MOORE PUBLIC SCHOOLS
BOARD OF EDUCATION

MOORE PUBLIC SCHOOLS DISTRICT NO. I-2
CLEVELAND COUNTY MOORE, OKLAHOMA

CLASSROOM ADDITION
HIGHLAND WEST
JUNIOR HIGH SCHOOL

901 NORTH SANTA FE
MOORE , OK. 73160

AGP | the Abla Griffin Partnership

201 N. BROADWAY SUITE 210 MOORE, OK. 73160
405.735.3477 AGP@theAGP.net www.the AGP.net

CONSTRUCTION MANAGER

OMNI CONSTRUCTION

1909 S. EASTERN AVE.
MOORE, OK 73160

INDEX TO DRAWINGS

CLASSROOM ADDITION
HIGHLAND WEST JR. HIGH
SET NO.

STRUCTURAL

KFC ENGINEERING

205 NW 63rd, SUITE 390
OKLAHOMA CITY, OK 73116

MECHANICAL/ELECTRICAL/PLUMBING

SALAS O'BRIEN

2600 VAN BUREN ST., SUITE 2604
NORMAN, OKLAHOMA 73072

CIVIL

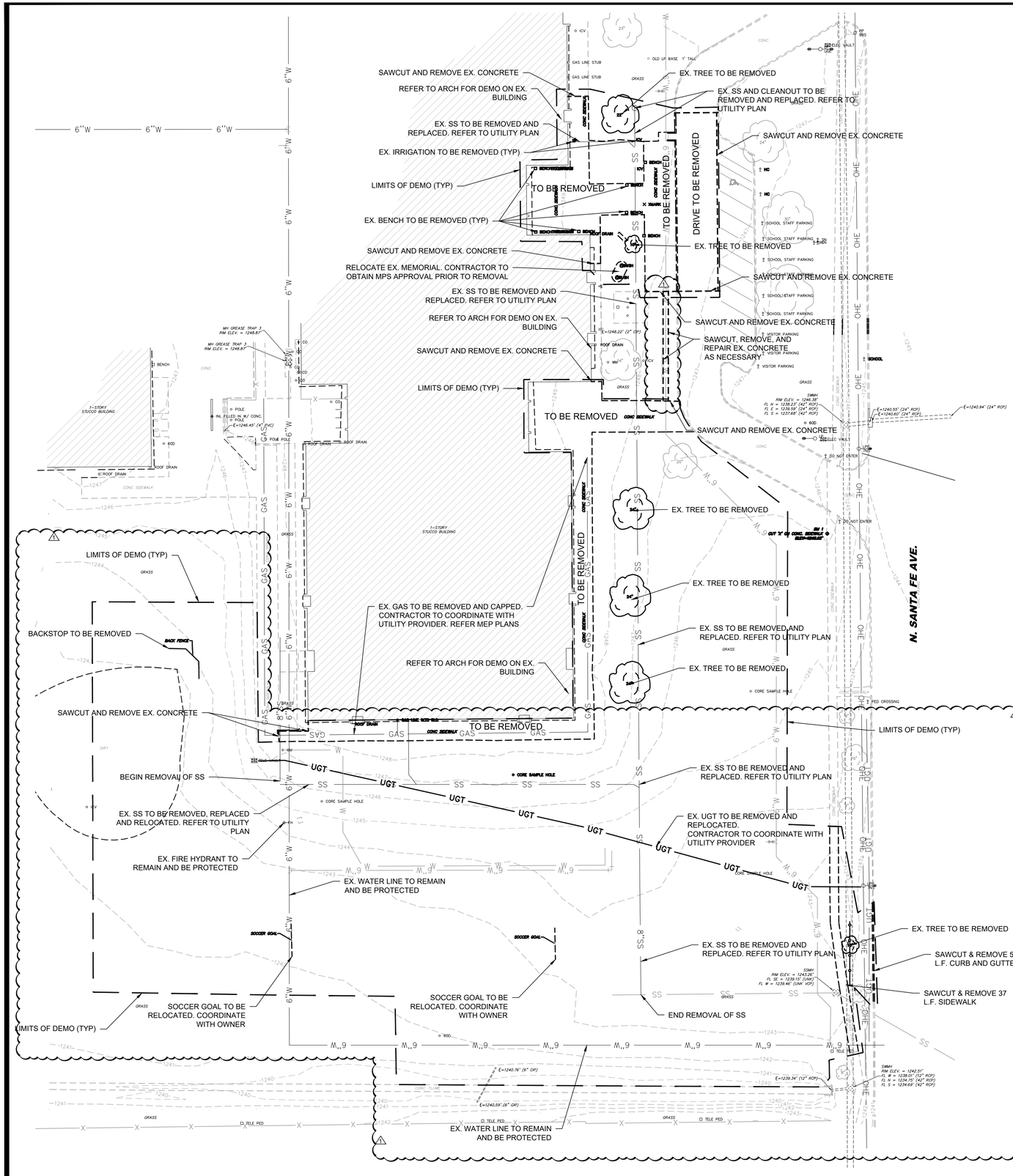
CEDAR CREEK

11912 N. PENNSYLVANIA AVE., SUITE D4
OKLAHOMA CITY, OK 73120

revisions:
1 CB-1

sheet no:
C

date:
JULY 2023



LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE

NOTE:CONTRACTOR SHALL ENSURE THAT PEDESTRIAN AND FIRE ACCESS TO THE EXISTING BUILDING IS PROVIDED AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGE TO EXISTING PAVEMENT DUE TO CONSTRUCTION.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE EGRESS AND INGRESS TO AND FROM SITE ALL ALL TIMES, AS WELL AS ALONG PUBLIC STREETS.

DEMOLITION NOTES

1. THE CONTRACTOR SHALL ABIDE BY ALL FEDERAL, STATE AND LOCAL CODES FOR THE DEMOLITION AND DISPOSAL OF ALL MATERIALS.
2. CEDAR CREEK CONSULTING, INC. SHALL NOT BE LIABLE FOR ANY DEMOLITION PROCEDURES, SCHEDULING, AND DISPOSING OF ANY MATERIALS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE SURE THAT THE PROPERTY IS NOT DAMAGED AND IS ACCESSIBLE AT ALL TIMES, AND THAT CONSTRUCTION DOES NOT CREATE ANY HARDSHIP TO LAND OWNERS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSING IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE DISCONNECTION, REMOVAL AND RELOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR SERVICES. THE CONTRACT IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING EXISTING IRRIGATION SYSTEM IN THE AREAS OF PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL CAP THE EXISTING IRRIGATION SYSTEM TO REMAIN SUCH THAT THE REMAINING SYSTEM SHALL CONTINUE TO FUNCTION PROPERLY.
7. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
8. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH WORK. UTILITIES DETERMINED TO BE ABANDONED AND LEFT IN PLACE SHALL BE GROUTED IF UNDER BUILDINGS.
9. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
10. THE CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC.
11. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO DEMOLITION.
12. THE CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC., THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
13. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY INCLUDING FENCING AND CONSTRUCTION TRAILER AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE.
14. THE CONTRACTOR SHALL COORDINATE WATERMAIN WORK WITH THE FIRE DEPARTMENT, THE CITY UTILITY DEPARTMENT TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATERMAIN SHUT-OFFS WITH THE CITY/COUNTY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATERMAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
15. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE. REPAIRS SHALL RESTORE DAMAGED ITEMS TO EQUAL OR BETTER THAN EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING DAMAGE AND NOTIFYING THE CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.
16. ALL TRENCHES AND/OR EXCAVATED AREAS SHALL BE FILLED /TESTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT.
17. IF SEPTIC TANKS ARE FOUND PRESENT WITHIN THE LIMITS OF DISTURBANCE, THEY SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS.
18. IF THE CONTRACTOR FINDS ANY UNDERGROUND TANKS ON SITE, THEY SHALL CONTACT THE ENGINEER IMMEDIATELY.
19. ALL WELLS SHALL BE CAPPED AND CLOSED IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL LAWS.
20. ALL ITEMS WITHIN LIMITS OF DEMOLITION SHALL BE REMOVED UNLESS OTHERWISE NOTED.
21. CONTRACTOR SHALL BEGIN CONSTRUCTION OF ANY LIGHT POLE BASES FOR RELOCATED LIGHT FIXTURES AND RELOCATION OF ELECTRICAL SYSTEM AS SOON AS DEMOLITION BEGINS. CONTRACTOR SHALL BE AWARE THAT INTERRUPTION OF POWER TO ANY LIGHT POLES OR SIGNS SHALL NOT EXCEED 24 HOURS.
22. CONTRACTOR IS TO VERIFY LOCATION OF EXISTING IRRIGATION SYSTEM, VALVE BOXES, CONTROL BOXES, BACKFLOW PREVENTION DEVICES AND LIGHTING CONDUIT. IF DAMAGED THEY MUST BE REPAIRED AT CONTRACTOR'S EXPENSE.

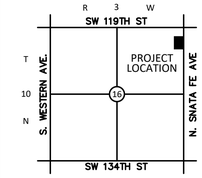
N

SCALE IN FEET
0 30' 45' 60'

BEFORE YOU DIG 811 OKIE 1-800-522-6543 CALL OKIE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER:	23069
DRAWING DATE:	11.02.23
ISSUE DATE:	11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

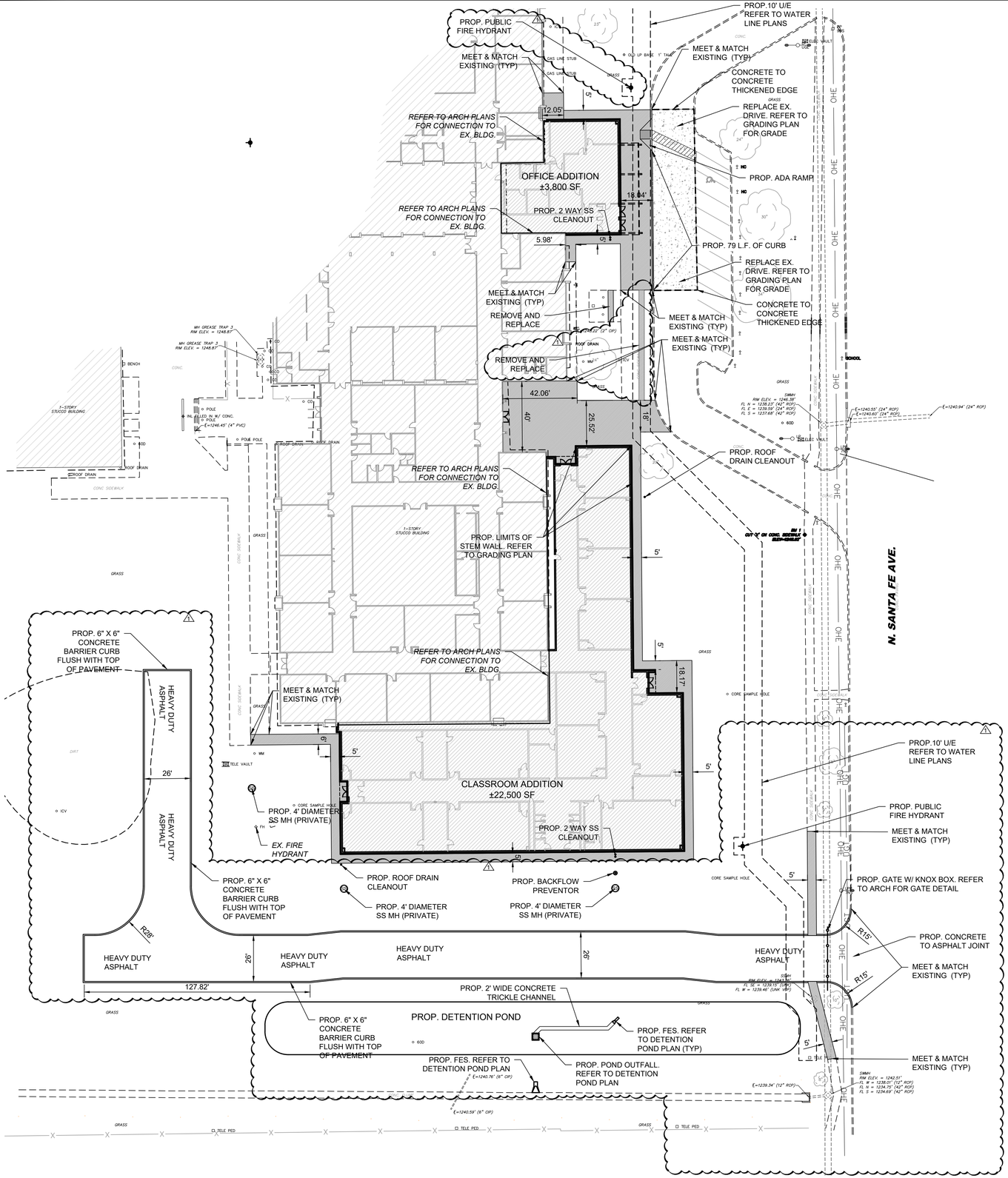
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

DEMOLITION PLAN

SHEET:

C1.00



LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE
- PROP. INLETS (SEE GRADING PLAN FOR TYPE)
- VERTICAL SEPARATION REQUIREMENT

NOTE: CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL PROPOSED WORK MEETS ADA REQUIREMENTS. REFER TO www.access-board.gov/ada-aba/ada-standards-doj.cfm

NOTE: CONTRACTOR SHALL CONSTRUCT AND INSTALL WHEEL STOPS, SIGNS, AND ADA RAMPS AT ALL HANDICAP SPACES.

SITE NOTES

A. CONTRACTOR SHALL REFER TO THE CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE WRITTEN SPECIFICATIONS, CONSTRUCTION DRAWINGS, STORM WATER POLLUTION PLAN, AND GEOTECHNICAL REPORT.

B. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE OWNERS DESIGN GUIDELINES AND SPECIFICATIONS, AND WHERE APPLICABLE SHALL MEET THE REQUIREMENTS OF THE GOVERNING/PERMITTING AUTHORITY HAVING JURISDICTION.

C. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN HORIZONTAL AND VERTICAL CONTROL, REFERENCE POINTS AND CONSTRUCTION STAKING AS INCIDENTAL TO THE PROJECT.

D. THE CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS/PROPERTY LINES/UTILITIES/DRAINAGE PRIOR TO CONSTRUCTION START.

E. ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED AS INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

F. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND MEP PLANS AND SPECIFICATIONS BEING A PART OF THE CONSTRUCTION DOCUMENTS FOR THE EXACT LOCATIONS AND DIMENSIONS OF ENTRY, EXIT PORCHES, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE, AND DOWNSPOUT LOCATIONS/SPECIFICATIONS/DETAILS.

G. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB (FC) UNLESS OTHERWISE NOTED.

H. PARKING LOT STRIPING SHALL BE 4" WIDE AND WHITE IN COLOR. HANDICAP PARKING STALLS STRIPING AND SIGNAGE SHALL BE IN STRICT ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.

I. UNLESS OTHERWISE NOTED ALL RADII SHALL BE 3'.

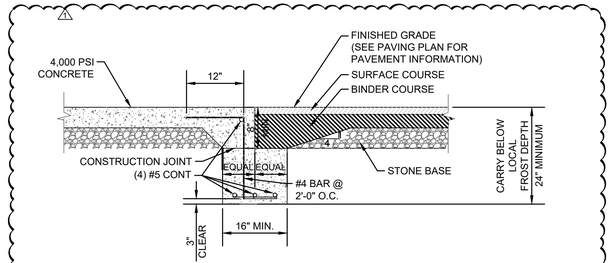
J. BUILDING DIMENSIONS ARE TO OUTSIDE OF MASONRY, UNLESS OTHERWISE SHOWN.

K. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION AND DETAILS OF ALL UTILITY ENTRANCES. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED, AS WELL AS COORDINATED WITH ANY UTILITY COMPANIES FOR APPROVED LOCATIONS AND SCHEDULING OF TIE-INS/CONNECTIONS TO THEIR FACILITIES.

L. REFER TO ARCHITECTURE PLANS FOR SITE LIGHTING AND ELECTRICAL CONDUIT PLANS. POLE LOCATIONS ARE SHOWN ON THIS SHEET FOR REFERENCE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND ADJUST ANY CONSTRUCTED CONFLICTS WITH UNDERGROUND UTILITIES, SIDEWALKS, ETC.

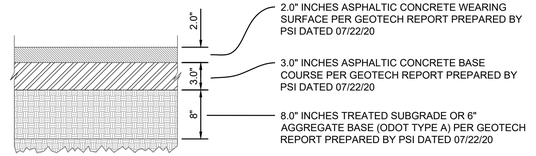
M. CHECK ARCHITECTURAL PLANS FOR EXACT DOWNSPOUT LOCATIONS.

N. CONTRACTOR SHALL REFER TO LANDSCAPE AND IRRIGATION PLAN FOR LOCATION AND CONSTRUCTION DETAILS OF LANDSCAPING AND IRRIGATION.



CONCRETE/ASPHALT JOINT DETAIL

NOT TO SCALE



HEAVY DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE

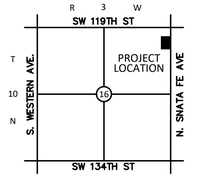
N

SCALE IN FEET
0 30' 45' 60'

BEFORE YOU DIG CALL OKIE 811

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

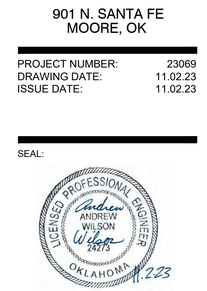
PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:



SUBMITTAL:

PERMIT SET

REVISIONS:

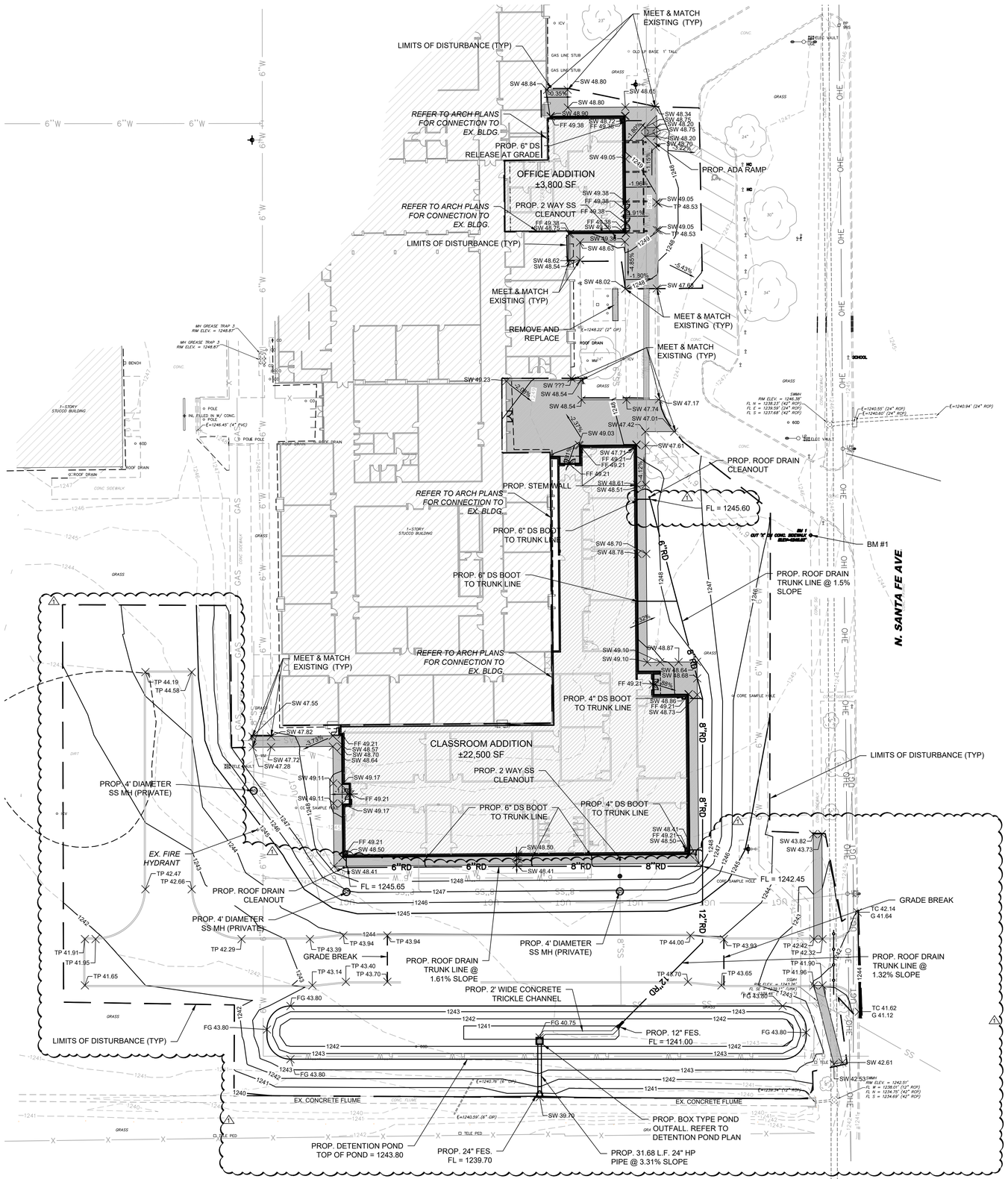
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

SITE PLAN

SHEET:

C2.00



LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE
- PROP. INLETS (SEE GRADING PLAN FOR TYPE)
- VERTICAL SEPARATION REQUIREMENT

BENCHMARK DATA

BENCHMARK #1
DESC: CONC. SIDEWALK
NORTHING: 732420.67
EASTING: 2113951.32
ELEVATION: 1246.12

BENCHMARK #2
DESC: CUT X
NORTHING: 732831.70
EASTING: 2113951.35
ELEVATION: 1248.00

VERTICAL DATUM: NAVD 88 OKC GPS MONUMENT

GRADING NOTES

A. CONTRACTOR SHALL REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT FOR EXISTING SOIL CONDITIONS, CONSIDERATIONS, AND RECOMMENDATIONS.

B. CONTRACTOR SHALL REFER TO THE CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE WRITTEN SPECIFICATIONS, CONSTRUCTION DRAWINGS, STORM WATER POLLUTION PLAN, AND GEOTECHNICAL REPORT.

C. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN HORIZONTAL AND VERTICAL CONTROL, REFERENCE POINTS AND CONSTRUCTION STAKING AS INCIDENTAL TO THE PROJECT.

D. THE CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS/PROPERTY LINES/UTILITIES/DRAINAGE PRIOR TO CONSTRUCTION START.

E. ALL SITE EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED EXCAVATION.

F. GENERAL CONTRACTOR TO PROVIDE A UNIT PRICE FOR REMOVAL AND REPLACEMENT OF SOILS ON THIS SITE SHOULD REMOVAL BE REQUIRED.

G. ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED AS INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

H. CONTRACTOR SHALL PROVIDE FINAL GRADES THAT DO NOT OBSTRUCT ANY UTILITY ACCESS AND PROVIDE A SMOOTH TRANSITION TO MEET AND MATCH EXISTING GRADES ON ALL SIDES.

I. ADA ROUTES ARE NOT TO EXCEED 1:20 RUNNING SLOPE AND 2% CROSS SLOPE. HANDICAP PARKING AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

J. ALL NATURAL GROUND SLOPES SHALL NOT EXCEED 3:1. PAVING SLOPES SHALL NOT EXCEED 8%.

K. CONTRACTOR SHALL ENSURE THAT ALL NECESSARY EARTH DISTURBING PERMITS HAVE BEEN ACQUIRED AND MEET THE CONDITIONS/REQUIREMENTS SET FORTH IN THE PERMITS PRIOR TO CONSTRUCTION.

L. CONTRACTOR IS REQUIRED TO CALL ONE CALL AS WELL AS THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION/CONSTRUCTION ACTIVITIES TAKE PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS.

M. THE CONTRACTOR SHALL GRADE SITE TO ENSURE ALL SURFACE WATER DRAINAGE IS AWAY FROM THE BUILDING AND PROVIDES POSITIVE DRAINAGE SO THAT NO STANDING/PONDING WATER TAKES PLACE ON SITE OR ON ADJACENT PROPERTIES.

N. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE OWNERS DESIGN GUIDELINES AND SPECIFICATIONS, AND WHERE APPLICABLE SHALL MEET THE REQUIREMENTS OF THE GOVERNING/PERMITTING AUTHORITY HAVING JURISDICTION.

O. THE BUILDING SUBGRADE SHALL BE CONSTRUCTED TO INCLUDE A MINIMUM OF 10 FEET BEYOND THE BUILDING LIMITS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE OWNER.

P. REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR REQUIRED FLOOR SLAB THICKNESS.

Q. THE BUILDING PAD SUBGRADE SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING STUDY AND THE CIVIL SPECIFICATIONS.

R. ESTABLISH FINAL SUBGRADE ELEVATIONS TO ALLOW FOR PAVEMENT/SLAB SECTIONS AS INDICATED ON THE PLANS.

S. IF CONFLICTS EXIST BETWEEN THE GEOTECHNICAL REPORT AND THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

SPOT ELEVATION LEGEND

TC - TOP OF CURB	FF - FINISH FLOOR
G - GUTTER	FG - FINAL GRADE
TP - TOP OF PAVEMENT	TW - TOP OF WALL
HP - HIGH POINT	BW - BOTTOM OF WALL
LP - LOW POINT	NOTE: BW IS BOTTOM OF WALL AT GRADE, NOT FOOTING
SW - SIDEWALK	

VERTICAL SEPARATION REQUIREMENT

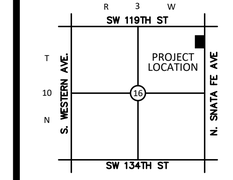
N

SCALE IN FEET
0 30' 45' 60'

BEFORE YOU DIG CALL OKIE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

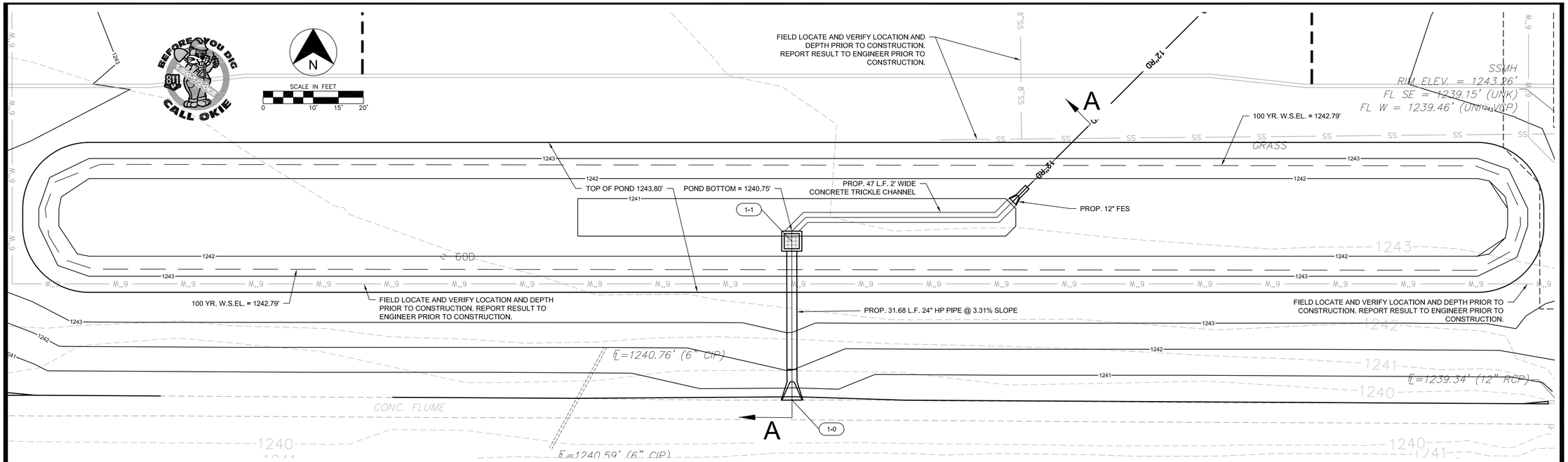
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

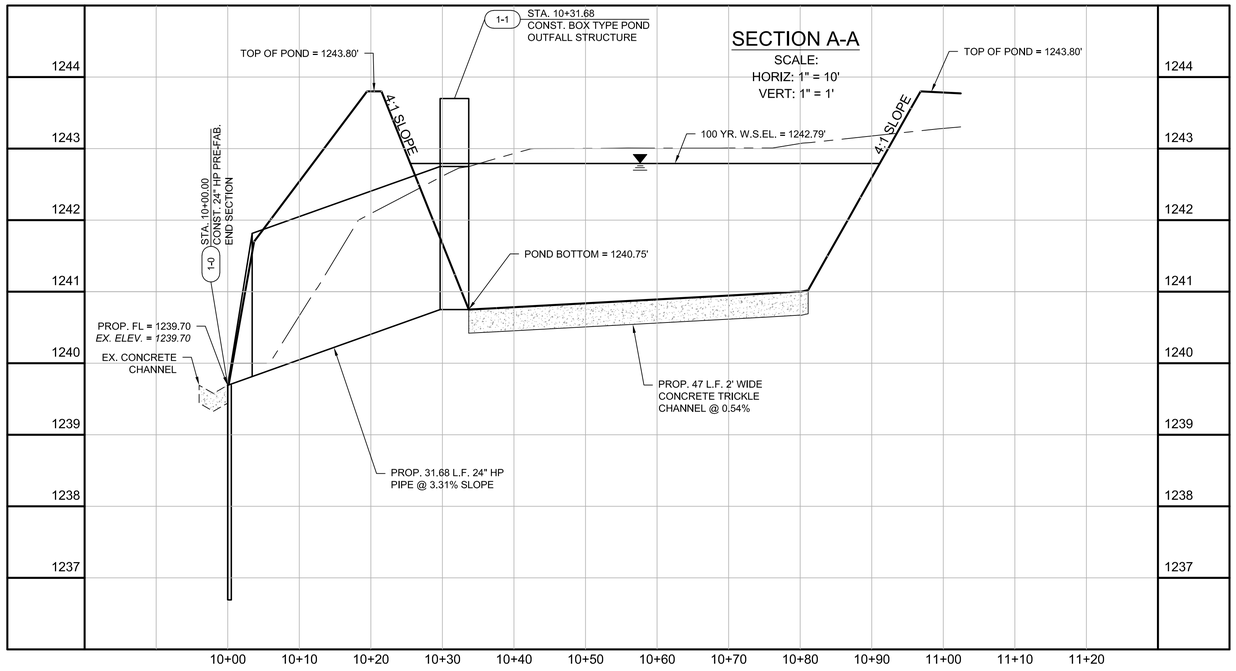
DRAWING TITLE:

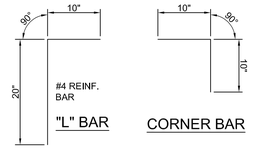
GRADING PLAN

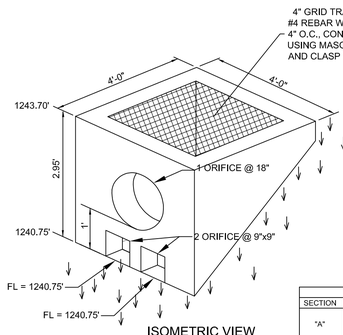
SHEET:

C3.00









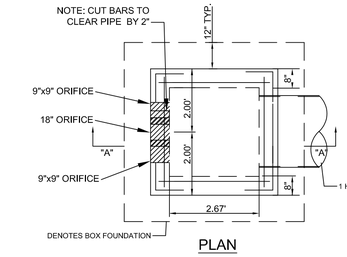
ISOMETRIC VIEW

REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4"S @ 6" E.W.
"B"	#6"S @ 6" E.W.

TABLE OF "W" DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIT	30°	45°
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4"S @ 9"	#4"S @ 10"
	BETWEEN 4' & 7'	#6"S @ 9"	#4"S @ 10"
	GREATER THAN 7'	#5"S @ 4 1/2"	#4"S @ 10"
"B"	4'	#4"S @ 6"	#4"S @ 10"
	BETWEEN 4' & 7'	#6"S @ 6"	#4"S @ 10"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4"S @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4"S @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4"S @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER

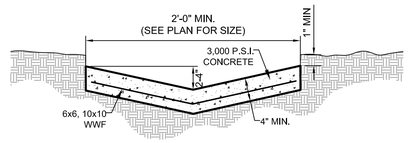


PLAN

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS AND FLOW LINES
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLET
5. ALL REINFORCING BARS TO BE GRADE 60

REINFORCEMENT SCHEDULE, TOP				
SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

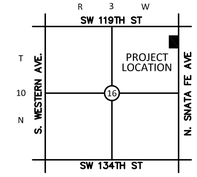


TRICKLE CHANNEL DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

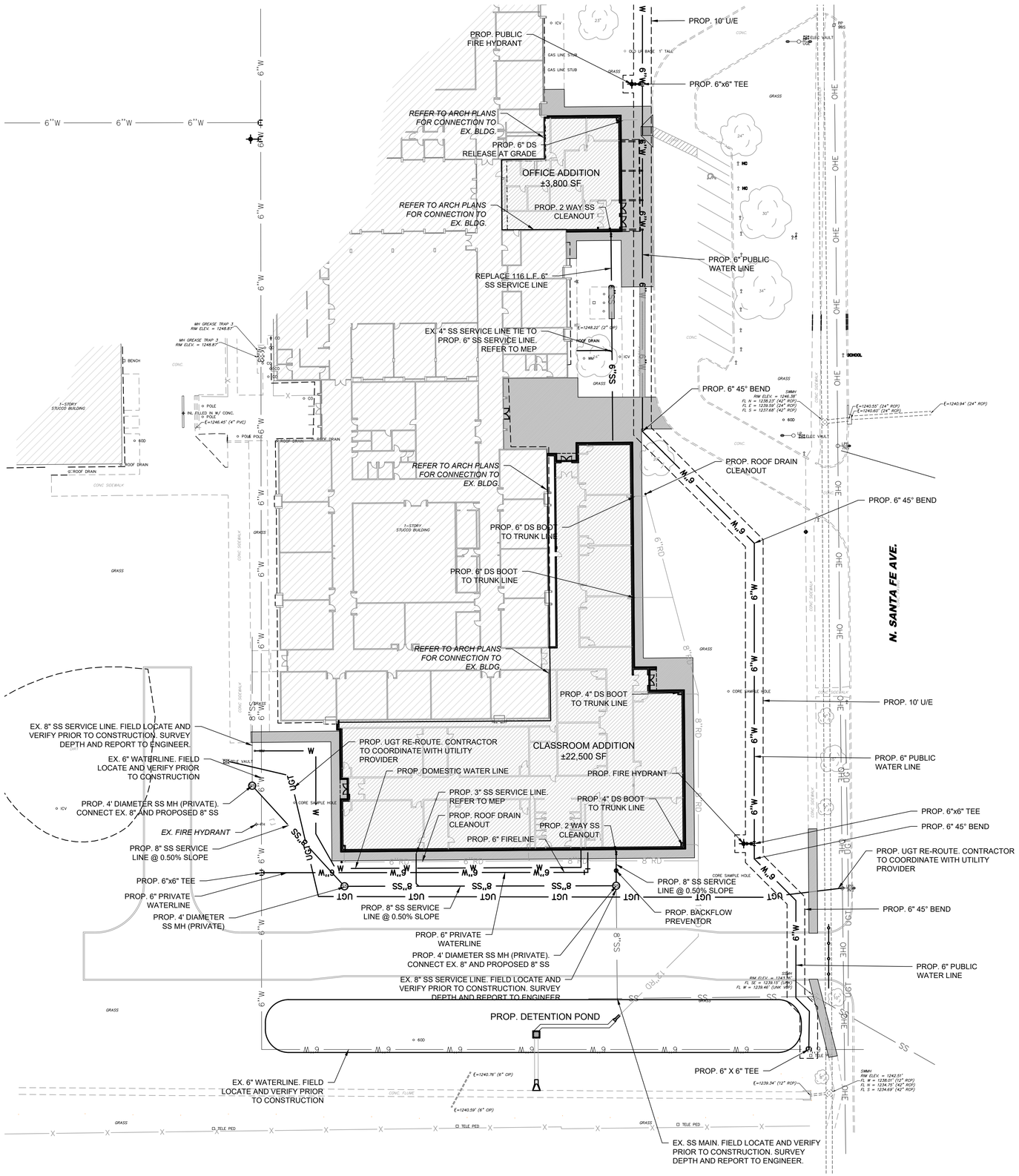
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

DETENTION POND PLAN

SHEET:

C3.03



LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE
- PROP. INLETS (SEE GRADING PLAN FOR TYPE)
- VERTICAL SEPARATION REQUIREMENT

UTILITY NOTES

A. CONTRACTOR SHALL REFER TO THE CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE WRITTEN SPECIFICATIONS, CONSTRUCTION DRAWINGS, STORM WATER POLLUTION PLAN, AND GEOTECHNICAL REPORT.

B. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE OWNERS DESIGN GUIDELINES AND SPECIFICATIONS, AND WHERE APPLICABLE SHALL MEET THE REQUIREMENTS OF THE GOVERNING/PERMITTING AUTHORITY HAVING JURISDICTION.

C. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN HORIZONTAL AND VERTICAL CONTROL, REFERENCE POINTS AND CONSTRUCTION STAKING AS INCIDENTAL TO THE PROJECT.

D. THE CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS/PROPERTY LINES/UTILITIES/DRAINAGE PRIOR TO CONSTRUCTION START.

E. ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED AS INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

F. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND MEP PLANS AND SPECIFICATIONS BEING A PART OF THE CONSTRUCTION DOCUMENTS FOR THE EXACT LOCATIONS AND DIMENSIONS OF ENTRY, EXIT PORCHES, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE, AND DOWNSPOUT LOCATIONS/SPECIFICATIONS/DETAILS.

G. REFER TO ARCHITECTURE PLANS FOR SITE LIGHTING/LIGHT POLE BASES AND ELECTRICAL CONDUIT PLACEMENT AND SPECIFICATIONS. POLE LOCATIONS ARE SHOWN ON THIS SHEET FOR REFERENCE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND ADJUST ANY CONSTRUCTED CONFLICTS WITH UNDERGROUND UTILITIES, SIDEWALKS, ETC.

H. CONTRACTOR IS REQUIRED TO CALL ONE CALL AS WELL AS THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION/CONSTRUCTION ACTIVITIES TAKE PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS.

I. CONTRACTOR SHALL ENSURE ALL CONSTRUCTED UTILITIES MEET THE MINIMUM SEPARATION AND COVER REQUIREMENTS SET FORTH BY THE PROVIDER, FEDERAL/STATE/LOCAL REGULATIONS, OR SPECIFICATIONS. IN THE EVENT THERE IS A CONFLICT THE MOST STRINGENT SHALL APPLY.

J. GENERAL CONTRACTOR TO PROVIDE 2'X2'X6" THICK CONCRETE APRON AT ALL CLEANOUTS, VALVES AND METERS OUTSIDE OF BUILDING.

K. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDINGS.

L. THRUST BLOCKING SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.

M. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.

N. ALL WATER AND SANITARY SEWER LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.

O. ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE A MAXIMUM OF 5'(UNLESS OTHERWISE SPECIFIED BY CITY OFFICIAL) FROM HYDRANT.

P. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.

Q. REFER TO FIRE PROTECTION SHEETS FOR LOCATION AND DETAIL OF FIRE LINE LEAD IN. FIRE LINE SHALL BE STUBBED UP 1' ABOVE FFE IN SPRINKLER ROOM.

R. REFER TO PLUMBING SHEETS FOR LOCATION AND DETAILS OF SEWER, DOMESTIC, AND IRRIGATION CONNECTIONS.

S. CONTRACTOR SHALL REFER TO IRRIGATION PLANS FOR ACTUAL LOCATION, SIZE, LENGTH AND DEPTH. TEMPORARILY PLUG BOTH ENDS. IRRIGATION CONTRACTOR WILL REMOVE TEMPORARY PLUGS, INSTALL LINES AND PROPERLY SEAL BOTH ENDS.

T. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE LOCATED ON THE STREET SIDE OF ANY STRUCTURE. THE FDC SHALL BE LOCATED AND ARRANGED SO THAT THE HOSE LINES CAN BE READILY ATTACHED TO THE INLETS WITHOUT INTERFERENCE FROM OBJECTS.

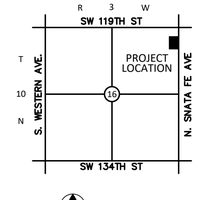
U. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE EXTENSIONS OF ALL UTILITY SERVICE LINES TO THE MAIN UTILITY LINES.

V. ALL CONDUIT SHALL BE SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED.

W. CONTRACTOR SHALL REFER TO LANDSCAPE AND IRRIGATION PLAN FOR LOCATION AND CONSTRUCTION DETAILS OF LANDSCAPING AND IRRIGATION.

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER:	23069
DRAWING DATE:	11.02.23
ISSUE DATE:	11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

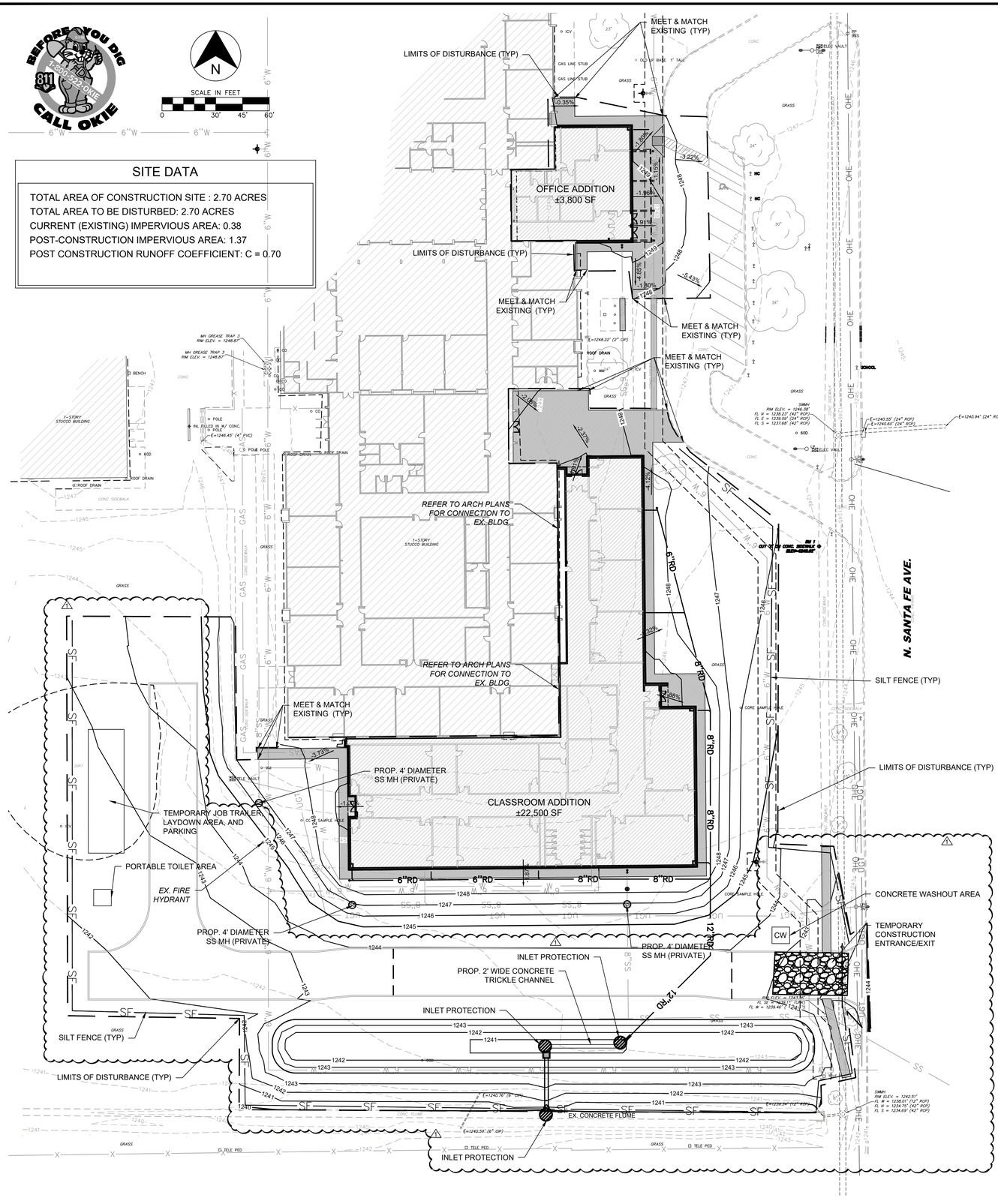
DRAWING TITLE:

UTILITY PLAN

SHEET:

C4.00

BEFORE YOU DIG 811 OKIE 1-800-522-OKIE CALL OKIE



SCALE IN FEET
0 30' 45' 60'

SITE DATA

TOTAL AREA OF CONSTRUCTION SITE : 2.70 ACRES
TOTAL AREA TO BE DISTURBED: 2.70 ACRES
CURRENT (EXISTING) IMPERVIOUS AREA: 0.38
POST-CONSTRUCTION IMPERVIOUS AREA: 1.37
POST CONSTRUCTION RUNOFF COEFFICIENT: C = 0.70

EROSION CONTROL NOTES

A. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF OKLAHOMA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

F. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

G. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

H. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

I. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

J. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

K. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

L. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

N. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

O. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

P. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

Q. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

R. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

S. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO PREVENT EROSION.

T. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

U. A 3' STRIP OF SOD SHALL BE PLACED ALONG THE EDGE OF ALL PAVING TO ACT AS A SEDIMENT BUFFER AND AID IN THE ESTABLISHMENT OF VEGETATION.

LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE
- PROP. INLETS (SEE GRADING PLAN FOR TYPE)
- LIMITS OF DISTURBANCE
- SF — SILT FENCE
- TD→→ — TEMPORARY DIVERSION DIKE
- SODDING
- INLET PROTECTION
- CW — CONCRETE WASHOUT AREA

SEQUENCE OF CONSTRUCTION

PHASE 1

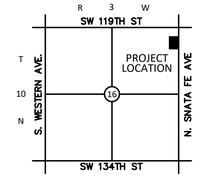
1. A PRE-CONSTRUCTION MEETING SHALL BE HELD BY THE GENERAL CONTRACTOR'S MANAGER, AND THE OPERATOR'S ENGINEER PRIOR TO LAND DISTURBING ACTIVITIES.
2. PREPARE AND PULL ALL NECESSARY PERMITS.
3. CONSTRUCT TEMPORARY CONSTRUCTION EXITS AT LOCATIONS SHOWN ON THE SWPPP PLANS AND PREPARE TEMPORARY PARKING AND STORAGE AREA. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WELL WASH, CONCRETE WASHOUT, MASONS AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGE IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
4. CONSTRUCT THE SILT FENCES ON THE SITE. HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEERING CONSULTANT TO PERFORM INSPECTION AND CERTIFICATION OF BMP'S. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORMWATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND-DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
5. INSTALL PUBLIC WATER, SEWER AND BOX CULVERT
6. DEMO, CLEAR AND GRUB THE SITE.
7. BEGIN GRADING THE SITE.
8. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
9. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.

PHASE 2

1. INSTALL UTILITIES, UNDER DRAINS, STORM SEWERS, CURB AND GUTTERS.
2. INSTALL INLET PROTECTION DEVICES.
3. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
4. FINALIZE PAVEMENT SUBGRADE PREPARATION.
5. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.
6. PAVE LOT.
7. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS. (THESE AREAS TO BE PAVED LAST)
8. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.
9. FINE GRADE AND INSTALL PERMANENT SEEDING AND PLANTINGS.
10. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS DEVISED. (ONLY IF SITE IS STABILIZED)
11. REMOVE INLET PROTECTIONS AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

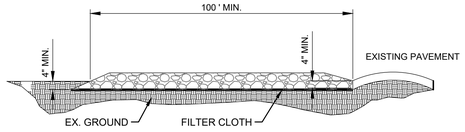
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

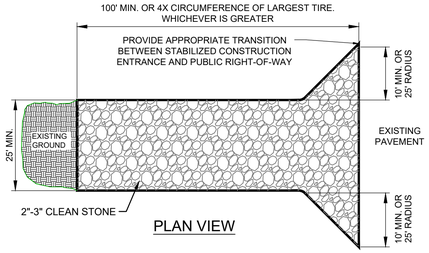
EROSION CONTROL PLAN

SHEET:

C5.00



SIDE ELEVATION



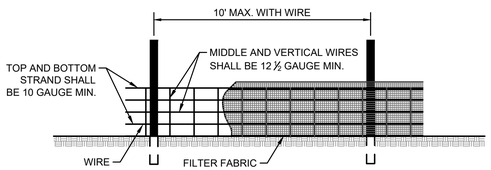
PLAN VIEW

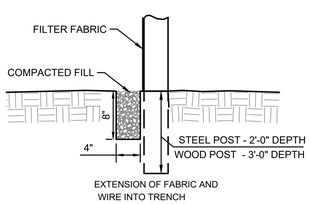
NOTES:

1. STONE - USE COARSE AGGREGATE (2 - 3 INCH STONE)
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 100 FEET.
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. 12' X 24' METAL GRATE MAY BE USED. GRATE SHALL BE 25' AWAY FROM PAVEMENT AND APPROPRIATE SEDIMENT CONTROL TRAPPING DEVICE SHALL BE USED AT GRATE OUTLET POINT.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



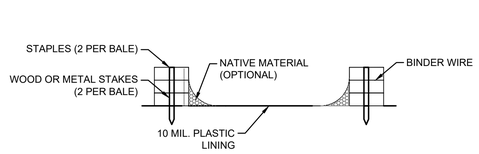


NOTES:

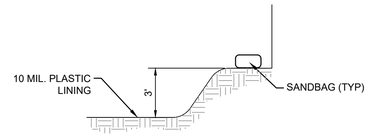
1. WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE.
3. STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WOOD POST SHALL BE 6'-0" IN HEIGHT AND 3" IN DIAMETER.

SILT FENCE DETAIL

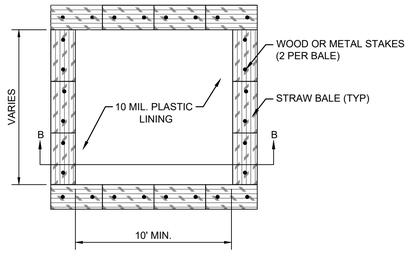
NOT TO SCALE



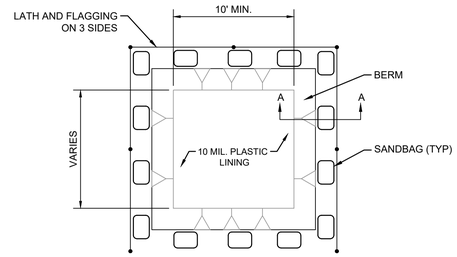
SECTION B-B



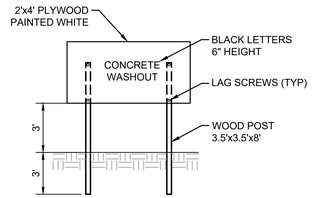
SECTION A-A



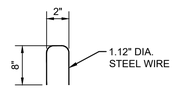
TYPE 'ABOVE GRADE' WITH STRAW BALES



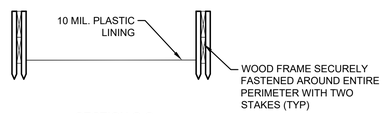
TYPE 'BELOW GRADE'



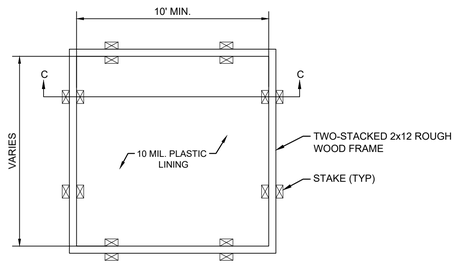
CONCRETE WASHOUT SIGN DETAIL



STAPLE DETAIL



SECTION C-C



TYPE 'ABOVE GRADE' WITH WOOD PLANKS

NOTES:

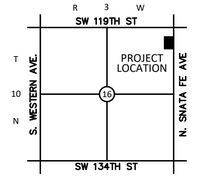
1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSE BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

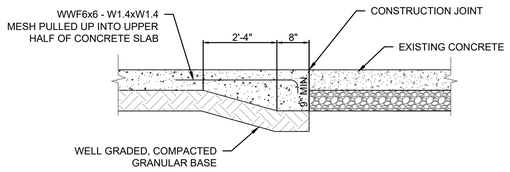
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

EROSION CONTROL DETAILS

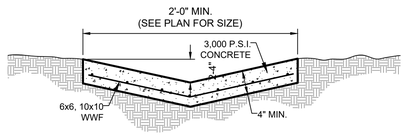
SHEET:

C5.01



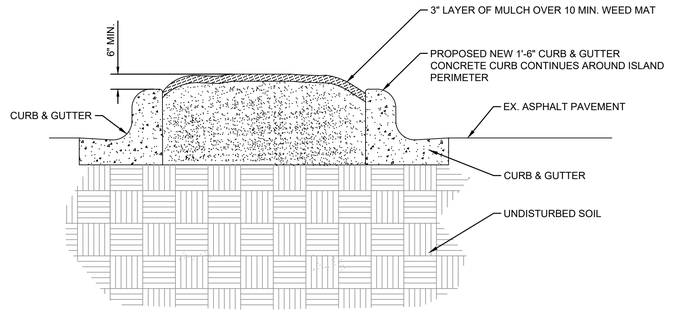
CONCRETE TO CONCRETE THICKENED EDGE

NOT TO SCALE



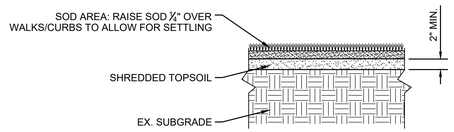
TRICKLE CHANNEL DETAIL

NOT TO SCALE



ISLAND DETAIL

NOT TO SCALE



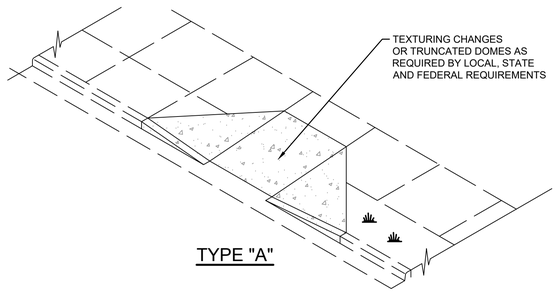
NOTE:
REMOVE WEEDS AND DEBRIS, RAKE ALL SURFACE AREAS SMOOTH PRIOR TO LAYING SOD OR SEEDING. SLOPE TO DRAIN AWAY FROM BUILDINGS. ADHERE TO THE FOLLOWING SUPPLEMENTAL WATERING SCHEDULE (ADJUST AS NEEDED FOR UNSEASONAL RAINFALL CONDITIONS):

APPROXIMATE SUPPLEMENTAL WATER FOR AN AVERAGE TRADITIONAL LAWN (INCHES PER WEEK)						
APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER
0.25"	0.75"	1.25"	1.25"	1.0"	0.75"	0.5"

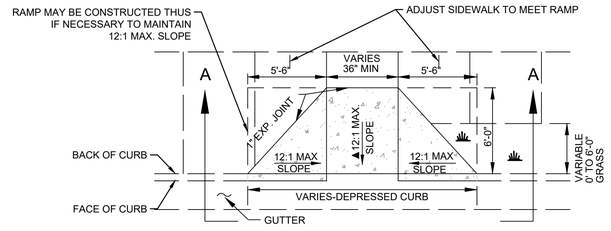
SOD PLANTING DETAIL

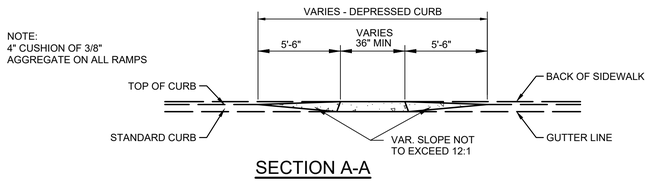
NOT TO SCALE

ALL ADA ACCESSIBLE ROUTES, INCLUDING RAMPS, CURB RAMPS AND SIDEWALKS SALL NOT EXCEED 1:48 (1/4"/ft) (2.083% SLOPE AT ANY POINT. CROSS SLOPE IS THE SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL.



TYPE "A"

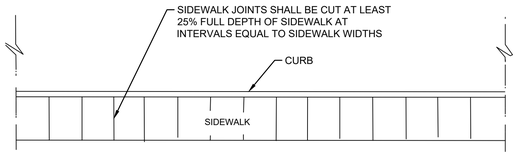




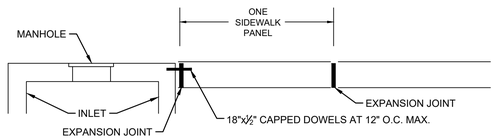
SECTION A-A

ADA RAMP DETAIL

NOT TO SCALE

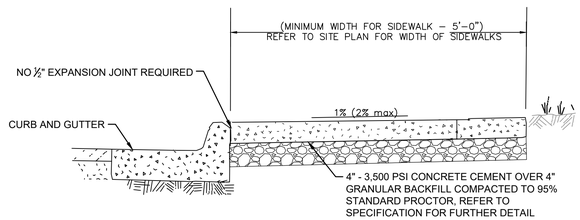


PLAN



SIDEWALK AT INLETS

NOTE:
- 1/2" EXPANSION JOINT SPACING AT 60' OR ADJACENT TO STRUCTURES AND DRIVES.
- SIDEWALK EXPANSION MATERIAL IS REQUIRED BETWEEN SIDEWALK AND CURB (REQUIRES PRIOR APPROVAL FOR ADJACENT TO CURB LOCATIONS).
- DOWEL BARS WITH EXPANSION JOINT MATERIAL REQUIRED AT INLETS.



SECTION

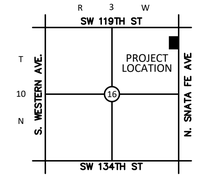
EXPANSION JOINT SHALL BE INSTALLED BETWEEN PUBLIC SIDEWALKS AND PRIVATE SIDEWALKS, BUILDINGS OR DRIVEWAYS

SIDEWALK DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

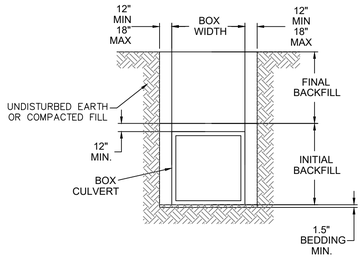
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

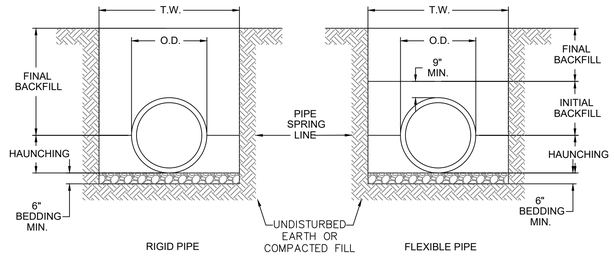
STANDARD DETAILS

SHEET:

C6.00



CONCRETE BOX CULVERT



(RCP) OR (CMP & SPIRAL RIB ≤48"Ø)

(HDPE) OR (PVC) OR (CMP > 48"Ø)

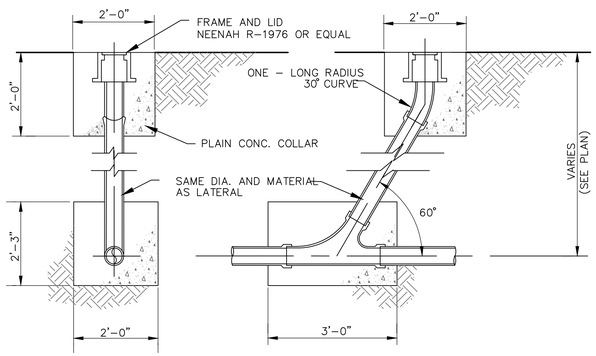
1. BEDDING SHALL BE DUMPED CLASS I-A WORKED BY HAND, OR CLASS I-B COMPACTED TO 85% STANDARD PROCTOR. LOCAL CODE PERMITTING WITH GEOTECHNICAL ENGINEER AND OWNER APPROVAL, NATIVE SOIL MAY BE USED FOR BEDDING PROVIDED IT MEETS THE EMBEDMENT AND BACKFILL MATERIALS IN TABLE 1 EXCLUDING CLASS IV-A.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A, OR CLASS I-B OR CLASS II COMPACTED TO 95% STANDARD PROCTOR. PEA GRAVEL SHALL NOT BE USED AS A HAUNCHING MATERIAL. CLASS III MATERIAL SHALL BE ALLOWED FOR RIGID PIPE COMPACTED AT 95% STANDARD PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD PROCTOR, OR CLASS III COMPACTED 95% STANDARD PROCTOR. CLASS I & II MATERIAL SHALL BE USED FOR FLEXIBLE PIPE WHEN FILL HEIGHTS EXCEED 8'.
4. FINAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD PROCTOR, OR CLASS III COMPACTED TO 95% STANDARD PROCTOR.
5. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
6. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321. (SEE TABLE 1)
7. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
8. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
9. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
10. DESIGN ENGINEER SHALL DESIGNATE ON THE PLANS WHERE WATERTIGHT JOINTS ARE TO BE REQUIRED.
11. REPLACE WET OR UNSUITABLE SOIL AS NECESSARY TO PROVIDE A SUITABLE BASE, AS DIRECTED BY GEOTECHNICAL ENGINEER OR OWNER.
12. WHERE GROUND WATER IS PRESENT CLASS I-A MATERIAL SHALL BE WRAPPED WITH A NON-WOVEN GEO-TEXTILE, EXCLUDING BEDDING MATERIAL BETWEEN 4" & 6" THICK.
13. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR SOIL TYPE AND CLASSIFICATIONS FOR THIS PROJECT.
14. CONTRACTOR SHALL REFER TO THE LATEST VERSION OF ASTM STANDARDS PRIOR TO CONSTRUCTION.

TABLE 1: CLASSES OF EMBEDMENT AND BACKFILL MATERIALS

ASTM D 2321 MATERIAL CLASS	ASTM D 2487 USCS SOIL GROUP	MATERIAL TYPE	% PASSING			ATTERBERG LIMITS	
			1 1/2 IN.	NO. 4	NO. 200	LL	PI
IA	NONE	MANUFACTURED OPEN GRADED AGGREGATES	100%	≤10%	<5%	NON PLASTIC	
IB	NONE	MANUFACTURED DENSE GRADED AGGREGATES	100%	≤50%	<5%	NON PLASTIC	
II	GW	COARSE-GRAINED SOILS, CLEAN	100%	<50% OF "COARSE FRACTION"	<5%	NON PLASTIC	
	GP						
	SW			>50% OF "COARSE FRACTION"			
	SP						
III	GM	COARSE-GRAINED SOILS W/ FINES	100%	<50% OF "COARSE FRACTION"	12% TO 50%		<4 OR <"A" LINE
	GC						<7 OR >"A" LINE
	SM			>50% OF "COARSE FRACTION"			>4 OR <"A" LINE
	SC						>7 OR >"A" LINE
IV-A	ML	FINE-GRAINED SOILS	100%	100%	>50%	<50	<4 OR <"A" LINE
	CL						>7 OR >"A" LINE

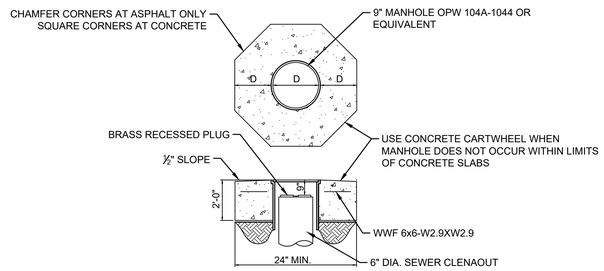
TRENCH AND BEDDING DETAILS

NOT TO SCALE



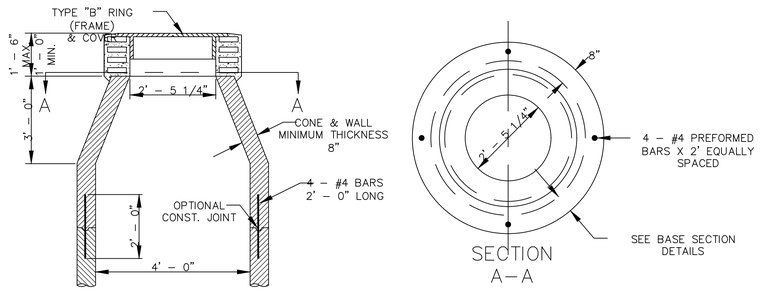
TYPICAL CLEANOUT DETAIL

NOT TO SCALE



TYPICAL CLEANOUT MANHOLE DETAIL

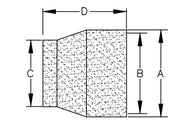
NOT TO SCALE



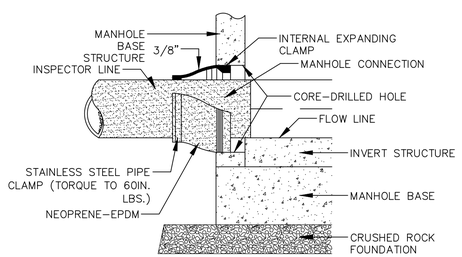
CAST-IN-PLACE NON-REINFORCED MANHOLE-PIPE CONNECTION

NOTE:

1. ALL PIPE SHALL BE STAINLESS STEEL
2. NEOPRENE--EPDM BLENDED COMPOUND BOOT SHALL MEET ASTM C-923



SUGGESTED PIPE O.D. RANGE (IN.)	HOLE & BOOT DIAMETER DIMENSIONS			
	A	B	C	D
3 1/2" - 4 1/2"	7"	6 1/8"	4 1/4"	6"
5 3/8" - 7"	12"	10 7/8"	6 1/2"	8"
7" - 8 1/2"	12"	10 7/8"	8"	8"
8 3/16" - 9 3/4"	12"	10 7/8"	9 1/4"	8"
9 1/4" - 11"	16"	14 7/8"	10 1/2"	8"
10 1/4" - 11"	16"	14 7/8"	12"	8"
12" - 13 3/4"	16"	14 7/8"	13 1/4"	8"
14 1/2" - 16 1/4"	20"	18 7/8"	15 3/4"	8"
15 3/4" - 17 1/2"	20"	18 7/8"	17"	8"
19 1/2" - 21 1/4"	24"	22 7/8"	20 3/4"	8"

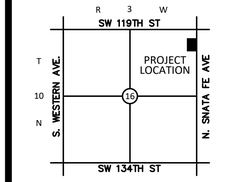


CONCENTRIC MANHOLE DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

STANDARD DETAILS

SHEET:

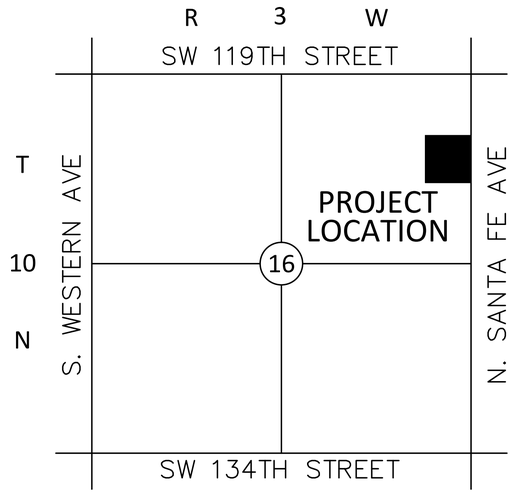
C6.01

DETENTION POND PLANS

TO SERVE

HIGHLAND WEST JR HIGH CLASSROOM ADDITION

A PART OF THE NE/4 OF SEC. 16, T-10-N, R-3-W, I.M.
MOORE, CLEVELAND COUNTY, OKLAHOMA



N NOT TO SCALE

SHEET INDEX

SHEET NUMBER	SHEET TITLE	DATE	REV/BID/CO/ADD
C0.00	DETENTION COVER SHEET	⚠ 11.02.23	BID/CB #1
C3.00	GRADING PLAN	11.02.23	BID/CB #1
C3.01	DRAINAGE - HISTORIC	11.02.23	BID/CB #1
C 3.02	DRAINAGE - DEVELOPED	11.02.23	BID/CB #1
C 3.03	DETENTION POND PLAN	11.02.23	BID/CB #1
C 5.00	EROSION CONTROL PLAN	11.02.23	BID/CB #1
C 5.01	EROSION CONTROL NOTES	09.25.23	

BENCHMARK DATA

BENCHMARK #1
DESC: CONC. SIDEWALK
NORTHING: 732420.67
EASTING: 2113951.32
ELEVATION: 1246.12

BENCHMARK #2
DESC: CUT X
NORTHING: 732831.70
EASTING: 2113951.35
ELEVATION: 1248.00

VERTICAL DATUM: NAVD 88 OKC GPS
MONUMENT

GENERAL NOTES:

A. CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, UNDERGROUND STORAGE TANKS AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.

B. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

C. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

D. WARRANTY/DISCLAIMER: THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

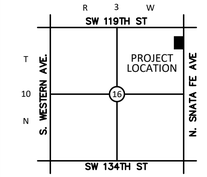
E. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

F. ALL CONSTRUCTION WITHIN STATE HIGHWAY DEPARTMENT RIGHT-OF-WAY SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT RESIDENT MAINTENANCE ENGINEER.

G. ALL CONSTRUCTION TO BE IN STRICT ACCORDANCE WITH CURRENT CITY OF MOORE STANDARDS AND SPECIFICATIONS

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: .....
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

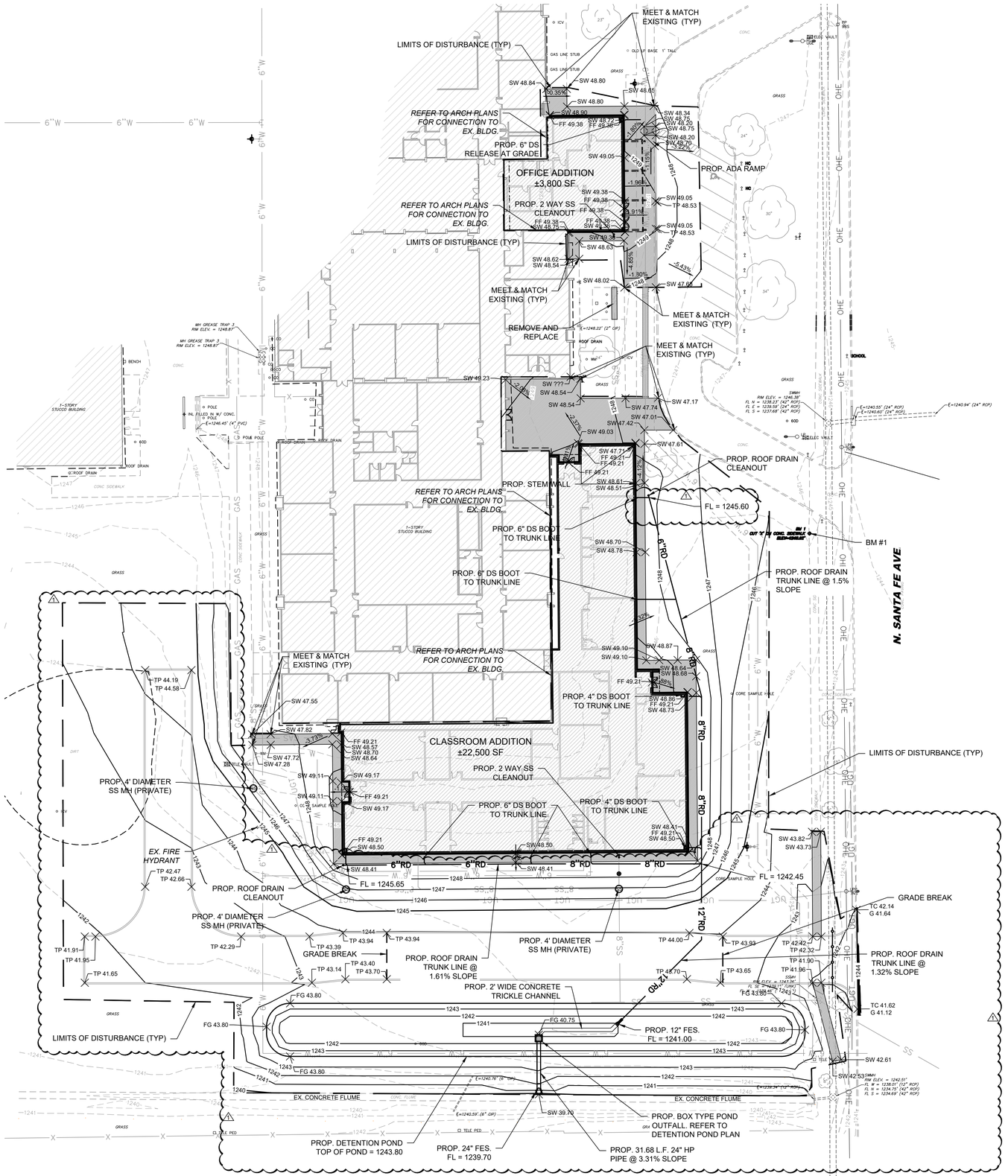
MARK	DATE	DESCRIPTION
⚠	11.02.23	CB #1

DRAWING TITLE:

DETENTION COVER

SHEET:

C0.00



LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE

- PROP. INLETS (SEE GRADING PLAN FOR TYPE)
- VERTICAL SEPARATION REQUIREMENT

BENCHMARK DATA

BENCHMARK #1
DESC: CONC. SIDEWALK
NORTHING: 732420.67
EASTING: 2113951.32
ELEVATION: 1246.12

BENCHMARK #2
DESC: CUT X
NORTHING: 732831.70
EASTING: 2113951.35
ELEVATION: 1248.00

VERTICAL DATUM: NAVD 88 OKC GPS MONUMENT

GRADING NOTES

A. CONTRACTOR SHALL REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT FOR EXISTING SOIL CONDITIONS, CONSIDERATIONS, AND RECOMMENDATIONS.

B. CONTRACTOR SHALL REFER TO THE CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE WRITTEN SPECIFICATIONS, CONSTRUCTION DRAWINGS, STORM WATER POLLUTION PLAN, AND GEOTECHNICAL REPORT.

C. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN HORIZONTAL AND VERTICAL CONTROL, REFERENCE POINTS AND CONSTRUCTION STAKING AS INCIDENTAL TO THE PROJECT.

D. THE CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS/PROPERTY LINES/UTILITIES/DRAINAGE PRIOR TO CONSTRUCTION START.

E. ALL SITE EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED EXCAVATION.

F. GENERAL CONTRACTOR TO PROVIDE A UNIT PRICE FOR REMOVAL AND REPLACEMENT OF SOILS ON THIS SITE SHOULD REMOVAL BE REQUIRED.

G. ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED AS INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

H. CONTRACTOR SHALL PROVIDE FINAL GRADES THAT DO NOT OBSTRUCT ANY UTILITY ACCESS AND PROVIDE A SMOOTH TRANSITION TO MEET AND MATCH EXISTING GRADES ON ALL SIDES.

I. ADA ROUTES ARE NOT TO EXCEED 1:20 RUNNING SLOPE AND 2% CROSS SLOPE. HANDICAP PARKING AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

J. ALL NATURAL GROUND SLOPES SHALL NOT EXCEED 3:1. PAVING SLOPES SHALL NOT EXCEED 8%.

K. CONTRACTOR SHALL ENSURE THAT ALL NECESSARY EARTH DISTURBING PERMITS HAVE BEEN ACQUIRED AND MEET THE CONDITIONS/REQUIREMENTS SET FORTH IN THE PERMITS PRIOR TO CONSTRUCTION.

L. CONTRACTOR IS REQUIRED TO CALL ONE CALL AS WELL AS THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION/CONSTRUCTION ACTIVITIES TAKE PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS.

M. THE CONTRACTOR SHALL GRADE SITE TO ENSURE ALL SURFACE WATER DRAINAGE IS AWAY FROM THE BUILDING AND PROVIDES POSITIVE DRAINAGE SO THAT NO STANDING/PONDING WATER TAKES PLACE ON SITE OR ON ADJACENT PROPERTIES.

N. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE OWNERS DESIGN GUIDELINES AND SPECIFICATIONS, AND WHERE APPLICABLE SHALL MEET THE REQUIREMENTS OF THE GOVERNING/PERMITTING AUTHORITY HAVING JURISDICTION.

O. THE BUILDING SUBGRADE SHALL BE CONSTRUCTED TO INCLUDE A MINIMUM OF 10 FEET BEYOND THE BUILDING LIMITS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE OWNER.

P. REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR REQUIRED FLOOR SLAB THICKNESS.

Q. THE BUILDING PAD SUBGRADE SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING STUDY AND THE CIVIL SPECIFICATIONS.

R. ESTABLISH FINAL SUBGRADE ELEVATIONS TO ALLOW FOR PAVEMENT/SLAB SECTIONS AS INDICATED ON THE PLANS.

S. IF CONFLICTS EXIST BETWEEN THE GEOTECHNICAL REPORT AND THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

SPOT ELEVATION LEGEND

TC - TOP OF CURB	FF - FINISH FLOOR
G - GUTTER	FG - FINAL GRADE
TP - TOP OF PAVEMENT	TW - TOP OF WALL
HP - HIGH POINT	BW - BOTTOM OF WALL
LP - LOW POINT	NOTE: BW IS BOTTOM OF WALL AT GRADE, NOT FOOTING
SW - SIDEWALK	

VERTICAL SEPARATION REQUIREMENT

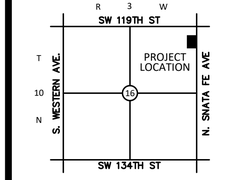
N

SCALE IN FEET
0 30' 45' 60'

BEFORE YOU DIG CALL OKIE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER:	23069
DRAWING DATE:	11.02.23
ISSUE DATE:	11.02.23

SEAL:

LICENSED PROFESSIONAL ENGINEER
ANDREW WILSON
24173
OKLAHOMA
11.2.23

SUBMITTAL:

PERMIT SET

REVISIONS:

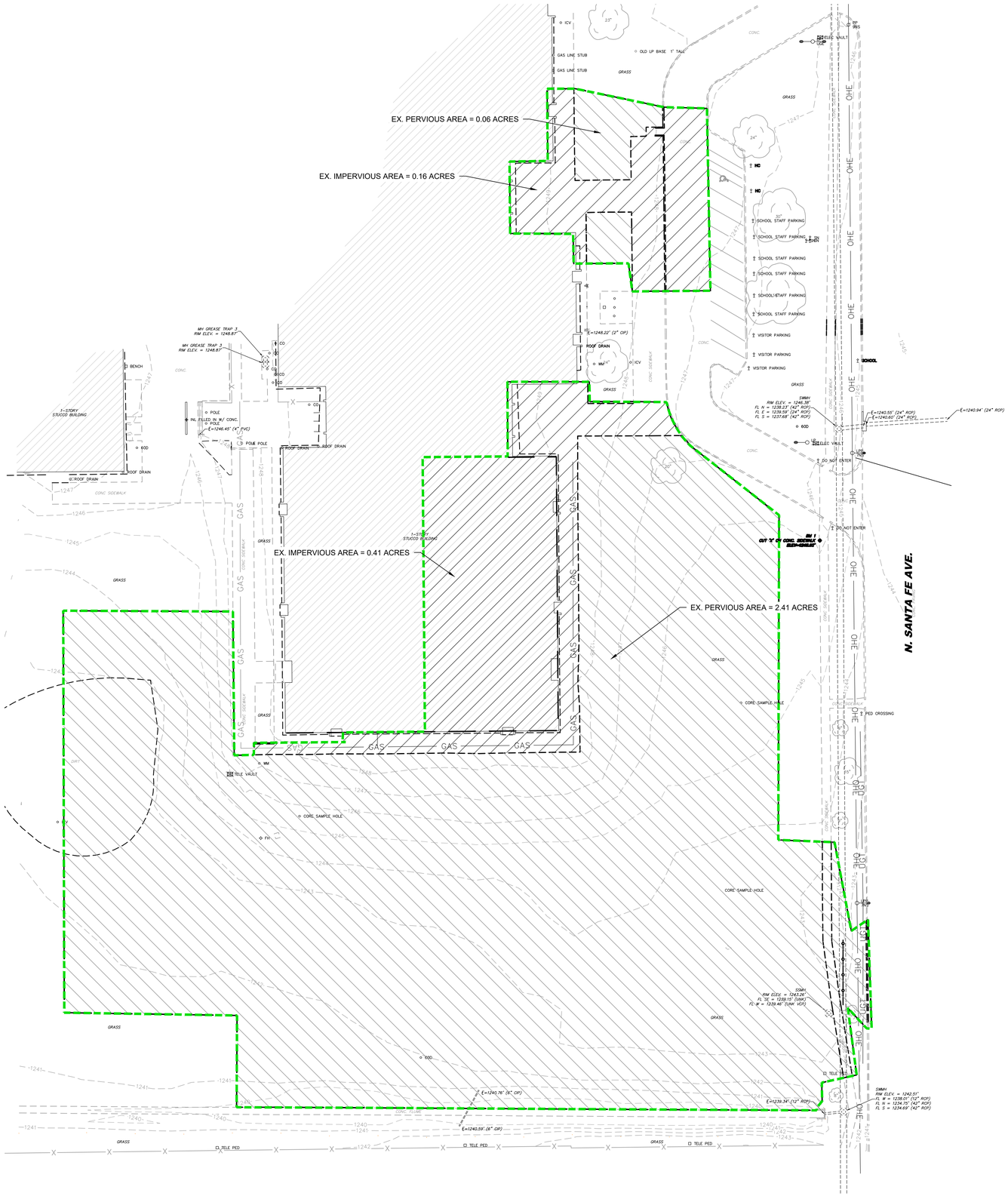
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

GRADING PLAN

SHEET:

C3.00



DRAINAGE LEGEND

- EXISTING PERVIOUS CN = 80
- EXISTING IMPERVIOUS CN = 98

N

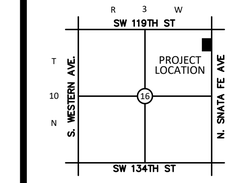
SCALE IN FEET

0 30' 45' 60'

BEFORE YOU DIG 811 CALL OKIE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER:	23069
DRAWING DATE:	11.02.23
ISSUE DATE:	11.02.23

SEAL:

LICENSED PROFESSIONAL ENGINEER
ANDREW WILSON
21073
OKLAHOMA
11.02.23

SUBMITTAL:

PERMIT SET

REVISIONS:

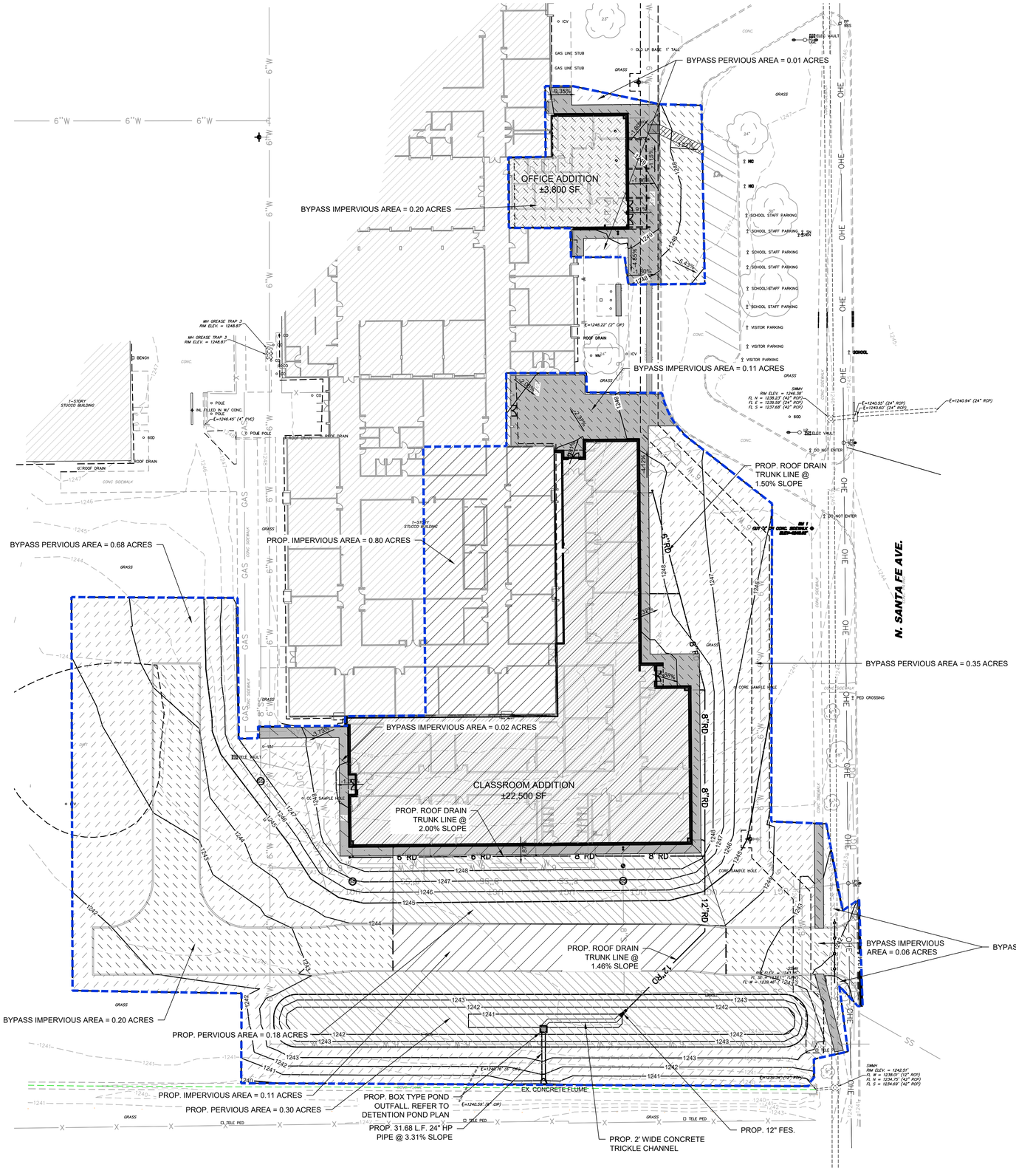
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

DRAINAGE - HISTORIC

SHEET:

C3.01

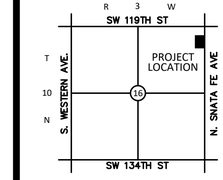


DRAINAGE LEGEND

- PROPOSED PERVIOUS CN = 80
- PROPOSED IMPERVIOUS CN = 98
- BYPASS IMPERVIOUS CN = 80
- BYPASS IMPERVIOUS CN = 98

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER:	23069
DRAWING DATE:	11.02.23
ISSUE DATE:	11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

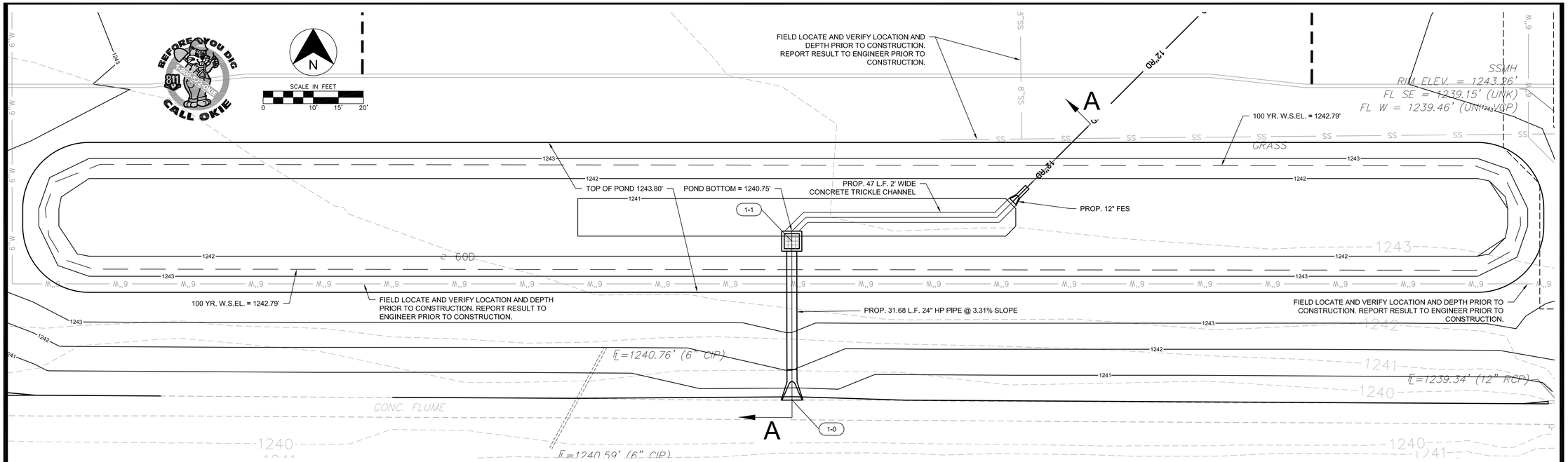
DRAWING TITLE:

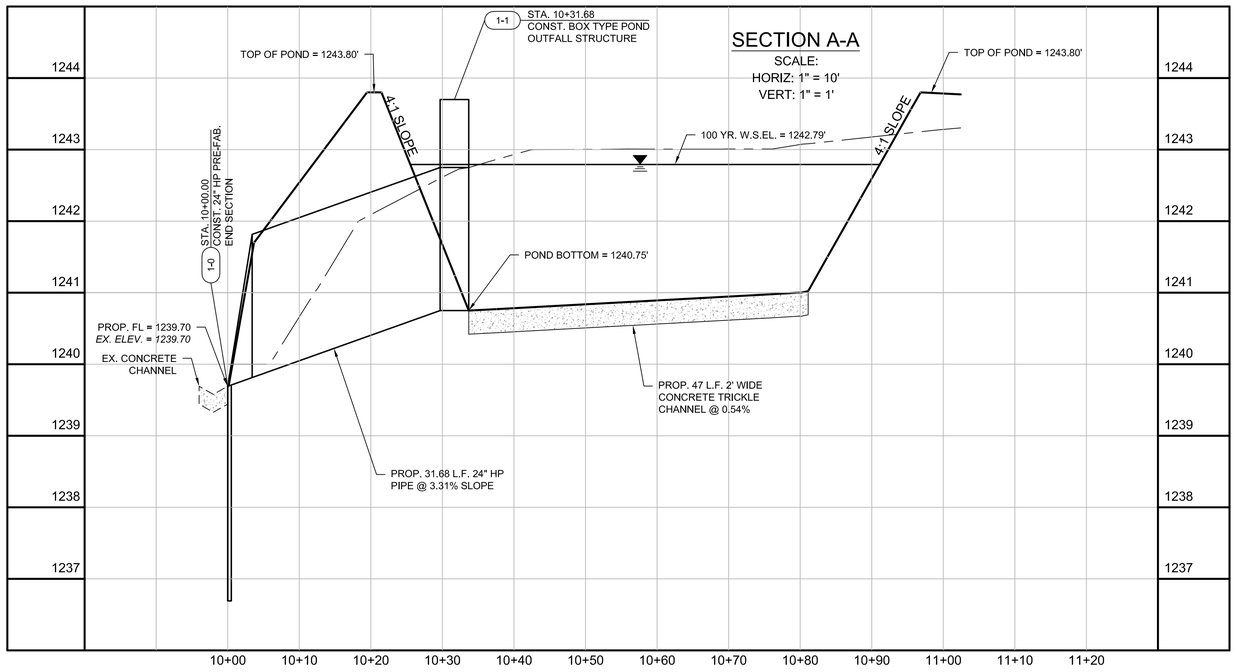
DRAINAGE - DEVELOPED

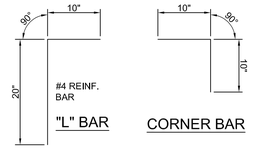
SHEET:

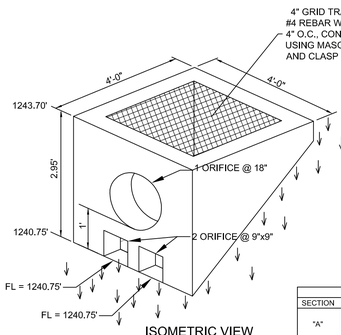
C3.02

BEFORE YOU DIG CALL OKIE 811

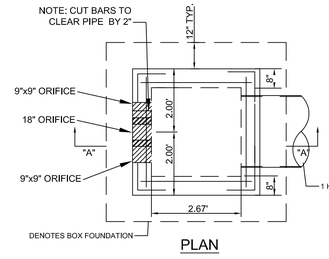








ISOMETRIC VIEW



PLAN

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS AND FLOW LINES
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLET
5. ALL REINFORCING BARS TO BE GRADE 60

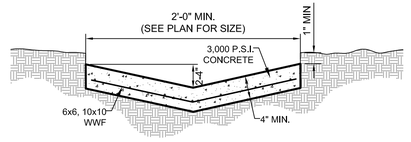
REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4"S @ 6" E.W.
"B"	#6"S @ 6" E.W.

TABLE OF "W" DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIT	30°	45°
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4"S @ 9"	#4"S @ 10"
	BETWEEN 4' & 7'	#6"S @ 9"	#4"S @ 10"
	GREATER THAN 7'	#5"S @ 4 1/2"	#4"S @ 10"
"B"	4'	#4"S @ 6"	#4"S @ 10"
	BETWEEN 4' & 7'	#6"S @ 6"	#4"S @ 10"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4"S @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4"S @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4"S @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER

REINFORCEMENT SCHEDULE, TOP				
SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

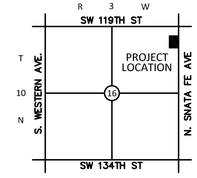


TRICKLE CHANNEL DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

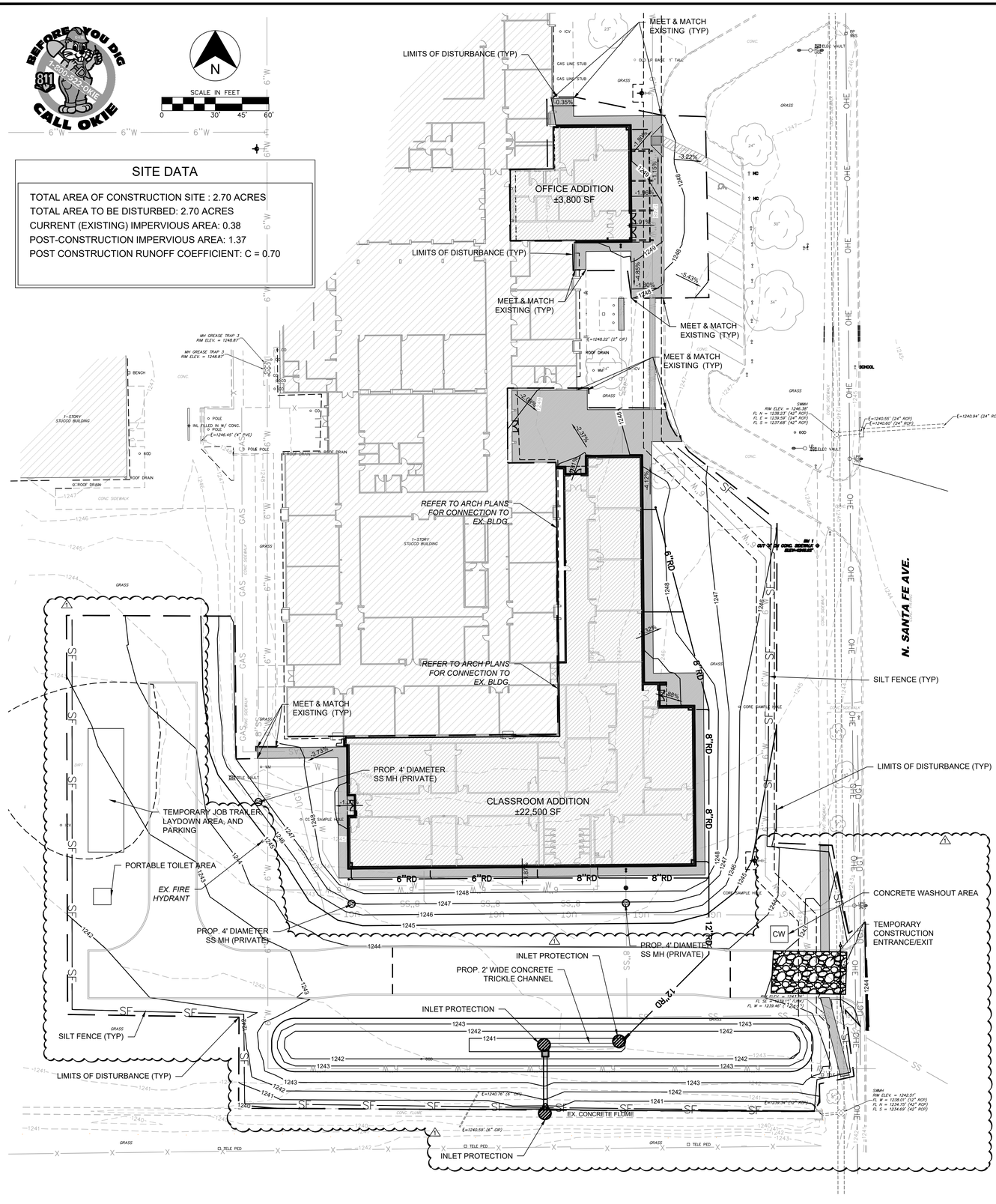
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

DETENTION POND PLAN

SHEET:

C3.03



SITE DATA

TOTAL AREA OF CONSTRUCTION SITE : 2.70 ACRES
TOTAL AREA TO BE DISTURBED: 2.70 ACRES
CURRENT (EXISTING) IMPERVIOUS AREA: 0.38
POST-CONSTRUCTION IMPERVIOUS AREA: 1.37
POST CONSTRUCTION RUNOFF COEFFICIENT: C = 0.70

EROSION CONTROL NOTES

A. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF OKLAHOMA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

F. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

G. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

H. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

I. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

J. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

K. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

L. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

N. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

O. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

P. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

Q. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

R. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

S. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO PREVENT EROSION.

T. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

U. A 3' STRIP OF SOD SHALL BE PLACED ALONG THE EDGE OF ALL PAVING TO ACT AS A SEDIMENT BUFFER AND AID IN THE ESTABLISHMENT OF VEGETATION.

LEGEND

- BOUNDARY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EXISTING CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED FIRE LANE STRIPING
- OHE — OVERHEAD ELECTRIC
- UGE — UNDERGROUND ELECTRIC
- GAS — GAS LINE
- UGT — UNDERGROUND TELEPHONE
- FO — UNDERGROUND FIBER OPTIC
- SS — SANITARY SEWER
- 8"W — WATERLINE
- BENCHMARK

- FIRE HYDRANT
- WATER VALVE
- EX. WATER METER PIT
- EX. WATER METER
- PROP. WATER METER
- EX. SPRINKLER VALVE
- EX. AUTO SPRINKLER
- EX. ELECT. PEDESTAL
- EX. ELECT. TRANSFORMER
- EX. ELECT. METER
- PROP. ELECT. METER
- EX. AIR CONDITIONER
- EX. SIGNAGE
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. BOLLARD
- EX. POWER POLE
- PROP. POWER POLE
- EX. TELEPHONE PED.
- EX. TELEPHONE MANHOLE
- EX. TRAFFIC SIGNAL LIGHT
- EX. TRAFFIC CONTROL BOX
- EX. FLAG POLE
- EX. YARD LIGHT
- EX. GREASE TRAP
- EX. SS MANHOLE
- PROP. SS MANHOLE
- EX. GAS METER
- PROP. GAS METER
- EX. ELECT. MANHOLE
- EX. STORM MANHOLE
- PROP. INLETS (SEE GRADING PLAN FOR TYPE)
- LIMITS OF DISTURBANCE
- SF — SILT FENCE
- TD→→ — TEMPORARY DIVERSION DIKE
- SODDING
- INLET PROTECTION
- CW — CONCRETE WASHOUT AREA

SEQUENCE OF CONSTRUCTION

PHASE 1

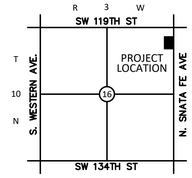
1. A PRE-CONSTRUCTION MEETING SHALL BE HELD BY THE GENERAL CONTRACTOR'S MANAGER, AND THE OPERATOR'S ENGINEER PRIOR TO LAND DISTURBING ACTIVITIES.
2. PREPARE AND PULL ALL NECESSARY PERMITS.
3. CONSTRUCT TEMPORARY CONSTRUCTION EXITS AT LOCATIONS SHOWN ON THE SWPPP PLANS AND PREPARE TEMPORARY PARKING AND STORAGE AREA. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WELL WASH, CONCRETE WASHOUT, MASONS AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGE IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
4. CONSTRUCT THE SILT FENCES ON THE SITE. HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEERING CONSULTANT TO PERFORM INSPECTION AND CERTIFICATION OF BMP'S. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORMWATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND-DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
5. INSTALL PUBLIC WATER, SEWER AND BOX CULVERT
6. DEMO, CLEAR AND GRUB THE SITE.
7. BEGIN GRADING THE SITE.
8. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
9. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.

PHASE 2

1. INSTALL UTILITIES, UNDER DRAINS, STORM SEWERS, CURB AND GUTTERS.
2. INSTALL INLET PROTECTION DEVICES.
3. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
4. FINALIZE PAVEMENT SUBGRADE PREPARATION.
5. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.
6. PAVE LOT.
7. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS. (THESE AREAS TO BE PAVED LAST)
8. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.
9. FINE GRADE AND INSTALL PERMANENT SEEDING AND PLANTINGS.
10. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS DEVISED. (ONLY IF SITE IS STABILIZED)
11. REMOVE INLET PROTECTIONS AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

LICENSED PROFESSIONAL ENGINEER
ANDREW WILSON
20473
OKLAHOMA
11.2.23

SUBMITTAL:

PERMIT SET

REVISIONS:

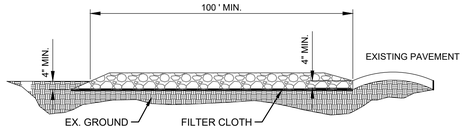
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

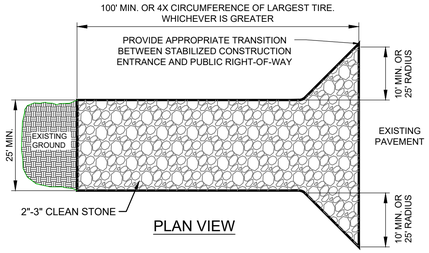
EROSION CONTROL PLAN

SHEET:

C5.00



SIDE ELEVATION



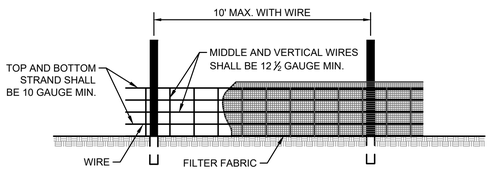
PLAN VIEW

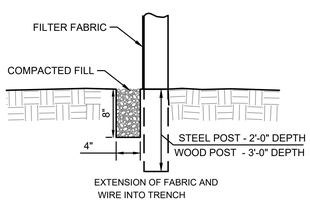
NOTES:

1. STONE - USE COARSE AGGREGATE (2 - 3 INCH STONE)
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 100 FEET.
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. 12' X 24' METAL GRATE MAY BE USED. GRATE SHALL BE 25' AWAY FROM PAVEMENT AND APPROPRIATE SEDIMENT CONTROL TRAPPING DEVICE SHALL BE USED AT GRATE OUTLET POINT.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



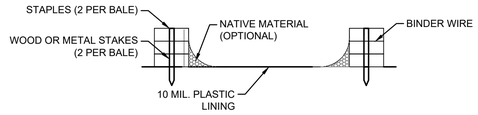


NOTES:

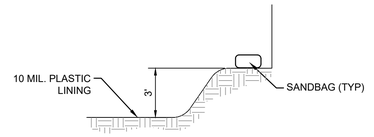
1. WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE.
3. STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WOOD POST SHALL BE 6'-0" IN HEIGHT AND 3" IN DIAMETER.

SILT FENCE DETAIL

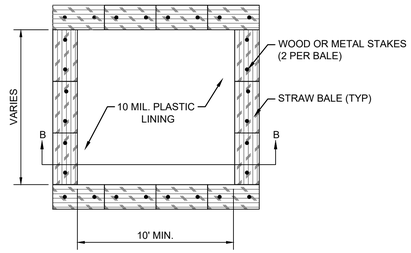
NOT TO SCALE



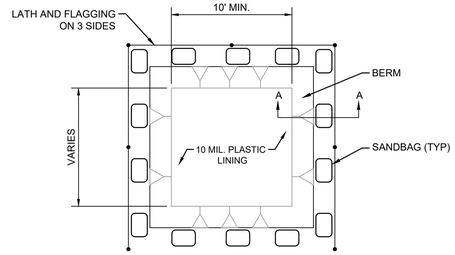
SECTION B-B



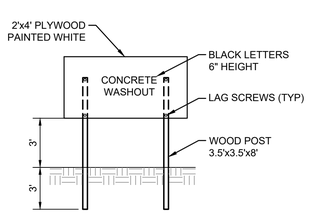
SECTION A-A



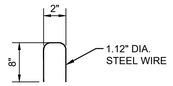
TYPE 'ABOVE GRADE' WITH STRAW BALES



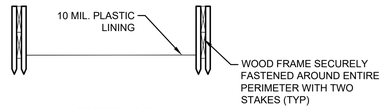
TYPE 'BELOW GRADE'



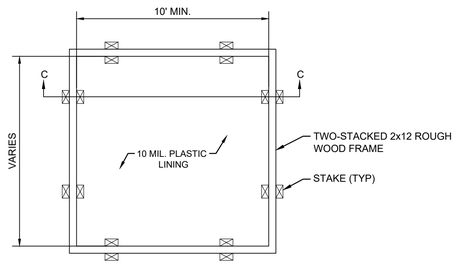
CONCRETE WASHOUT SIGN DETAIL



STAPLE DETAIL



SECTION C-C



TYPE 'ABOVE GRADE' WITH WOOD PLANKS

NOTES:

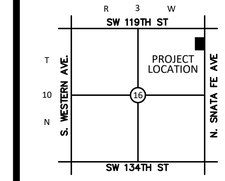
1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSE BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

EROSION CONTROL DETAILS

SHEET:

C5.01

REVISED 11-2-2023

STORM WATER DRAINAGE COMPOSITION REPORT

For

Highland West Jr high Classroom Addition

Moore, OK

Submitted July 26, 2023
Revised September 25, 2023
Revised November 2, 2023

Prepared by:

CEDAR CREEK
Engineering • Planning • Consulting

STORM WATER DRAINAGE COMPOSITION REPORT

July 26, 2023
Revised September 25, 2023
Revised November 2, 2023

Highland West Jr High Classroom addition
Moore, OK
Cedar Creek Project # 23069

PROJECT DESCRIPTION

The following is the Storm Water Drainage Composition Report for the construction of the proposed Highland West Jr high classroom addition in Moore, Oklahoma. The drainage area considered in this development is approximately 2.95 acres. This design and report is only accounting for the offset of the proposed additional impervious area.

This report will act as an accounting of the pond release in comparison to its current state, showing the total flow leaving the site will not increase as part of the development of the subject areas.

CURRENT SITE CONDITIONS

The existing subject area on site consists of 3.04 acres of currently developed school area. Of the 3.04 acres, approximately 0.57 acres is currently impervious. The remaining 2.47 acres is greater than 75% grass cover.

The runoff CN value for the site was taken as weighted developed area with Hydrologic Soil Group 'D'. With the Corresponding CN value of 80, the existing site releases stormwater according to the table below:

EXISTING FLOW TABLE

	CN	Area (ac)	Tc (min)	Q100 (cfs)	Pond Elevation
Existing Site	83	3.04	5	37.44	---
*Q100 FROM HYDROCAD CALCULATIONS * TC used a min of 5 min.					

DEVELOPED CONDITIONS

The site will be developed to add additional classrooms and offices as well as an asphalt road. From the 3.04 acres, runoff from 1.39 acres will drain to the proposed detention pond, and runoff from 1.65 acres will be bypassing the detention pond. The detention pond will discharge to an existing trickle channel that runs west to east, at the southern portion of the site.

Per the new construction and the new detention pond, the flows are presented below:

Rainfall depth-duration estimates taken from City of Moore SMC table 3.

COMPARISON OF PEAK FLOWS

	Area (acres)	Tc (minutes)	Peak Flow (Q100)	Peak Pond Elevation
Developed to Pond	1.39	5	18.49	1242.79’
Release from Pond	1.39	---	11.56	---
Bypass	1.65	5	20.96	---
Total Release from Site (Pond Release + Bypass)	3.04	---	30.97	---
Existing Site (from above)	3.04	---	37.44	---
Change in Flow	---	---	-6.47 cfs	---

The peak flow for the proposed development will be reduced to below the existing values via the proposed detention pond. The pond release will be controlled by a box type outfall with two 9”x9” orifices and an 18” diameter orifice. The pond release will then go through 24” HP Pipe to an existing trickle channel. Per the attached HydroCAD report, the impact on the onsite storage is summarized below (optimized for maximum pond volume).

DETENTION POND INFORMATION (100 year storm)

STRM	Volume required	Volume provided	% used	Q (cfs) (pond out)	Peak Elevation	Outfall Size and Type
2	1,694	14,157	12	4.27	1241.76’	(2) 9”x9” orifices and (1) 18” diameter orifice
5	2,591	14,157	18	5.31	1241.99’	(2) 9”x9” orifices and (1) 18” diameter orifice
10	3,425	14,157	24	6.40	1242.17’	(2) 9”x9” orifices and (1) 18” diameter orifice
50	5,757	14,157	41	9.84	1242.60’	(2) 9”x9” orifices and (1) 18” diameter orifice
100	6,931	14,157	49	11.56	1242.79’	(2) 9”x9” orifices and (1) 18” diameter orifice
*FROM HYDROCAD CALCULATIONS						

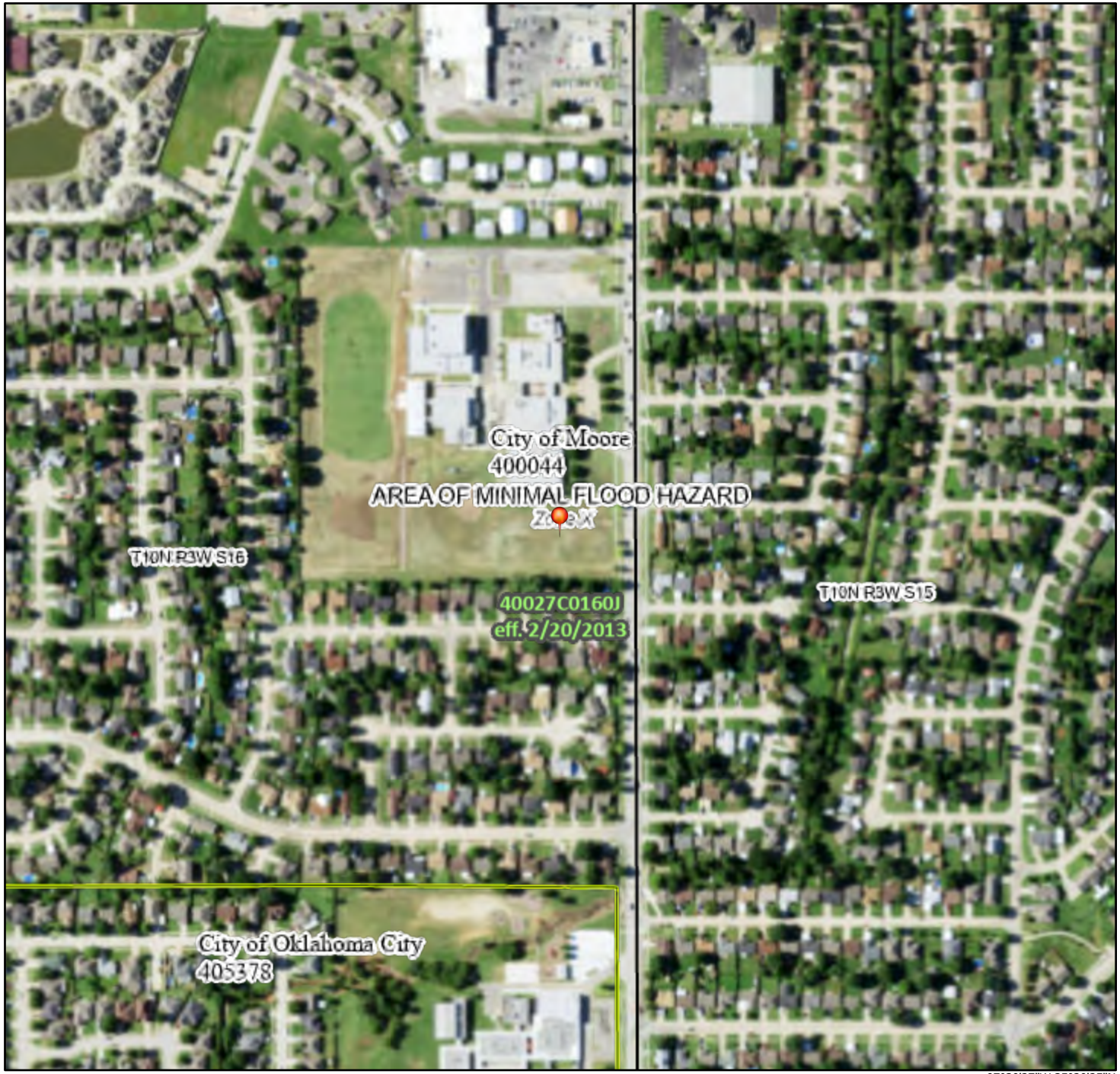
Conclusions

Based on the provided site data, the proposed adjustment to the drainage basins is not anticipated to have an adverse impact on capacity or competence of the downstream drainage facilities. Further, development of the site as proposed is in keeping with the intent of the approved design.

National Flood Hazard Layer FIRMette

FEMA

97°31'5"W 35°20'54"N



97°30'27"W 35°20'25"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

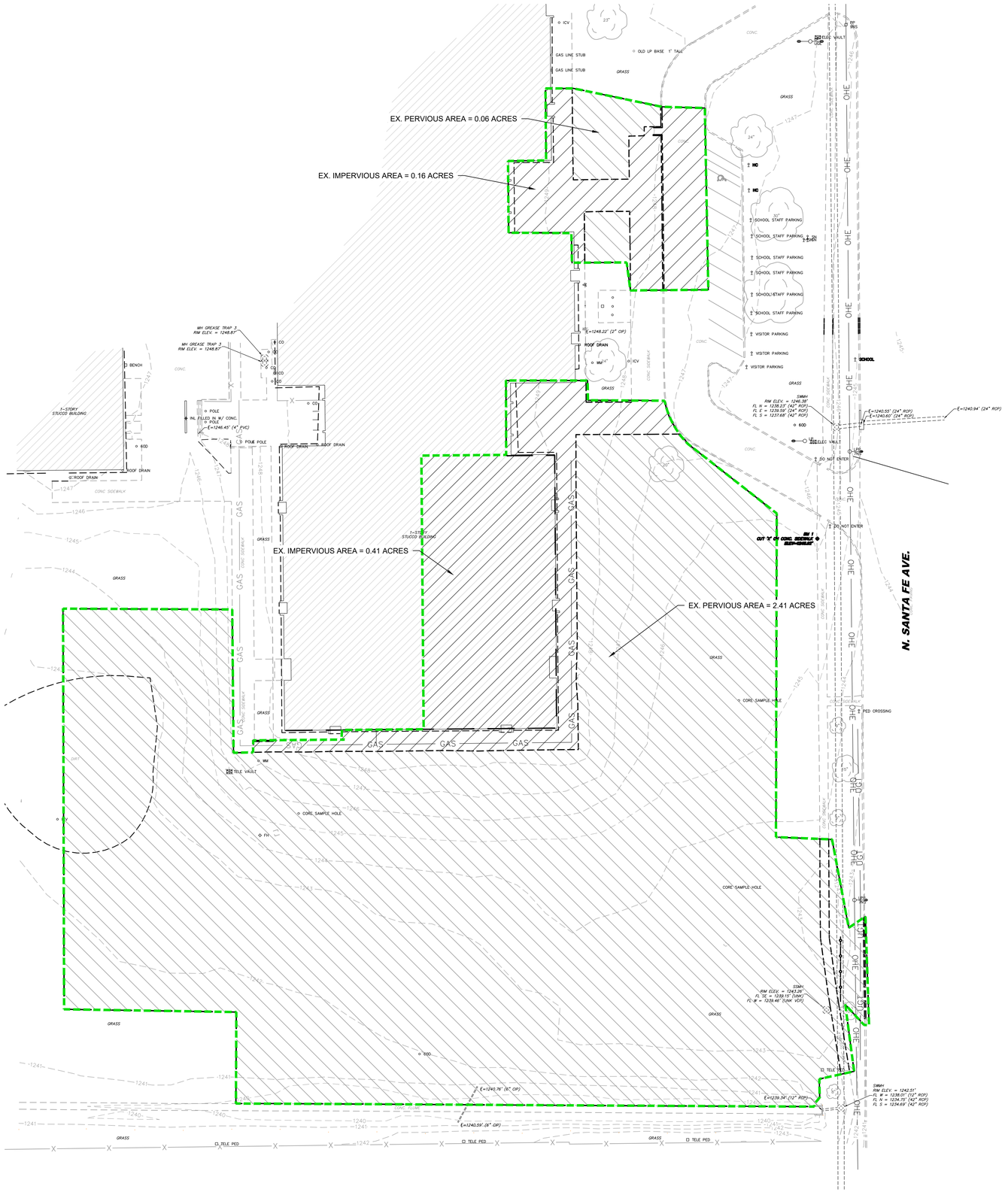
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/25/2023 at 3:18 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



DRAINAGE LEGEND

EXISTING PERVIOUS CN = 80

EXISTING IMPERVIOUS CN = 98

N

SCALE IN FEET

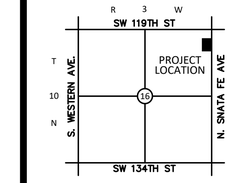
0 30' 45' 60'

BEFORE YOU DIG CALL OKIE

811

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: .....
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

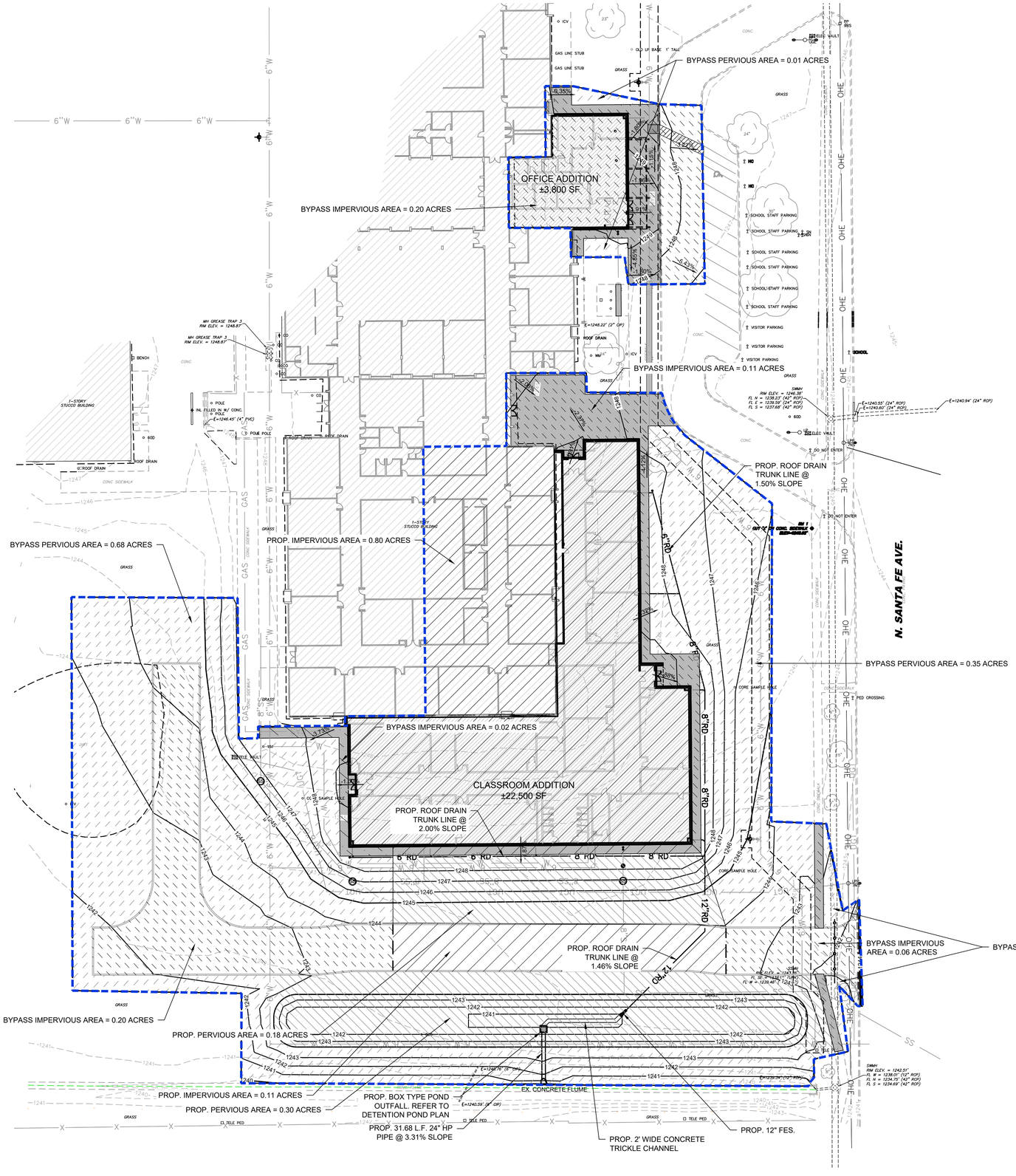
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

DRAINAGE - HISTORIC

SHEET:

C3.01

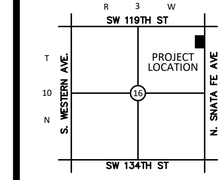


DRAINAGE LEGEND

- PROPOSED PERVIOUS CN = 80
- PROPOSED IMPERVIOUS CN = 98
- BYPASS IMPERVIOUS CN = 80
- BYPASS IMPERVIOUS CN = 98

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER:	23069
DRAWING DATE:	11.02.23
ISSUE DATE:	11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

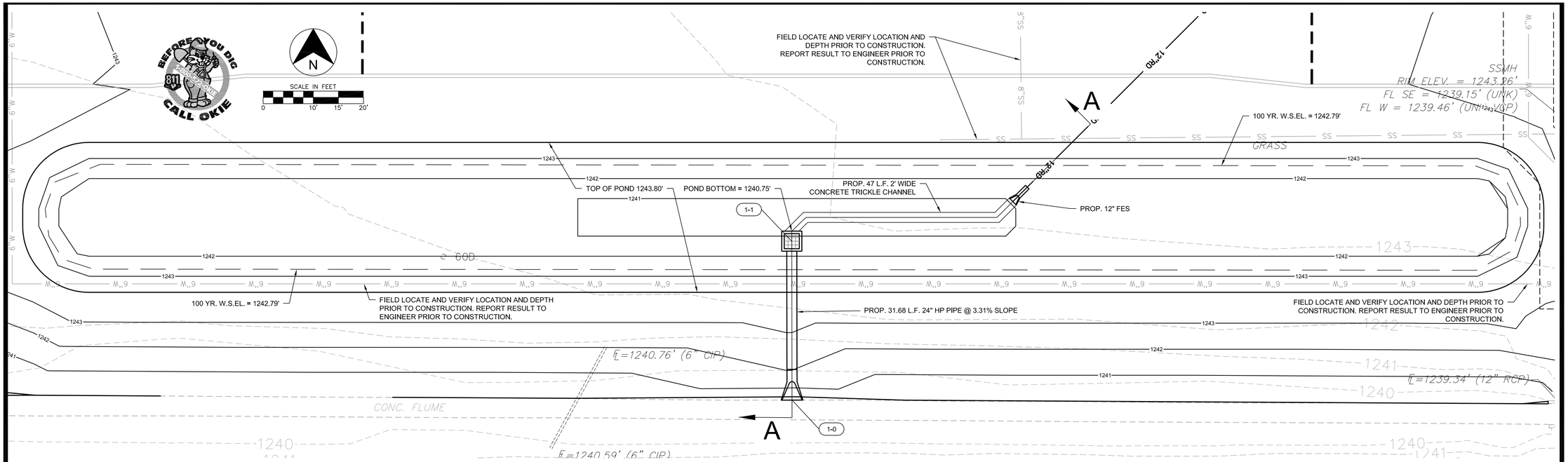
DRAWING TITLE:

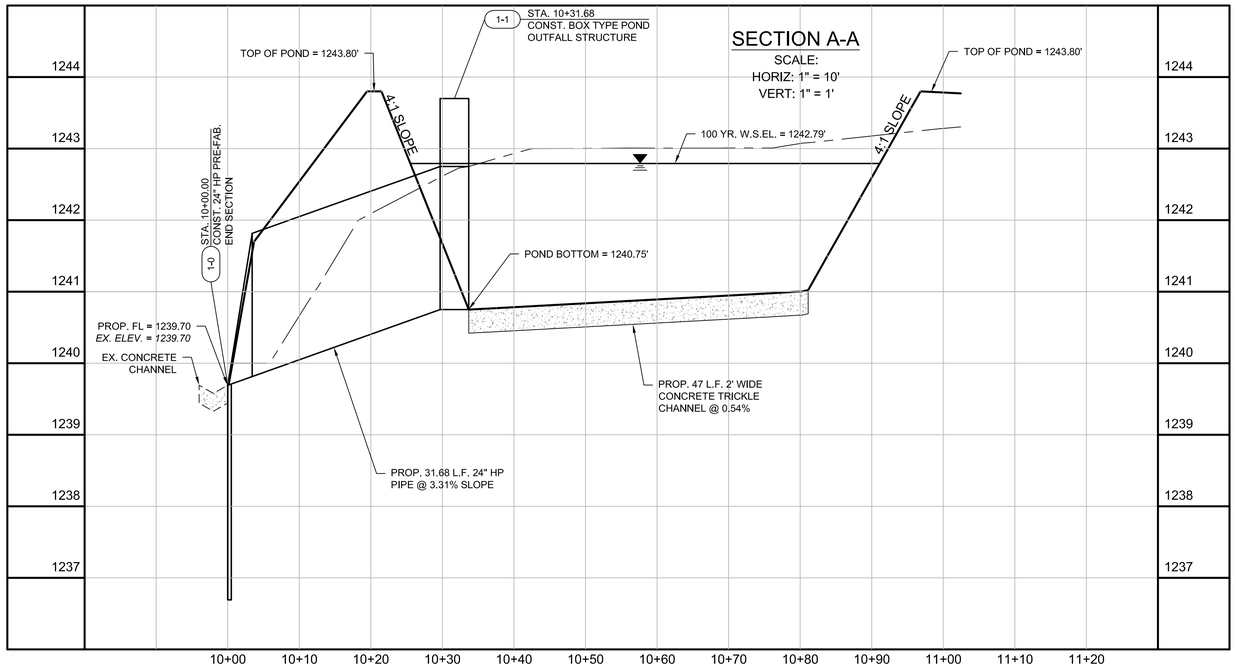
DRAINAGE - DEVELOPED

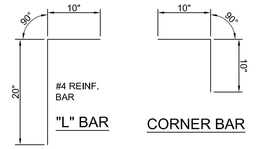
SHEET:

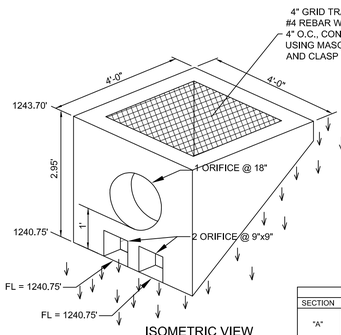
C3.02

BEFORE YOU DIG CALL OKIE





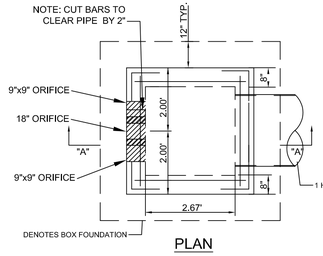




ISOMETRIC VIEW

REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4"S @ 6" E.W.
"B"	#6"S @ 6" E.W.

TABLE OF "W" DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIT	30°	45°
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"



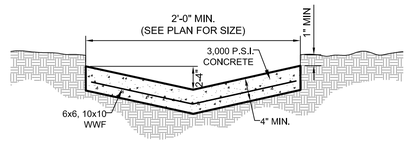
PLAN

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4"S @ 9"	#4"S @ 10"
	BETWEEN 4' & 7'	#6"S @ 9"	#4"S @ 10"
	GREATER THAN 7'	#5"S @ 4 1/2"	#4"S @ 10"
"B"	4'	#4"S @ 6"	#4"S @ 10"
	BETWEEN 4' & 7'	#6"S @ 6"	#4"S @ 10"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4"S @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4"S @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4"S @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4"S @ 6" E.W.	DIAGONAL @ COVER

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS AND FLOW LINES
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLET
5. ALL REINFORCING BARS TO BE GRADE 60

REINFORCEMENT SCHEDULE, TOP				
SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

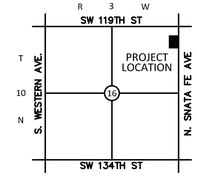


TRICKLE CHANNEL DETAIL

NOT TO SCALE

CEDAR CREEK
ENGINEERING • PLANNING • CONSULTING
P.O. Box 14534 Oklahoma City, OK 73113
405-778-3385
www.cedarcreekinc.com
OK CA 5864
EXP. 06/30/24

LOCATION MAP:



NOT TO SCALE

PROJECT:

HIGHLAND WEST JR. HIGH

901 N. SANTA FE
MOORE, OK

PROJECT NUMBER: 23069
DRAWING DATE: 11.02.23
ISSUE DATE: 11.02.23

SEAL:

SUBMITTAL:

PERMIT SET

REVISIONS:

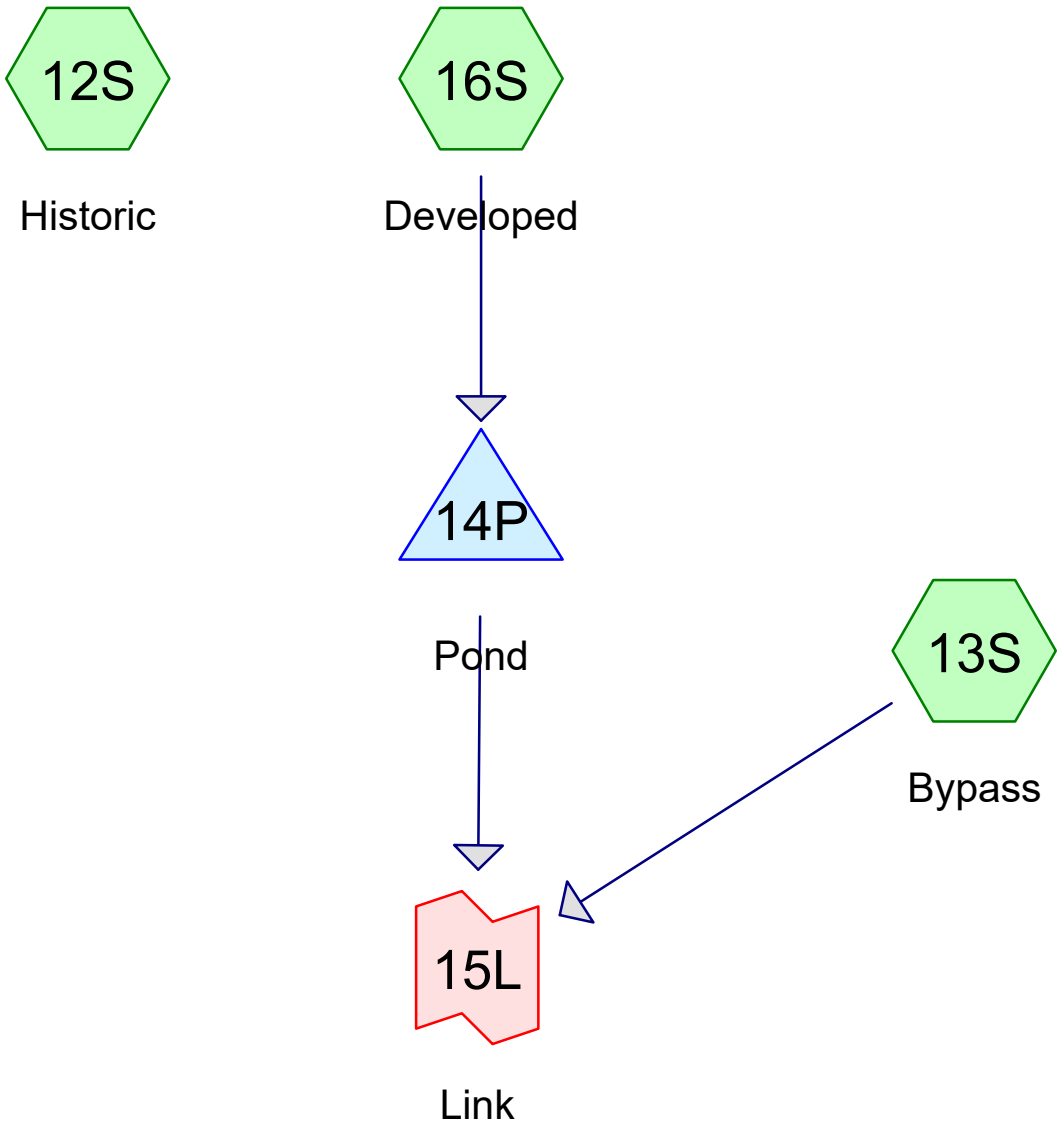
MARK	DATE	DESCRIPTION
1	11.02.23	CB #1

DRAWING TITLE:

DETENTION POND PLAN

SHEET:

C3.03



Subcat Reach Pond Link

Routing Diagram for Highland west detention10.30.23
Prepared by Windows User, Printed 11/2/2023

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.010	80	>75% Grass cover, Good, HSG D (12S, 13S, 16S)
2.070	98	Paved parking, HSG D (12S, 13S, 16S)

Time span=5.00-20.00 hrs, dt=0.02 hrs, 751 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment12S: Historic Runoff Area=3.040 ac 18.75% Impervious Runoff Depth>1.70"
Tc=5.0 min CN=83 Runoff=10.31 cfs 0.431 af

Subcatchment13S: Bypass Runoff Area=1.650 ac 35.76% Impervious Runoff Depth>1.93"
Tc=5.0 min CN=86 Runoff=6.24 cfs 0.266 af

Subcatchment16S: Developed Runoff Area=1.390 ac 65.47% Impervious Runoff Depth>2.45"
Tc=5.0 min CN=92 Runoff=6.31 cfs 0.284 af

Pond 14P: Pond Peak Elev=1,241.76' Storage=1,694 cf Inflow=6.31 cfs 0.284 af
Outflow=4.27 cfs 0.284 af

Link 15L: Link Inflow=10.22 cfs 0.549 af
Primary=10.22 cfs 0.549 af

Summary for Subcatchment 12S: Historic

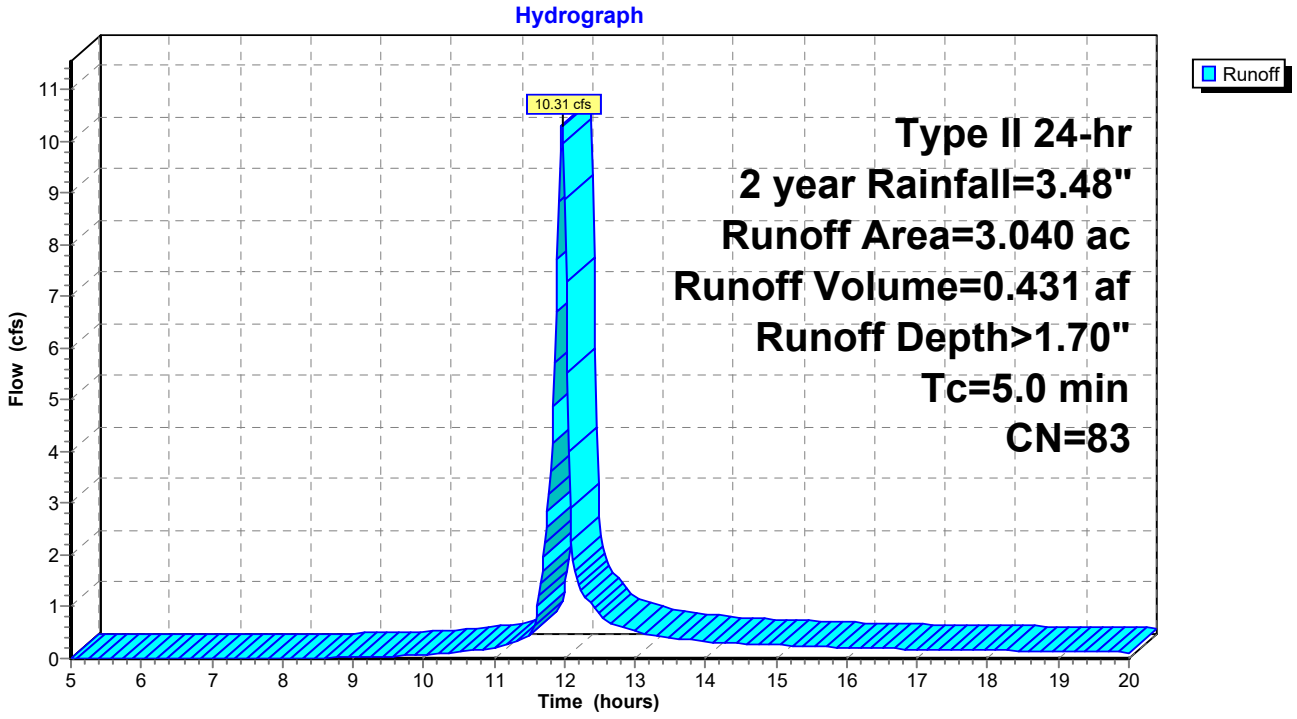
Runoff = 10.31 cfs @ 11.96 hrs, Volume= 0.431 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 year Rainfall=3.48"

Area (ac)	CN	Description
0.570	98	Paved parking, HSG D
2.470	80	>75% Grass cover, Good, HSG D
3.040	83	Weighted Average
2.470		81.25% Pervious Area
0.570		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 12S: Historic



Summary for Subcatchment 13S: Bypass

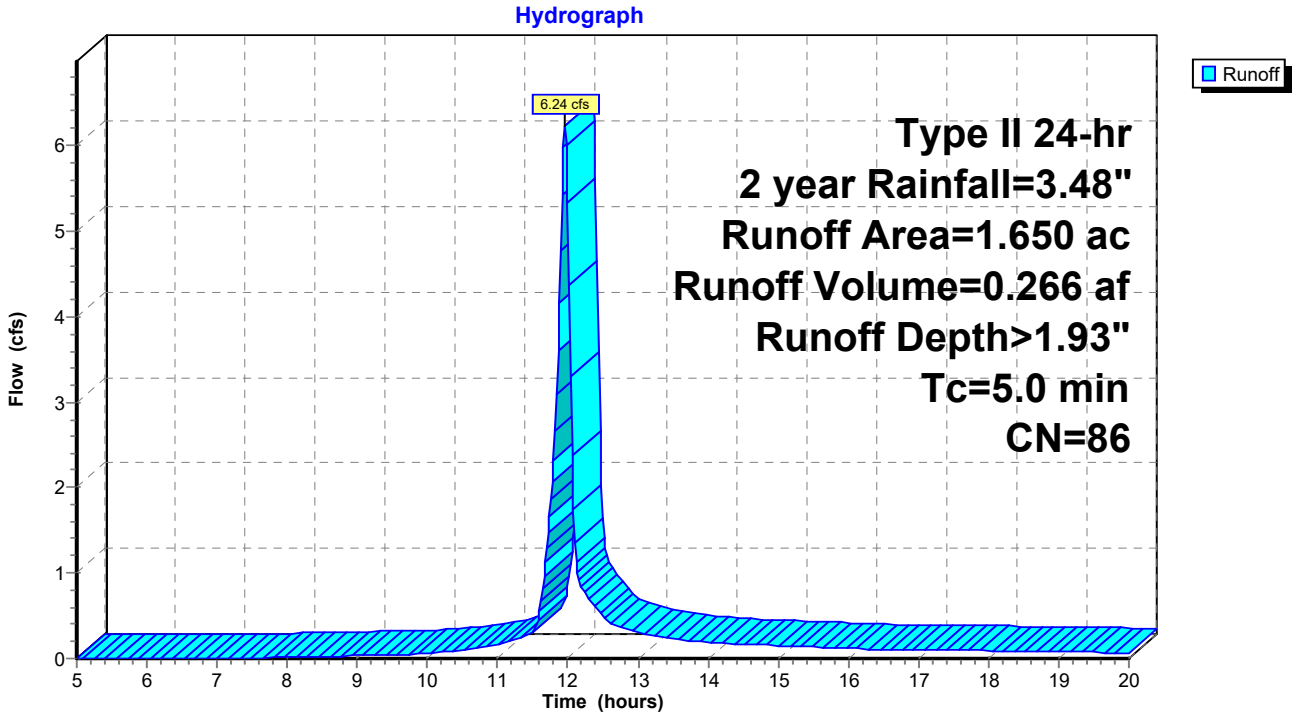
Runoff = 6.24 cfs @ 11.96 hrs, Volume= 0.266 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 year Rainfall=3.48"

	Area (ac)	CN	Description
	0.590	98	Paved parking, HSG D
*	1.060	80	>75% Grass cover, Good, HSG D
	1.650	86	Weighted Average
	1.060		64.24% Pervious Area
	0.590		35.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 13S: Bypass



Summary for Subcatchment 16S: Developed

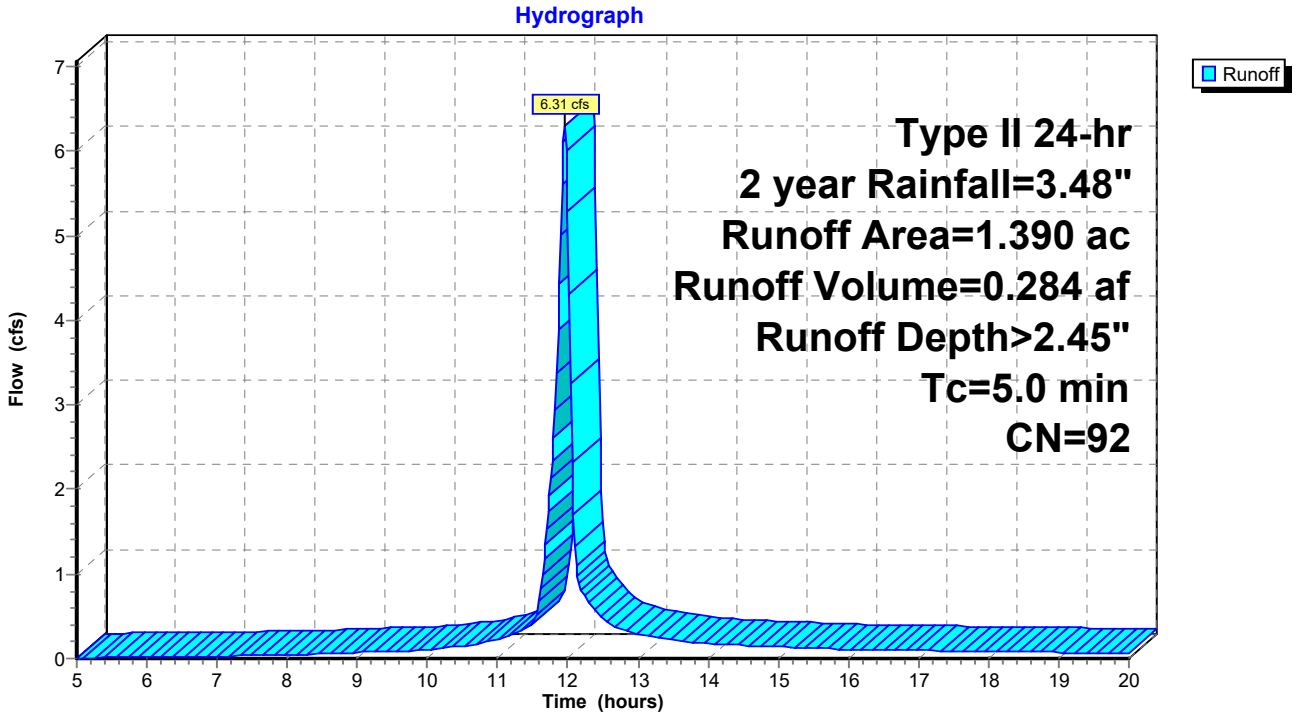
Runoff = 6.31 cfs @ 11.96 hrs, Volume= 0.284 af, Depth> 2.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 year Rainfall=3.48"

Area (ac)	CN	Description
0.910	98	Paved parking, HSG D
0.480	80	>75% Grass cover, Good, HSG D
1.390	92	Weighted Average
0.480		34.53% Pervious Area
0.910		65.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 16S: Developed



Summary for Pond 14P: Pond

Inflow Area = 1.390 ac, 65.47% Impervious, Inflow Depth > 2.45" for 2 year event
Inflow = 6.31 cfs @ 11.96 hrs, Volume= 0.284 af
Outflow = 4.27 cfs @ 12.02 hrs, Volume= 0.284 af, Atten= 32%, Lag= 3.8 min
Primary = 4.27 cfs @ 12.02 hrs, Volume= 0.284 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Peak Elev= 1,241.76' @ 12.02 hrs Surf.Area= 3,548 sf Storage= 1,694 cf

Plug-Flow detention time= 4.4 min calculated for 0.284 af (100% of inflow)
Center-of-Mass det. time= 3.9 min (759.9 - 756.0)

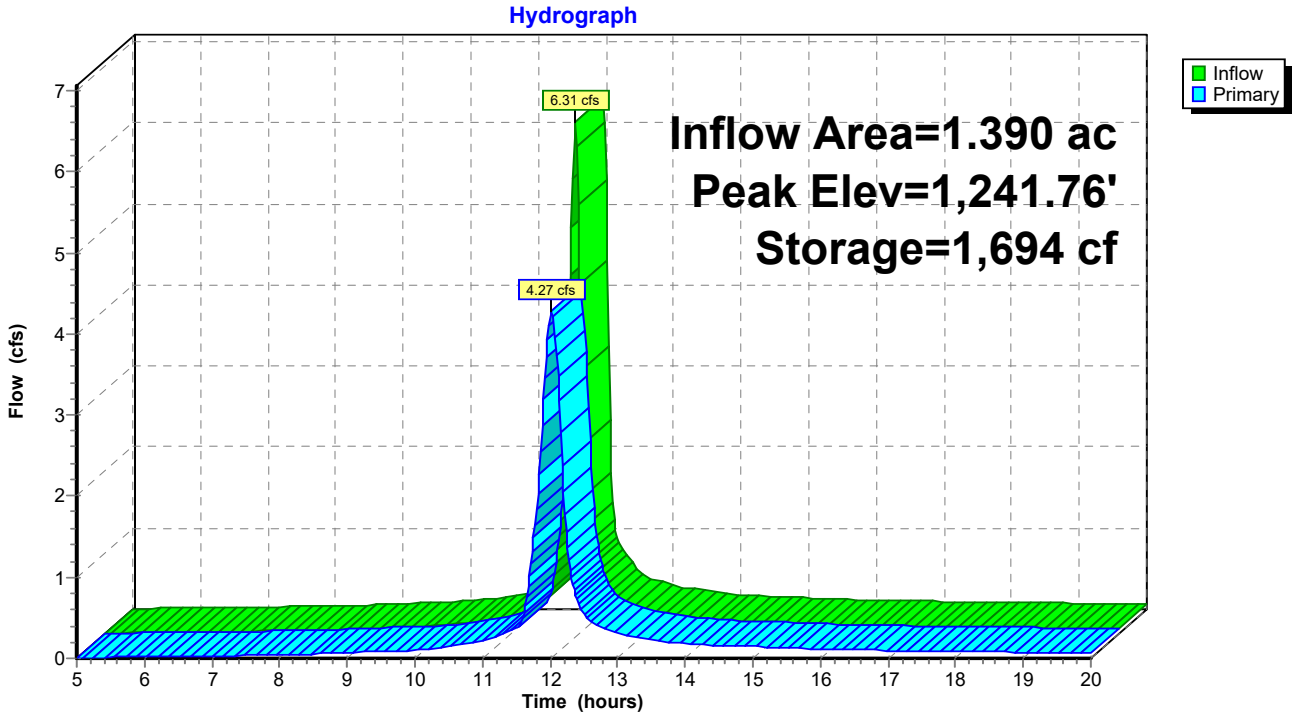
Volume	Invert	Avail.Storage	Storage Description
#1	1,240.75'	14,599 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,240.75	0	0	0
1,241.00	664	83	83
1,242.00	4,436	2,550	2,633
1,243.00	6,878	5,657	8,290
1,243.35	7,756	2,561	10,851
1,243.80	8,903	3,748	14,599

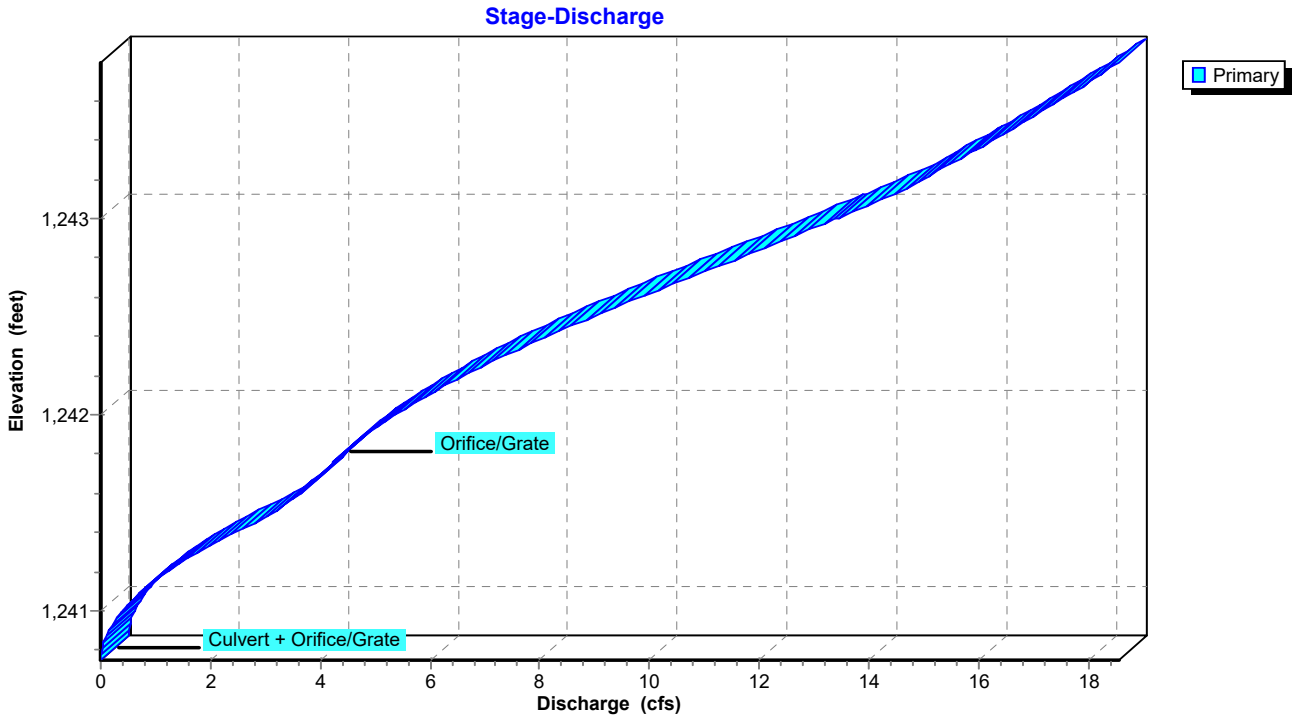
Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.75'	**24.0" Round Culvert** L= 31.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,240.75' / 1,239.70' S= 0.0331 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,240.75'	**9.0" W x 9.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#3	Device 1	1,241.75'	**18.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=4.27 cfs @ 12.02 hrs HW=1,241.76' TW=1,240.34' (Fixed TW Elev= 1,240.34')
└─**1=Culvert** (Passes 4.27 cfs of 5.48 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 4.26 cfs @ 3.79 fps)
  └─**3=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.41 fps)

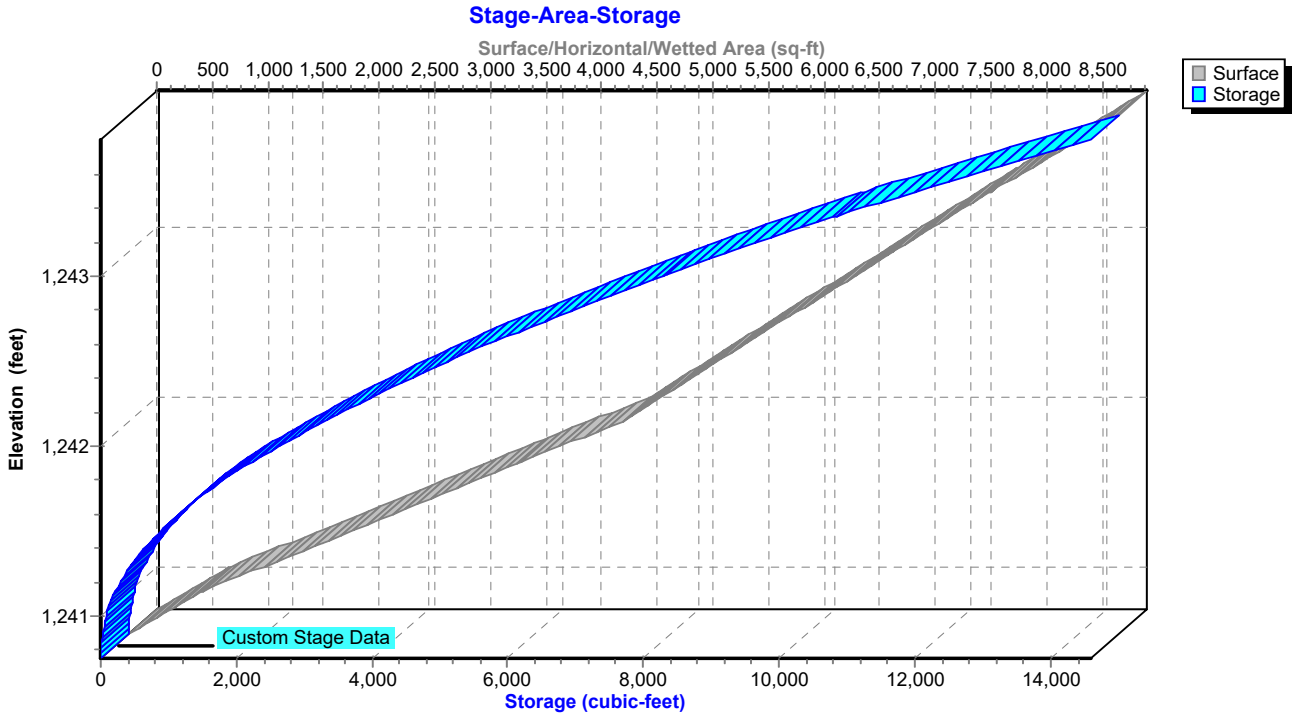
Pond 14P: Pond



Pond 14P: Pond



Pond 14P: Pond

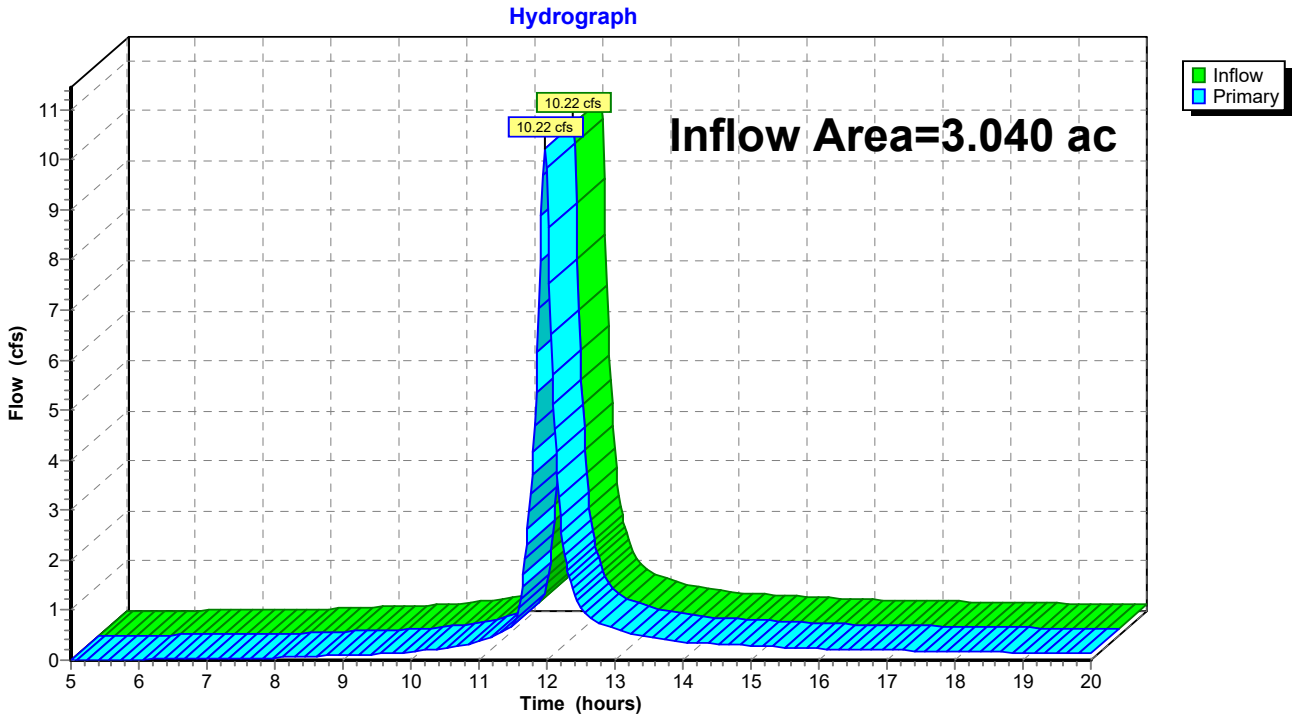


Summary for Link 15L: Link

Inflow Area = 3.040 ac, 49.34% Impervious, Inflow Depth > 2.17" for 2 year event
Inflow = 10.22 cfs @ 11.97 hrs, Volume= 0.549 af
Primary = 10.22 cfs @ 11.97 hrs, Volume= 0.549 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs

Link 15L: Link



Time span=5.00-20.00 hrs, dt=0.02 hrs, 751 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment12S: Historic Runoff Area=3.040 ac 18.75% Impervious Runoff Depth>2.51"
Tc=5.0 min CN=83 Runoff=14.90 cfs 0.635 af

Subcatchment13S: Bypass Runoff Area=1.650 ac 35.76% Impervious Runoff Depth>2.78"
Tc=5.0 min CN=86 Runoff=8.77 cfs 0.382 af

Subcatchment16S: Developed Runoff Area=1.390 ac 65.47% Impervious Runoff Depth>3.35"
Tc=5.0 min CN=92 Runoff=8.43 cfs 0.388 af

Pond 14P: Pond Peak Elev=1,241.99' Storage=2,591 cf Inflow=8.43 cfs 0.388 af
Outflow=5.31 cfs 0.388 af

Link 15L: Link Inflow=13.52 cfs 0.769 af
Primary=13.52 cfs 0.769 af

Summary for Subcatchment 12S: Historic

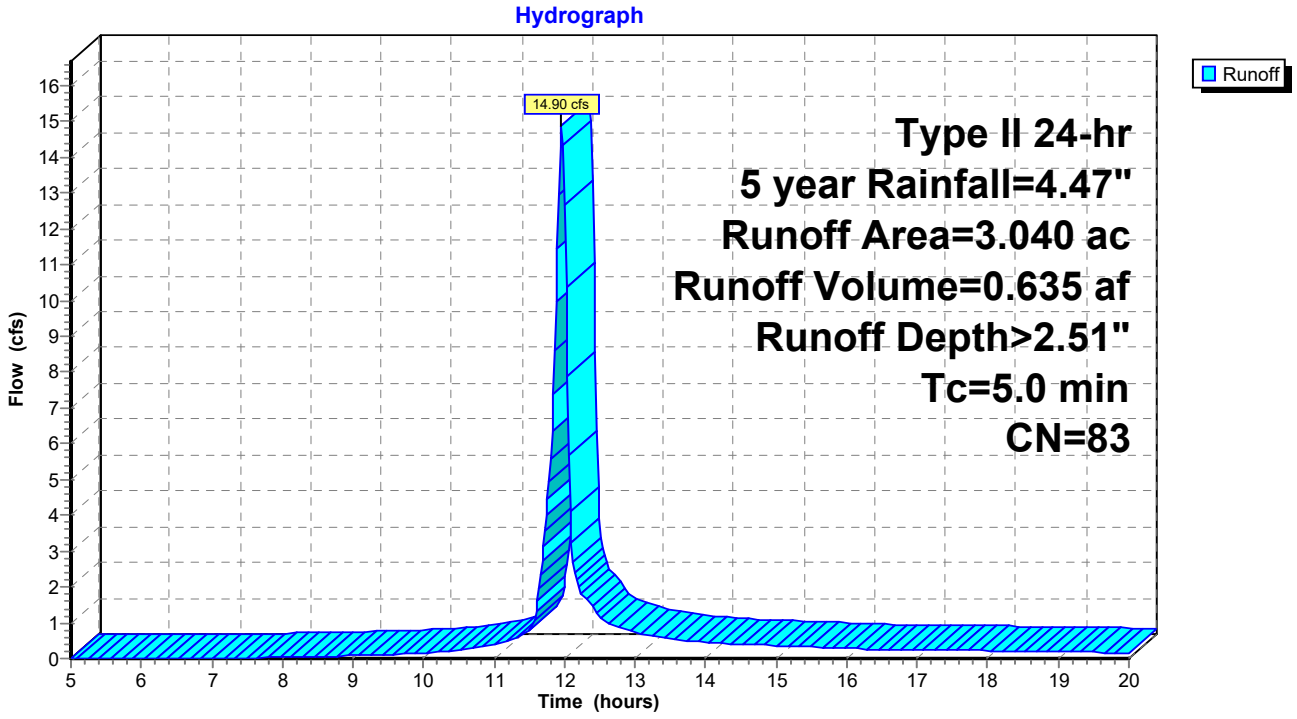
Runoff = 14.90 cfs @ 11.96 hrs, Volume= 0.635 af, Depth> 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 5 year Rainfall=4.47"

Area (ac)	CN	Description
0.570	98	Paved parking, HSG D
2.470	80	>75% Grass cover, Good, HSG D
3.040	83	Weighted Average
2.470		81.25% Pervious Area
0.570		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 12S: Historic



Summary for Subcatchment 13S: Bypass

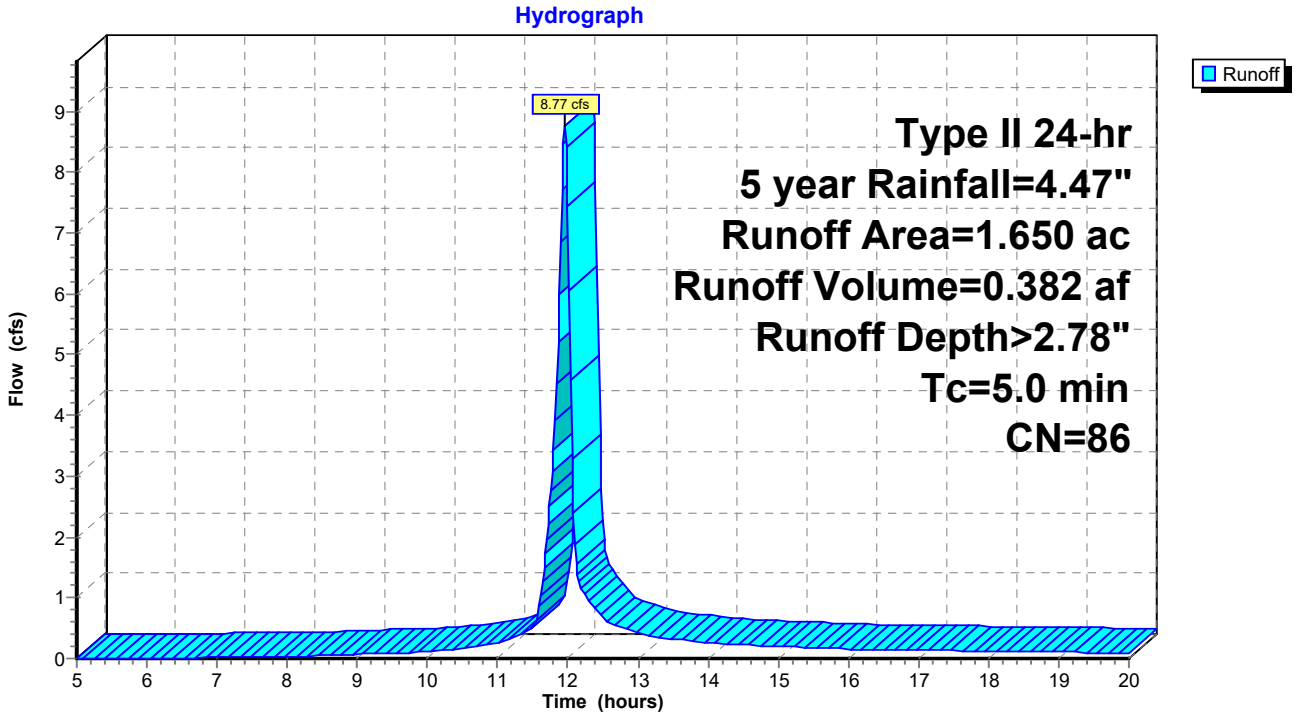
Runoff = 8.77 cfs @ 11.96 hrs, Volume= 0.382 af, Depth> 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 5 year Rainfall=4.47"

	Area (ac)	CN	Description
	0.590	98	Paved parking, HSG D
*	1.060	80	>75% Grass cover, Good, HSG D
	1.650	86	Weighted Average
	1.060		64.24% Pervious Area
	0.590		35.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 13S: Bypass



Summary for Subcatchment 16S: Developed

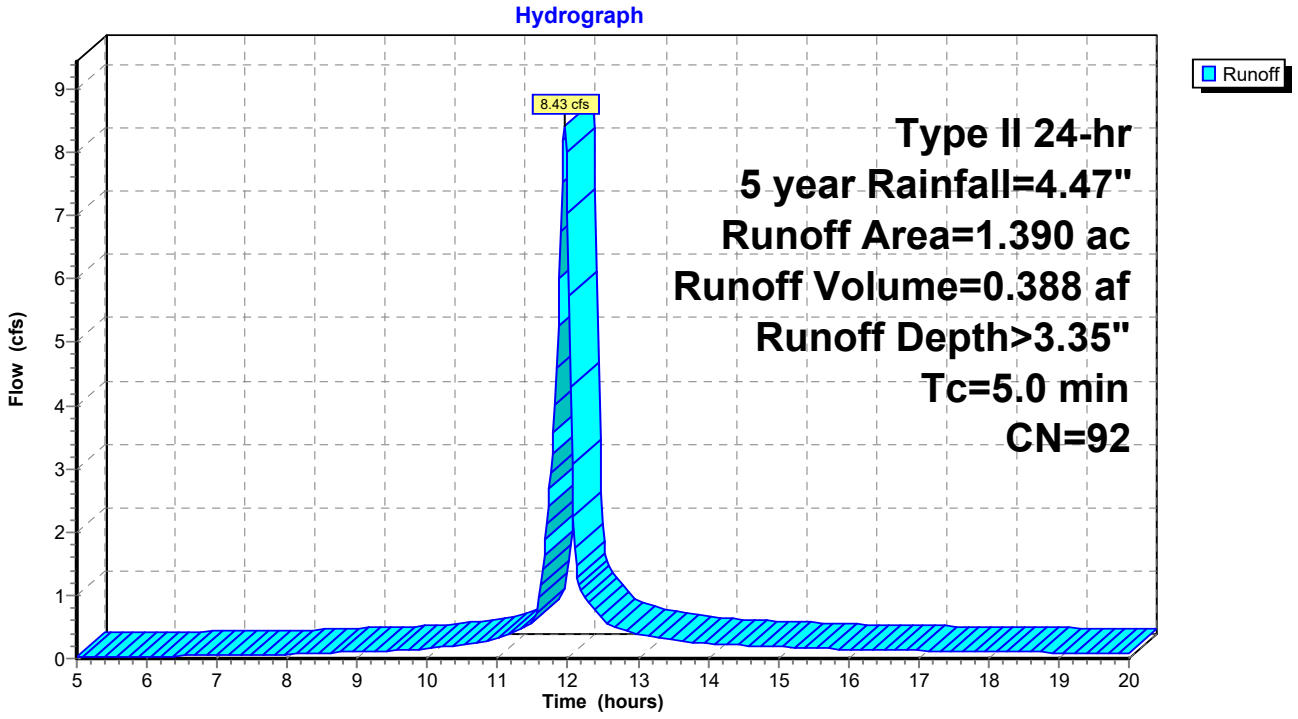
Runoff = 8.43 cfs @ 11.96 hrs, Volume= 0.388 af, Depth> 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 5 year Rainfall=4.47"

Area (ac)	CN	Description
0.910	98	Paved parking, HSG D
0.480	80	>75% Grass cover, Good, HSG D
1.390	92	Weighted Average
0.480		34.53% Pervious Area
0.910		65.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 16S: Developed



Summary for Pond 14P: Pond

Inflow Area = 1.390 ac, 65.47% Impervious, Inflow Depth > 3.35" for 5 year event
Inflow = 8.43 cfs @ 11.96 hrs, Volume= 0.388 af
Outflow = 5.31 cfs @ 12.03 hrs, Volume= 0.388 af, Atten= 37%, Lag= 4.1 min
Primary = 5.31 cfs @ 12.03 hrs, Volume= 0.388 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Peak Elev= 1,241.99' @ 12.03 hrs Surf.Area= 4,400 sf Storage= 2,591 cf

Plug-Flow detention time= 4.9 min calculated for 0.388 af (100% of inflow)
Center-of-Mass det. time= 4.4 min (754.1 - 749.7)

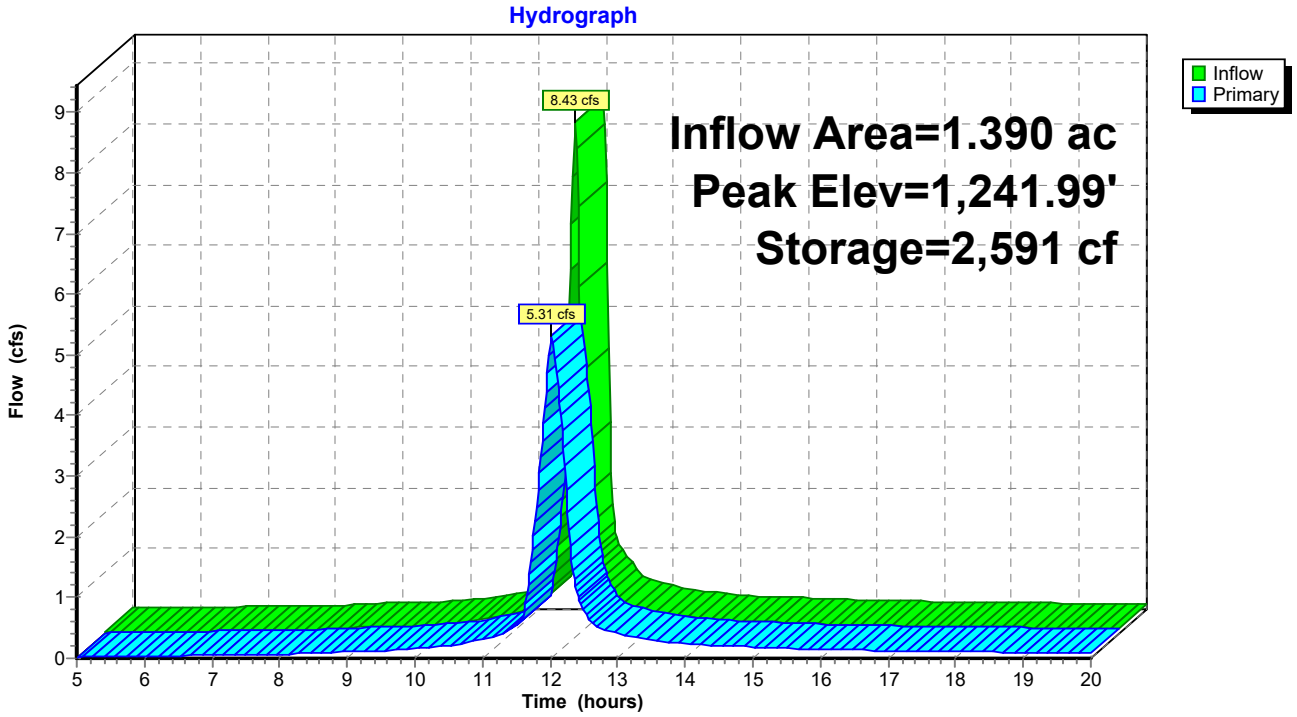
Volume	Invert	Avail.Storage	Storage Description
#1	1,240.75'	14,599 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,240.75	0	0	0
1,241.00	664	83	83
1,242.00	4,436	2,550	2,633
1,243.00	6,878	5,657	8,290
1,243.35	7,756	2,561	10,851
1,243.80	8,903	3,748	14,599

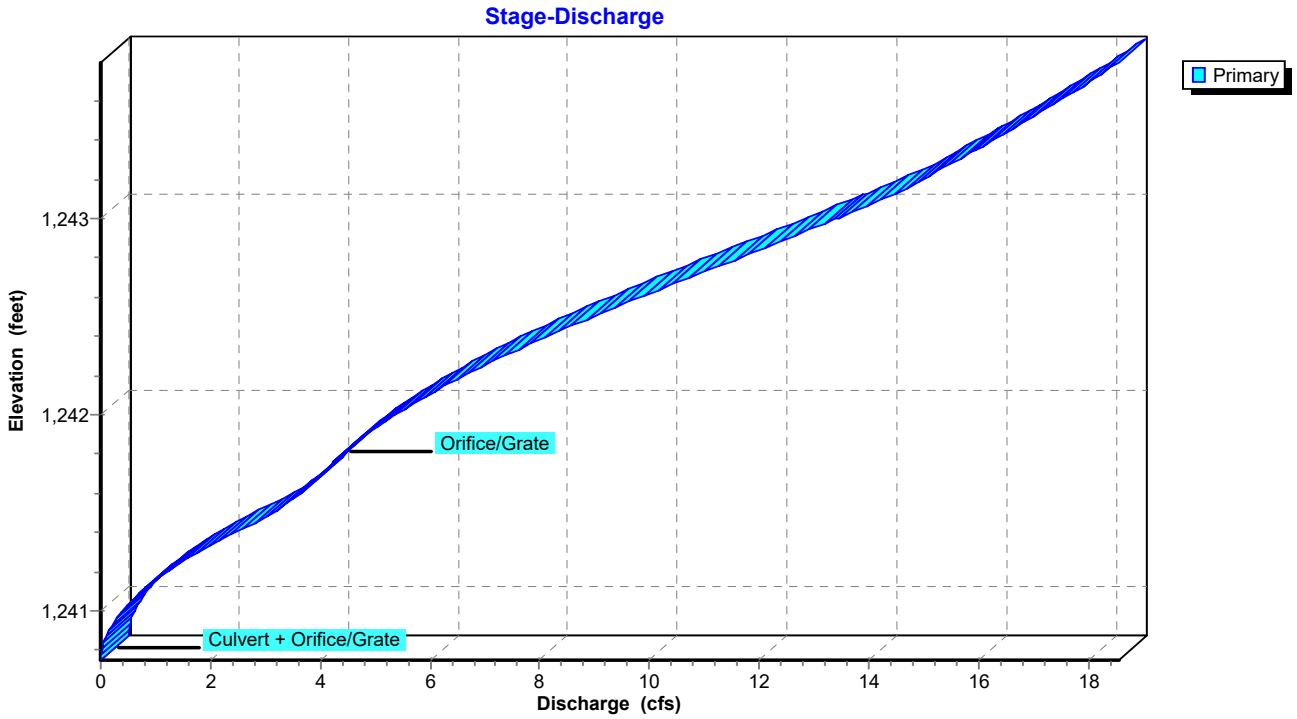
Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.75'	**24.0" Round Culvert** L= 31.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,240.75' / 1,239.70' S= 0.0331 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,240.75'	**9.0" W x 9.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#3	Device 1	1,241.75'	**18.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.29 cfs @ 12.03 hrs HW=1,241.99' TW=1,240.34' (Fixed TW Elev= 1,240.34')
└─**1=Culvert** (Passes 5.29 cfs of 7.74 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 4.99 cfs @ 4.44 fps)
  └─**3=Orifice/Grate** (Orifice Controls 0.30 cfs @ 1.66 fps)

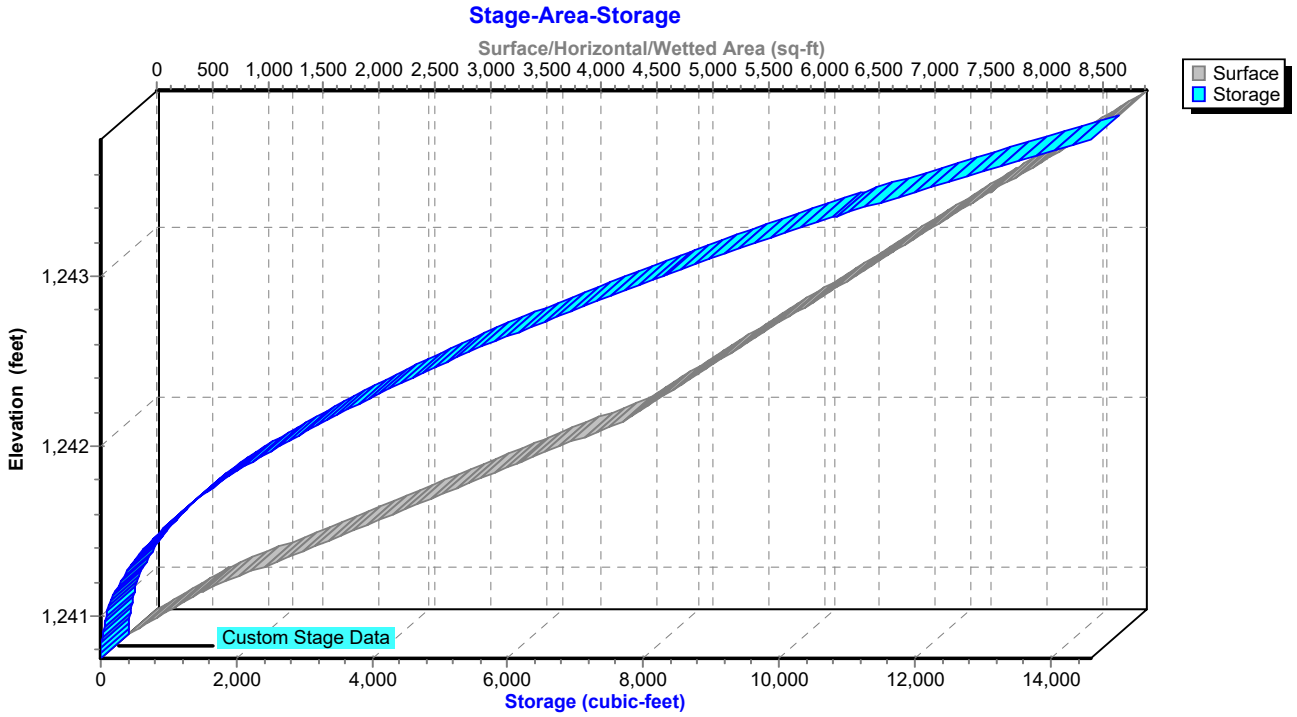
Pond 14P: Pond



Pond 14P: Pond



Pond 14P: Pond

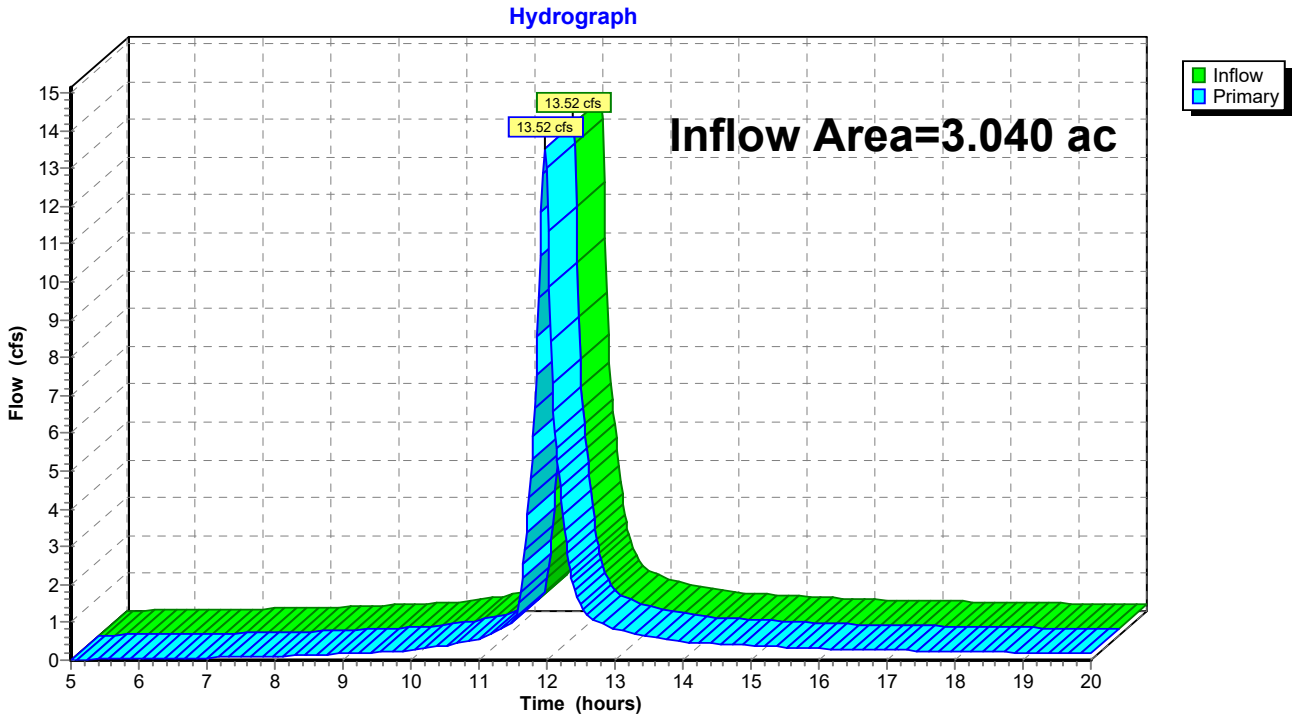


Summary for Link 15L: Link

Inflow Area = 3.040 ac, 49.34% Impervious, Inflow Depth > 3.04" for 5 year event
Inflow = 13.52 cfs @ 11.97 hrs, Volume= 0.769 af
Primary = 13.52 cfs @ 11.97 hrs, Volume= 0.769 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs

Link 15L: Link



Time span=5.00-20.00 hrs, dt=0.02 hrs, 751 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment12S: Historic Runoff Area=3.040 ac 18.75% Impervious Runoff Depth>3.27"
Tc=5.0 min CN=83 Runoff=19.13 cfs 0.829 af

Subcatchment13S: Bypass Runoff Area=1.650 ac 35.76% Impervious Runoff Depth>3.57"
Tc=5.0 min CN=86 Runoff=11.08 cfs 0.491 af

Subcatchment16S: Developed Runoff Area=1.390 ac 65.47% Impervious Runoff Depth>4.17"
Tc=5.0 min CN=92 Runoff=10.34 cfs 0.483 af

Pond 14P: Pond Peak Elev=1,242.17' Storage=3,425 cf Inflow=10.34 cfs 0.483 af
Outflow=6.40 cfs 0.483 af

Link 15L: Link Inflow=16.68 cfs 0.973 af
Primary=16.68 cfs 0.973 af

Summary for Subcatchment 12S: Historic

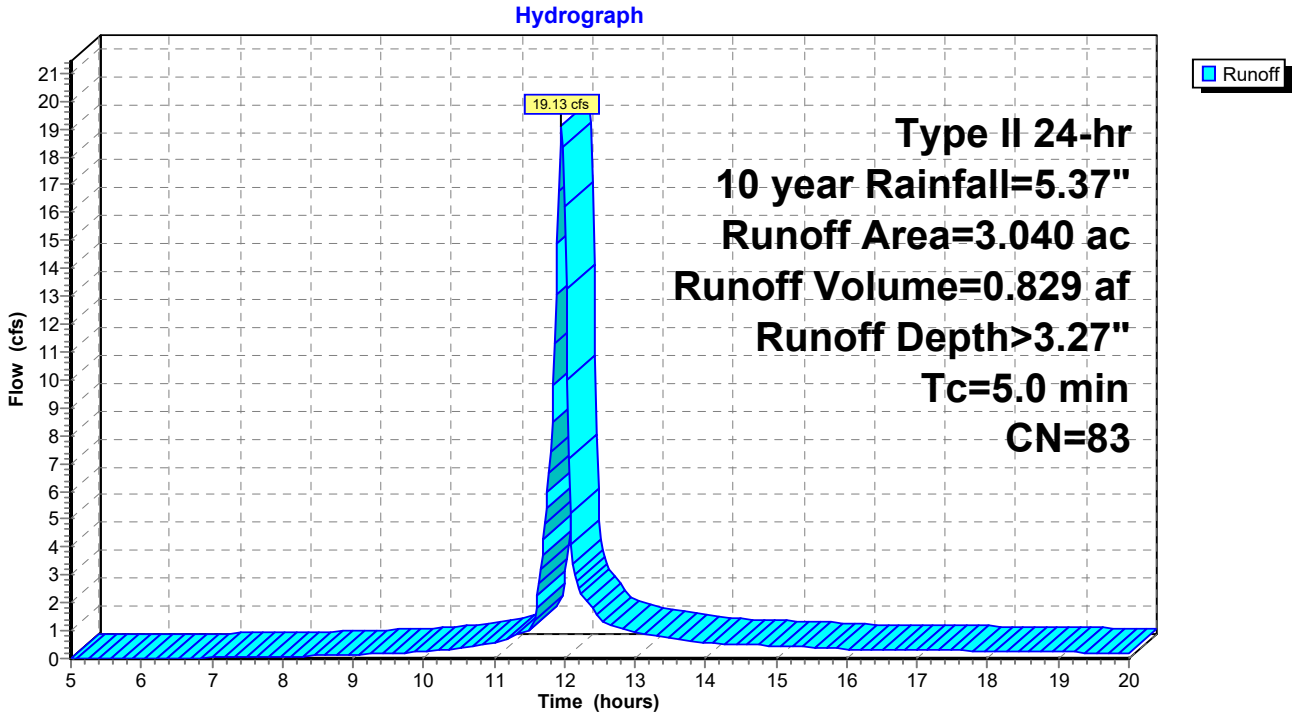
Runoff = 19.13 cfs @ 11.96 hrs, Volume= 0.829 af, Depth> 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 year Rainfall=5.37"

Area (ac)	CN	Description
0.570	98	Paved parking, HSG D
2.470	80	>75% Grass cover, Good, HSG D
3.040	83	Weighted Average
2.470		81.25% Pervious Area
0.570		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 12S: Historic



Summary for Subcatchment 13S: Bypass

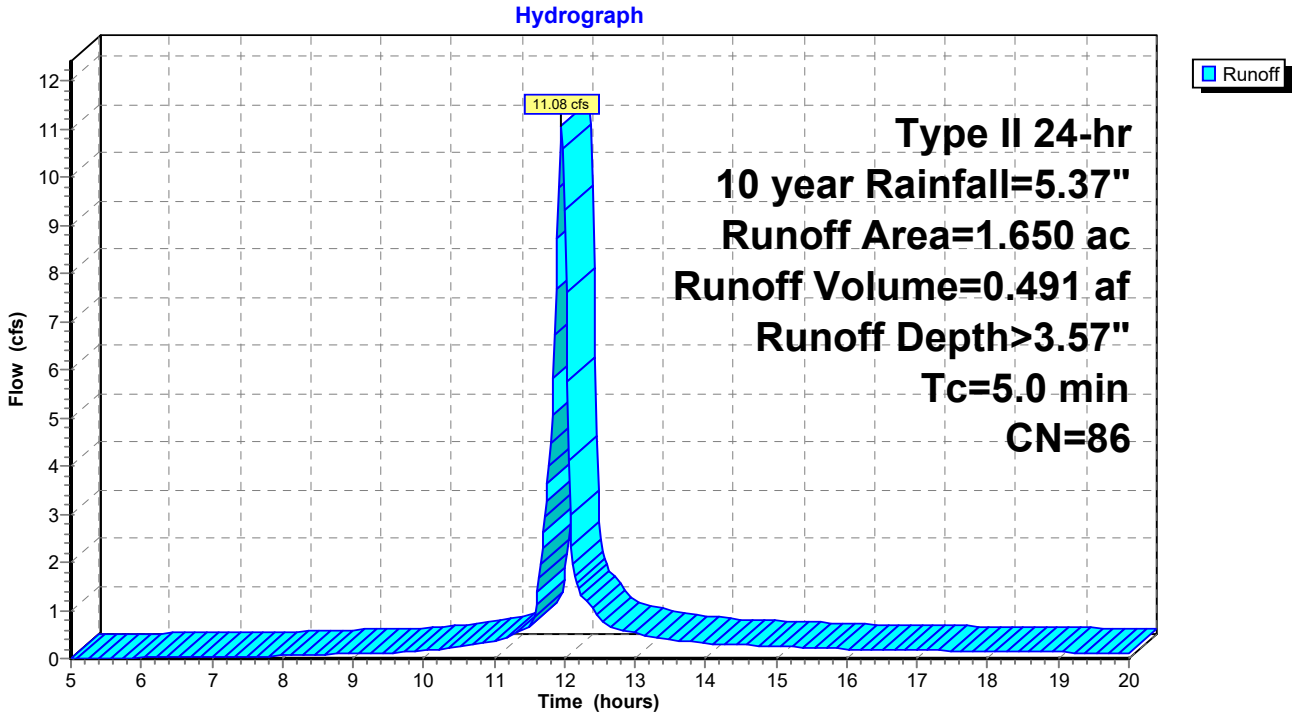
Runoff = 11.08 cfs @ 11.96 hrs, Volume= 0.491 af, Depth> 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 year Rainfall=5.37"

	Area (ac)	CN	Description
	0.590	98	Paved parking, HSG D
*	1.060	80	>75% Grass cover, Good, HSG D
	1.650	86	Weighted Average
	1.060		64.24% Pervious Area
	0.590		35.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 13S: Bypass



Summary for Subcatchment 16S: Developed

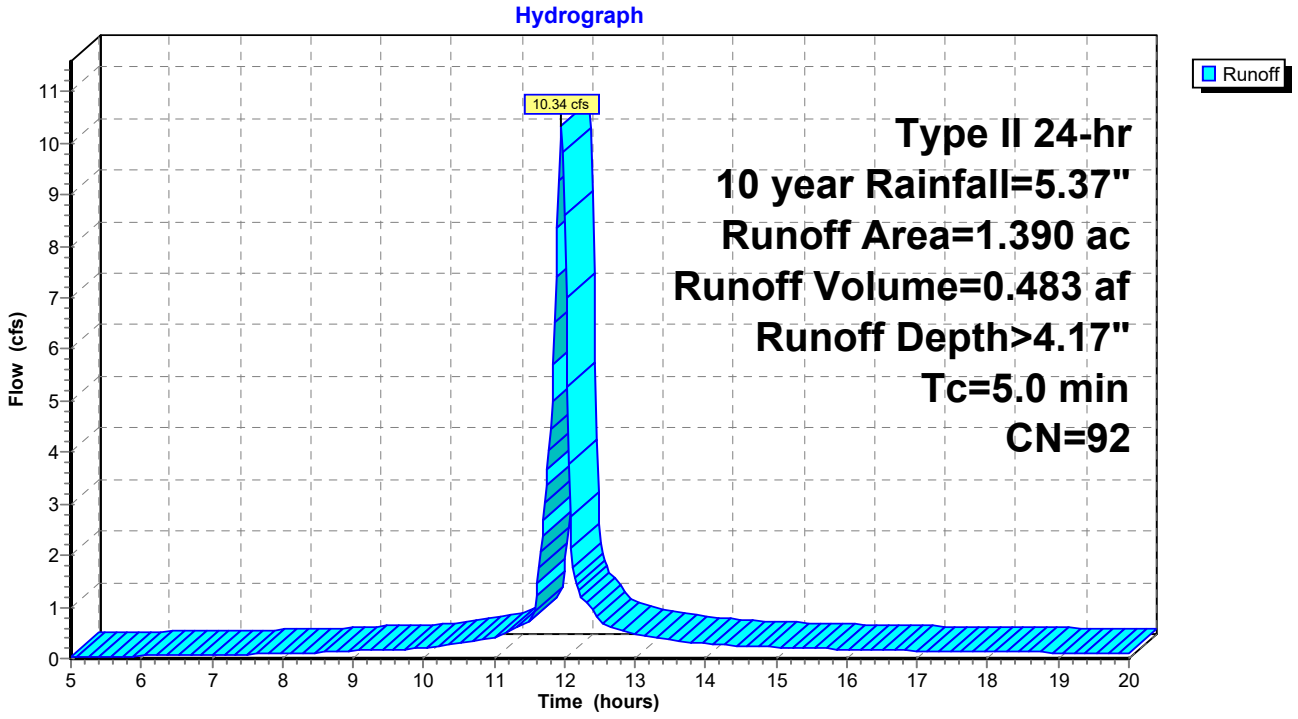
Runoff = 10.34 cfs @ 11.96 hrs, Volume= 0.483 af, Depth> 4.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 year Rainfall=5.37"

Area (ac)	CN	Description
0.910	98	Paved parking, HSG D
0.480	80	>75% Grass cover, Good, HSG D
1.390	92	Weighted Average
0.480		34.53% Pervious Area
0.910		65.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 16S: Developed



Summary for Pond 14P: Pond

Inflow Area = 1.390 ac, 65.47% Impervious, Inflow Depth > 4.17" for 10 year event
Inflow = 10.34 cfs @ 11.96 hrs, Volume= 0.483 af
Outflow = 6.40 cfs @ 12.03 hrs, Volume= 0.483 af, Atten= 38%, Lag= 4.2 min
Primary = 6.40 cfs @ 12.03 hrs, Volume= 0.483 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Peak Elev= 1,242.17' @ 12.03 hrs Surf.Area= 4,852 sf Storage= 3,425 cf

Plug-Flow detention time= 5.2 min calculated for 0.483 af (100% of inflow)
Center-of-Mass det. time= 4.8 min (750.5 - 745.7)

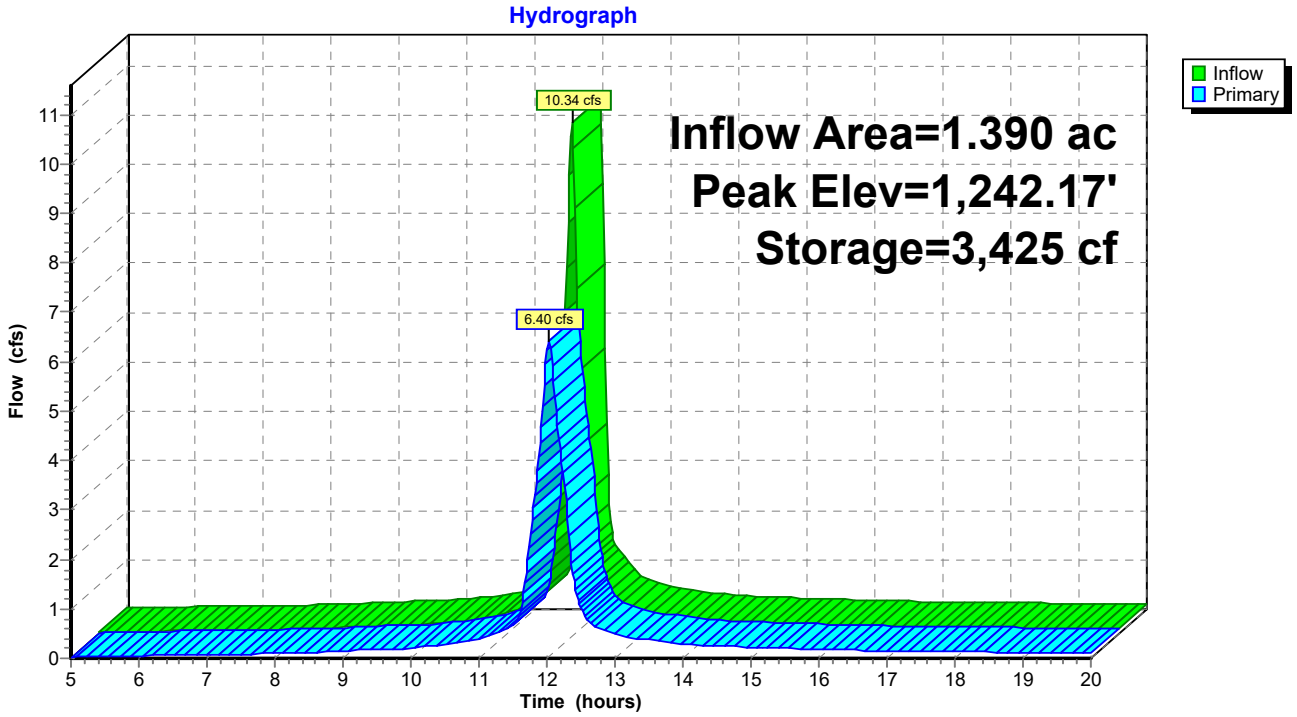
Volume	Invert	Avail.Storage	Storage Description
#1	1,240.75'	14,599 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,240.75	0	0	0
1,241.00	664	83	83
1,242.00	4,436	2,550	2,633
1,243.00	6,878	5,657	8,290
1,243.35	7,756	2,561	10,851
1,243.80	8,903	3,748	14,599

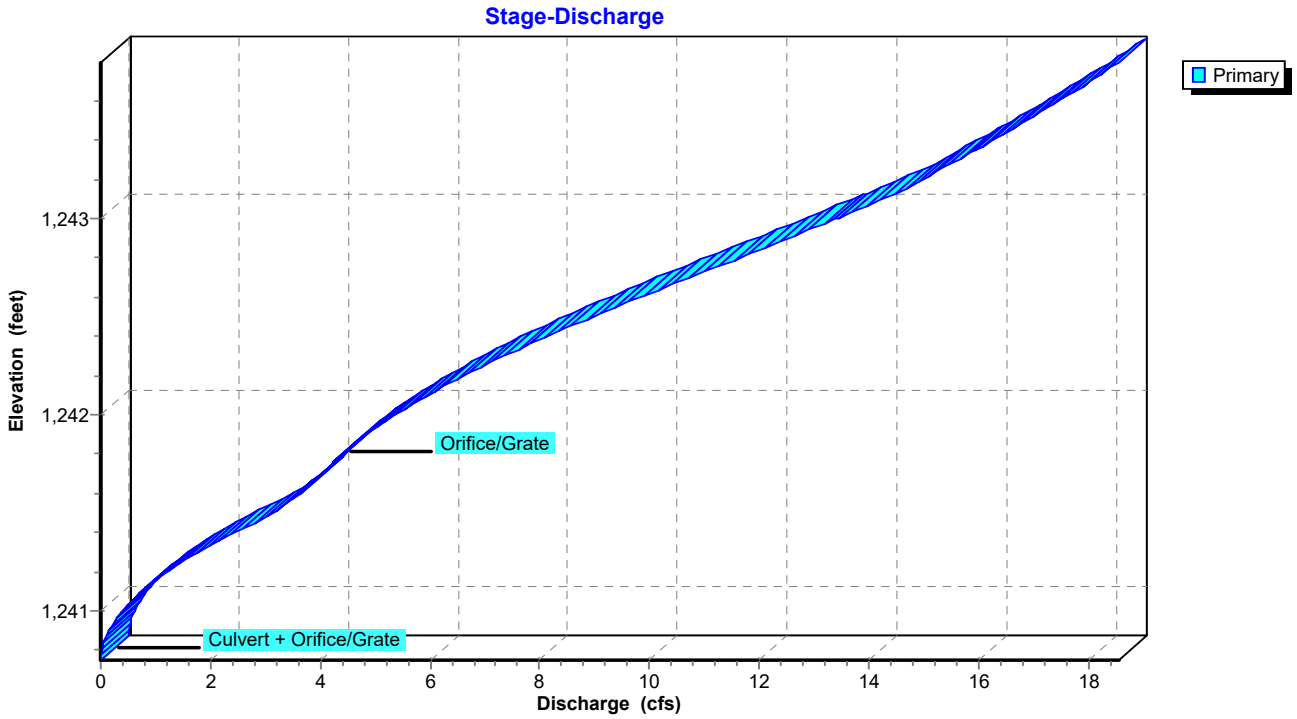
Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.75'	**24.0" Round Culvert** L= 31.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,240.75' / 1,239.70' S= 0.0331 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,240.75'	**9.0" W x 9.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#3	Device 1	1,241.75'	**18.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=6.38 cfs @ 12.03 hrs HW=1,242.17' TW=1,240.34' (Fixed TW Elev= 1,240.34')
└─**1=Culvert** (Passes 6.38 cfs of 9.65 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 5.50 cfs @ 4.89 fps)
  └─**3=Orifice/Grate** (Orifice Controls 0.88 cfs @ 2.20 fps)

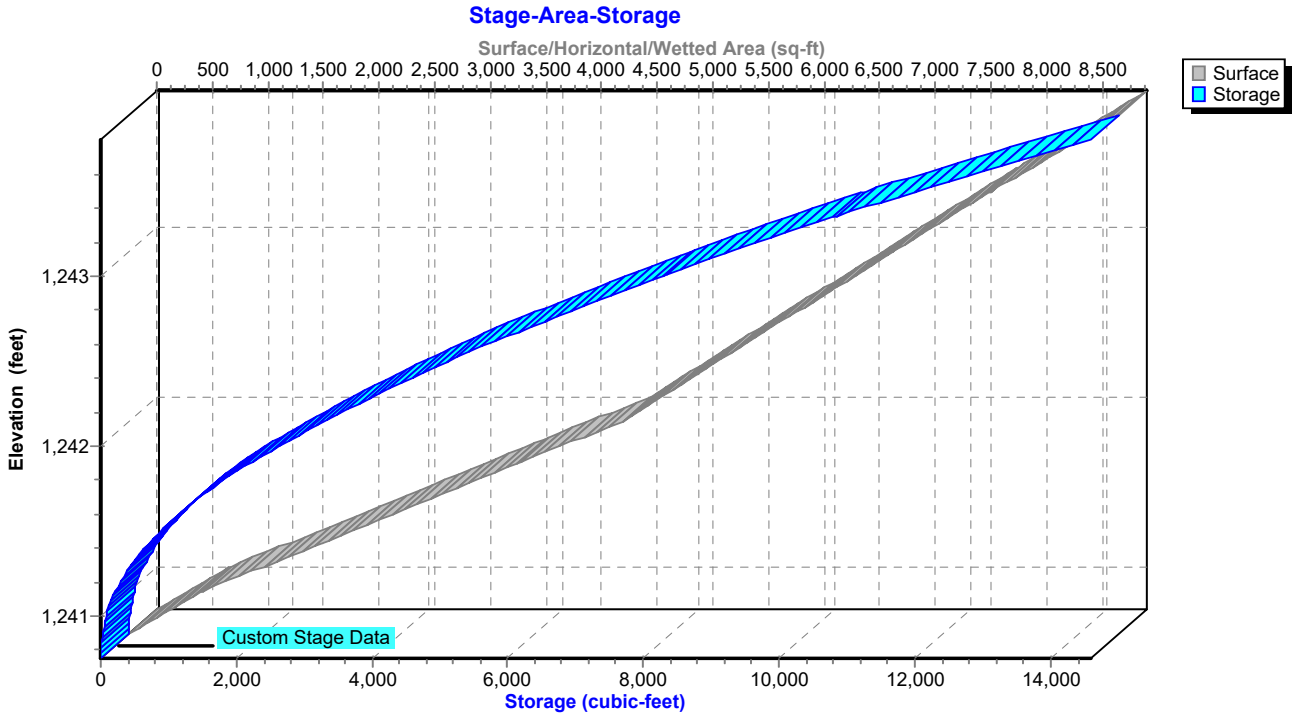
Pond 14P: Pond



Pond 14P: Pond



Pond 14P: Pond

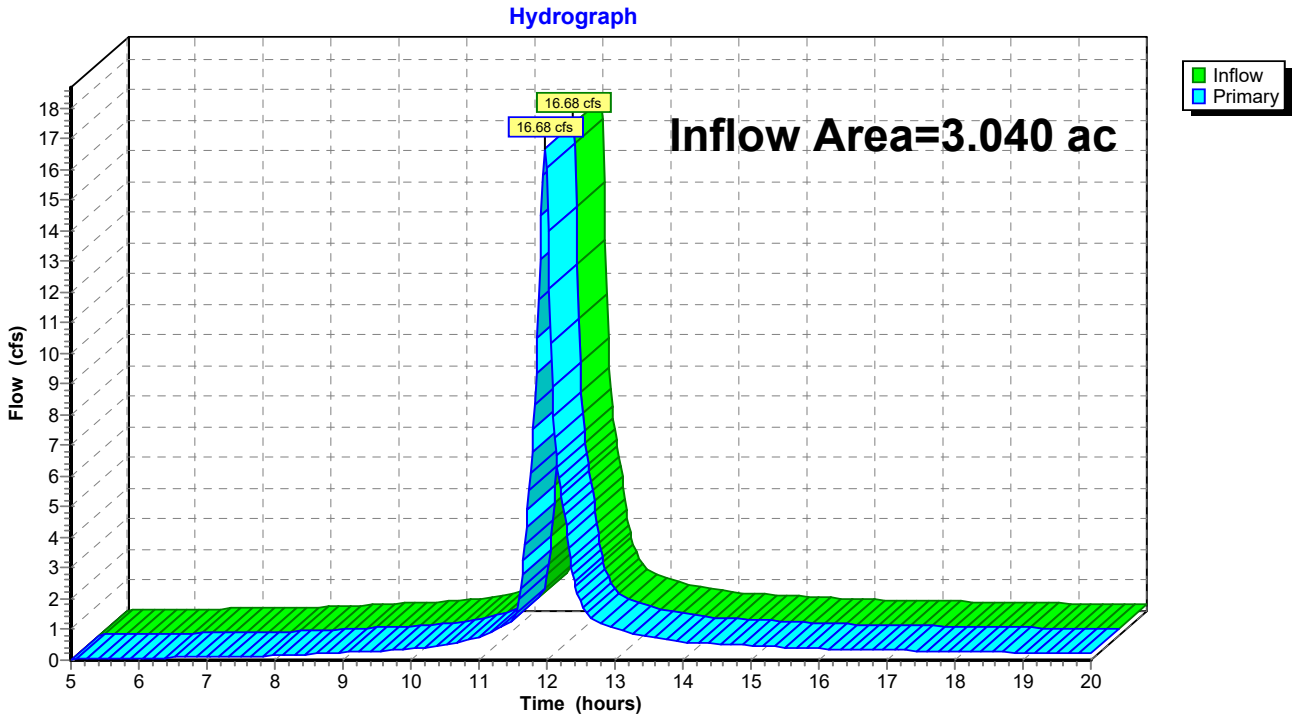


Summary for Link 15L: Link

Inflow Area = 3.040 ac, 49.34% Impervious, Inflow Depth > 3.84" for 10 year event
Inflow = 16.68 cfs @ 11.97 hrs, Volume= 0.973 af
Primary = 16.68 cfs @ 11.97 hrs, Volume= 0.973 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs

Link 15L: Link



Time span=5.00-20.00 hrs, dt=0.02 hrs, 751 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment12S: Historic Runoff Area=3.040 ac 18.75% Impervious Runoff Depth>5.55"
Tc=5.0 min CN=83 Runoff=31.28 cfs 1.405 af

Subcatchment13S: Bypass Runoff Area=1.650 ac 35.76% Impervious Runoff Depth>5.88"
Tc=5.0 min CN=86 Runoff=17.65 cfs 0.809 af

Subcatchment16S: Developed Runoff Area=1.390 ac 65.47% Impervious Runoff Depth>6.52"
Tc=5.0 min CN=92 Runoff=15.76 cfs 0.755 af

Pond 14P: Pond Peak Elev=1,242.60' Storage=5,757 cf Inflow=15.76 cfs 0.755 af
Outflow=9.84 cfs 0.754 af

Link 15L: Link Inflow=26.13 cfs 1.563 af
Primary=26.13 cfs 1.563 af

Summary for Subcatchment 12S: Historic

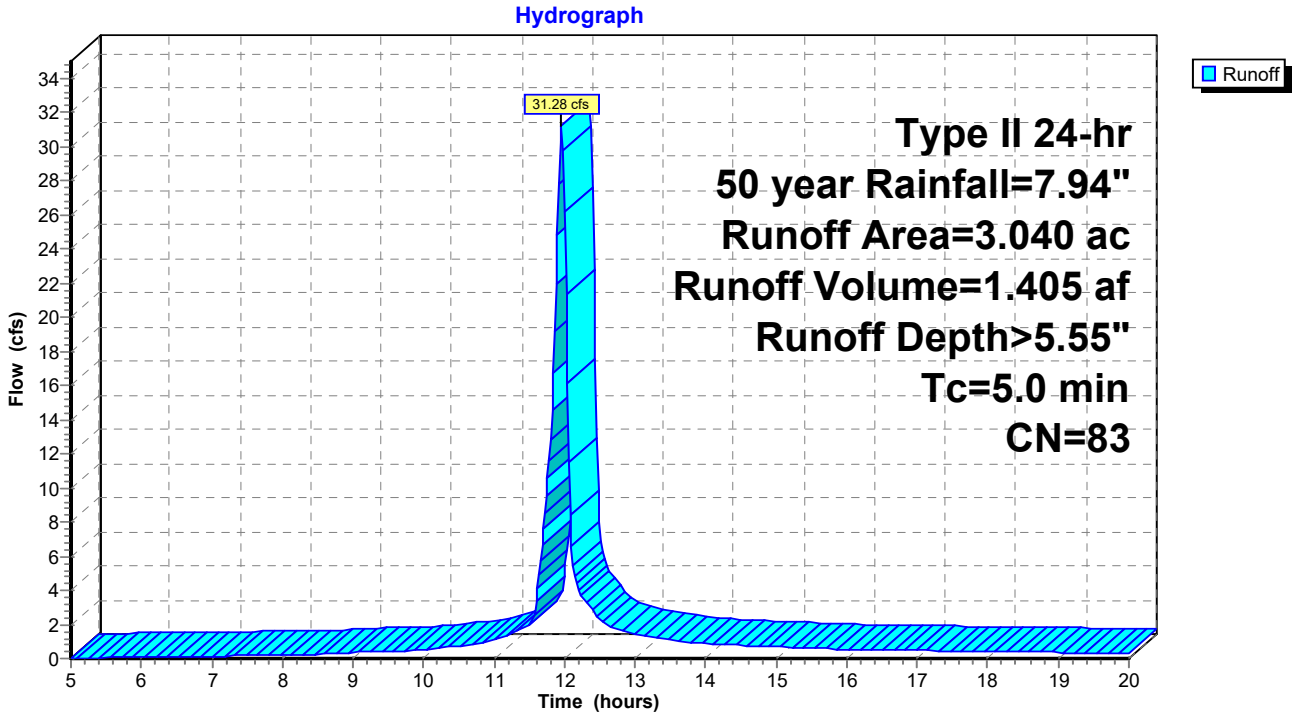
Runoff = 31.28 cfs @ 11.96 hrs, Volume= 1.405 af, Depth> 5.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 50 year Rainfall=7.94"

Area (ac)	CN	Description
0.570	98	Paved parking, HSG D
2.470	80	>75% Grass cover, Good, HSG D
3.040	83	Weighted Average
2.470		81.25% Pervious Area
0.570		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 12S: Historic



Summary for Subcatchment 13S: Bypass

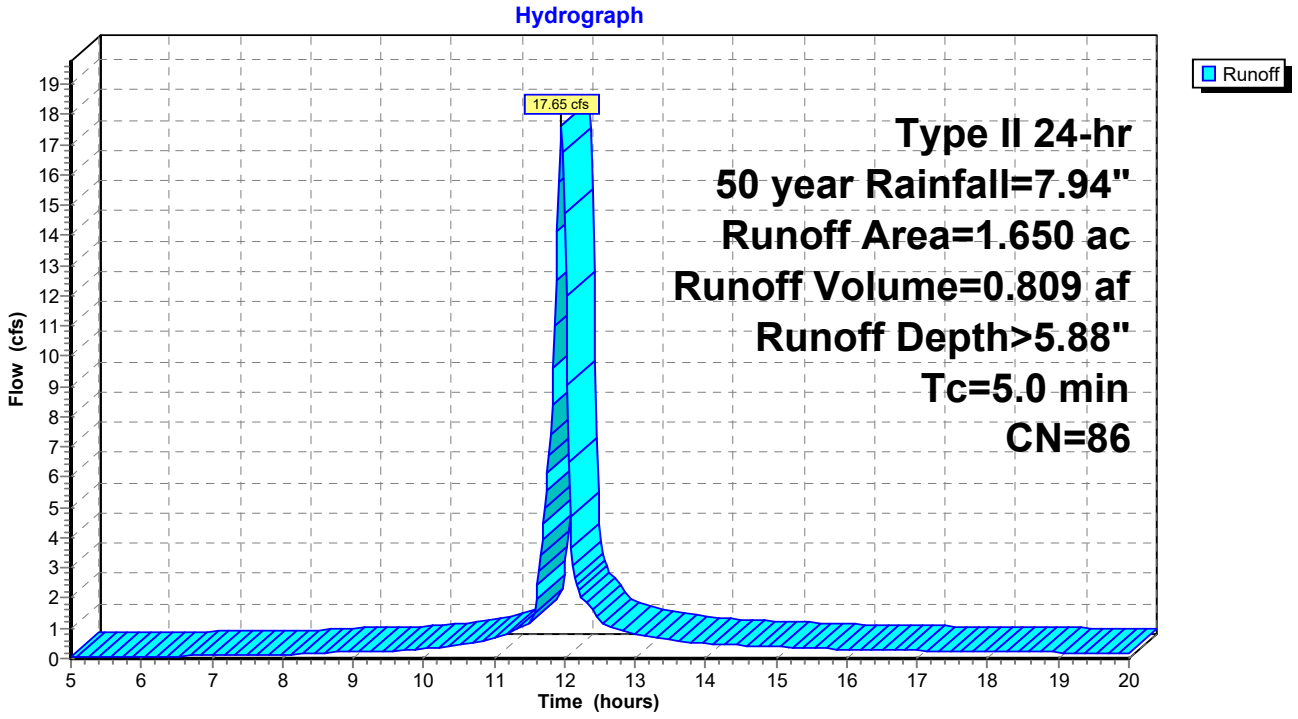
Runoff = 17.65 cfs @ 11.96 hrs, Volume= 0.809 af, Depth> 5.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 50 year Rainfall=7.94"

	Area (ac)	CN	Description
	0.590	98	Paved parking, HSG D
*	1.060	80	>75% Grass cover, Good, HSG D
	1.650	86	Weighted Average
	1.060		64.24% Pervious Area
	0.590		35.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 13S: Bypass



Summary for Subcatchment 16S: Developed

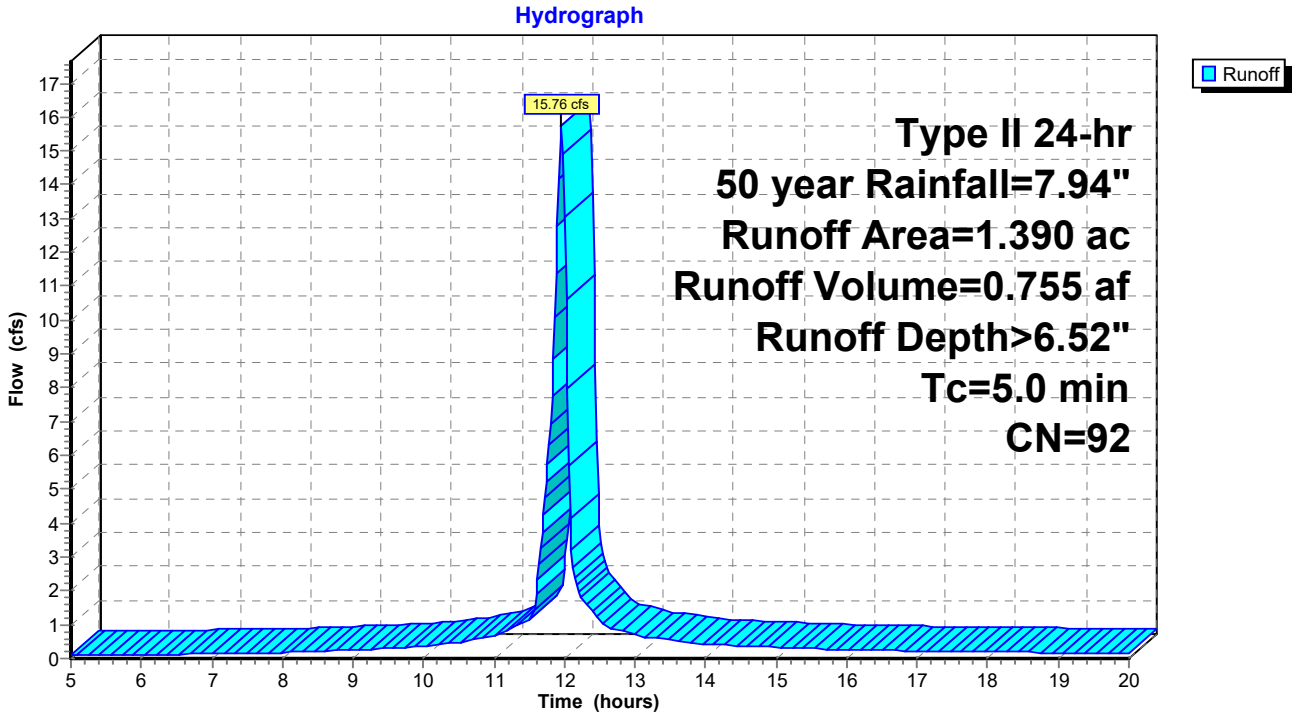
Runoff = 15.76 cfs @ 11.96 hrs, Volume= 0.755 af, Depth> 6.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 50 year Rainfall=7.94"

Area (ac)	CN	Description
0.910	98	Paved parking, HSG D
0.480	80	>75% Grass cover, Good, HSG D
1.390	92	Weighted Average
0.480		34.53% Pervious Area
0.910		65.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 16S: Developed



Summary for Pond 14P: Pond

Inflow Area = 1.390 ac, 65.47% Impervious, Inflow Depth > 6.52" for 50 year event
Inflow = 15.76 cfs @ 11.96 hrs, Volume= 0.755 af
Outflow = 9.84 cfs @ 12.03 hrs, Volume= 0.754 af, Atten= 38%, Lag= 4.2 min
Primary = 9.84 cfs @ 12.03 hrs, Volume= 0.754 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Peak Elev= 1,242.60' @ 12.03 hrs Surf.Area= 5,911 sf Storage= 5,757 cf

Plug-Flow detention time= 5.9 min calculated for 0.754 af (100% of inflow)
Center-of-Mass det. time= 5.4 min (744.3 - 738.8)

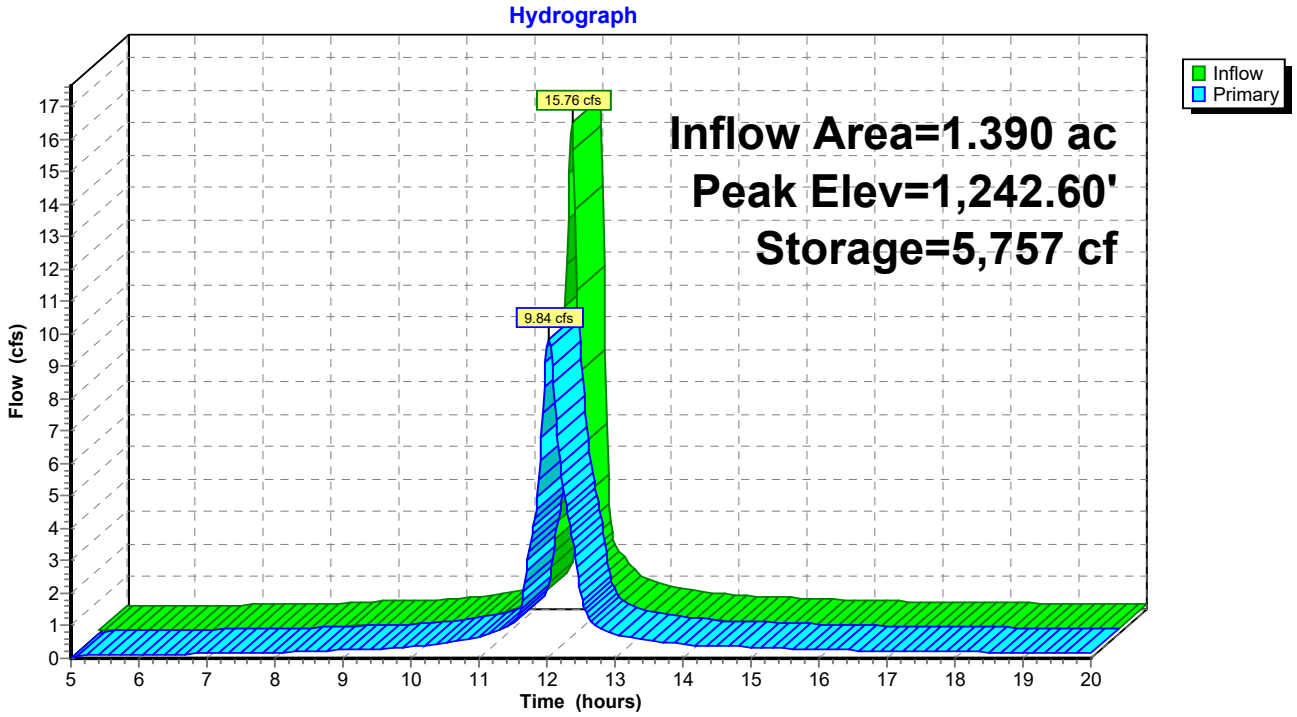
Volume	Invert	Avail.Storage	Storage Description
#1	1,240.75'	14,599 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,240.75	0	0	0
1,241.00	664	83	83
1,242.00	4,436	2,550	2,633
1,243.00	6,878	5,657	8,290
1,243.35	7,756	2,561	10,851
1,243.80	8,903	3,748	14,599

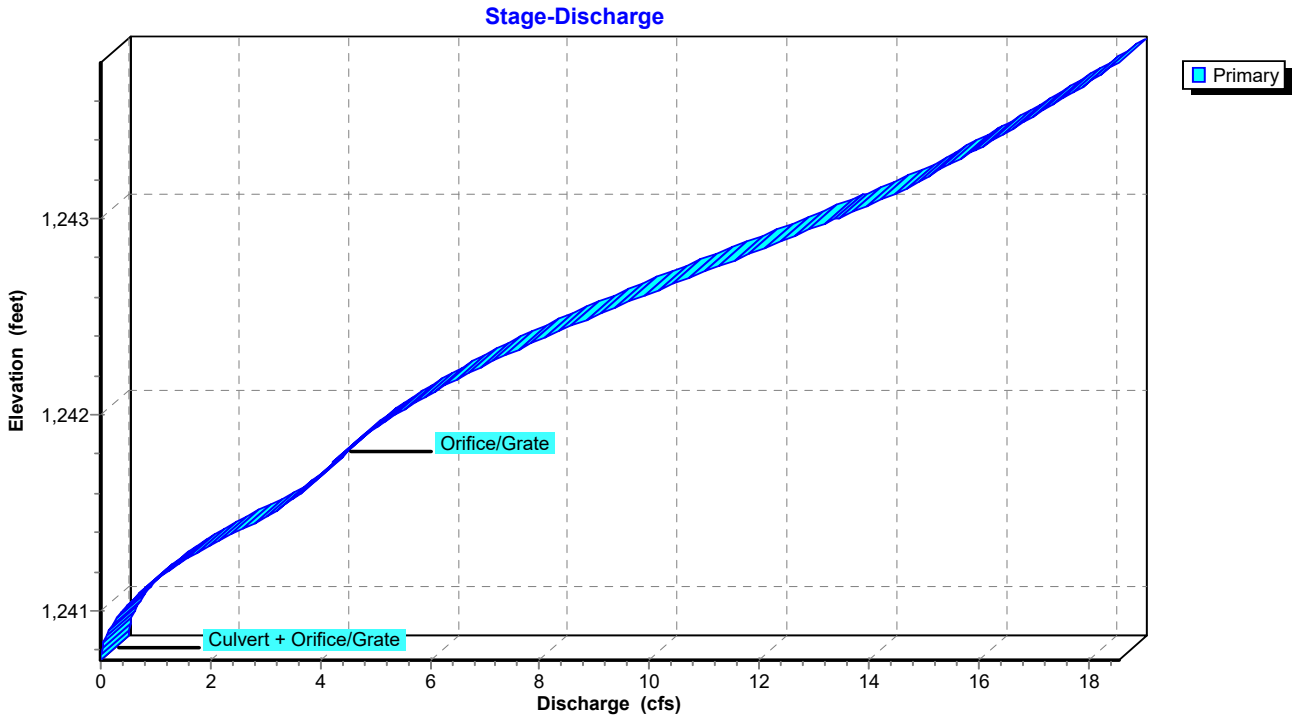
Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.75'	**24.0" Round Culvert** L= 31.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,240.75' / 1,239.70' S= 0.0331 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,240.75'	**9.0" W x 9.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#3	Device 1	1,241.75'	**18.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=9.81 cfs @ 12.03 hrs HW=1,242.60' TW=1,240.34' (Fixed TW Elev= 1,240.34')
└─**1=Culvert** (Passes 9.81 cfs of 14.06 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 6.56 cfs @ 5.83 fps)
  └─**3=Orifice/Grate** (Orifice Controls 3.25 cfs @ 3.14 fps)

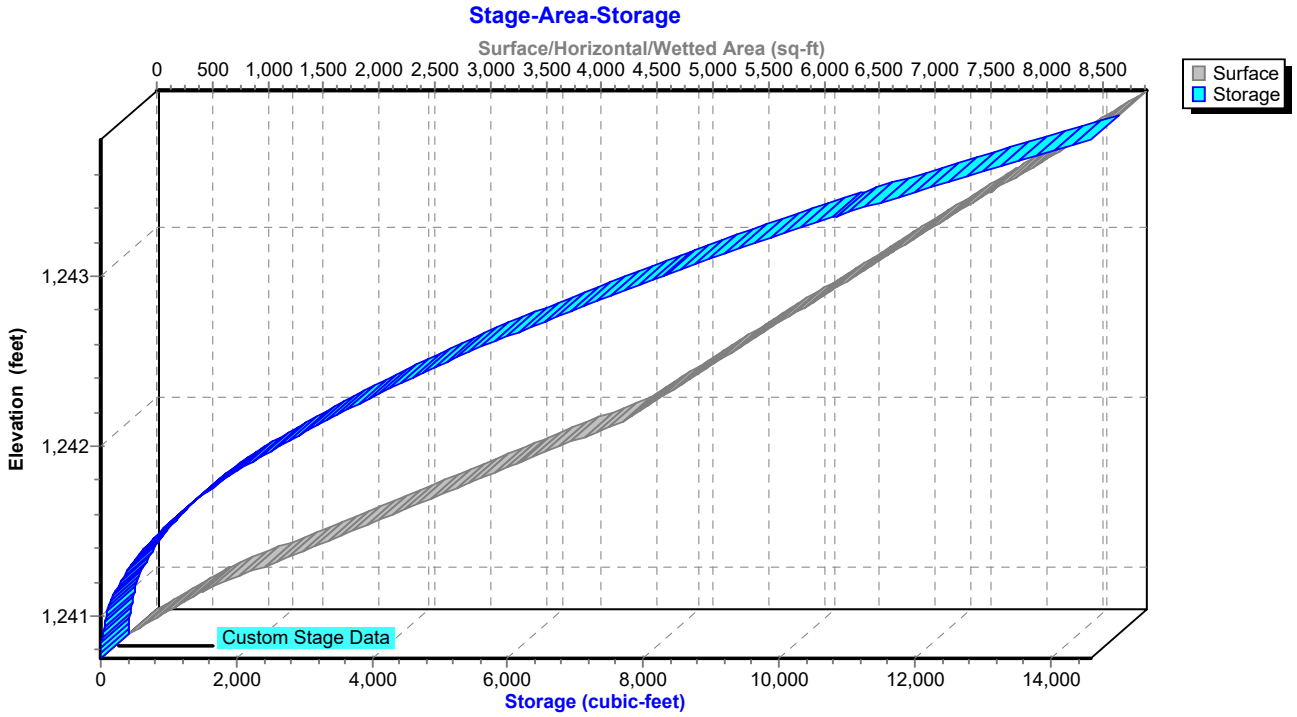
Pond 14P: Pond



Pond 14P: Pond



Pond 14P: Pond

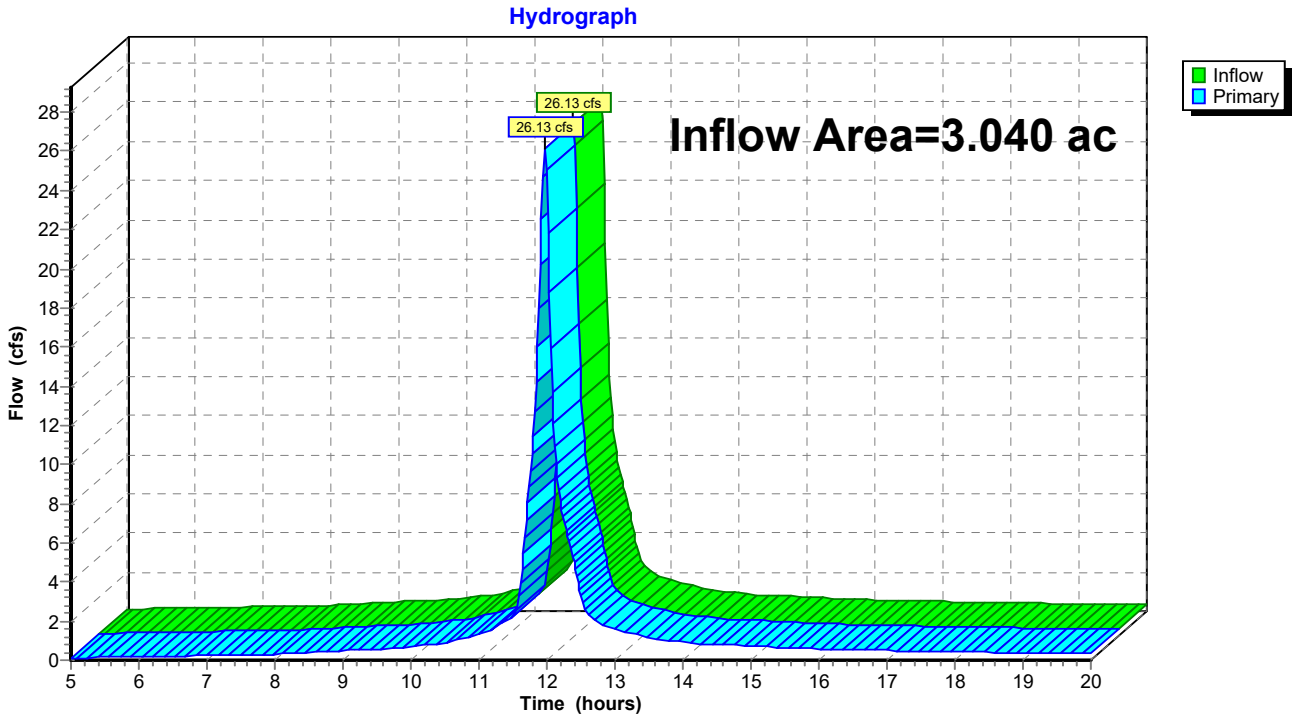


Summary for Link 15L: Link

Inflow Area = 3.040 ac, 49.34% Impervious, Inflow Depth > 6.17" for 50 year event
Inflow = 26.13 cfs @ 11.97 hrs, Volume= 1.563 af
Primary = 26.13 cfs @ 11.97 hrs, Volume= 1.563 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs

Link 15L: Link



Time span=5.00-20.00 hrs, dt=0.02 hrs, 751 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment12S: Historic Runoff Area=3.040 ac 18.75% Impervious Runoff Depth>6.73"
Tc=5.0 min CN=83 Runoff=37.44 cfs 1.705 af

Subcatchment13S: Bypass Runoff Area=1.650 ac 35.76% Impervious Runoff Depth>7.07"
Tc=5.0 min CN=86 Runoff=20.96 cfs 0.973 af

Subcatchment16S: Developed Runoff Area=1.390 ac 65.47% Impervious Runoff Depth>7.71"
Tc=5.0 min CN=92 Runoff=18.49 cfs 0.893 af

Pond 14P: Pond Peak Elev=1,242.79' Storage=6,931 cf Inflow=18.49 cfs 0.893 af
Outflow=11.56 cfs 0.892 af

Link 15L: Link Inflow=30.97 cfs 1.865 af
Primary=30.97 cfs 1.865 af

Summary for Subcatchment 12S: Historic

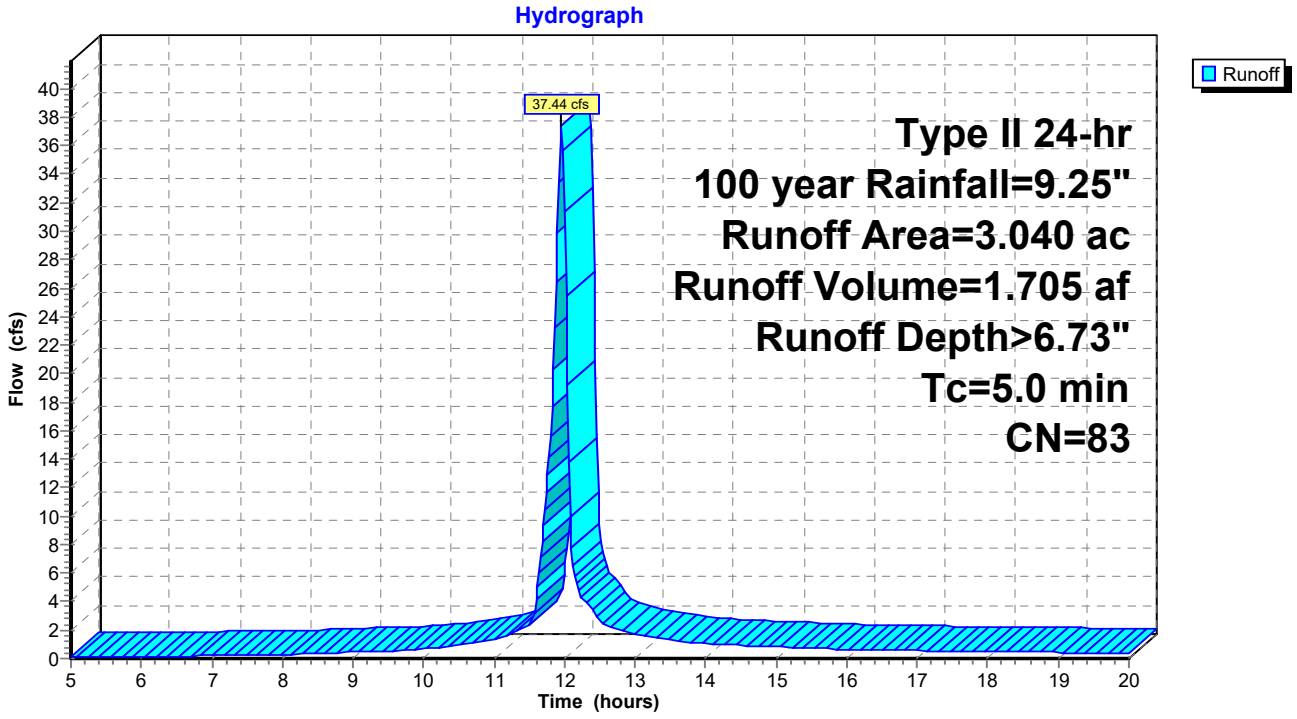
Runoff = 37.44 cfs @ 11.96 hrs, Volume= 1.705 af, Depth> 6.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 year Rainfall=9.25"

Area (ac)	CN	Description
0.570	98	Paved parking, HSG D
2.470	80	>75% Grass cover, Good, HSG D
3.040	83	Weighted Average
2.470		81.25% Pervious Area
0.570		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 12S: Historic



Summary for Subcatchment 13S: Bypass

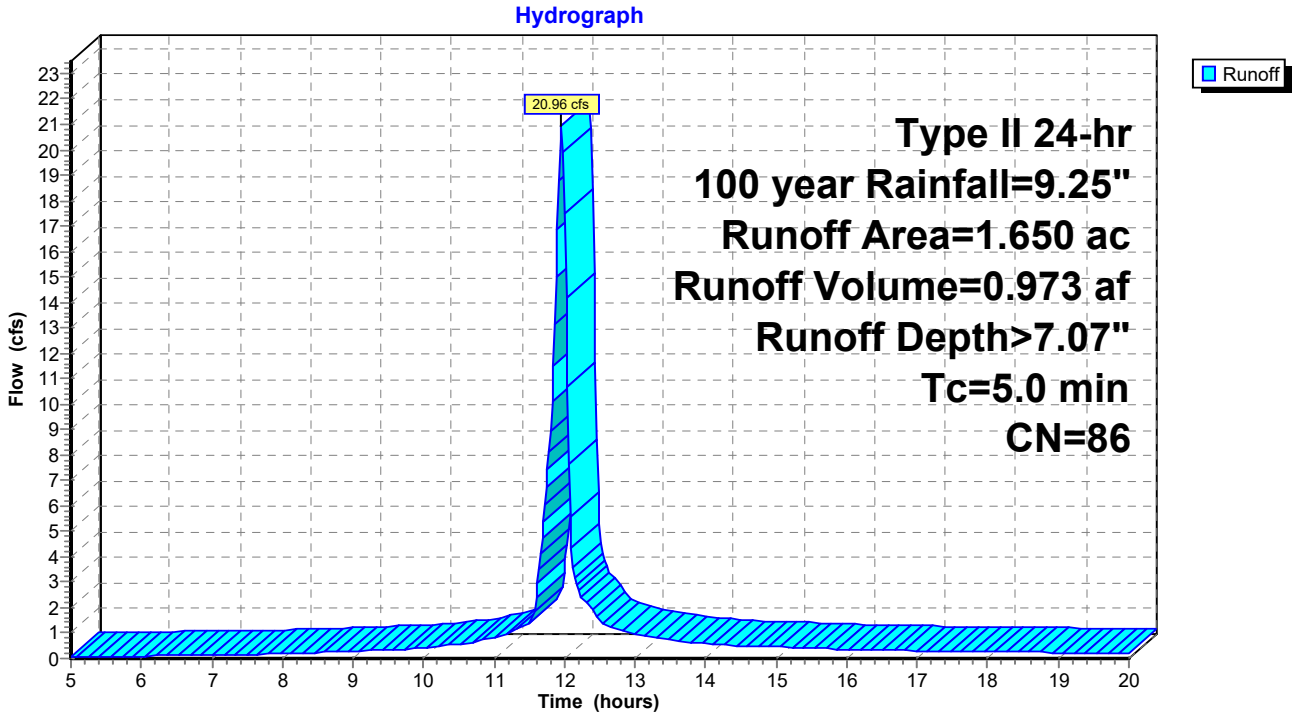
Runoff = 20.96 cfs @ 11.96 hrs, Volume= 0.973 af, Depth> 7.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 year Rainfall=9.25"

	Area (ac)	CN	Description
	0.590	98	Paved parking, HSG D
*	1.060	80	>75% Grass cover, Good, HSG D
	1.650	86	Weighted Average
	1.060		64.24% Pervious Area
	0.590		35.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 13S: Bypass



Summary for Subcatchment 16S: Developed

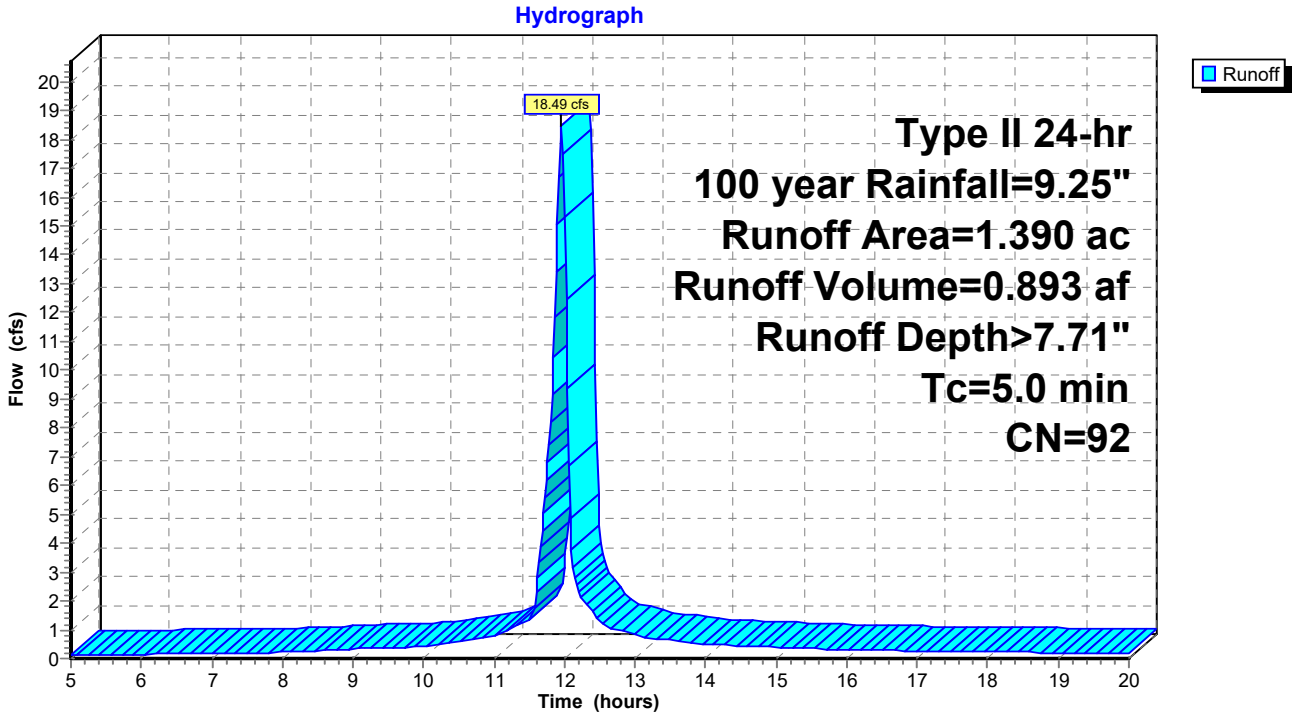
Runoff = 18.49 cfs @ 11.96 hrs, Volume= 0.893 af, Depth> 7.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 year Rainfall=9.25"

Area (ac)	CN	Description
0.910	98	Paved parking, HSG D
0.480	80	>75% Grass cover, Good, HSG D
1.390	92	Weighted Average
0.480		34.53% Pervious Area
0.910		65.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment 16S: Developed



Summary for Pond 14P: Pond

Inflow Area = 1.390 ac, 65.47% Impervious, Inflow Depth > 7.71" for 100 year event
Inflow = 18.49 cfs @ 11.96 hrs, Volume= 0.893 af
Outflow = 11.56 cfs @ 12.03 hrs, Volume= 0.892 af, Atten= 37%, Lag= 4.2 min
Primary = 11.56 cfs @ 12.03 hrs, Volume= 0.892 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs
Peak Elev= 1,242.79' @ 12.03 hrs Surf.Area= 6,377 sf Storage= 6,931 cf

Plug-Flow detention time= 6.2 min calculated for 0.892 af (100% of inflow)
Center-of-Mass det. time= 5.7 min (742.3 - 736.7)

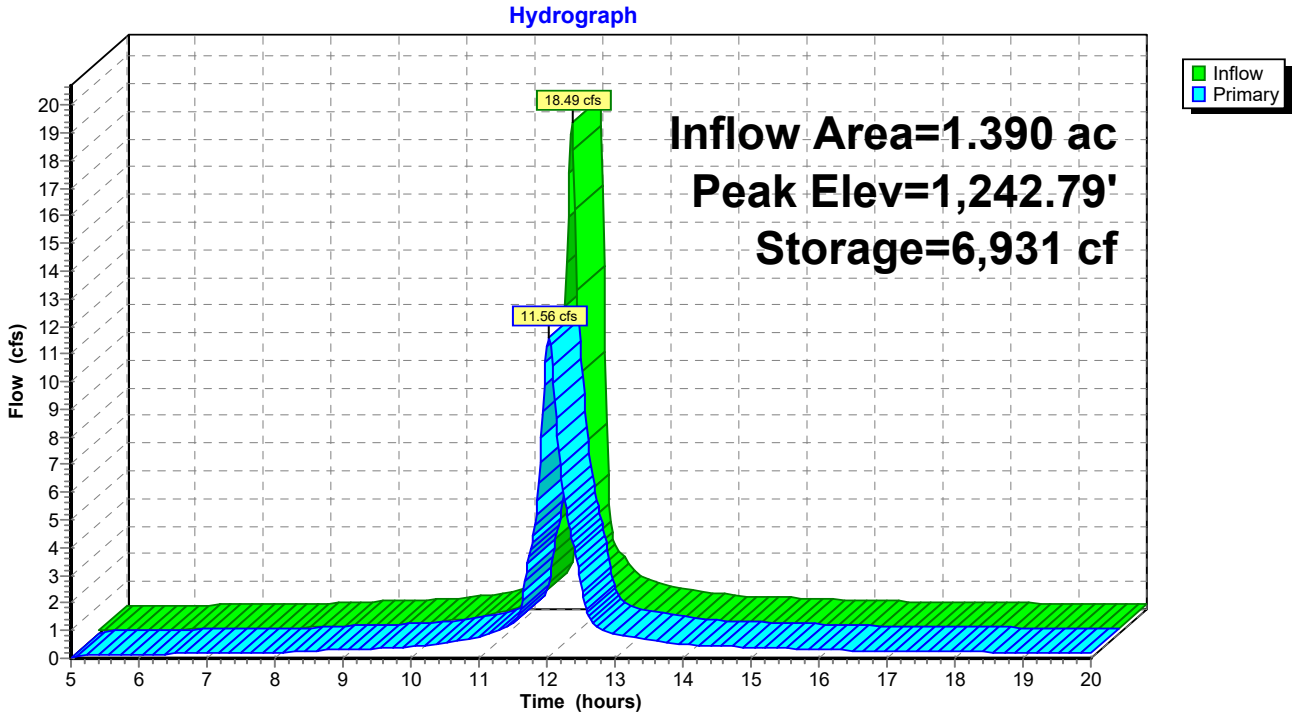
Volume	Invert	Avail.Storage	Storage Description
#1	1,240.75'	14,599 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,240.75	0	0	0
1,241.00	664	83	83
1,242.00	4,436	2,550	2,633
1,243.00	6,878	5,657	8,290
1,243.35	7,756	2,561	10,851
1,243.80	8,903	3,748	14,599

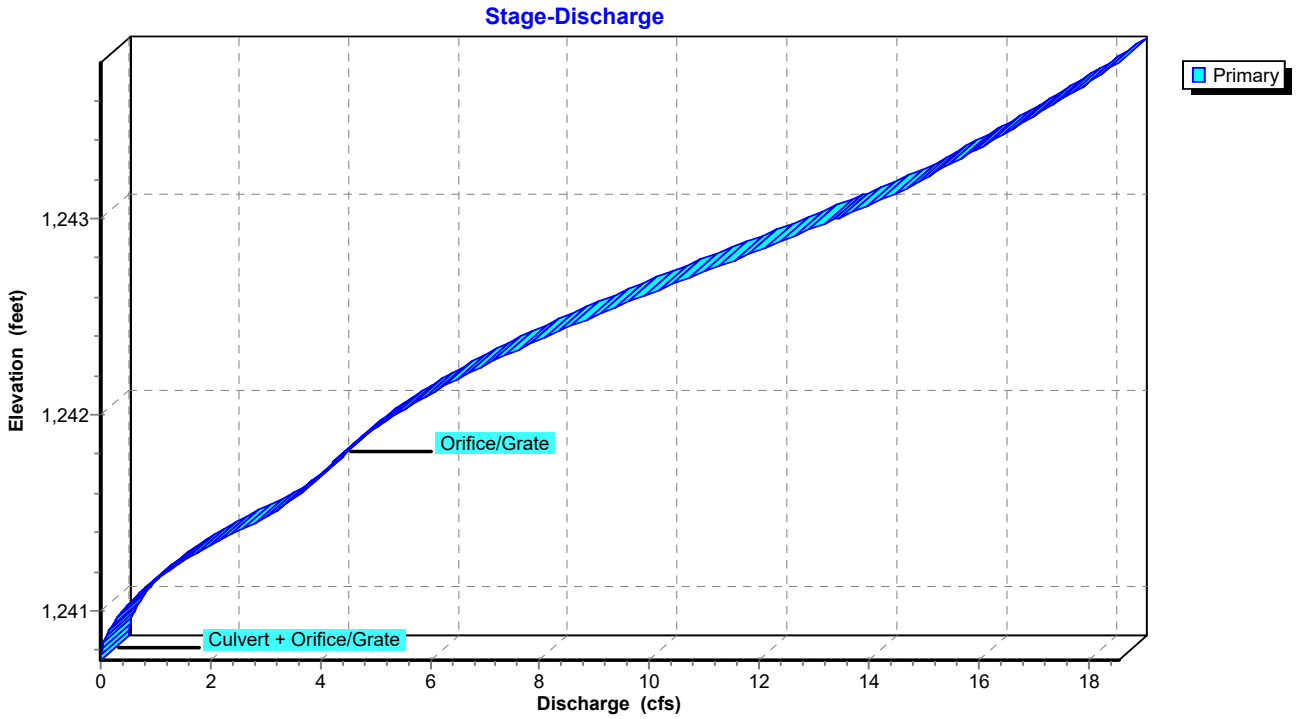
Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.75'	**24.0" Round Culvert** L= 31.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,240.75' / 1,239.70' S= 0.0331 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,240.75'	**9.0" W x 9.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#3	Device 1	1,241.75'	**18.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=11.53 cfs @ 12.03 hrs HW=1,242.79' TW=1,240.34' (Fixed TW Elev= 1,240.34')
└─**1=Culvert** (Passes 11.53 cfs of 15.44 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 6.98 cfs @ 6.20 fps)
  └─**3=Orifice/Grate** (Orifice Controls 4.55 cfs @ 3.47 fps)

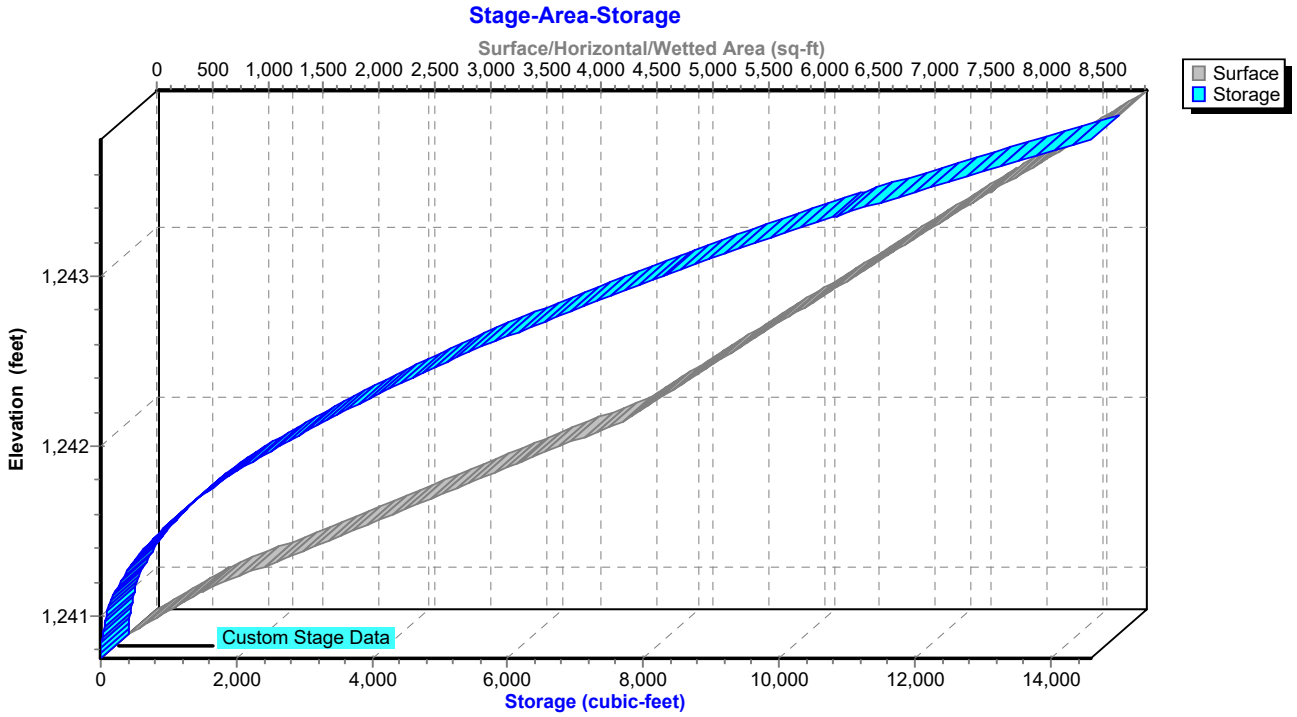
Pond 14P: Pond



Pond 14P: Pond



Pond 14P: Pond



Summary for Link 15L: Link

Inflow Area = 3.040 ac, 49.34% Impervious, Inflow Depth > 7.36" for 100 year event
Inflow = 30.97 cfs @ 11.97 hrs, Volume= 1.865 af
Primary = 30.97 cfs @ 11.97 hrs, Volume= 1.865 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.02 hrs

Link 15L: Link