FAIRMOUNT PARK ROAD EROSION REPAIRS

CITY PROJECT NO. PR 24-08

CITY OF COUNCIL BLUFFS, IOWA

PARKS AND RECREATION DEPARTMENT

IOWA ONE CALL
800-292-8989
TOLL FREE
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LOCATION MAP
COUNCIL BLUFFS, IOWA
NO SCALE

— INDICATES PROJECT LOCATION

INDEX OF SHEETS

DESCRIPTION
A.01 – TITLE SHEET
B.01 – CIVIL SITE DETAILS
C.01 – GENERAL NOTES AND LEGEND
C.02 – QUANTITIES AND ESTIMATE REFERENCE NOTES
D.01 – CIVIL SITE PLAN
D.02 – STORM PLAN AND PROFILE

DRAWING APPROVAL:

ALL SHOP DRAWINGS THAT REQUIRE APPROVAL SHALL BE APPROVED BY HGM ASSOCIATES, INC.

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PHONE: (712) 323-0530

SPECIFICATIONS

IN ADDITION TO THE PROJECT SPECIFICATIONS THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) FOR PUBLIC IMPROVEMENTS, 2023, AND CITY OF COUNCIL BLUFFS SUPPLEMENTAL SPECIFICATIONS 2023, SHALL APPLY TO THIS PROJECT.

THESE DOCUMENTS SHALL NOT BE SCANNED, COPIED, OR DUPLICATED IN ANY MANNER.

LICENSED PROFESSIONAL ENGINEER
ZACHARY M. WHEAT
22574
IOWA

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

ZACHARY M. WHEAT 6/15/23

My license renewal date is December 31, 2024.

Pages or sheets covered by this seal:
A.01, B.01, C.01, C.02, D.01, D.02

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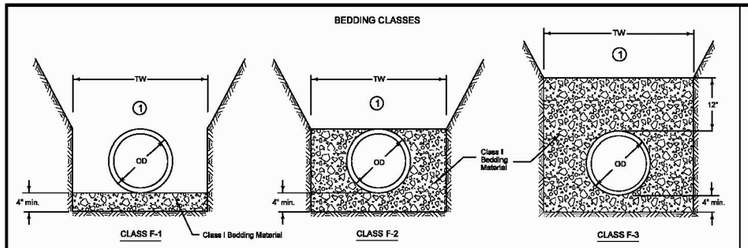
JNS drawn
ZMW designed
ZMW approved
JUNE'23 date
revision date

project FAIRMOUNT PARK ROAD EROSION REPAIRS
client CITY OF COUNCIL BLUFFS
sheet TITLE SHEET

project no. 150523
sheet A.01

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① Place remainder of bedding and backfill materials as specified in the contract documents.

② Minimum depth of bury 12 inches or as specified by the manufacturer.

ALLOWABLE BEDDING CLASSES

PIPE MATERIAL	STORM SEWER	SANITARY SEWER
Ductile Iron	F-1, F-2, F-3	F-1, F-2, F-3
HDPE	F-2, F-3	Not allowed
Polypropylene	F-2, F-3	F-3
PVC	F-2, F-3	F-3

Key

OD = Outside diameter of pipe

TW = Trench width at top of pipe:
Min. = OD+16 inches OR 1.25xOD+12 inches
(whichever is greater)

ALLOWABLE BURY DEPTH②

PVC PIPE

Pipe Diameter (in)	ASTM D 3034			ASTM F 679	ASTM F 949	ASTM F 1803	ASTM D 2680
	Solid Wall			Solid Wall	Corrug. Exterior	Closed Profile	Composite (Truss Type)
	SDR 23.5	SDR 26	SDR 35	SDR 35			
8	30'	28'	24'	---	24'	---	32'
10	30'	28'	24'	---	24'	---	32'
12	30'	28'	24'	---	24'	---	32'
15	30'	28'	24'	---	24'	---	32'
18	---	---	---	24'	24'	---	---
21	---	---	---	24'	24'	24'	---
24	---	---	---	24'	24'	24'	---
27	---	---	---	24'	---	24'	---
30	---	---	---	24'	24'	24'	---
33	---	---	---	24'	---	---	---
36	---	---	---	24'	24'	24'	---
42	---	---	---	24'	---	24'	---
48	---	---	---	24'	---	24'	---
54	---	---	---	---	---	24'	---
60	---	---	---	---	---	24'	---

DUCTILE IRON, AWWA C151, CLASS 52

Pipe Diameter (in)	Class F-1 Bedding	Class F-2 Bedding	Class F-3 Bedding
4	40'	40'	40'
6	40'	40'	40'
8	40'	40'	40'
10	40'	40'	40'
12	37'	40'	40'
14	31'	40'	40'
16	28'	37'	40'
18	25'	34'	40'
20	23'	32'	40'
24	20'	29'	38'
30	18'	23'	31'
36	18'	22'	30'
42	17'	21'	29'
48	16'	19'	27'
54	16'	19'	27'

HDPE PIPE

Pipe Diameter (in)	AASHTO M 294
12	8'
15	9'
18	9'
24	9'
30	9'
36	9'
42	8'
48	8'
54	8'
60	8'

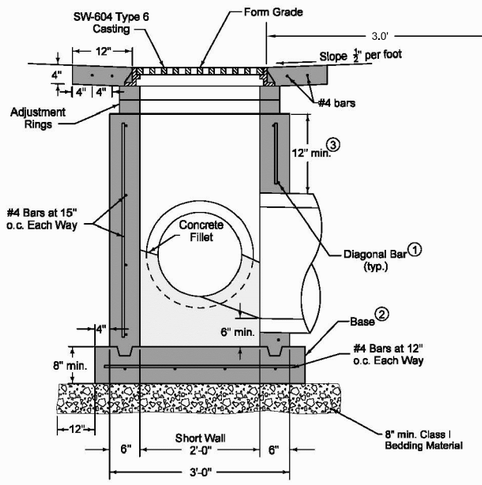
POLYPROPYLENE PIPE

Pipe Diameter (in)	ASTM F 2764
12	24'
15	25'
18	22'
24	20'
30	22'
36	21'
42	22'
48	23'
54	21'
60	21'

SUDAS | IOWA DOT | REVISION 4 04-20-21
FIGURE 3010.103 | STANDARD ROAD PLAN | SW-103 | SHEET 1 of 1
REVISIONS: Added note DO NOT USE ON PRIMARY ROADWAYS.
Paul D. Wiegand, ROAD DIRECTOR | Mark Nelson, DESIGN METHODS ENGINEER

FLEXIBLE GRAVITY PIPE TRENCH BEDDING

FIGURE 3010.103 | SHEET 1 OF 1

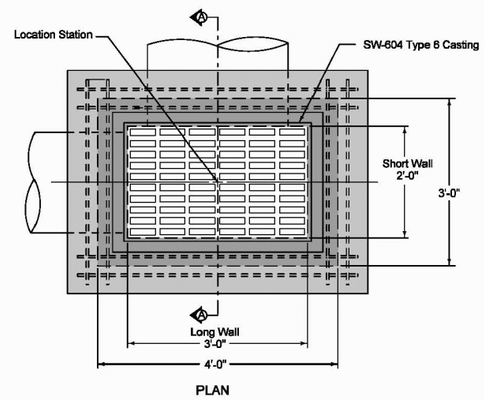


SECTION A-A

① Install four #4 diagonal bars at all pipe openings.

② Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.

③ 12 inch minimum wall height above all pipes.



PLAN

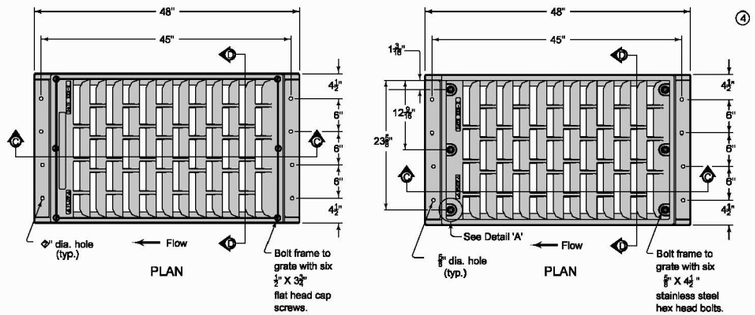
MAXIMUM PIPE DIAMETERS		
Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	15"	18"
Long Wall	24"	30"

SUDAS | IOWA DOT | REVISION 2 04-21-20
FIGURE 6010.511 | STANDARD ROAD PLAN | SW-511 | SHEET 1 of 1
REVISIONS: Added Class I Bedding Material.
Paul D. Wiegand, ROAD DIRECTOR | Mark Nelson, DESIGN METHODS ENGINEER

RECTANGULAR AREA INTAKE

FIGURE 6040.511 | SHEET 1 OF 1

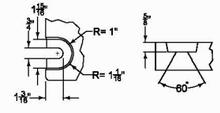
TYPE S②④
Barrier Intake Grate
(Minimum open area 300 in²)



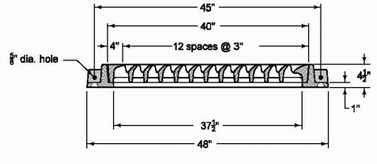
② Provide bicycle-safe vane-style grate. At low points, grates with vanes facing both directions of flow are allowed. The Contractor has the choice of which Type S Grate to use.

④ Use ductile iron frame castings meeting the requirements of ASTM A 536.

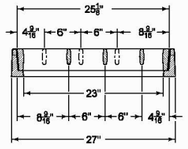
Frame minimum weight = 220 lbs.
Grate minimum weight = 340 lbs.



DETAIL'A'
Bolt Slot Detail



SECTION C-C

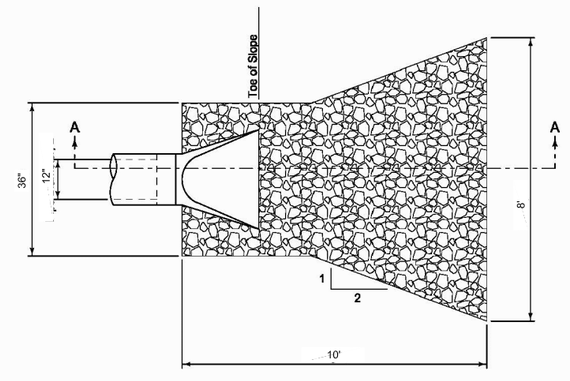


SECTION D-D

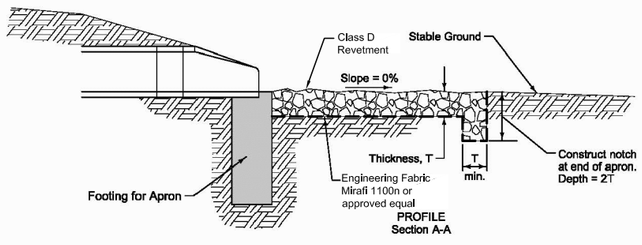
SUDAS | IOWA DOT | REVISION 5 10-16-18
FIGURE 6010.603 | STANDARD ROAD PLAN | SW-603 | SHEET 2 of 2
REVISIONS: Corrected typo on page two that said SHEET 1 of 2.
Paul D. Wiegand, ROAD DIRECTOR | Adrian Smith, DESIGN METHODS ENGINEER

CASTINGS FOR GRATE INTAKES

FIGURE 6010.603 | SHEET 2 OF 2



PLAN



SUDAS | REVISION 3 10-21-14
9040.110 | SHEET 1 of 1

SUDAS Standard Specifications

RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND

FIGURE 9040.110 | SHEET 1 OF 1

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JNS drawn | ZMW designed | ZMW approved | JUNE'23 date | revision | date

project FAIRMOUNT PARK ROAD EROSION REPAIRS
client CITY OF COUNCIL BLUFFS
sheet **CIVIL SITE DETAILS**

project no. 150523
sheet **B.01**

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GENERAL NOTES:

1. UTILITY FACILITIES SHOWN ARE FROM LOCATES OR RECORDS PROVIDED BY OTHERS, AND SHALL BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY EXIST (EITHER IN SERVICE OR ABANDONED) AND THEIR LOCATION MAY NOT BE PRESENTLY KNOWN OR IDENTIFIED ON THE PLANS. THE ENGINEER MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE CONTRACTOR SHALL NOTIFY THE IOWA ONE–CALL SYSTEM AT 1–800–292–8989 TO IDENTIFY THE LOCATION OF ALL UNDERGROUND UTILITY FACILITIES WITHIN THE CONSTRUCTION AREA.

   THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL PUBLIC AND PRIVATE UTILITY FACILITIES LOCATED WITHIN THE CONSTRUCTION AREA TO AVOID DAMAGE IN ACCORDANCE WITH SECTION 480.4, CODE OF IOWA. DAMAGE TO UTILITIES DUE TO THE CONTRACTOR'S ACTIONS SHALL BE REPAIRED OR REPLACED WITHOUT COST TO THE OWNER OR ENGINEER.

   WHERE EXISTING UTILITY FACILITIES ARE SHOWN IN THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITIES AND CONDUCTING WORK NEAR UTILITY FACILITIES REQUIRED BY SECTION 480.4, CODE OF IOWA.

   THE CONTRACTOR SHALL COOPERATE WITH UTILITY COMPANIES IN THEIR ADJUSTMENT OPERATIONS SO THAT THESE OPERATIONS MAY PROGRESS, THE DUPLICATION OF ADJUSTMENT WORK MAY BE REDUCED, AND THAT SERVICES RENDERED BY THOSE PARTIES WILL NOT BE INTERRUPTED.

   THE CONTRACTOR SHALL REVIEW ALL UTILITIES SHOWN IN THE PLANS AND COORDINATE WITH ALL UTILITY COMPANIES NECESSARY TO SCHEDULE WORK FOR ALL KNOWN AND POTENTIAL CONFLICTS. THE CONTRACTOR SHALL BE AWARE THAT UTILITY SERVICES ARE NOT ROUTINELY LOCATED OR SHOWN ON THE PLANS, HOWEVER MAY BE A CONFLICT WITH THE WORK PERFORMED. DELAYS, INCONVENIENCE, OR DAMAGE CLAIMED BY THE CONTRACTOR DUE TO ANY INTERFERENCE OF UTILITIES SHOWN IN THE PLANS OR SERVICES SHALL NOT BE CONSIDERED A CIRCUMSTANCE FOR ADDITIONAL TIME OR COMPENSATION.

2. REMOVALS OF ABANDONED UTILITIES THAT ARE SHOWN ON THE PLANS AND ENCOUNTERED DURING TRENCH EXCAVATION SHALL BE INCIDENTAL TO THE UNDERGROUND UTILITY BEING INSTALLED AND WILL NOT BE PAID FOR SEPARATELY UNLESS INDICATED OTHERWISE ON THE PLANS.

3. PRIOR TO BEGINNING WORK ON THE FOLLOWING ITEMS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW PLANS FOR BY–PASS PUMPING, TRENCH SHORING, JACKING AND BORING, DEWATERING, TRAFFIC CONTROL, EMERGENCY ACTION PLAN (EAP) FOR WORK IN THE LEVEE CRITICAL ZONE AND PROVIDE SHORING OR SUPPORT DETAILS FOR WATER MAINS AND OTHER MAJOR UTILITY LINES THAT MUST REMAIN IN SERVICE.

4. THE CONTRACTOR SHALL KEEP SANITARY SEWER AND STORM SEWER LINES AND STRUCTURES CLEAN AND FREE OF DEBRIS THAT IS A RESULT OF CONSTRUCTION OPERATIONS. ANY CLEANING AND REMOVAL OF DEBRIS THAT ENTERS AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE COMPLETED AT THE EXPENSE OF THE CONTRACTOR

5. THE CONTRACTOR SHALL MAKE ACCESS AVAILABLE TO ADJACENT PROPERTIES IN CASE OF EMERGENCIES. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER (712–890–5296) AND NON–EMERGENCY 911 (712–328–5737), 24 HOURS PRIOR TO CLOSING AND/OR OPENING ANY ROADS TO TRAFFIC. THE CONTRACTOR SHALL ADEQUATELY BARRICADE CLOSED ROADS DURING CONSTRUCTION TO INSURE PUBLIC SAFETY AND PROTECT NEW PAVEMENT FROM DAMAGE. ALL TRAFFIC CONTROL SHALL BE IN COMPLIANCE WITH "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES"U.S. DEPARTMENT OF TRANSPORTATION, LATEST EDITION.

6. REMOVAL AND REINSTALLATION OF MAILBOXES AS NECESSARY SHALL BE INCIDENTAL TO THE PROJECT UNLESS SPECIFIED OTHERWISE. THE CONTRACTOR SHALL NOTIFY THE POST OFFICE OF THE STREET CLOSING AND ARRANGE FOR AN ALTERNATE DROP BOX LOCATION AS NECESSARY.

7. SANITARY SEWER LATERALS DISRUPTED BY THE CONTRACTOR SHALL BE RECONNECTED TO THE SEWER DURING THE SAME DAY THAT THEY ARE DISRUPTED.

8. WHEN MILLING OF ASPHALT PAVEMENT IS A BID ITEM IN THE PLANS ALL MILLED ASPHALT PAVEMENT SHALL BE DELIVERED TO THE CITY PUBLIC WORKS YARD AT 1130 2ND AVENUE. CONSTRUCTION PHASING MAY REQUIRE MULTIPLE MOBILIZATIONS FOR MILLING OPERATIONS. OUT OF PHASE MILLING WILL NOT BE ALLOWED UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. THE COST INVOLVED TO HAUL SALVAGED ITEMS TO THE CITY YARD SHALL BE INCIDENTAL TO REMOVAL FOR WHICH PAYMENT IS MADE.

9. REMOVAL OF EXISTING CITY SIGNS AS NECESSARY SHALL BE INCIDENTAL TO THE PROJECT UNLESS SPECIFIED OTHERWISE. ALL SIGNS SHALL BE REMOVED WITHOUT DAMAGE TO THE SIGNS. ANY DAMAGE TO SIGN(S) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE REQUIRED TO REPLACE IN KIND AND\OR COMPENSATE THE CITY FOR DAMAGED SIGN(S). SIGNS SHALL BE DELIVERED WHEN REMOVED TO THE CITY TRAFFIC DEPARTMENT AT 1001 10TH AVENUE. SIGNS SHALL NOT BE STORED ON PROJECT SITE.

10. ALL SOLID WASTE, AND EXCESS EXCAVATION FROM THE REMOVAL OR INSTALLATION OF PAVEMENT, STORM, AND SANITARY SEWER SYSTEMS, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS. ALL REMOVED ITEMS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF SITE AND SHALL NOT BE INCORPORATED INTO THE WORK.

    PRIOR TO THE COMMENCEMENT OF REMOVALS, THE CONTRACTOR SHALL PROVIDE THE ENGINEER DOCUMENTATION OF THEIR CERTIFIED DISPOSAL SITE(S) FOR ALL ITEMS TO BE REMOVED FROM THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH LOAD TICKETS FOR ALL ITEMS REMOVED FROM THE PROJECT. PAYMENT WILL NOT BE MADE ON REMOVAL ITEMS WITHOUT APPROPRIATE TICKETS.

11. TO COMPLY WITH THE MIGRATORY BIRD TREATY ACT, TREES SHALL NOT BE REMOVED DURING THE PRIMARY NESTING SEASON DEFINED AS APRIL 1ST THROUGH SEPTEMBER 30TH. EXISTING TREES NOT INDICATED FOR REMOVAL SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. TRIMMING OF TREES WITH TRUNKS LOCATED OUTSIDE OF THE RIGHT OF WAY SHALL NOT BE COMPLETED WITHOUT AUTHORIZATION FROM THE OWNER. WHEN TRIMMING IS REQUIRED ON ANY TREE, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER AND USE SAWS TO REMOVE ROOTS AND BRANCHES FROM TREES THAT ARE TO REMAIN. NO REMOVAL OF ROOTS OR BRANCHES SHALL BE BY HEAVY EQUIPMENT THAT RESULTS IN TEARS. ALL REMOVALS SHALL LEAVE A SMOOTH CUT FACE.

12. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN PATHWAYS OPEN AND PASSABLE DURING CONSTRUCTION.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COLLECTION AND TRANSPORTATION OF RESIDENTIAL SOLID WASTE AND RECYCLABLES, INCLUDING 96 OR 48 GALLON GARBAGE AND YARD WASTE CARTS, AND 96 OR 48 GALLON RECYCLEABLES CARTS; FROM IN FRONT OF INDIVIDUAL PROPERTIES TO THE ENDS OF THE PROJECT LIMITS FOR PICKUP. THE CARTS SHALL BE RETURNED TO THE INDIVIDUAL PROPERTIES THE SAME DAY GARBAGE IS COLLECTED. EACH OF THE CARTS SHALL BE RETURNED TO THE RESPECTIVE ADDRESS WHERE IT WAS RETRIEVED. ALL CARTS SHALL BE MARKED WITH TEMPORARY TAPE WITH THE ADDRESS CLEARLY SHOWN. ANY DAMAGE TO CARTS SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE. THE CONTRACTOR SHALL COORDINATE THE PICKUP LOCATION(S) WITH THE COLLECTION CONTRACTOR.

GENERAL NOTES:

14. THE CONTRACTOR SHALL CONFINE ALL OPERATIONS, INCLUDING EQUIPMENT AND MATERIAL STORAGE, WITHIN THE CONSTRUCTION ROW AND/OR EASEMENTS OF THE PROJECT. IF THE CONTRACTOR IS GRANTED PERMISSION TO STORE MATERIALS OR EQUIPMENT ON ADJACENT PRIVATE PROPERTY THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN PROOF OF PERMISSION FROM THE LANDOWNER.

15. THE CONTRACTOR SHALL MAINTAIN THE PROJECT LIMITS. BY COMMENCING THE WORK IN A GIVEN AREA, THE CONTRACTOR ASSUMES THE RESPONSIBILITY FOR ONGOING REQUIRED MAINTENANCE SUCH AS MOWING AND WEED CONTROL WITHIN THE PROJECT LIMITS.

16. THE ENGINEER WILL SET THE REQUESTED CONSTRUCTION STAKES UPON 48 HOUR ADVANCED NOTIFICATION BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF STAKES AND MARKS. THE OWNER WILL FURNISH THE STAKING THROUGH THE ENGINEER ONE TIME ONLY. ALL OTHER CONSTRUCTION STAKING SHALL BE FURNISHED BY THE CONTRACTOR. RESTAKING, INCLUDING ASSOCIATED TRIP CHARGES, SHALL BE PAID BY THE CONTRACTOR TO THE OWNER WHO WILL REIMBURSE ENGINEER. THE OWNER MAY DEDUCT AMOUNTS FOR RESTAKING FROM PAYMENTS DUE TO THE CONTRACTOR.

17. STREETS SHALL NOT BE OPENED TO TRAFFIC UNTIL ALL STREET PAVEMENT HAS REACHED REQUIRED STRENGTH, ALL JOINTS HAVE BEEN SEALED, AND ALL DRIVEWAYS AND SIDEWALKS HAVE BEEN CONSTRUCTED UNLESS INDICATED OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER.

18. THE CONTRACTOR WILL BE RESPONSIBLE FOR PAYMENTS ASSOCIATED WITH ALL RETESTING RESULTING FROM FAILURE OF INITIAL COMPACTION TESTS. RETESTING, INCLUDING ASSOCIATED TRIP CHARGES, SHALL BE PAID BY THE CONTRACTOR TO THE OWNER. THE OWNER SHALL DEDUCT AMOUNTS FOR RETESTING FROM PAYMENTS DUE TO THE CONTRACTOR.

19. THE CONTRACTOR SHALL CONTROL CONSTRUCTION DEBRIS, HAZARDOUS WASTE SPILLS, AND CONCRETE TRUCK WASHOUT AREA(S). THE CONTRACTOR SHALL CLEAN–UP AND DISPOSE OF ALL WASTE PROPERLY OFF–SITE AT AN APPROVED DISPOSAL FACILITY. NO CONSTRUCTION MATERIAL WASTES OR UNUSED MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED WITHIN THE PROJECT LIMITS.

20. THE CONTRACTOR SHALL TAKE STEPS TO CONTROL SOIL EROSION AND FUGITIVE DUST DURING CONSTRUCTION. IF NECESSARY, HAY BALES, CHECK DAMS, SEDIMENT TRAPS OR ADDITIONAL SILT FENCE (NOT INDICATED ON THE PLANS) SHALL BE USED TO RETAIN SILT AND PREVENT SILT FROM ENTERING THE STORM DRAINAGE SYSTEM. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT OPERATIONS IN ACCORDANCE WITH THE POLLUTION PREVENTION PLAN AND ADMINISTER IT THROUGHOUT THE PROJECT DURATION.

21. THE CONTRACTOR SHALL CONSTRUCT THE NECESSARY EROSION CONTROL AND RUNOFF DETENTION STRUCTURES INCLUDED IN THE PLANS AND PER THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP) PRIOR TO ANY GRADING ON THE PROJECT IN ORDER TO PREVENT SILT TRANSPORT AND SOIL TRACKING OUTSIDE OF THE PROJECT LIMITS. THE CONTRACTOR SHALL MAINTAIN AND WATER HAUL ROADS TO CONTROL FUGITIVE DUST.

22. ALL CONCRETE TRUCKS SHALL RETURN TO THE PLANT TO WASH OUT UNLESS THE CONTRACTOR PROVIDES A CONCRETE WASH OUT AREA AS DESCRIBED IN THE PLANS OR AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND CLEAN UP OF THE WASH OUT LOCATION.

23. THE OWNER MAY CHARGE THE CONTRACTOR ACTUAL DAMAGES FOR FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY PART OF THE CONTRACT, INCLUDING INCIDENTAL PROJECT REQUIREMENTS, FOR WHICH THE OWNER INCURS COSTS TO REMEDY. THE OWNER MAY CHARGE UP TO THE ACTUAL COST INCURRED BY THE OWNER FOR SUCH DAMAGES. THE OWNER MAY DEDUCT AMOUNTS FOR DAMAGES FROM PAYMENTS DUE TO THE CONTRACTOR.

24. ALL SIDEWALKS, SHARED USE PATHS, PEDESTRIAN CURB RAMPS, AND DRIVEWAYS SHALL BE CONSTRUCTED TO MEET THE MINIMUM REQUIREMENTS OF DIVISION 7 SECTION 7030 OF THE SUDAS STANDARD SPECIFICATIONS. ALL WORK COMPLETED THAT DOES NOT MEET THESE REQUIREMENTS SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

25. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN FINAL GRADING HAS BEEN COMPLETED. THE ENGINEER SHALL PERFORM A FIELD REVIEW OF THE GRADING PRIOR TO ANY SEEDING OR HYDROMULCHING BY THE CONTRACTOR. FAILURE TO COMPLY WITH THE FINAL GRADING REVIEW MAY RESULT IN RE–GRADING, RE SEEDING AND RE–HYDROMULCHING IN AREAS THAT DO NOT MEET SPECIFICATIONS. ANY ADDITIONAL WORK WILL BE AT THE EXPENSE OF THE CONTRACTOR.

26. THE CONTRACTOR SHALL NOT INSTALL MANHOLE INFILTRATION BARRIERS UNTIL AFTER THE ENGINEER AND CITY REPRESENTATIVE(S) HAVE INSPECTED THE MANHOLE(S). ONCE THE INSPECTION OF MANHOLE(S) HAS BEEN COMPLETED AND IS ACCEPTABLE, THE INFILTRATION BARRIER MAY BE INSTALLED. THE INFILTRATION BARRIER WILL THEN BE INSPECTED BY THE ENGINEER AND CITY REPRESENTATIVE(S) FOR APPROVAL. BACKFILL AROUND THE MANHOLE SHALL NOT BE COMPLETED UNTIL AFTER THE INSPECTION OF THE INFILTRATION BARRIER HAS OCCURRED WHEN USING AN EXTERNAL BARRIER.

27. CONCRETE ADMIXTURES SHALL NOT BE USED UNLESS APPROVED BY THE ENGINEER AND SUBMITTED AS PART OF THE SHOP DRAWING SUBMITTAL FOR THE SPECIFIED MIX DESIGN AS SHOWN IN THE CONTRACT DOCUMENTS.

LEGEND

- CENTER LINE
- CENTERLINE OF DITCH
- FENCE – BARB
- FENCE – CHAIN LINK
- FENCE – MIXTURE
- FENCE – PRIVACY
- FENCE – SPLIT RAIL
- FENCE – WOVEN
- SILT FENCE
- ORANGE SAFETY FENCE
- GUARDRAIL
- RETAINING WALL
- TOP OF BANK
- TOE OF BANK
- HMA HOT MIX ASPHALT
- EOR END OF RETURN
- BOC BACK OF CURB
- PCC PORTLAND CEMENT CONCRETE
- POB POINT OF BEGINNING
- UAC USE AS CONSTRUCTED
- BILLBOARD SIGN
- BORING LOCATION
- FLAG POLE
- GUARDRAIL POST
- MAILBOX
- NO PARKING SIGN
- PIZOMETER
- POST ROUND
- POST SQUARE
- STOP SIGN
- STREET SIGN
- FIBER OPTIC CABLE
- OVERHEAD ELECTRIC CABLE
- UNDERGROUND ELECTRIC CABLE
- UNDERGROUND TELEPHONE CABLE
- UNDERGROUND TELEVISION
- CABLE TELEVISION BOX
- CONTROL CABINET
- ELECTRICAL PULL BOX
- ELECTRICAL TRANSFORMER
- ELECTRICAL TRANSFORMER BOX
- GUY POLE
- GUY WIRE
- LIGHT POLE
- LUMINAIRE
- POWER POLE
- POWER AND LIGHT POLE
- POWER POLE W/ TRANSFORMER
- PULL BOX
- TRAFFIC CONTROL BOX
- TELEPHONE POLE
- TRAFFIC SIGNAL
- TELEPHONE TERMINAL BOX
- YARD LIGHT
- GAS MAIN
- GAS METER
- VALVE – GAS
- RAILROAD CONTROL BOX
- RAILROAD CROSS BUCKS SIGN
- RAILROAD FROG
- RAILROAD POINT OF SWITCH
- RAILROAD SIGNAL
- RAILROAD TRACK
- FORCE MAIN
- WATER MAIN
- SAN SANITARY SEWER
- STM STORM SEWER
- CLEAN–OUT
- EXISTING PIPE PLUG
- FLARED END SECTION
- INLET–BEEHIVE
- INLET–COMBINATION
- INLET–GRATE (ROUND)
- INLET–GRATE (SQUARE)
- MANHOLE
- BENCH MARK
- CONTROL POINT
- FOUND CONCRETE MONUMENT
- FOUND IRON PIN
- RIGHT OF WAY RAIL
- SET PIN
- BUSH
- HEDGE
- DECIDUOUS TREE
- EVERGREEN TREE
- STUMP W/ DIAMETER
- CURB STOP (RESIDENTIAL WATER)
- FIRE HYDRANT
- MONITORING WELL
- POST INDICATOR VALVE
- SPRINKLER CONTROL BOX
- SPRINKLER HEAD
- VALVE – WATER (MAIN LINE)
- WATER METER
- WELL
- YARD HYDRANT

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JNS	drawn	
ZMW	designed	
ZMW	approved	
JUNE'23	date	revision / date

project: FAIRMOUNT PARK ROAD EROSION REPAIRS
client: CITY OF COUNCIL BLUFFS
sheet: **GENERAL NOTES AND LEGEND**

project no. 150523
sheet **C.01**

hgm:
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ESTIMATED QUANTITIES

ITEM NO.	ITEM CODE	DESCRIPTION	ESTIMATED QUANTITY	
1.	2010–1.08–C	CLEARING & GRUBBING	1.0	LS
2.	2010–1.08–E	EXCAVATION, CLASS 10	30.0	CY
3.	6010–1.08–B	STORM SEWER INTAKE, TYPE SW–511	3.0	EA
4.	4020–1.08–A–1	STORM SEWER TRENCHED, 12 INCH DIA.	250.0	LF
5.	8030–1.08–A	TRAFFIC CONTROL	1.0	LS
6.	9010–1.08–A	SEEDING, FERTILIZING, AND TRM	0.20	AC
7.	9040–1.08–J	RIP RAP, CLASS D REVETMENT	15.0	TN
8.	11010–1.08–A	MOBILIZATION	1.0	LS
9.		ENGINEERING FABRIC	15.0	SY

REFERENCE NOTES

1. 2010–1.08–C CLEARING & GRUBBING

   NO RESTRICTIONS WHEN CUTTING DOWN TREES BETWEEN OCTOBER 1 AND MARCH 31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DETERMINATION OF EFFECT INDICATING NO AFFECT TO THREATENED OR ENDANGERED SPECIES IS EXPECTED WITHIN THE WORK AREA IF TREES ARE REMOVED BETWEEN APRIL 1 AND SEPTEMBER 30.

2. 2010–1.08–E EXCAVATION, CLASS 10

   BID ITEM TO BE USED TO FILL WASHED OUT AREAS OF THE SLOPE. BID ITEM WILL BE PAID PER CY OF MATERIAL INCORPORATED INTO THE PROJECT BASED ON SUDAS 2010–1.08–E–B–2.

3. 6010–1.08–B STORM SEWER INTAKE, TYPE SW–511

4. 4020–1.08–A–1 STORM SEWER TRENCHED, 12 INCH DIA.

5. 8030–1.08–A TRAFFIC CONTROL

6. 9010–1.08–A SEEDING, FERTILIZING, AND TRM
   ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED, AND MATTED. SEED MIX SHALL BE CLASS S2B PER THE CITY SUPPLEMENTAL SPECIFICATIONS. TRM SHALL BE INSTALLED ON ALL SEEDED AREAS AND BE BIODEGRADABLE.

7. 9040–1.08–J RIP RAP, CLASS D REVETMENT

8. 11010–1.08–A MOBILIZATION

9. ENGINEERING FABRIC
   ENGINEERING FABRIC SHALL ME MIRAFI 1100N OR APPROVED EQUAL. THE UNIT PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS, LABOR, TOOLS, AND EQUIPMENT NECESSARY TO PLACE THE ENGINEERING FABRIC. MEASUREMENT AND PAYMENT SHALL BE PER SQUARE YARD OF ENGINEERING FABRIC INSTALLED.

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JNS drawn
ZMW designed
ZMW approved
JUNE'23 date
date revision

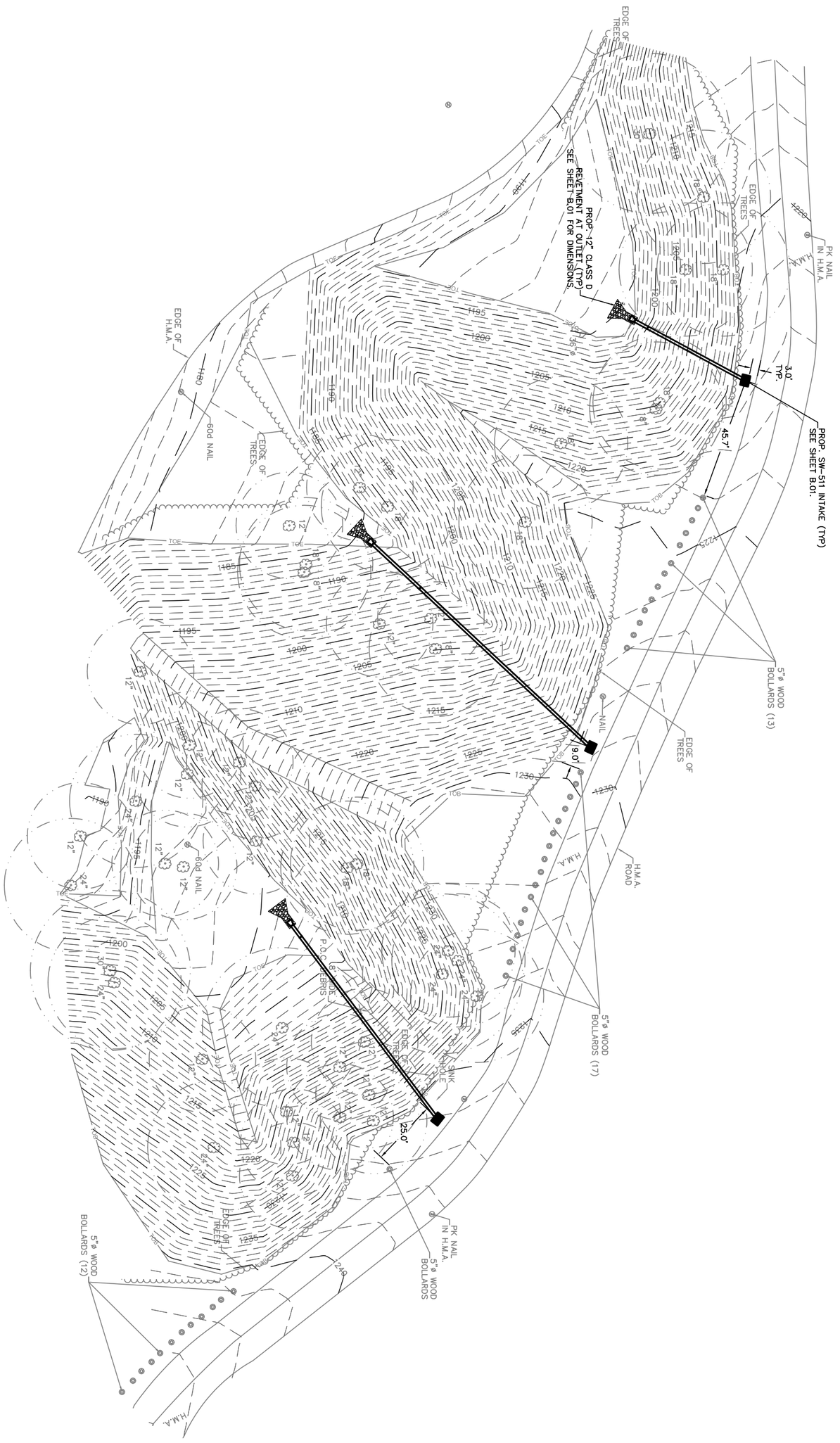
project FAIRMOUNT PARK ROAD EROSION REPAIRS
client CITY OF COUNCIL BLUFFS
sheet **QUANTITIES AND ESTIMATE REFERENCE NOTES**

project no. 150523
sheet **C.02**

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project no. 150523

sheet D.01

project FAIRMOUNT PARK ROAD EROSION REPAIRS

client CITY OF COUNCIL BLUFFS

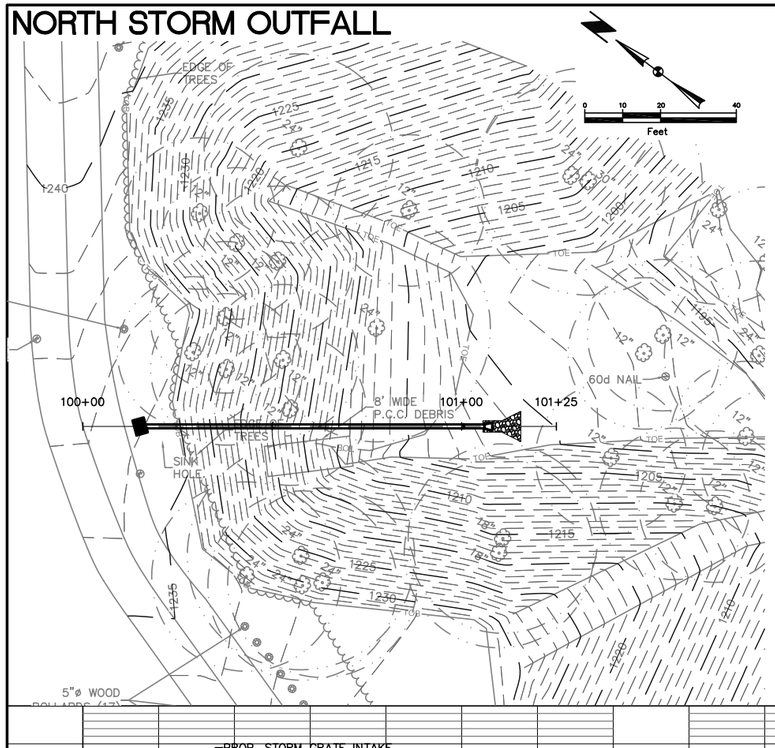
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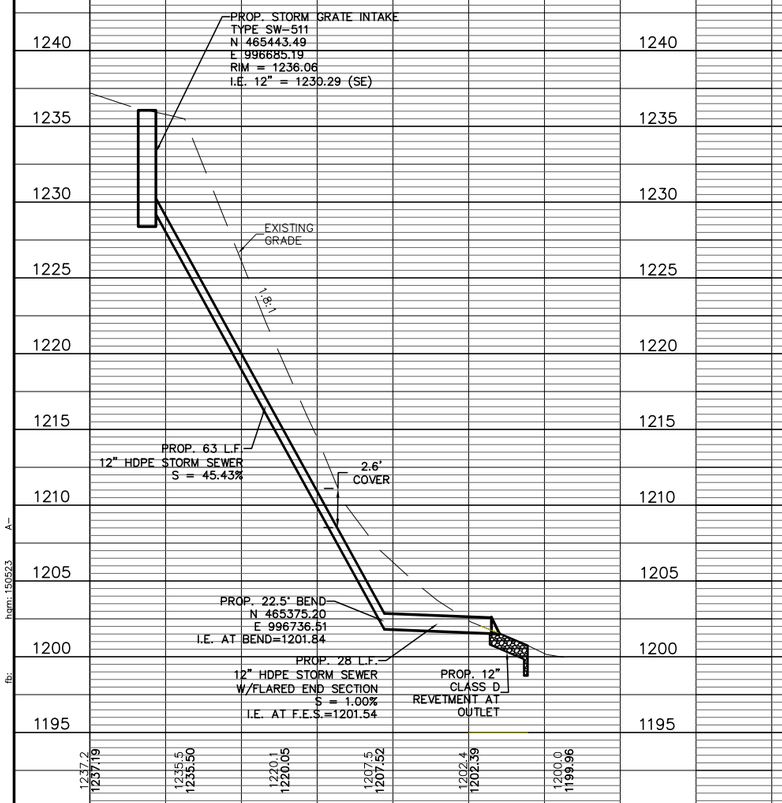
JNS	drawn	
ZMW	designed	
ZMW	approved	
JUNE'23	date	revision date

hgm ASSOCIATES INC.
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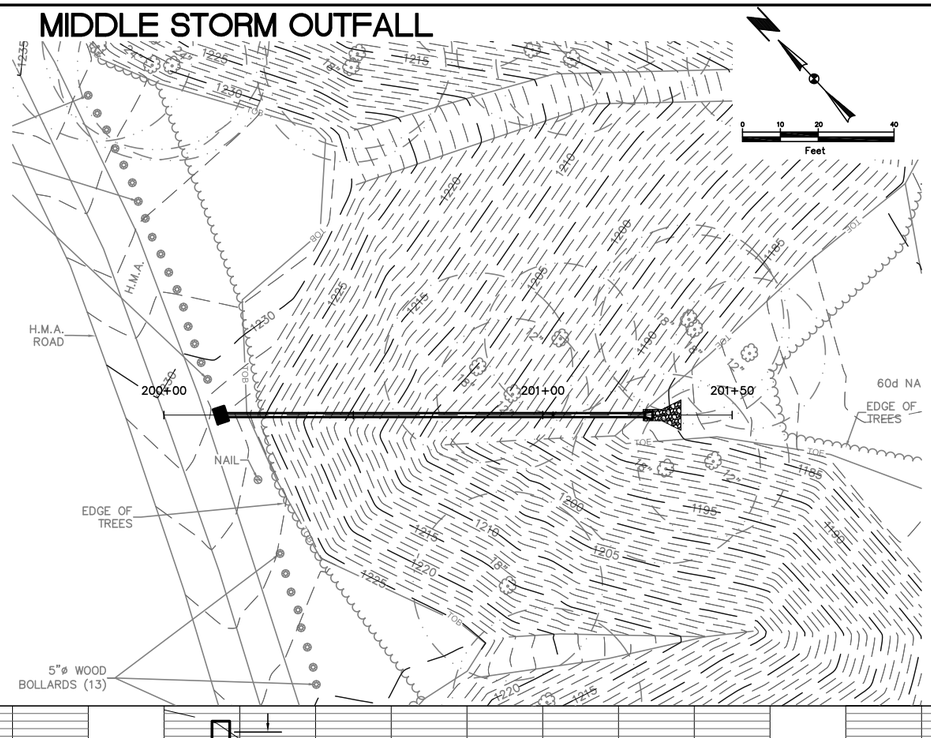
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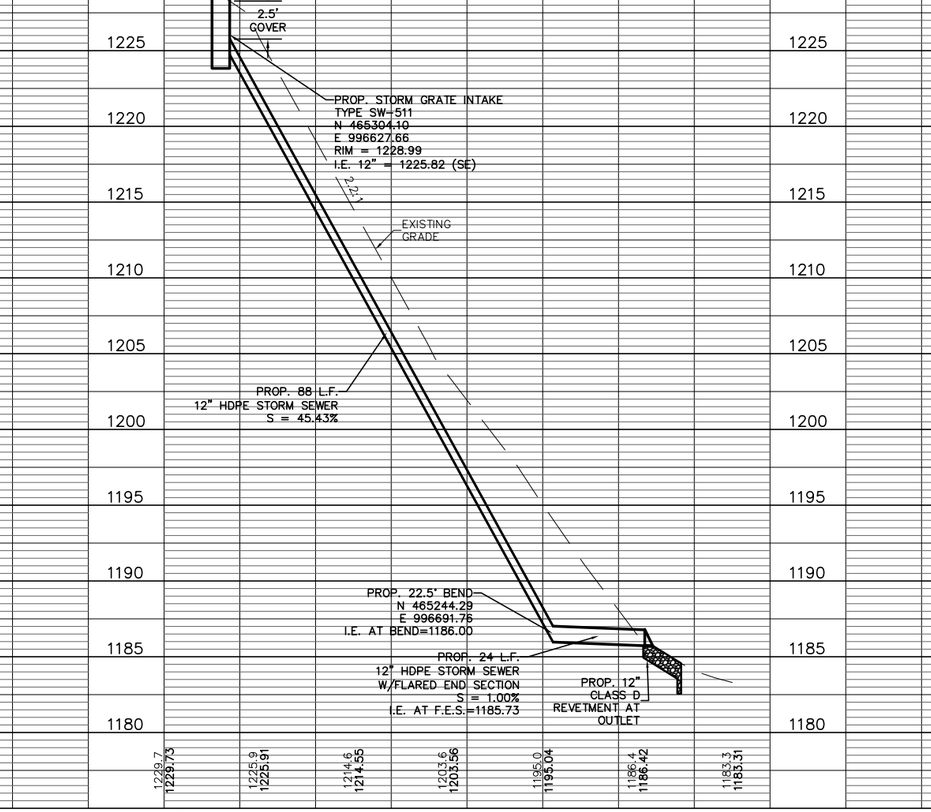
NORTH STORM OUTFALL



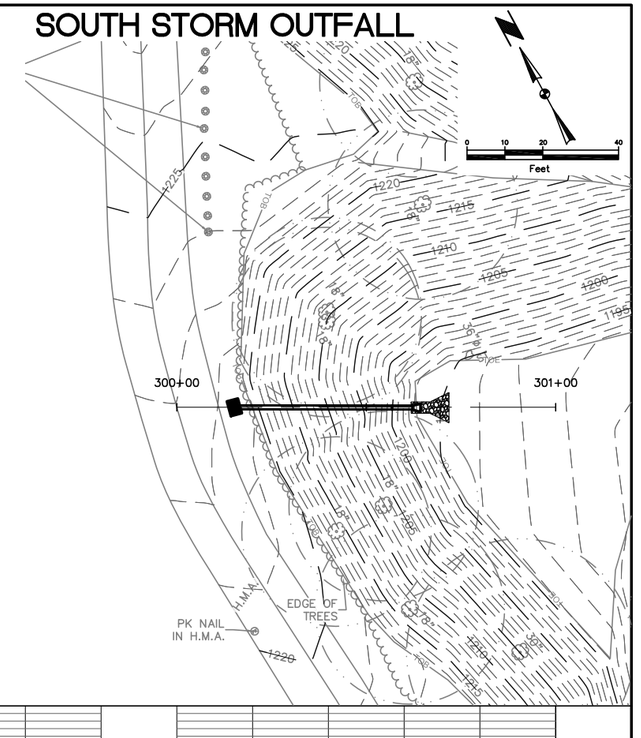


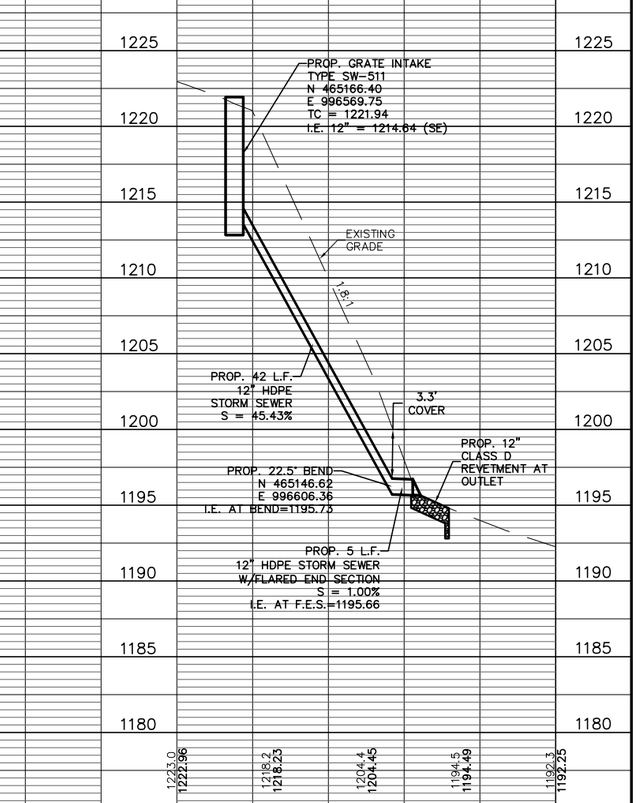
MIDDLE STORM OUTFALL

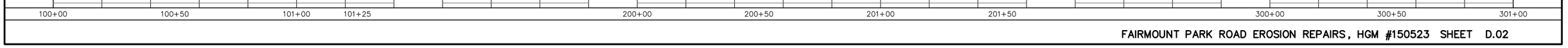




SOUTH STORM OUTFALL







FAIRMOUNT PARK ROAD EROSION REPAIRS, HGM #150523 SHEET D.02

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