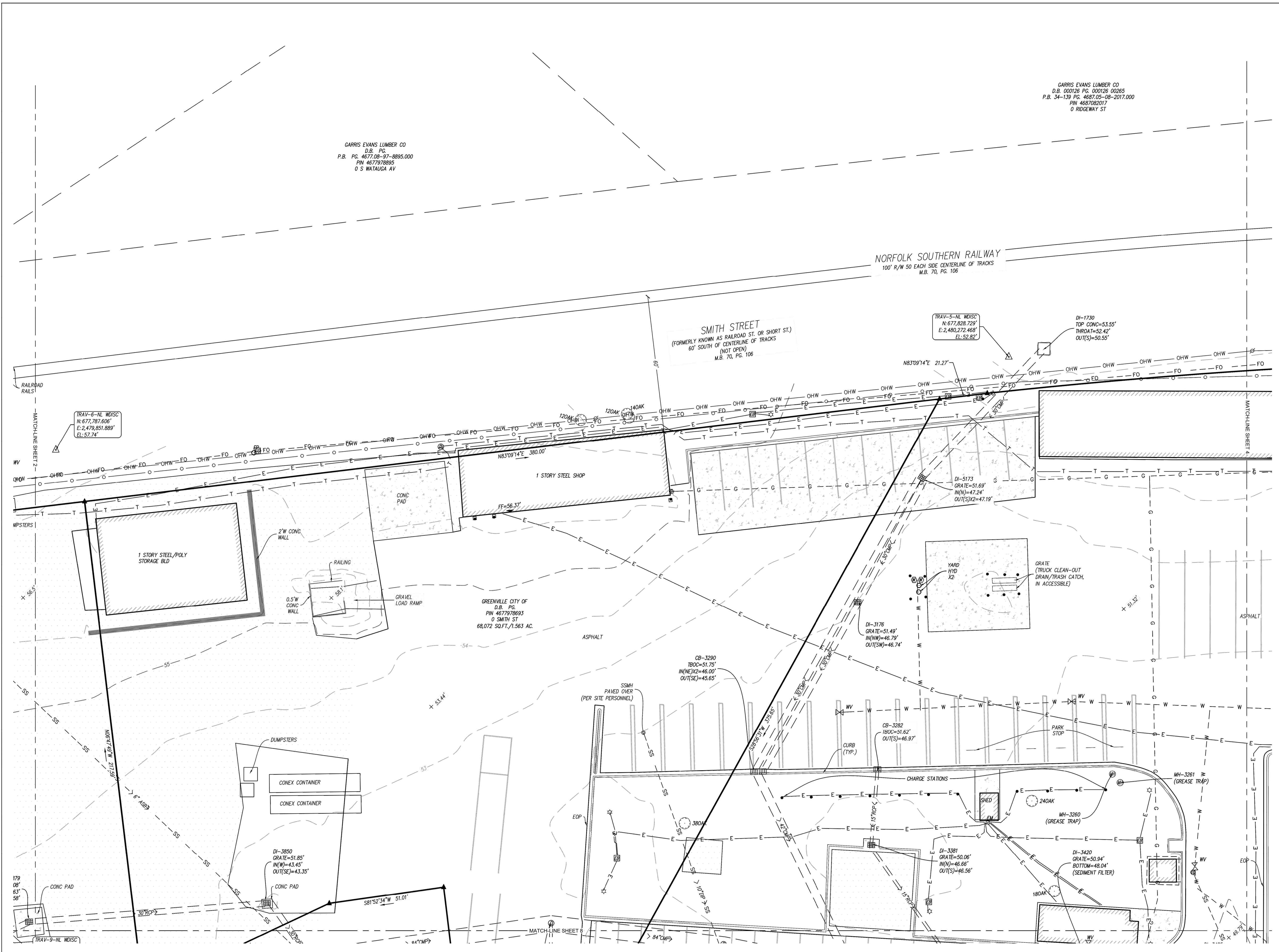
GARRIS EVANS LUMBER CO
D.B. PG.
P.B. PG. 4677.08-97-8895.000
PIN 4677978895
0 S WATAUGA AV

GARRIS EVANS LUMBER CO
D.B. 000128 PG. 000128 00265
P.B. 34-139 PG. 4687.05-08-2017.000
PIN 4687082017
0 RIDGEWAY ST

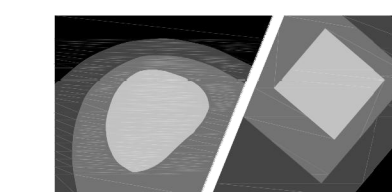
SMITH STREET
(FORMERLY KNOWN AS RAILROAD ST. OR SHORT ST.)
60' SOUTH OF CENTERLINE OF TRACKS
(NOT OPEN)
M.B. 70, PG. 106

NORFOLK SOUTHERN RAILWAY
100' R/W 50 EACH SIDE CENTERLINE OF TRACKS
M.B. 70, PG. 106

GREENVILLE CITY OF
D.B. PG.
PIN 4677978893
0 SMITH ST
68,072 SQ.FT./1.563 AC.



G:\Projects\2023\G23004 - WKD-Greenville PW Yard Stormwater Improvements\DWG\G23004-EX.dwg Jul 03, 2023 - 10:36am

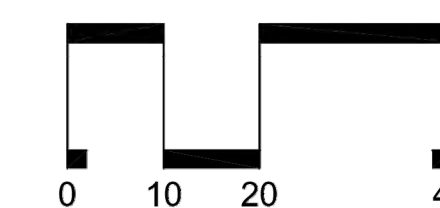
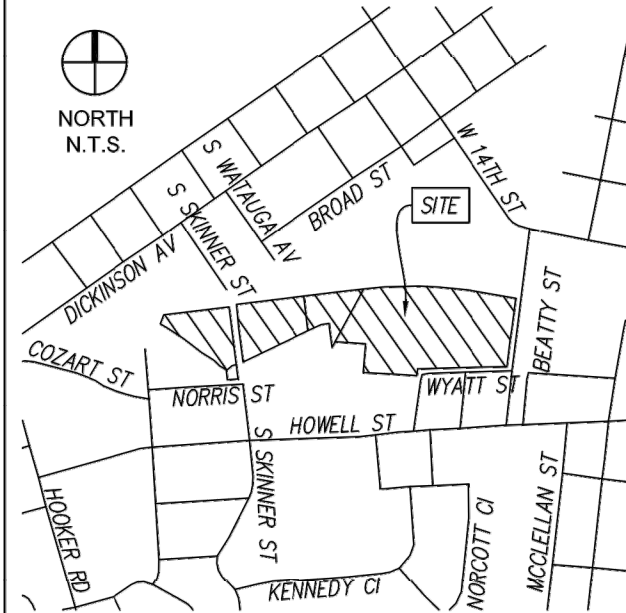


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FIRM LICENSE # C-1061
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PROJECT # G23004

Vicinity Map:



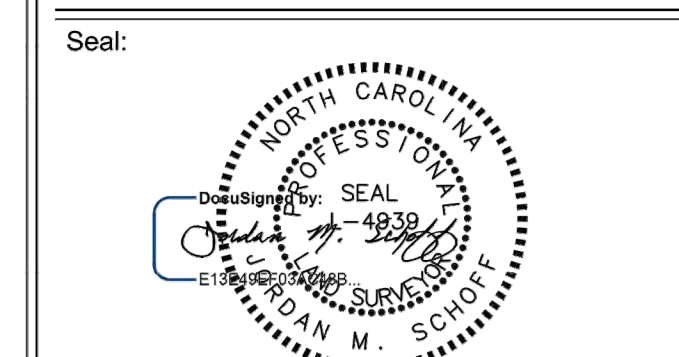
SCALE: 1" = 20'

EXISTING CONDITIONS SURVEY FOR:

GREENVILLE PW YARD STORM

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
DATE: 03/03/2023 SCALE: 1"=20'
CONTOUR INTERVAL = 1 FOOT
PREPARED FOR:
WK DICKSON

Revisions:	No.	Date	Description
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	03	06/13/2023	UTILITY UPDATE
	04	07/03/2023	COMMENTS



Project number: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
Checked by: JMS

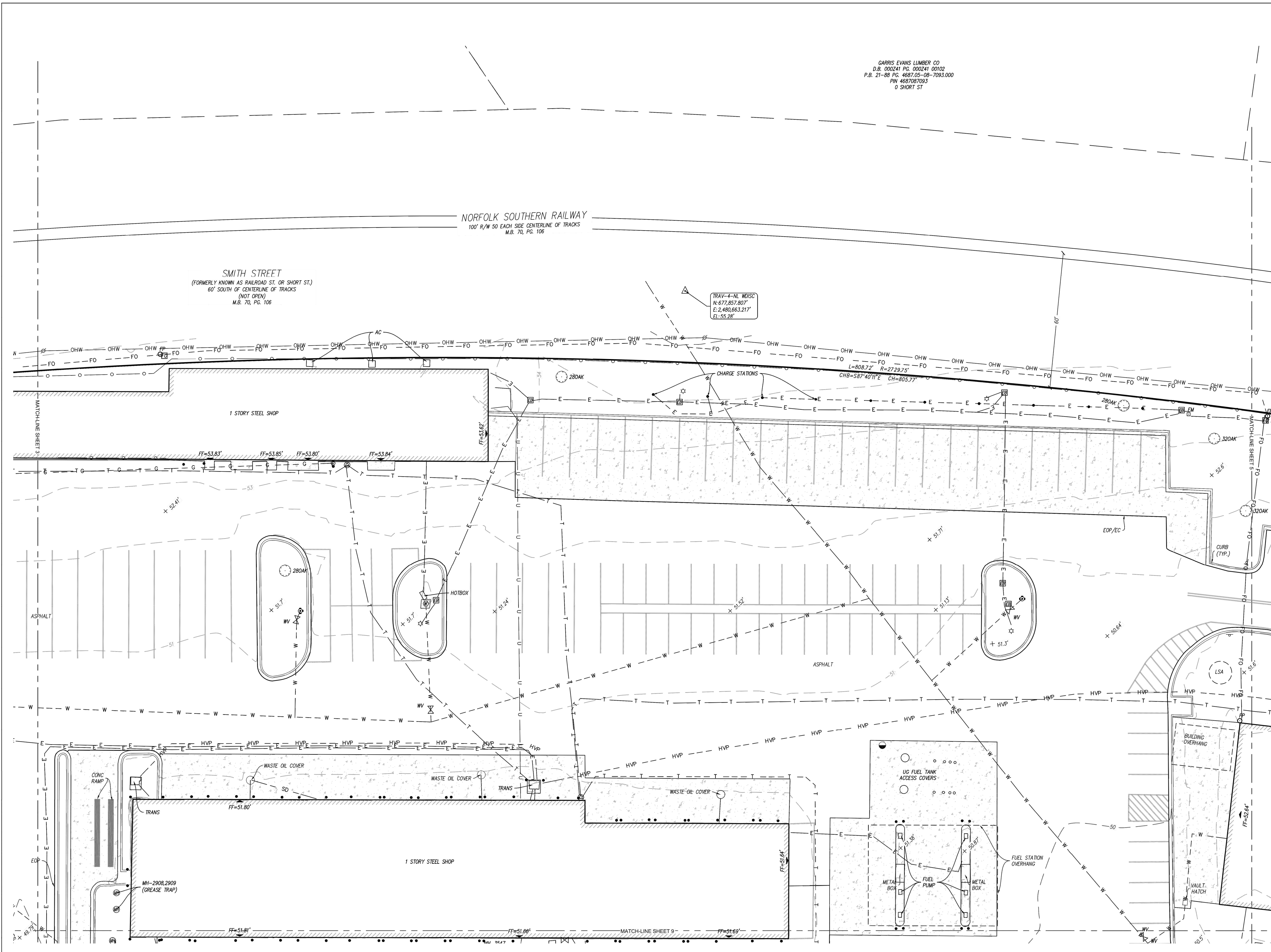
4 of 10
X4

GARRIS EVANS LUMBER CO
D.B. 000241 PG. 000241 00102
P.B. 21-88 PG. 468705-08-7093.000
PIN 4687087093
O SHORT ST

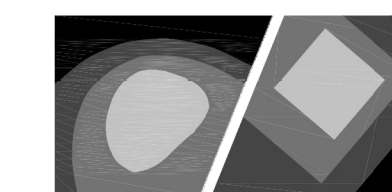
NORFOLK SOUTHERN RAILWAY
100' R/W 50' EACH SIDE CENTERLINE OF TRACKS
M.B. 70, PG. 106

SMITH STREET
(FORMERLY KNOWN AS RAILROAD ST. OR SHORT ST.)
60' SOUTH OF CENTERLINE OF TRACKS
(NOT OPEN)
M.B. 70, PG. 106

TRAV-4-NL WDISC
N=677,857.807'
E=2,480,663.217'
EL=55.28'



G:\Projects\2023\G23004 - WKD-Greenville PW Yard Stormwater Improvements\DWG\G23004-EX.dwg Jul 03, 2023 - 10:38am

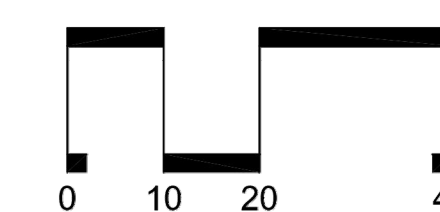
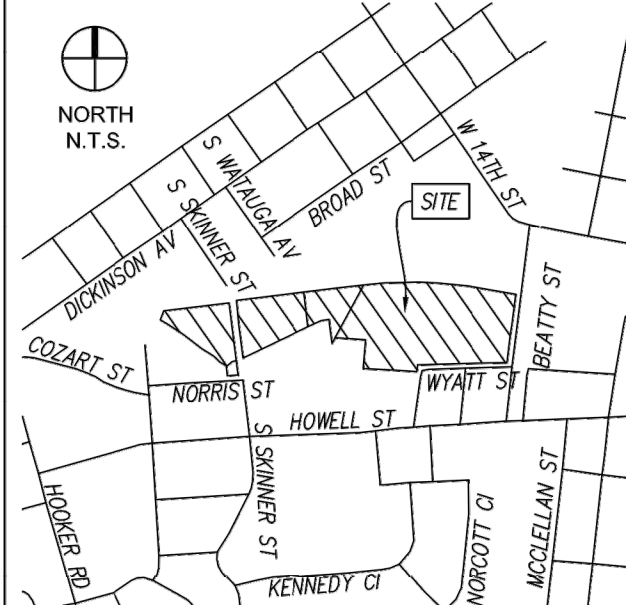


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F 919.380.8750

FIRM LICENSE #: C-1061
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PROJECT #: G23004

Vicinity Map:



SCALE: 1" = 20'

Title:

EXISTING CONDITIONS SURVEY FOR:

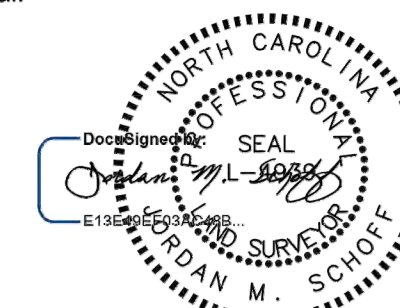
GREENVILLE PW YARD STORM

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
DATE: 03/03/2023 SCALE: 1"=20'
CONTOUR INTERVAL = 1 FOOT
PREPARED FOR:
WK DICKSON

Revisions:

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03	06/13/2023	UTILITY UPDATE
04	07/03/2023	COMMENTS

Seal:



Project number: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
Checked by: JMS

5 of 10
X5

EVANS DAVID A JR
D.B. 000109 PG. 000109 00785
P.B. PG. 468705-08-9074.000
PIN 4687080074
615 W FOURTEENTH ST

GREENVILLE CITY OF
D.B. 002540 PG. 002540 00566
P.B. MB72-132 PG. 468705-17-4818.000
PIN 4687174818
0 W FOURTEENTH ST

CAROLINA COSTAL RAILWAY
100' R/W 50 EACH SIDE CENTERLINE OF TRACKS
M.B. 72, PG. 113

SMITH STREET
(FORMERLY KNOWN AS RAILROAD ST. OR SHORT ST.)
60' SOUTH OF CENTERLINE OF TRACKS
(NOT OPEN)
M.B. 70, PG. 106

TRAV-3-NL WDISC
N:677,820.151'
E:2,481,014.892'
EL:53.63'

DMH-1867
RIM=55.79'
IN(W)=46.54'
IN(N)=42.69'
OUT(S)=42.59'

TRAV-2-REBAR WCAP
N:677,747.921'
E:2,481,248.616'
EL:55.22'

DMH-1081
RIM=52.59'
IN(N)=39.44'
IN(SE)=39.44'
IN(SE)=46.84'
OUT(SW)=39.34'

SSMH-1965
RIM=50.89'
IN(N)=43.49'
OUT(SE)=43.44'

DMH-1183
RIM=50.71'
(INVS OBSCURED)
BOTTOM=38.71'

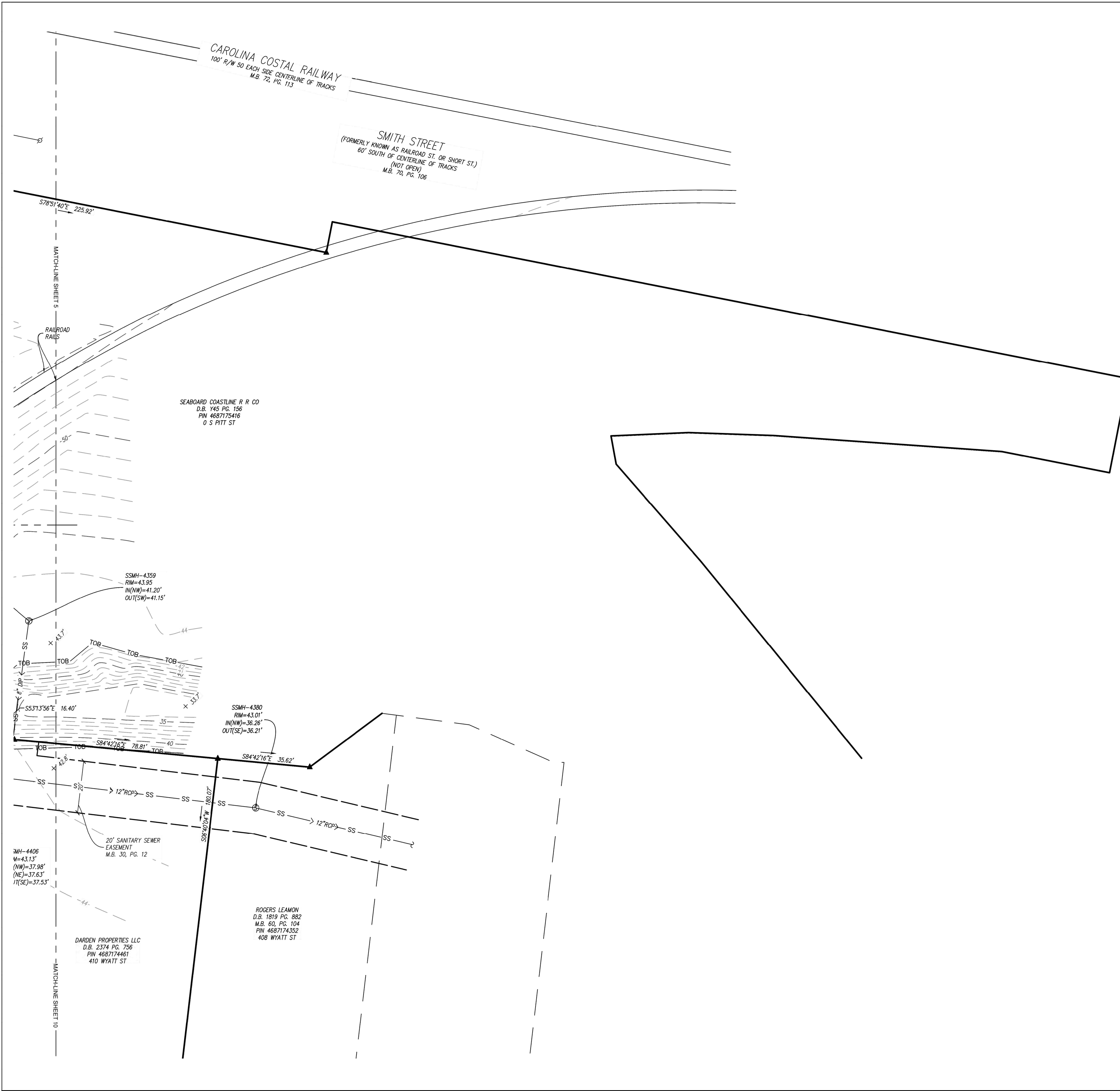
DI-1960
GRATE=48.79'
(INVS OBSCURED)
BOTTOM=37.09'

CD-1075
TBOC=52.40'
IN(SE)=47.10'
OUT(NW)=47.10'

CB-1884
TBOC=52.16'
OUT(NW)=47.38'

G:\Projects\2023\G23004 - WKD-Greenville PW Yard Stormwater Improvements\DWG\G23004-EX.dwg Jul 03, 2023 - 10:38am

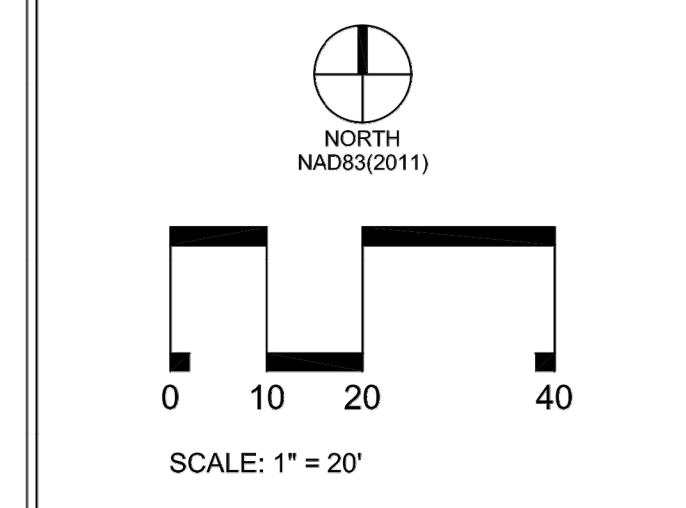
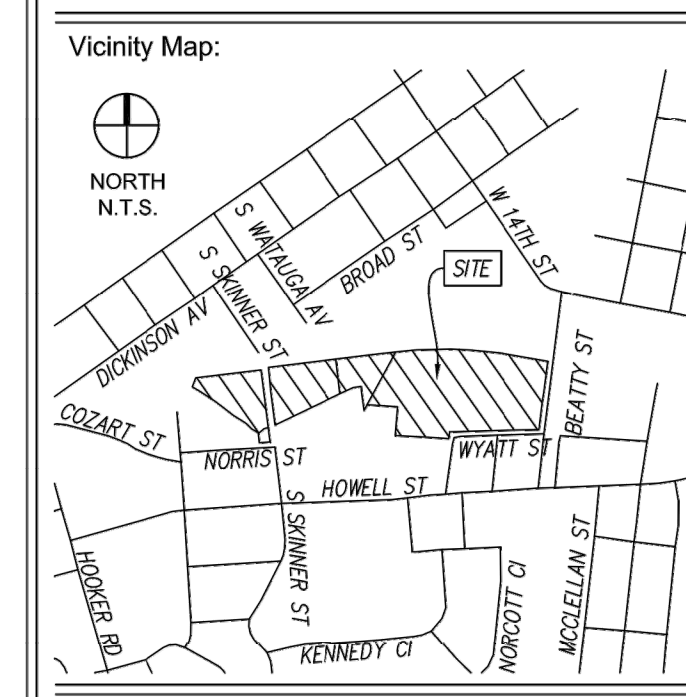
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FIRM LICENSE #: C-1051
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Title:

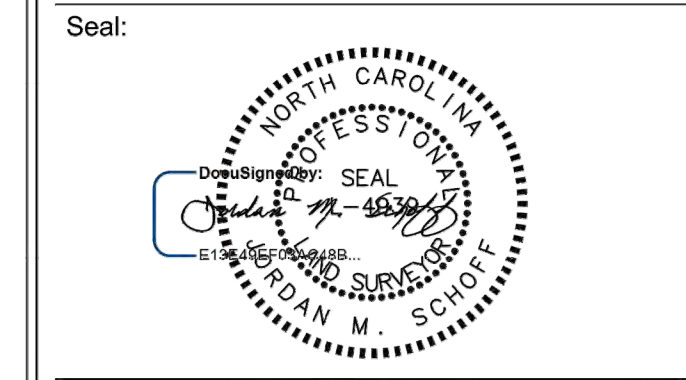
**EXISTING CONDITIONS
SURVEY FOR:**

**GREENVILLE PW
YARD STORM**

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
DATE: 03/03/2023 SCALE: 1"=20'
CONTOUR INTERVAL = 1 FOOT
PREPARED FOR:
WK DICKSON

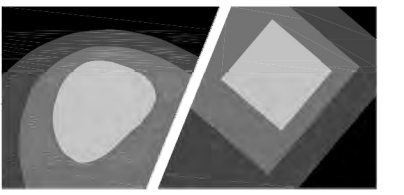
Revisions:

No.	Date	Description
01	03/24/2023	COMMENTS
02	03/29/2023	COMMENTS
03	06/13/2023	UTILITY UPDATE
04	07/03/2023	COMMENTS



Project number: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
Checked by: JMS

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X6

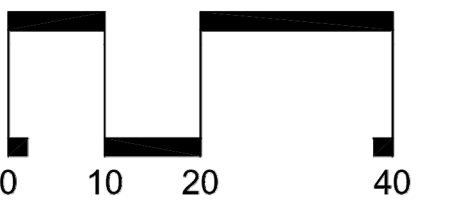
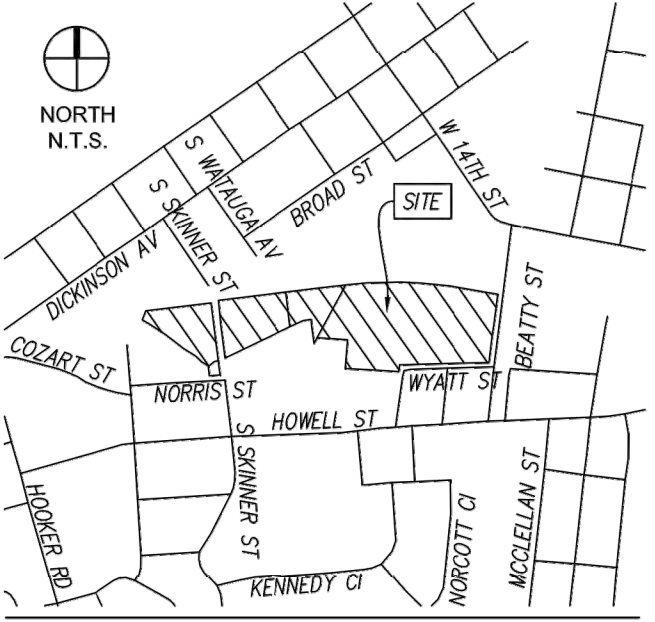


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FIRM LICENSE #: C-1061
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PROJECT #: G23004

Vicinity Map:



SCALE: 1" = 20'

Title:

**EXISTING CONDITIONS
SURVEY FOR:**

**GREENVILLE PW
YARD STORM**

GREENVILLE TOWNSHIP, CITY OF GREENVILLE

PITT COUNTY, NORTH CAROLINA

DATE: 03/03/2023 SCALE: 1"=20'

CONTOUR INTERVAL = 1 FOOT

PREPARED FOR:

WK DICKSON

Revisions:

No.	Date	Description
01	03/24/2023	COMMENTS
02	03/29/2023	COMMENTS
03	06/13/2023	UTILITY UPDATE
04	07/03/2023	COMMENTS

Seal:



Project number: G23004 Sheet:

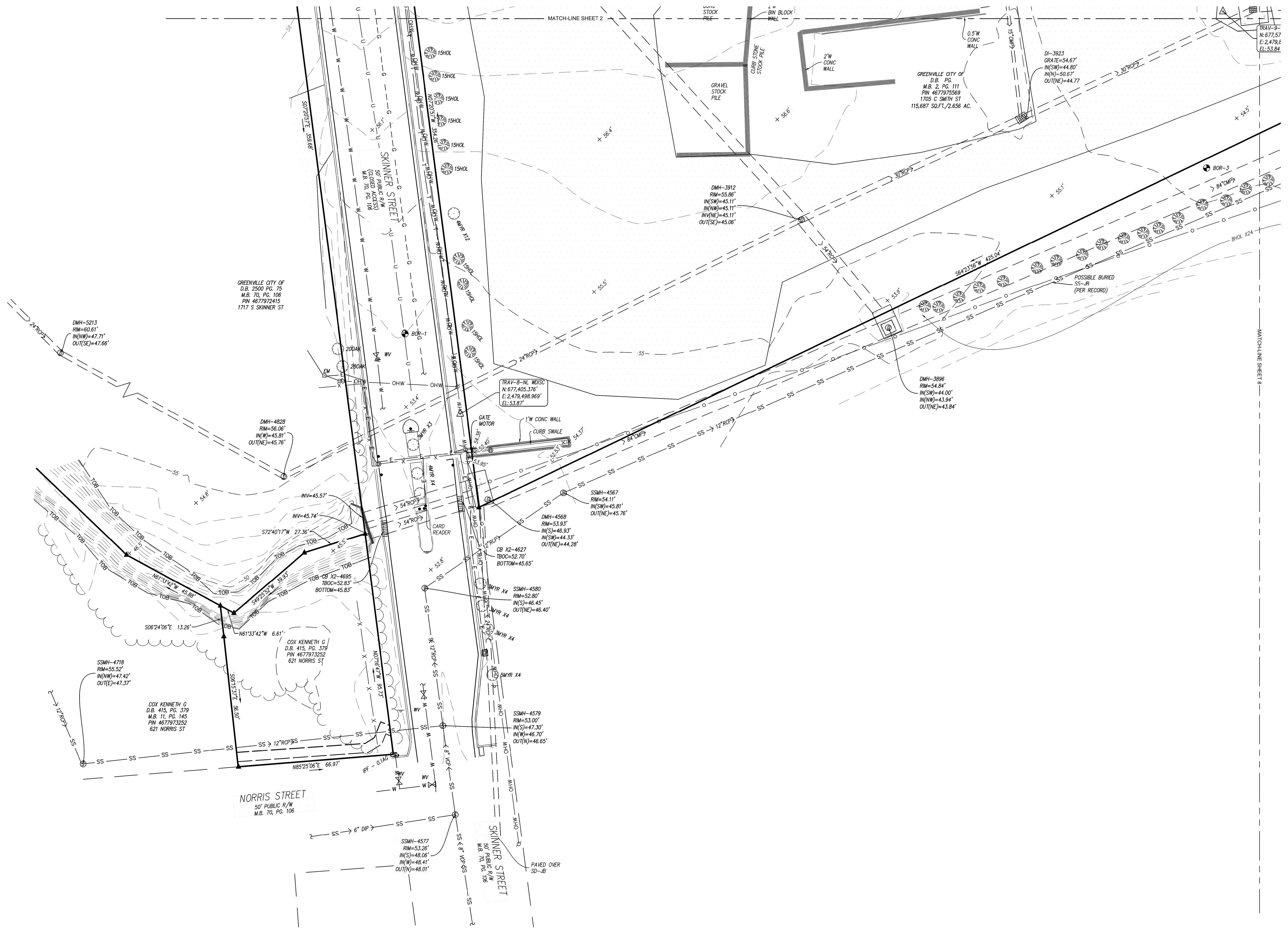
Date: 03/03/2023

Drawn by: WJT

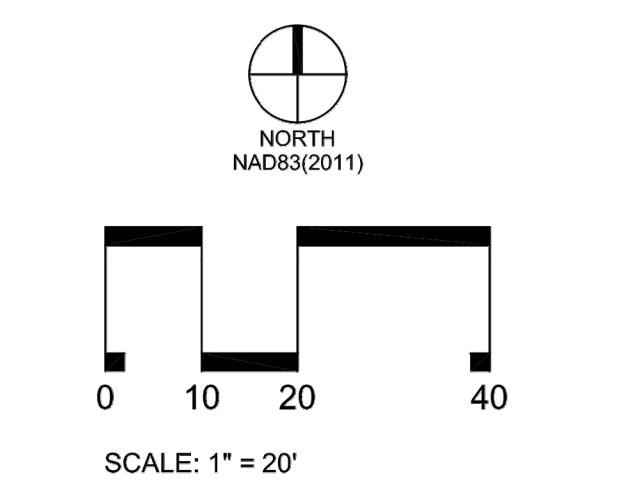
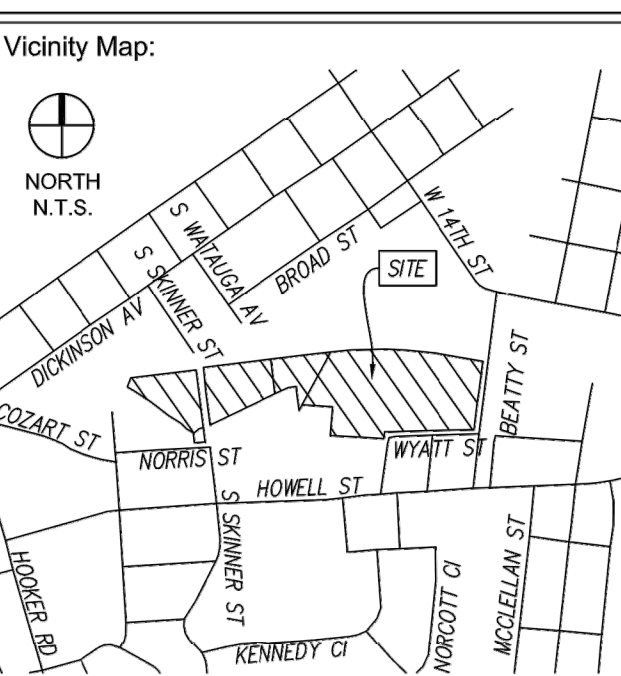
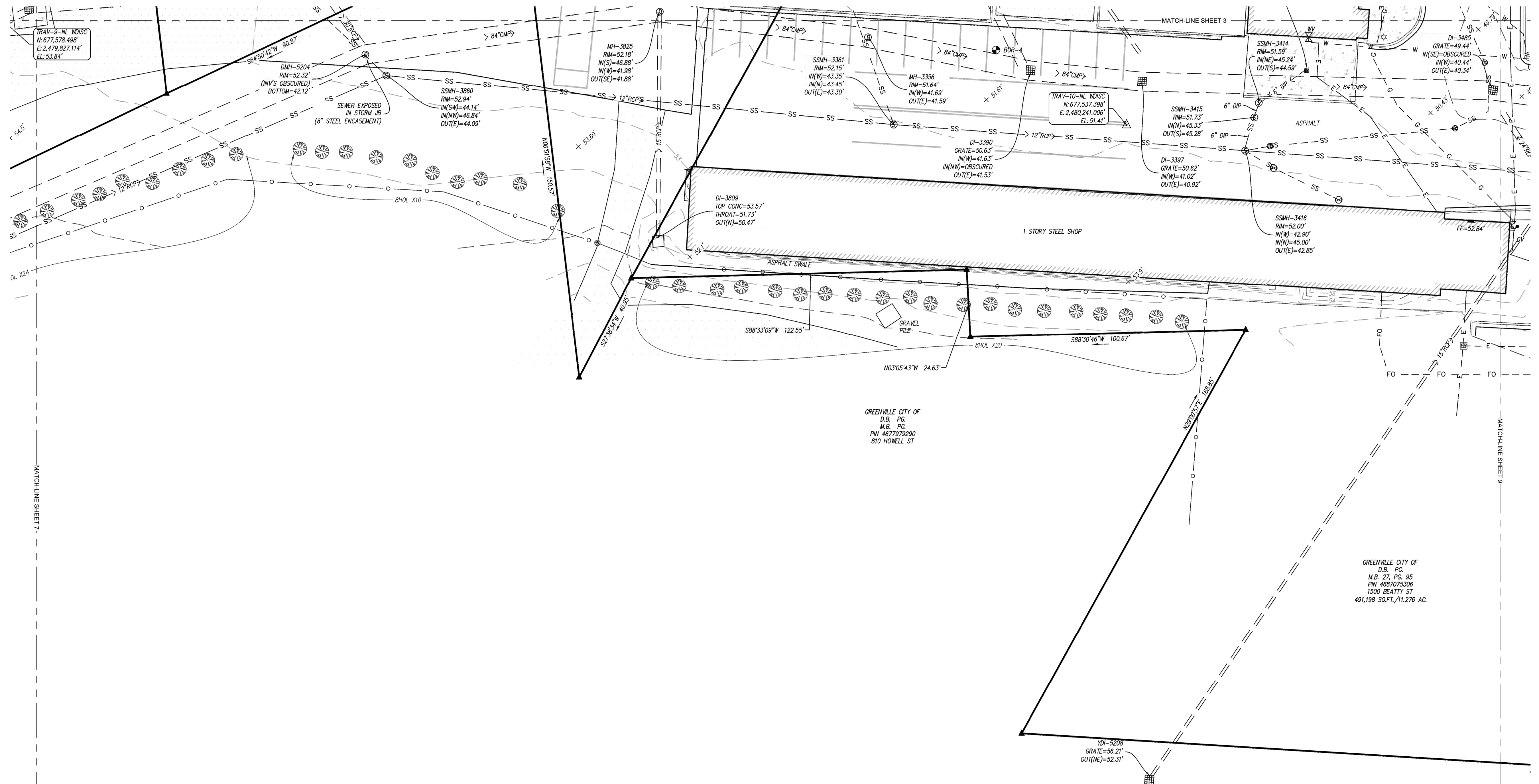
Checked by: JMS

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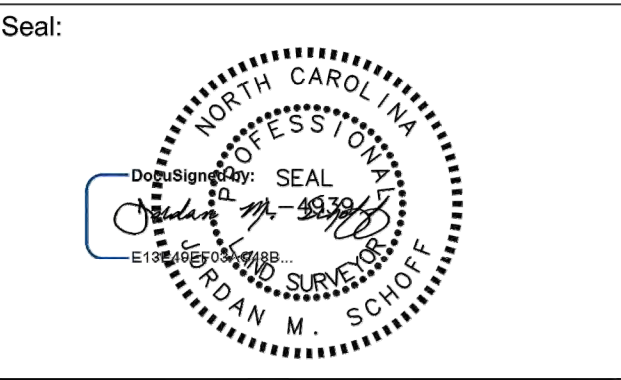
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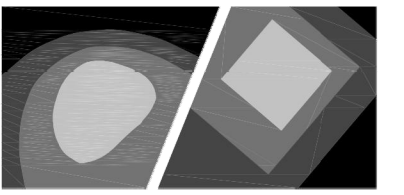
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 GREENVILLE PW YARD STORM**
 GREENVILLE TOWNSHIP, CITY OF GREENVILLE
 PITT COUNTY, NORTH CAROLINA
 DATE: 03/03/2023 SCALE: 1"=20'
 CONTOUR INTERVAL = 1 FOOT
 PREPARED FOR:
 WK DICKSON

Revisions:

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Project number: G23004 Sheet:
 Date: 03/03/2023
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X8

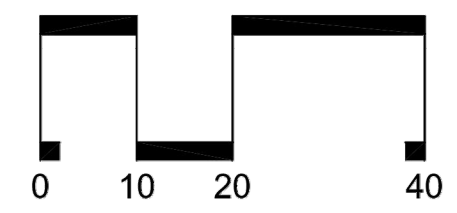
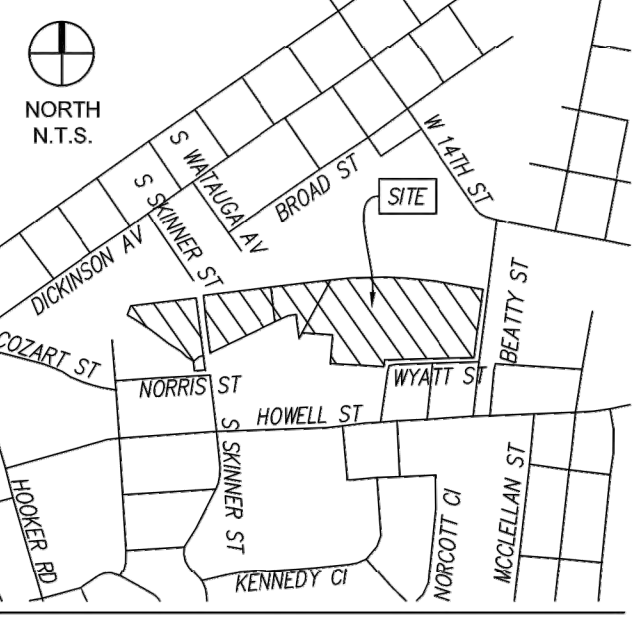


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PROJECT #: G23004

Vicinity Map:



SCALE: 1" = 20'

Title:

**EXISTING CONDITIONS
SURVEY FOR:**

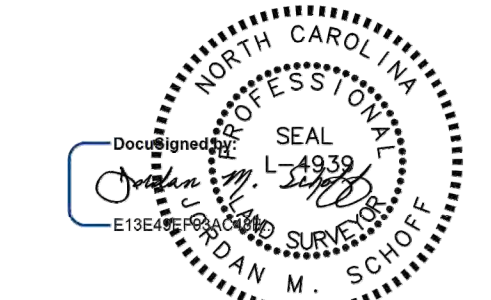
**GREENVILLE PW
YARD STORM**

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
DATE: 03/03/2023 SCALE: 1"=20'
CONTOUR INTERVAL = 1 FOOT
PREPARED FOR:
WK DICKSON

Revisions:

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04	07/03/2023	COMMENTS

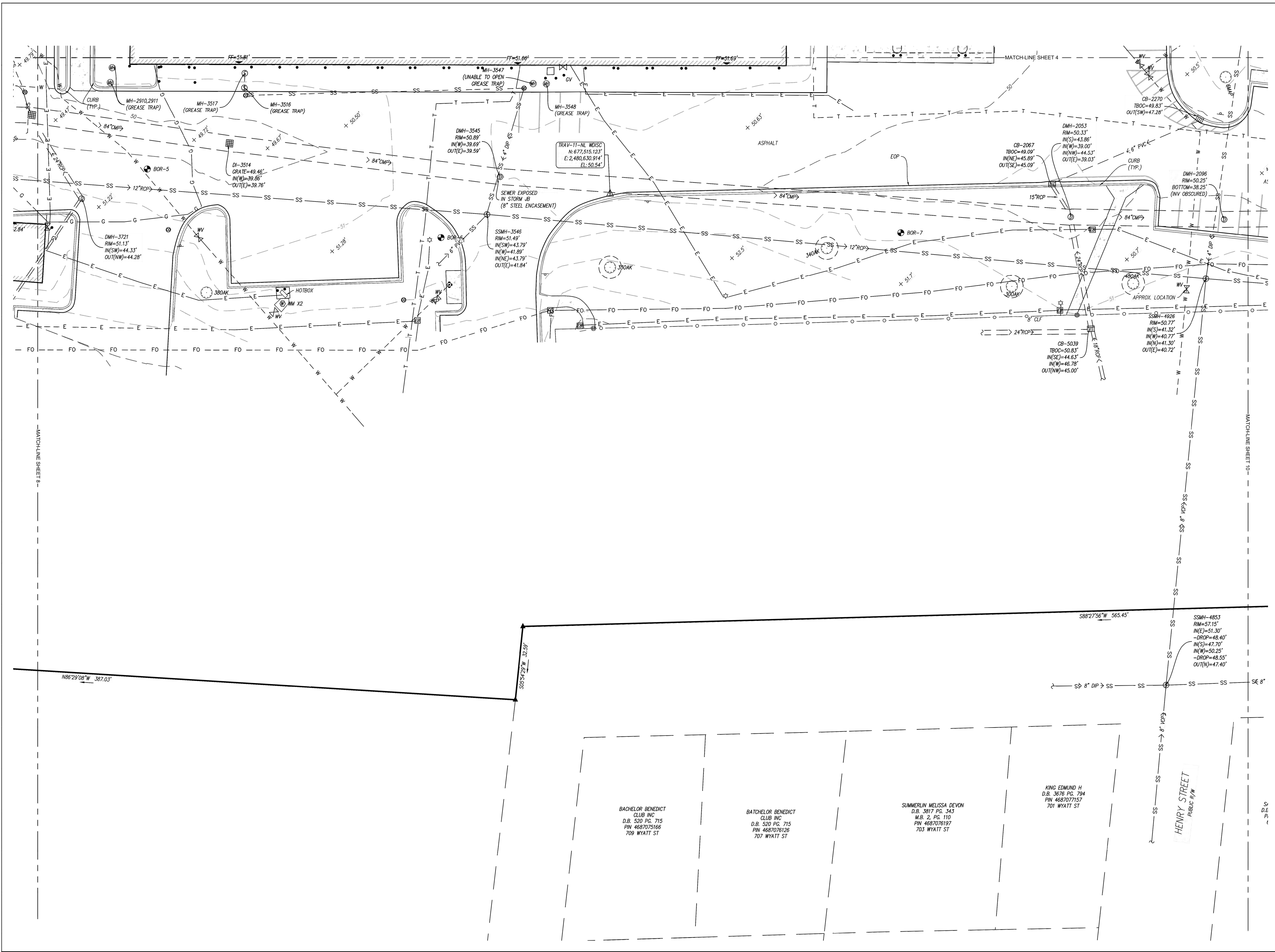
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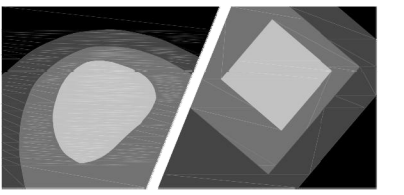


Project number: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
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X9

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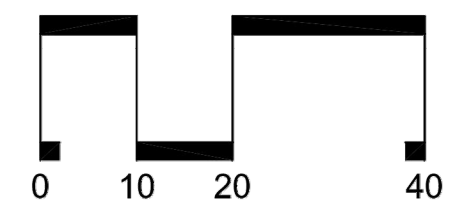
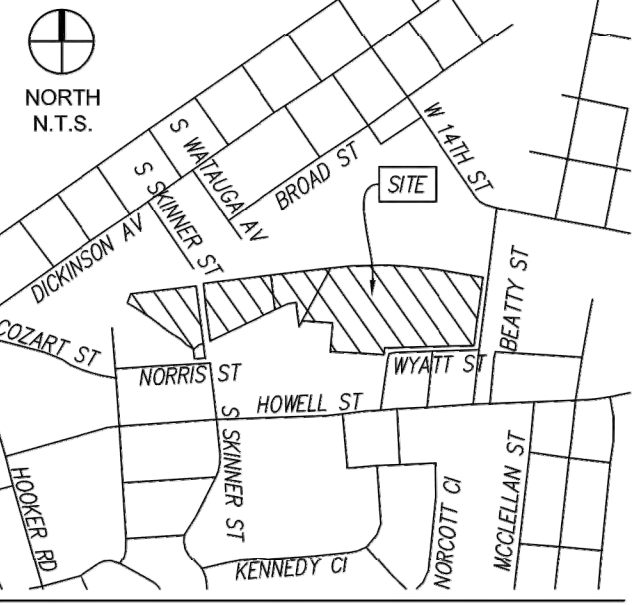


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PROJECT #: G23004

Vicinity Map:



SCALE: 1" = 20'

Title:

**EXISTING CONDITIONS
SURVEY FOR:**

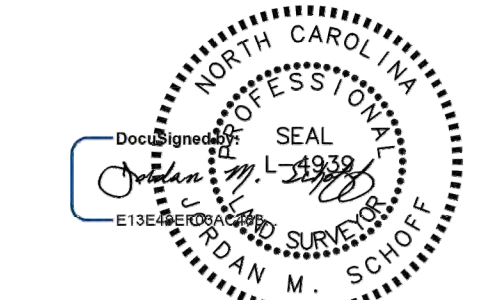
GREENVILLE PW YARD STORM

GREENVILLE TOWNSHIP, CITY OF GREENVILLE
PITT COUNTY, NORTH CAROLINA
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WK DICKSON

Revisions:

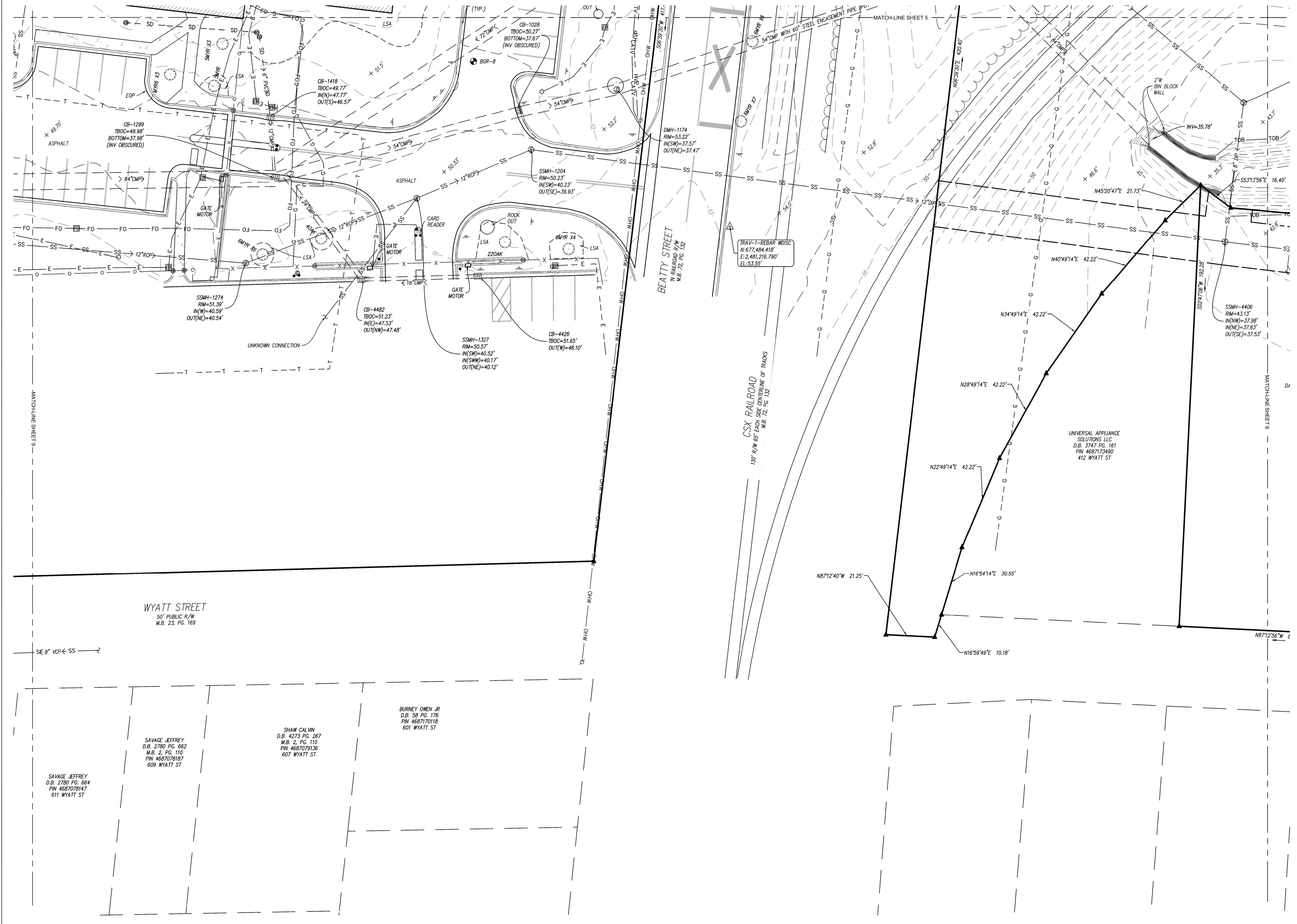
No.	Date	Description
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04	07/03/2023	COMMENTS

Seal:



Project name: G23004 Sheet:
Date: 03/03/2023
Drawn by: WJT
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X10



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