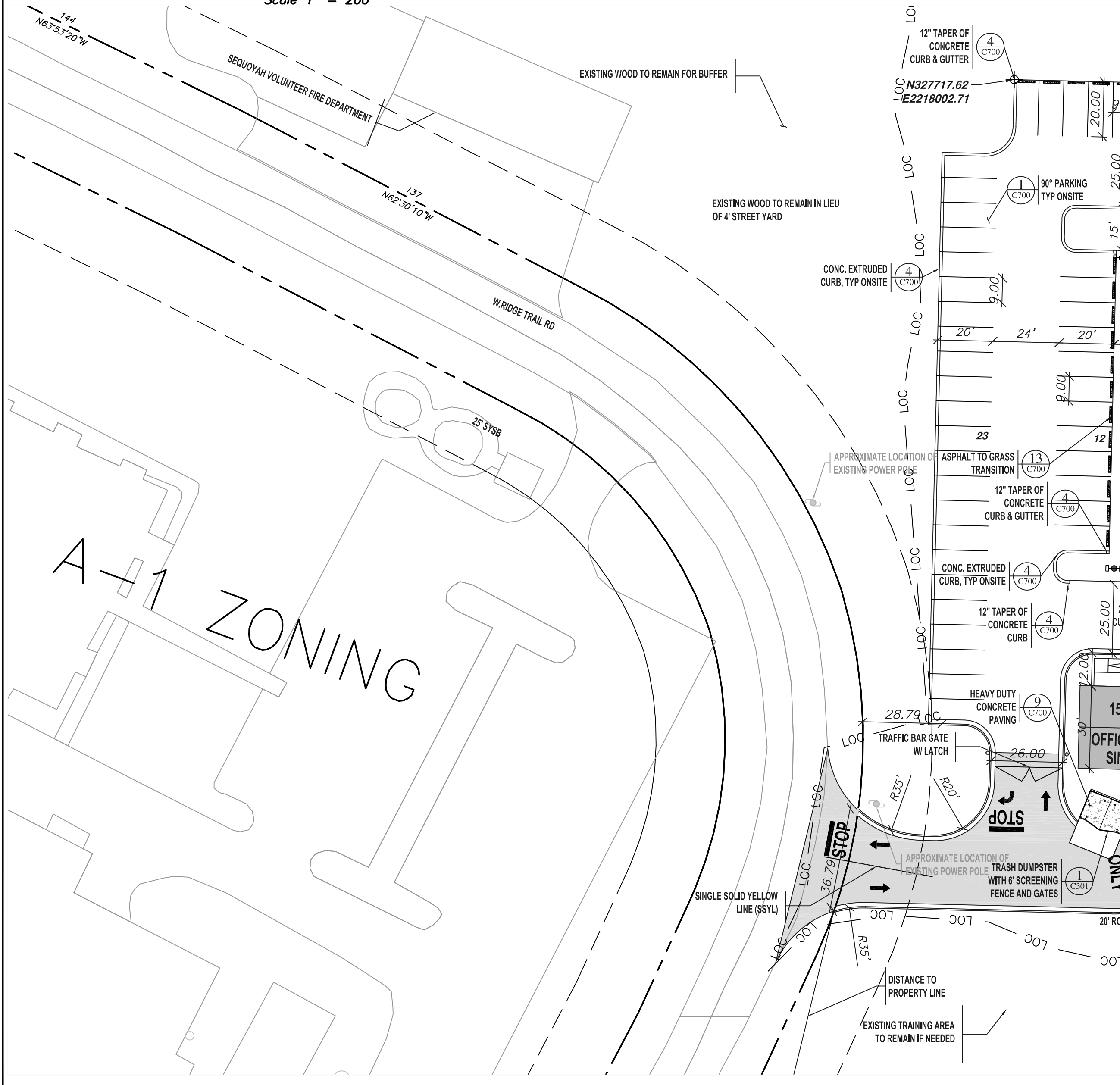


VICINITY MAP



M-1 ZONING

A-1 ZONING

SITE INFORMATION:
 SITE AREA: 2.46 ACRES
 SITE IS ZONED: A-1
 LAND DISTURBANCE AREA: 4.50+ ACRES
 TAX MAP PARCEL #: 086M D 014
 BUILDING AREA: 1500± SF
 STREET ADDRESS: 9517 W RIDGE TRAIL RD
 FRONT YARD SETBACK: 25 FEET
 SIDE YARD SETBACK: 10 FEET
 REAR YARD SETBACK: 15 FEET
 SANITARY SEWER AVAILABILITY: EX. PRIVATE GRINDER PUMP LOCATED IN SCHOOL PROPERTY
 POTABLE WATER: EX. WATER LINE LOCATED IN SUTHERLAND PROPERTY
 STORM DRAINAGE: STORM SEWERAGE WILL DISCHARGE INTO AN EXISTING SWALE ON SITE
 NUMBER OF EMPLOYEES: 2
 NUMBER OF BUS DRIVERS: 40
 NUMBER OF BUS ATTENDANTS: 30
 REGULAR PARKING SPACES: 71
 REGULAR H/OAP SPACES: 0
 VAN ACCESSIBLE H/OAP SPACES: 3
 LARGE BUS PARKING: 16
 SMALL BUS PARKING: 24
 FLOODZONE: PORTIONS OF THE PROPERTY ARE LOCATED IN FLOOD ZONE "X", AS SCALED FROM THE FIRM MAP COMMUNITY-PANEL NUMBER 47855C02310 MAP REVISED FEBRUARY 3, 2016.
 PROPERTY OWNER: HAMILTON COUNTY DEPARTMENT OF EDUCATION
 3074 HICKORY VALLEY RD
 CHATTANOOGA, TN 37421
 PHONE NO.: (423)498-7020

LEGEND

EX C	Ex. Curb
EX CL	Ex. Centerline
EX F	Ex. Fence
EX W	Ex. Water Line
EX FL	Ex. Fire Line
EX IRR	Ex. Irrigation Line
EX SD	Ex. Storm Drainage Line
EX SS	Ex. Sanitary Sewer Line
EX FM	Ex. Sanitary Sewer Force Main
EX D	Ex. Swale Centerline
EX G	Ex. Gas Line
EX OHE	Ex. Overhead Elect. or Utility Line
EX UGE	Ex. Underground Electrical
EX UGFO	Ex. Underground Fiber Optics
EX UGT	Ex. Underground Telephone
PROPERTY LINE	
---	BUILDING LINE
---	EASEMENT LINE
---	BUILDING SETBACK LINE
---	LANDSCAPE BUFFER LINE
---	LOT LINE
---	ROW LINE
---	CURB
---	CENTERLINE
---	PROP. FENCE LINE
---	PROP. LIMITS OF CONSTRUCTION
---	PROPOSED TREE PROTECTION
---	PROPOSED SWALE CENTERLINE
---	PROPOSED DITCH CENTERLINE
---	PROP. WATER LINE
---	PROP. FIRE LINE
---	PROP. IRRIGATION LINE
---	PROP. GAS LINE
---	PROP. STORM DRAINAGE LINE
---	PROP. SANITARY SEWER LINE
---	PROP. SANITARY SEWER FORCE MAIN
---	PROP. OVERHEAD ELECT. OR UTILITY LINE
---	PROP. UNDERGROUND ELECTRICAL
---	PROP. UNDERGROUND FIBER OPTICS
---	PROP. UNDERGROUND TELEPHONE
---	PROP. SILT FENCE OR SILT WAFFLE

ABBREVIATIONS:
 SSE = NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)
 DE = NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)
 WE = NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)
 L/A BUFFER = NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)
 FFSB = FRONT YARD SETBACK / SIDE YARD SETBACK / REAR-YARD YARD SETBACK
 FFE = FINISHED FLOOR ELEVATION
 TW = FINISH GRADE AT TOP OF RETAINING WALL
 BW = FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL
 SODD / SSOB = STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 DS = ROOF DOWNSPOUT CONNECTION
 SWL = SINGLE SOLID WHITE LINE, DSTL = DOUBLE SOLID YELLOW LINE
 SSWL = SINGLE DASHED WHITE LINE

AVAILABLE MINIMUM LEFT TURN SIGHT DISTANCE= 337'
 AVAILABLE MINIMUM RIGHT TURN SIGHT DISTANCE= 300'
 FOR SCHOOL HOURS, 15 MPH SPEED LIMIT:
 REQUIRED MINIMUM LEFT TURN SITE DISTANCE= 170'
 REQUIRED MINIMUM RIGHT TURN SITE DISTANCE= 145'
 FOR NON SCHOOL HOURS, 30 MPH SPEED LIMIT:
 REQUIRED MINIMUM LEFT TURN SITE DISTANCE= 335'
 REQUIRED MINIMUM RIGHT TURN SITE DISTANCE= 290'

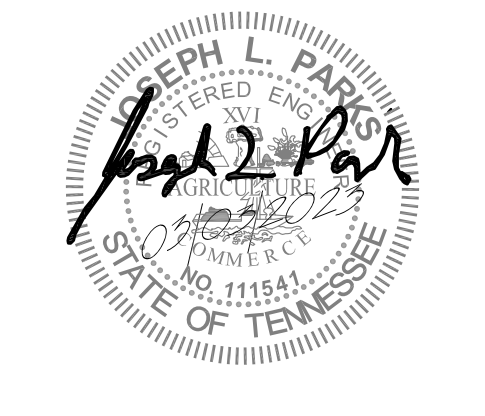
REVISIONS

1	CITY COMMENTS
2	CITY COMMENTS
3	CITY COMMENTS
4	ADDENDUM #1
5	
6	
7	
8	
9	
10	
11	

HCDE Bus Barn
 at
 9517 W Ridge Trail Road
 for
 HAMILTON CO
 DEPT. EDUCATION
 3074 Hickory Valley Rd
 Chattanooga, TN 37421
 423-498-7020



310 Dodds Ave.
 P.O. Box 3689
 Chattanooga, Tennessee 37404
 PH: (423)698-6675



DRAWN: AE
 CHECKED: JP
 JOB No. 21330
 DATE: 03/03/2023

C100
 SITE STAKING
 PLAN

MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482



LEGEND

---	Ex. Curb	
---	Ex. Centerline	
---	Ex. Fence	
---	EX W --- Ex. Water Line	
---	EX FL --- Ex. Fire Line	
---	EX IRR --- Ex. Irrigation Line	
---	EX SD --- Ex. Storm Drainage Line	
---	EX SS --- Ex. Sanitary Sewer Line	
---	EX FM --- Ex. Sanitary Sewer Force Main	
---	---	Ex. Swale Centerline
---	---	Ex. Ditch Centerline
---	EX G --- Ex. Gas Line	
---	EX OHE --- Ex. Overhead Elect. or Utility Line	
---	EX UGE --- Ex. Underground Electrical	
---	EX UGFO --- Ex. Underground Fiber Optics	
---	EX UGT --- Ex. Underground Telephone	
---	PROPERTY LINE	
---	BUILDING LINE	
---	EASEMENT LINE	
---	BUILDING SETBACK LINE	
---	LANDSCAPE BUFFER LINE	
---	LOT LINE	
---	ROW LINE	
---	CURB	
---	CENTERLINE	
---	PROP. FENCE LINE	
---	LOC --- PROP. LIMITS OF CONSTRUCTION	
---	TF --- PROPOSED TREE PROTECTION	
---	---	PROPOSED SWALE CENTERLINE
---	---	PROPOSED DITCH CENTERLINE
---	W --- PROP. WATER LINE	
---	FL --- PROP. FIRE LINE	
---	IRR --- PROP. IRRIGATION LINE	
---	G --- PROP. GAS LINE	
---	SD --- PROP. STORM DRAINAGE LINE	
---	SS --- PROP. SANITARY SEWER LINE	
---	FM --- PROP. SANITARY SEWER FORCE MAIN	
---	OHE --- PROP. OVERHEAD ELECT. OR UTILITY LINE	
---	UGE --- PROP. UNDERGROUND ELECTRICAL	
---	UGFO --- PROP. UNDERGROUND FIBER OPTICS	
---	UGT --- PROP. UNDERGROUND TELEPHONE	
---	SF --- PROP. SILT FENCE OR SILT WADDLE	

ABBREVIATIONS:
 SSE - NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH).
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 L/LA - BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE).
 FYSB - FRONT YARD SETBACK / SYSS - SIDE YARD SETBACK / RYSB - REAR YARD SETBACK
 FTE - FINISHED FLOOR ELEVATION
 TW - FINISH GRADE AT TOP OF RETAINING WALL
 BW - FINISHER GROUND GRADE AT BOTTOM OF RETAINING WALL
 SDOO / SSSO - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 DS - ROOF DOWNSPOUT CONNECTION
 SSWL - SINGLE SOLID WHITE LINE, DSYL - DOUBLE SOLID YELLOW LINE
 SDWL - SINGLE DASHED WHITE LINE

SPECIAL NOTE: EXISTING UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE. EXISTING UNDERGROUND UTILITIES (NOT SHOWN ON THESE DRAWINGS) MAY BE PRESENT IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EXCAVATION. SHOULD THE CONTRACTOR UNCOVER UNKNOWN UTILITIES, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE SOURCE AND DISCHARGE OF THE UNKNOWN UTILITIES AND CONTACT THE OWNER AND ENGINEER PRIOR TO CONTINUING CONSTRUCTION.

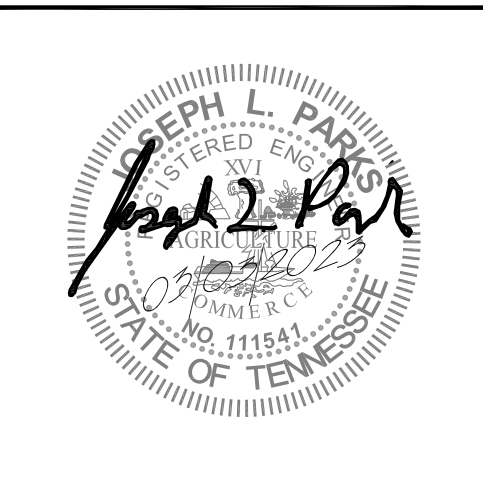
REVISIONS

HCDE Bus Barn
 at
 9517 W Ridge Trail Road

for
 HAMILTON CO
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 3074 Hickory Valley Rd
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 423-498-7020



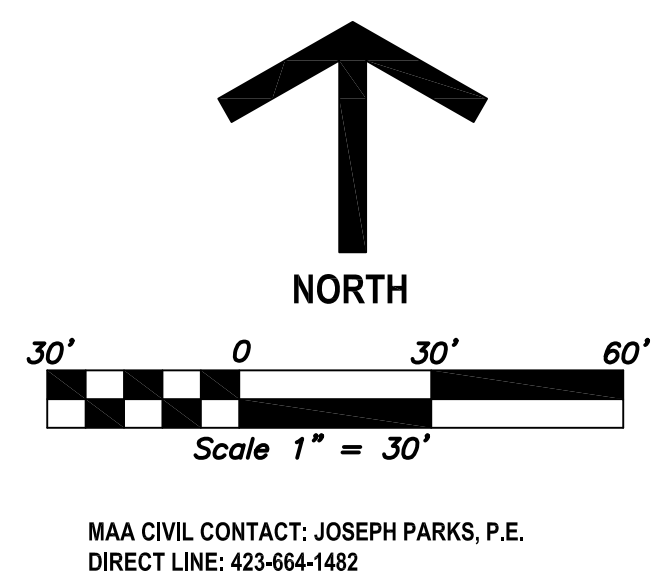
March Adams & Associates
 Consulting Engineers
 310 Dodds Ave.
 P.O. Box 3689
 Chattanooga, Tennessee 37404
 PH: (423)698-6675



DRAWN: AE
 CHECKED: JP
 JOB No. 21330
 DATE: 03/03/2023

C200

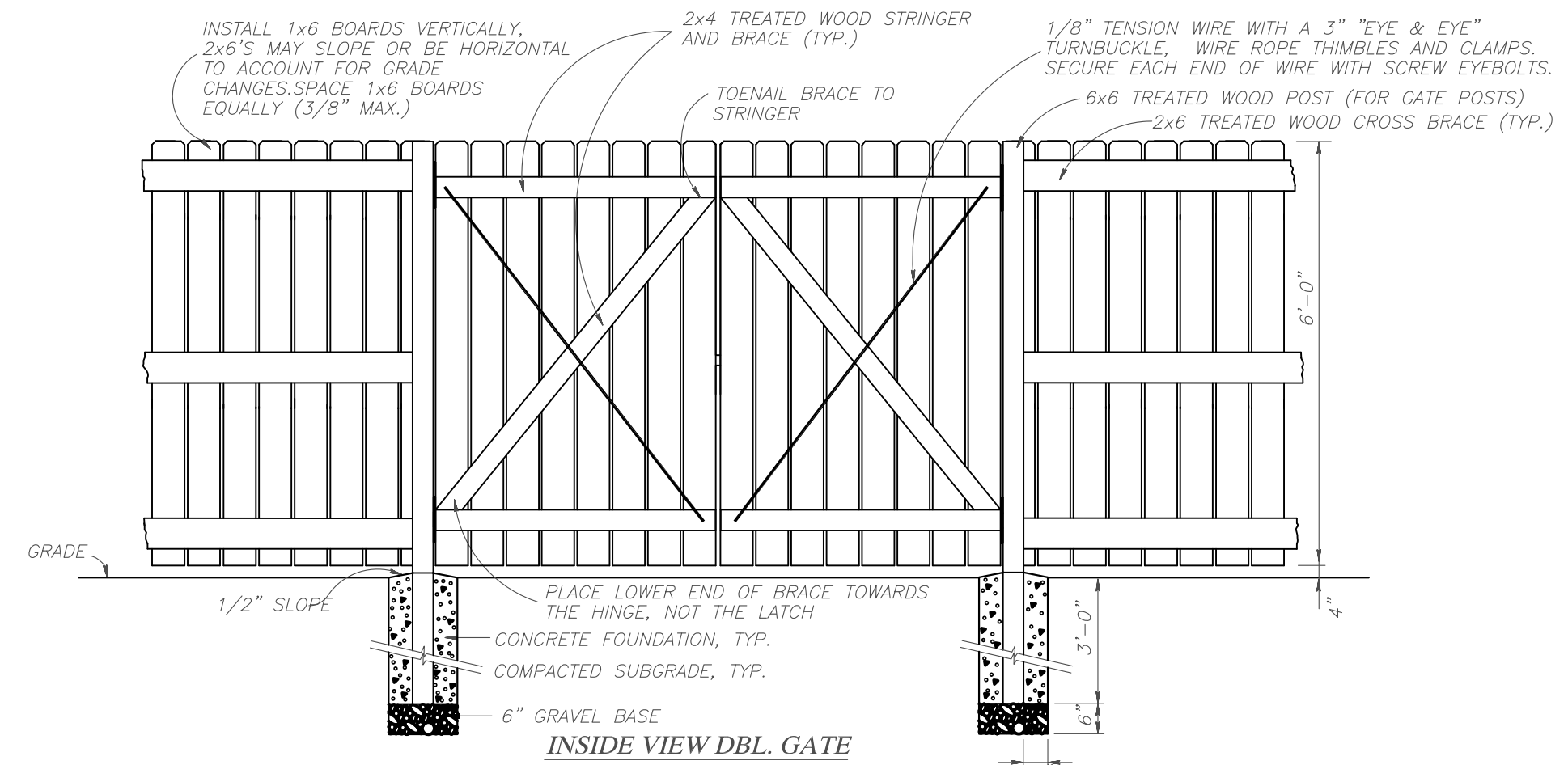
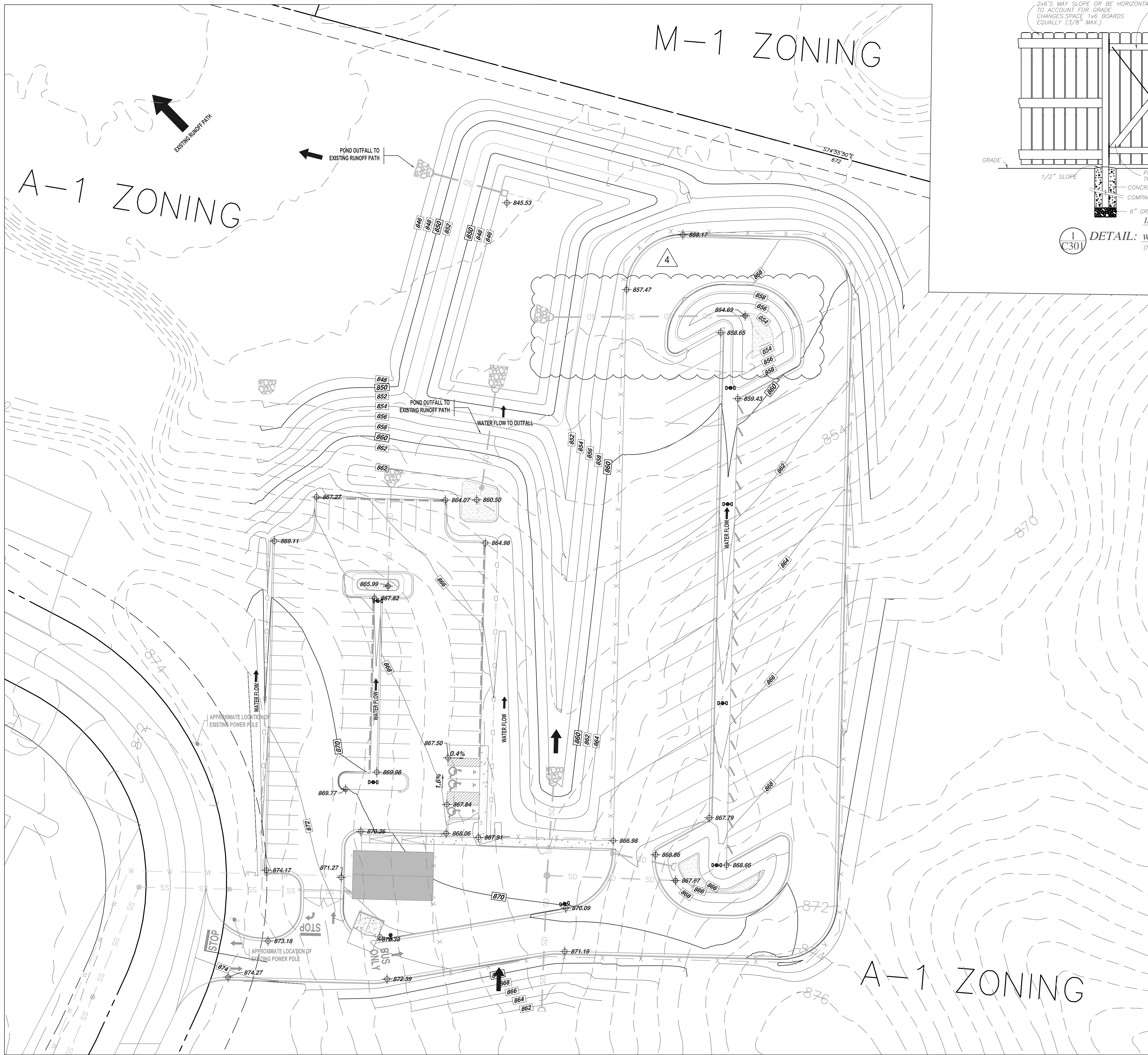
EXISTING CONDITIONS
 AND DEMOLITION
 PLAN



MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482

M-1 ZONING

A-1 ZONING



1 C301
DETAIL: WOODEN PRIVACY FENCE & DOUBLE GATE
(NTS)

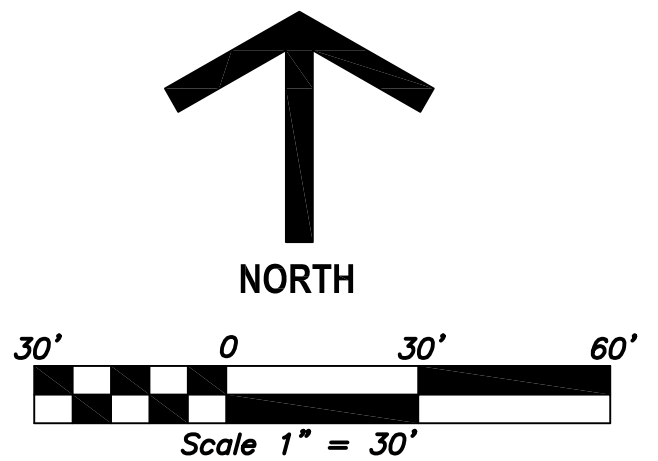
LEGEND

---	Ex. Curb
---	Ex. Centerline
X	Ex. Fence
---	Ex. W
---	Ex. Fire Line
---	Ex. Irrigation Line
---	Ex. SD
---	Ex. Storm Drainage Line
---	Ex. SS
---	Ex. Sanitary Sewer Line
---	Ex. FM
---	Ex. Swale Centerline
---	Ex. Ditch Centerline
---	Ex. G
---	Ex. Gas Line
---	Ex. OHE
---	Ex. Overhead Elect. or Utility Line
---	Ex. UGE
---	Ex. Underground Electrical
---	Ex. UGFO
---	Ex. Underground Fiber Optics
---	Ex. UGT
---	Ex. Underground Telephone
PROPERTY LINE	
---	BUILDING LINE
---	EASEMENT LINE
---	BUILDING SETBACK LINE
---	LANDSCAPE BUFFER LINE
---	LOT LINE
---	ROW LINE
---	CURB
---	CENTERLINE
---	PROP. FENCE LINE
---	PROP. SWALE CENTERLINE
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---	PROP. UNDERGROUND FIBER OPTICS
---	PROP. UNDERGROUND TELEPHONE

ABBREVIATIONS:
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 WE - NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH).
 L/A BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE).
 F/SW - FRONT YARD SETBACK / SW - SIDE YARD SETBACK / R/SW - REAR YARD SETBACK
 FFE - FINISHED FLOOR ELEVATION
 TG - FINISH GRADE AT TOP OF RETAINING WALL
 BW - FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL
 SDC / SSSD - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 CS - ROOF DOWNSPOUT CONNECTION
 SSW - SINGLE SOLID WHITE LINE, DSYL - DOUBLE SOLID YELLOW LINE
 SSWL - SINGLE DASHED WHITE LINE

ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST COMPLY WITH THE CURRENT EDITION OF THE TN EROSION & SEDIMENT CONTROL MANUAL.

- NOTES**
- SEE SHEET C000 FOR GENERAL AND GRADING AND DRAINAGE NOTES.
 - CROSS SLOPES OF SIDEWALKS NOT TO EXCEED 2.00% SLOPE.
 - ANY EXCAVATED SLOPE 3:1 OR STEEPER IS TO BE STABILIZED WITHIN 7 DAYS.
 - CONTRACTOR SHALL NOTIFY SURVEYOR AND COUNTY STORM WATER INSPECTOR AT LEAST 48 HOURS PRIOR TO ANY COVER PLACED ON UNDERGROUND SYSTEMS. FAILURE TO DO SO MAY RESULT IN RE-EXCAVATION.
 - CONTRACTOR IS RESPONSIBLE FOR PROVIDING A STORM WATER AS-BUILT (STAMPED BY A LICENSED SURVEYOR) AT THE CLOSE OUT OF PROJECT. AS-BUILT DRAWINGS SHALL BE ACCOMPANIED BY AS-BUILT PHOTOGRAPHS MADE DURING THE SURVEY/INSPECTION.



MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
DIRECT LINE: 423-664-1482

REVISIONS

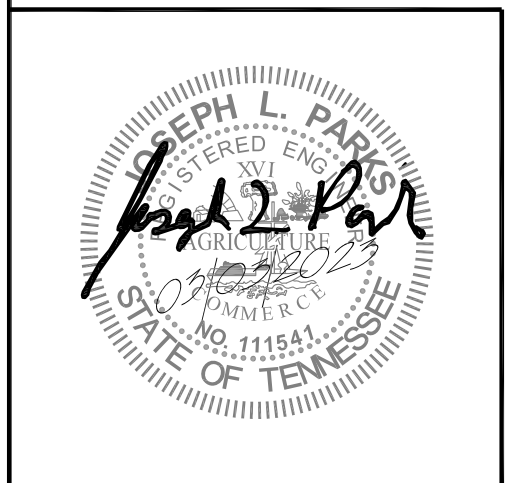
NO.	DATE	DESCRIPTION
1	03/03/2023	ADDENDUM #1

HCDE Bus Barn
at
9517 W Ridge Trail Road

for
HAMILTON CO
DEPT. EDUCATION
3074 Hickory Valley Rd
Chattanooga, TN 37421
423-498-7020

March Adams & Associates
Consulting Engineers

310 Dodds Ave.
P.O. Box 3689
Chattanooga, Tennessee 37404
PH: (423)698-6675



DRAWN:	AE
CHECKED:	JP
JOB No.	21330
DATE:	03/03/2023

C301

SITE GRADING
PLAN

M-1 ZONING

A-1 ZONING

A-1 ZONING

LEGEND

---	Ex. Curb
---	Ex. Centerline
---	Ex. Fence
---	Ex. Water Line
---	Ex. Fire Line
---	Ex. Irrigation Line
---	Ex. Storm Drainage Line
---	Ex. Sanitary Sewer Line
---	Ex. Sanitary Sewer Force Main
---	Ex. Swale Centerline
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---	Ex. UGHE
---	Ex. Underground Electrical
---	Ex. UGFO
---	Ex. Underground Fiber Optics
---	Ex. UGT
---	Ex. Underground Telephone

PROPERTY LINE

---	BUILDING LINE
---	EASEMENT LINE
---	BUILDING SETBACK LINE
---	LANDSCAPE BUFFER LINE
---	LOT LINE
---	ROW LINE
---	CURB
---	CENTERLINE
---	PROP. FENCE LINE

ABBREVIATIONS:

---	PROPOSED SWALE CENTERLINE
---	PROPOSED DITCH CENTERLINE
---	PROP. WATER LINE
---	PROP. FIRE LINE
---	PROP. IRRIGATION LINE
---	PROP. GAS LINE
---	PROP. STORM DRAINAGE LINE
---	PROP. SANITARY SEWER LINE
---	PROP. SANITARY SEWER FORCE MAIN
---	PROP. OVERHEAD ELECT. OR UTILITY LINE
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---	PROP. UNDERGROUND FIBER OPTICS
---	PROP. UNDERGROUND TELEPHONE

DEFINITIONS:

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 DE - NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)
 WE - NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)
 L/A BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)
 FISH - FROM YARD SETBACK / SIDE YARD SETBACK / FROM-ROAD YARD SETBACK
 FFE - FINISHED FLOOR ELEVATION
 TW - FINISH GRADE AT TOP OF RETAINING WALL
 BW - FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL
 SDOO / SSSO - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 DS - ROOF DOWNSPOUT CONNECTION
 SSW - SINGLE SOLID WHITE LINE / DSYL - DOUBLE SOLID YELLOW LINE
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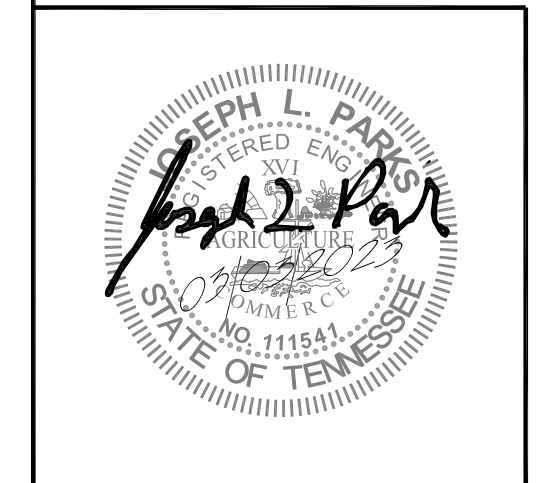
REVISIONS

1	4	ADDITIONAL
2	5	
3	6	
4	7	
5	8	
6	9	
7	10	
8	11	

HCDE Bus Barn
 at
 9517 W Ridge Trail Road

for
 HAMILTON CO
 DEPT. EDUCATION
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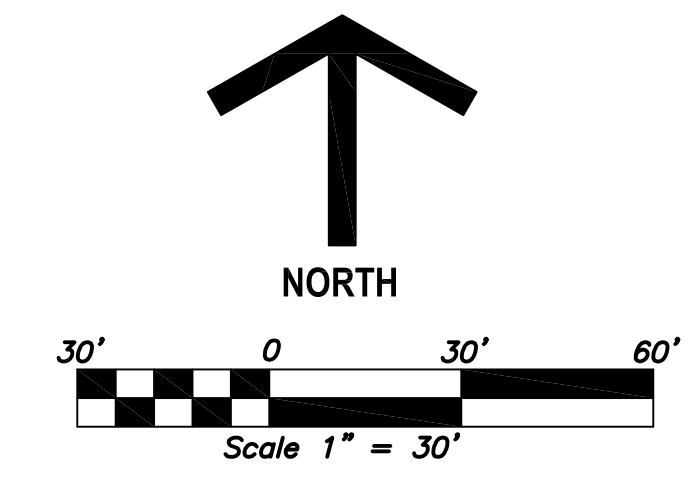
MA & A
 March Adams & Associates
 Consulting Engineers
 310 Dodds Ave.
 P.O. Box 3689
 Chattanooga, Tennessee 37404
 PH: (423)698-6675



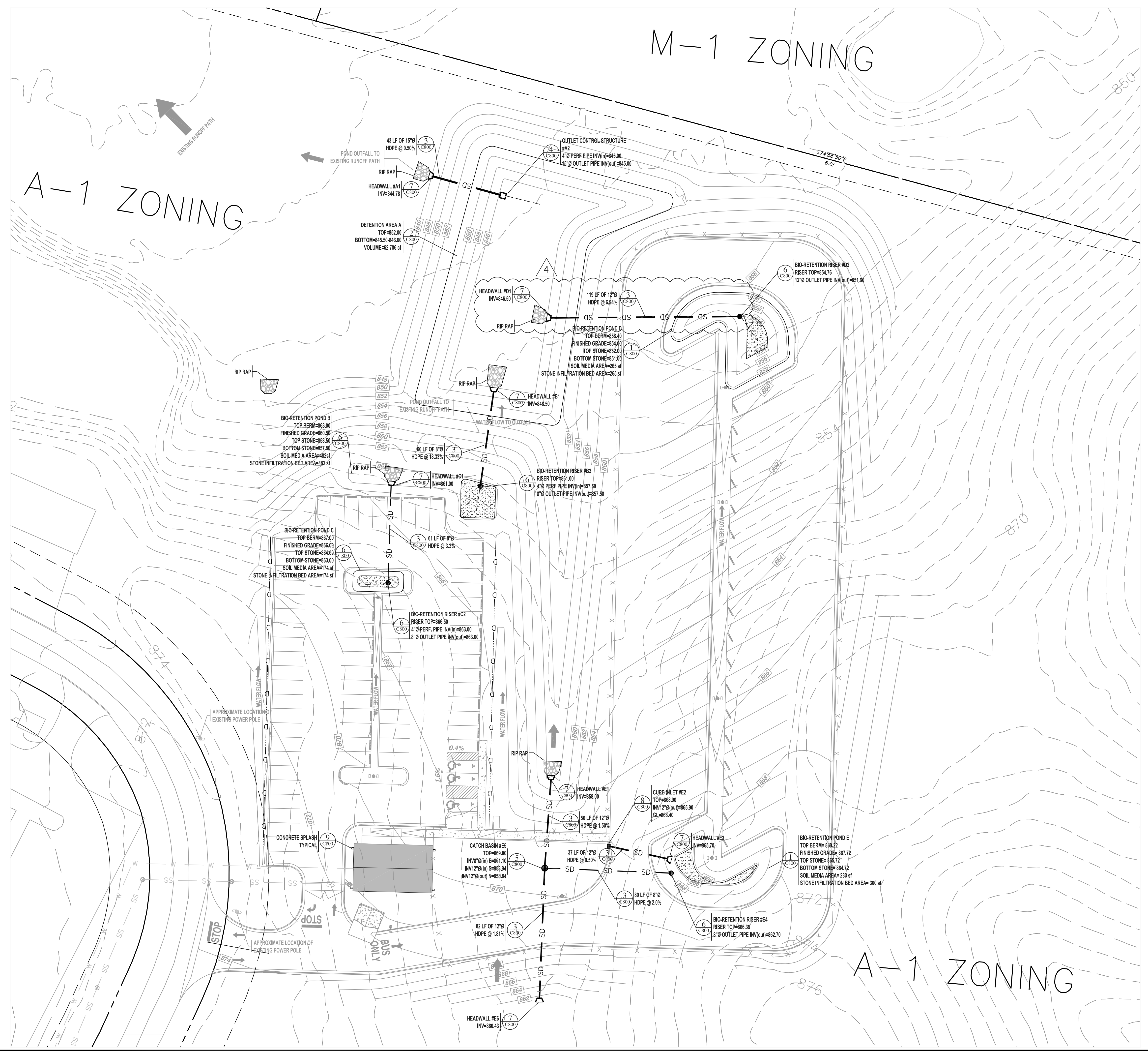
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 DATE: 03/03/2023

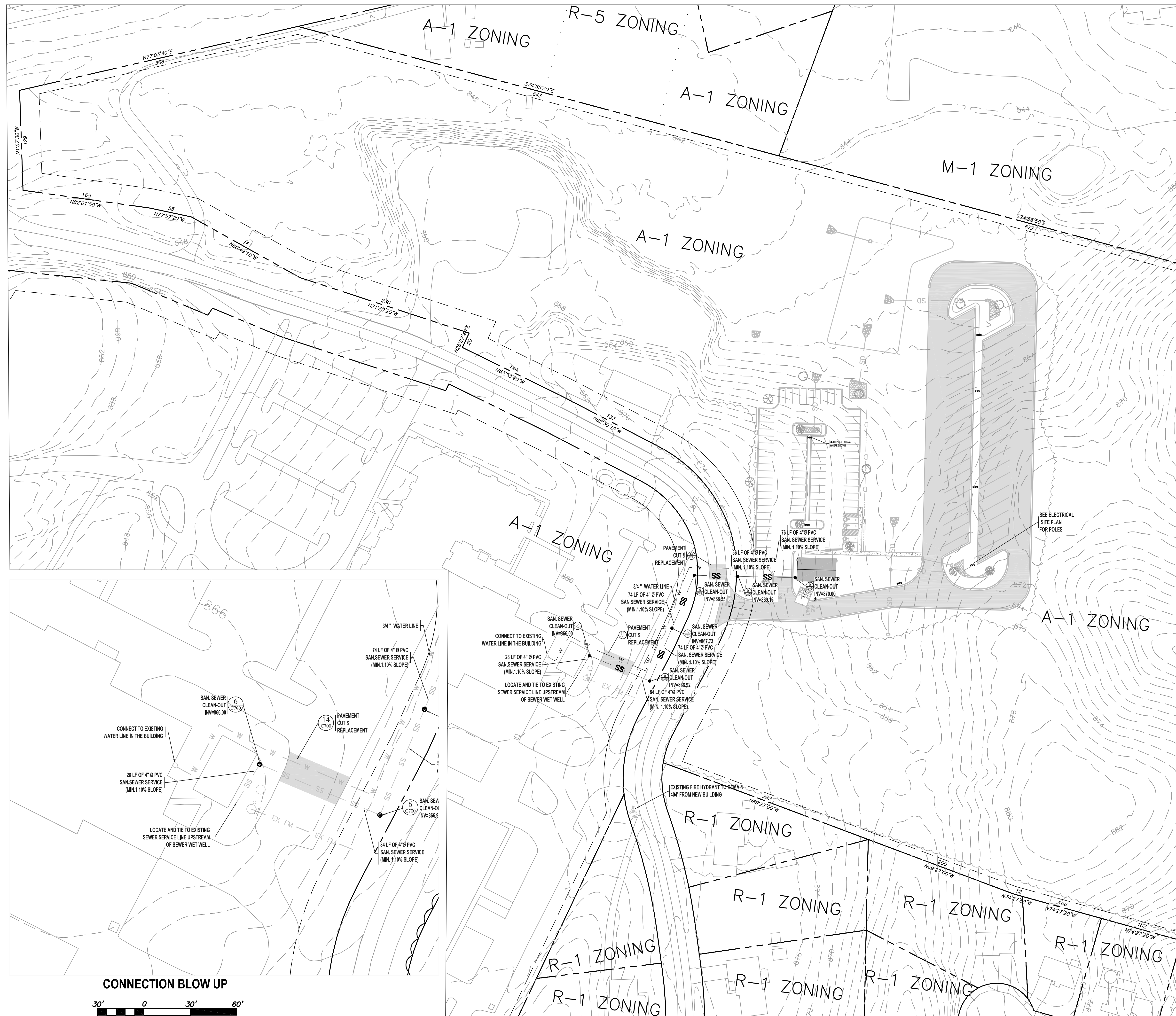
C302

SITE DRAINAGE
 PLAN



MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482





LEGEND

Ex. Curb	---
Ex. Centerline	---
Ex. Fence	---
Ex. Water Line	---
Ex. Fire Line	---
Ex. Irrigation Line	---
Ex. Storm Drainage Line	---
Ex. Sanitary Sewer Line	---
Ex. Sanitary Sewer Force Main	---
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Ex. Gas Line	---
Ex. Overhead Elect. or Utility Line	---
Ex. Underground Electrical	---
Ex. Underground Fiber Optics	---
Ex. Underground Telephone	---
PROPERTY LINE	---
BUILDING LINE	---
EASEMENT LINE	---
BUILDING SETBACK LINE	---
LANDSCAPE BUFFER LINE	---
LOT LINE	---
ROW LINE	---
CURB	---
CENTERLINE	---
PROP. FENCE LINE	---
PROP. LIMITS OF CONSTRUCTION	---
PROPOSED TREE PROTECTION	---
PROPOSED SWALE CENTERLINE	---
PROPOSED DITCH CENTERLINE	---
PROP. WATER LINE	---
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PROP. UNDERGROUND ELECTRICAL	---
PROP. UNDERGROUND FIBER OPTICS	---
PROP. UNDERGROUND TELEPHONE	---
PROP. SILT FENCE OR SILT WADDE	---

ABBREVIATIONS:
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 DS - ROOF DOWNSPOUT CONNECTION
 SSM - SINGLE SOLID WHITE LINE, LOSY - DOUBLE SOLID YELLOW LINE
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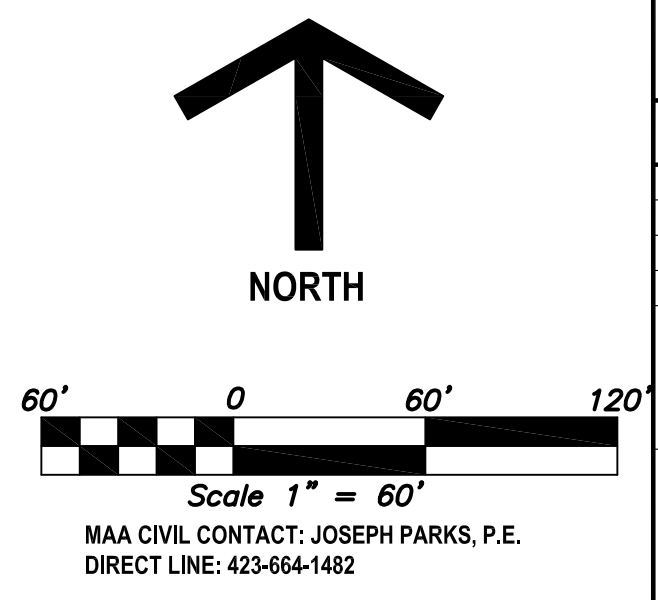
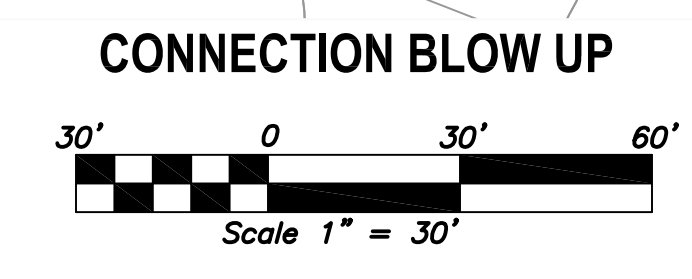
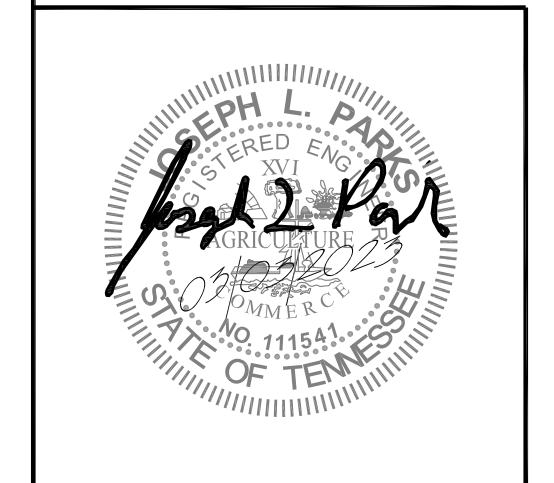
REVISIONS

1	2	3	4	5	6	7	8	9	10	11

at
 9517 W Ridge Trail Road

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MA & A
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DRAWN: AE
 CHECKED: JP
 JOB No. 21330
 DATE: 03/03/2023

C400

SITE UTILITIES
 PLAN

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE	MULCHING APPLICATION REQUIREMENTS
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10	1500LBS./AC. 400LBS./AC.	50-100 LBS./AC. 1/ 2/ 30	STRAW OR HAY 2-1/2 TON/ACRE 6" TO 10" WOOD WASTE CHIPS, SAWDUST, BARK
2. COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10	1500LBS./AC. 400LBS./AC.	0-50 LBS./AC. 1/ 30	CUTBACK ASPHALT 1500 GAL./ACRE OR 1/4 GAL./SQ. YD.
3. GROUND COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10	1500LBS./AC. 3/ 1500LBS./AC. 3/ 1500LBS./AC.	- - - -	POLYETHYLENE FILM SECURE WITH SOIL ANCHORS, WEIGHTS
4. TEMPORARY COVER CROPS	FIRST MAINTENANCE	0-10-10 0-10-10	700LBS./AC. 4/ 400LBS./AC.	- - - -	SEE MANUFACTURER'S RECOMMENDATIONS
5. TEMPORARY COVER CROPS SEEDS ALONE	FIRST MAINTENANCE	10-10-10	500LBS./AC.	30 LBS./AC. 5/ 30	GEOTEXTILES, LITE MATTING, NETTING, ETC.
6. WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10	1500LBS./AC. 400LBS./AC.	50-100 LBS./AC. 2/ 6/ 50-100 LBS./AC. 2/ 30 LBS./AC.	
7. WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10	1500LBS./AC. 400LBS./AC.	50 LBS./AC. 6/ 30	

- APPLY IN SPRING FOLLOWING SEEDING.
- APPLY IN SPRING FOLLOWING SEEDING.
- APPLY IN 3 SPLIT APPLICATIONS.
- APPLY WHEN PLANTS ARE PROVED.
- APPLY TO GRASS SPECIES ONLY.
- APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

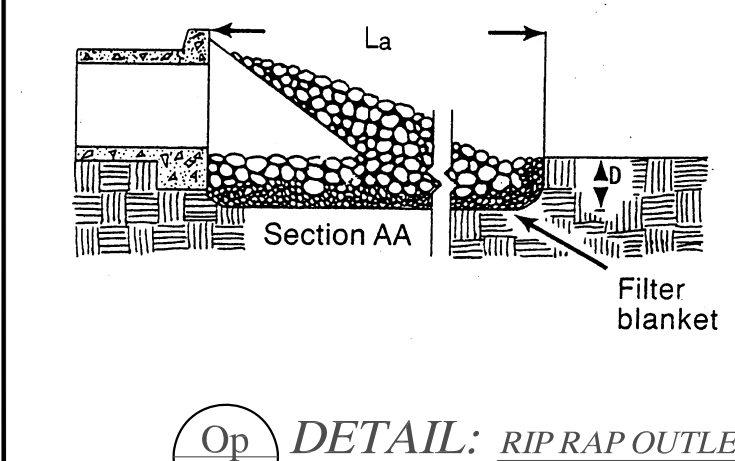
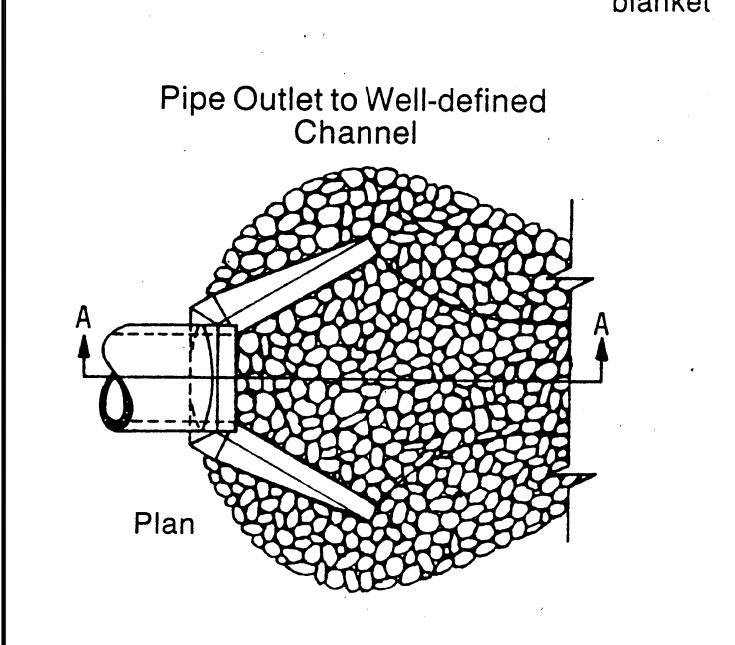
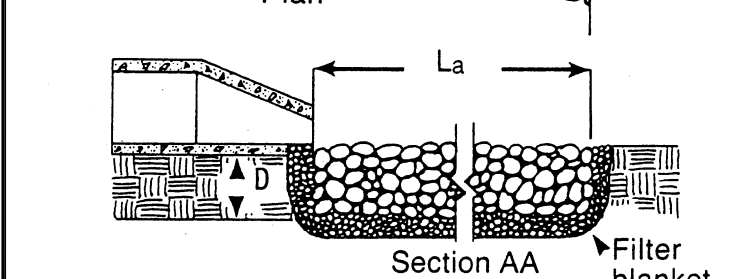
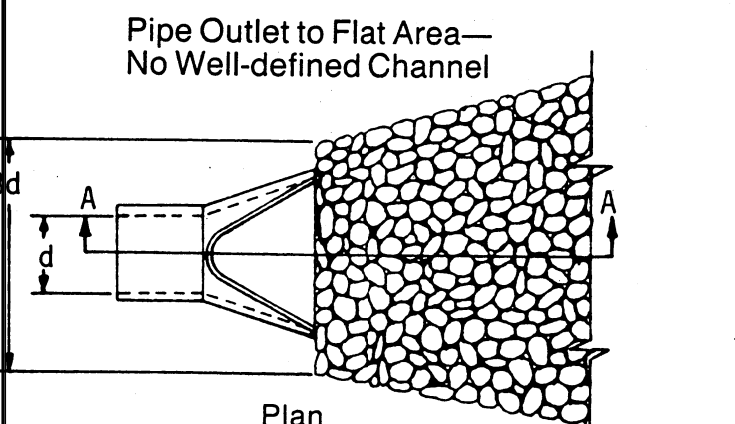
FM FERTILIZER & MULCHING REQUIREMENTS

SPECIES	BROADCAST PER ACRE	RESOURCE AREA PER 1000 S.F.	PLANTING DATES	REMARKS
BARLEY (HORDEUM VULGARE) IN MIXTURES	144 LBS. 3.3 LBS. 24 LBS. 0.6 LBS.	M-L C	J F M A M J J A S O N D	14,000 SEED PER POUND WINTERHARDY. USE ON PRODUCTIVE SOILS.
LESPEDEZA ANNUAL (LESPEDEZA STRATA) ALONE IN MIXTURES	40 LBS. 0.9 LBS. 10 LBS. 0.2 LBS.	M-L C	J F M A M J J A S O N D	200,000 SEED PER POUND MAY VOLUNTARILY FOR SEVERAL YEARS USE INOCULANT EL.
LOW GRASS: WEEPING (ERAGRIS CURVULA) ALONE IN MIXTURES	4 LBS. 0.1 LBS. 2 LBS. 0.05 LBS.	M-L C	J F M A M J J A S O N D	1,500,000 SEED PER POUND MAY LAST FOR SEVERAL YEARS.
MILLET, BROWNTOP (Panicum fasciculatum) ALONE IN MIXTURES	40 LBS. 0.9 LBS. 10 LBS. 0.2 LBS.	M-L C	J F M A M J J A S O N D	137,000 SEED PER POUND. QUICK GROWER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEEDED AT HIGH RATES.
RYE (SECALE CEREALE) ALONE IN MIXTURES	3 BU 3.9 LBS. 1/2 BU 0.8 LBS.	M-L C	J F M A M J J A S O N D	18,000 SEED PER POUND. QUICK GROWER. DROUGHT TOLERANT AND WINTERHARDY.
RYEGRASS ANNUAL (Lolium temulentum) ALONE	40 LBS. 0.9 LBS. 10 LBS. 0.2 LBS.	M-L C	J F M A M J J A S O N D	227,000 SEED PER POUND. DENSE COVER. VERY COMPETITIVE @ 9 INCHES. NOT TO BE USED IN MIXTURES.

TS DISTURBED AREA STABILIZATION (TEMP)

SPECIES	BROADCAST PER ACRE	RESOURCE AREA PER 1000 S.F.	PLANTING DATES	REMARKS
BERNARDIA COMMON HEALED SEED ALONE OTHER PERENNIALS	10 LBS. 0.2 LBS. 6 LBS. 0.1 LBS.	P	J F M A M J J A S O N D	1,787,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOO FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.
BERNARDIA COMMON UNHEALED SEED W/ TEMP COVER WITH OTHER PERENNIALS	10 LBS. 0.2 LBS. 6 LBS. 0.1 LBS.	P	J F M A M J J A S O N D	PLANT WITH WINTER ANNUALS PLANT WITH TALL FESCUE.
CECROPIA (EREMOPHILA OPHUROIDES)	BLOCK SOO ONLY	P	J F M A M J J A S O N D	DROUGHT TOLERANT. FULL SUN OR PARTIAL SHADE. EFFECTIVE ADJACENT TO CONC. & IN CONCENTRATED FLOW AREAS. IRRIGATION IS NEEDED UNTIL FULLY ESTABLISHED. DO NOT PLANT NEAR PASTURES.
CROWN VETCH (CORONILLA VARIA) WITH WINTER ANNUALS OR COOL SEASON GRASSES	15 LBS. 0.3 LBS.	M-L	J F M A M J J A S O N D	100,000 SEED PER POUND. DENSE GROWTH. DROUGHT TOLERANT & FIRE RESISTANT. USE FROM NORTH ATLANTA AND NORTHWARD.
FESCUE, TALL (FESTUCA ARVENSIS) ALONE W/ OTHER PERENNIALS	50 LBS. 1.1 LBS. 30 LBS. 0.7 LBS.	M-L	J F M A M J J A S O N D	227,000 SEED PER POUND. USE ALONE ONLY ON BETTER SITES. NOT FOR DROUGHTY SOILS. NOT FOR HEAVY USE.
LESPEDEZA (ANDROPOGON) SCARIFIED UNSCARIFIED	60 LBS. 1.4 LBS. 25 LBS. 0.7 LBS.	M-L C	J F M A M J J A S O N D	300,000 SEED PER POUND. HEIGHT OF GROWTH IS 18 TO 24 INCHES. ADVANTAGES IN URBAN AREAS: MIX W/ WEEPING LOW GRASS. COMMON BERNARDIA BAHIA, TALL FESCUE, OR WINTER ANNUALS. INOCULATE SEED W/ INOCULANT.

PS DISTURBED AREA STABILIZATION (PERM)



Op C500 DETAIL: RIP RAP OUTLET PROTECTION (NTS)

- Notes**
- L_a is the length of the riprap apron.
 - $D = 1.5$ times the maximum stone diameter but not less than 6".
 - In a well-defined channel extend the apron up the channel banks to an elevation of 6" above the maximum tailwater depth or to the top of the bank, whichever is less.
 - A filter blanket or filter fabric should be installed between the riprap and soil foundation.

ACTIVITY	M	A	M	J	J	A	S	O	N	D	J	F
1. INSTALL SEDIMENT CONTROLS												
2. CLEARING & GRADING												
3. STORM DRAIN INSTALLATION												
4. SANITARY SEWER INSTALLATION												
5. UTILITY INSTALLATION												
6. GRASS (TEMP.) (PERM.)												
7. MAINTAIN EROSION CONTROL												
8. PAVING												
9. FINAL LANDSCAPING												
10. CLEAN UP												

THE ABOVE CONSTRUCTION SEQUENCES ARE ANTICIPATED SERIES OF CONSTRUCTION EVENTS. SHOULD THE SEQUENCES OF EVENTS CHANGE SIGNIFICANTLY, THE CONTRACTOR SHALL UPDATE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED.

LAND DISTURBING ACTIVITY NOTES:

VEGETATION: TOP SOIL WILL BE SALVAGED, STOCK PILED & SPREAD ON AREAS TO BE VEGETATED. TREES OUTSIDE OF THE CLEARING LINE WILL BE PROTECTED FROM DAMAGE BY APPROPRIATE MARKINGS. SUPPLEMENTAL VEGETATION WILL BE ESTABLISHED.

EROSION CONTROL PROGRAM: CLEARING WILL BE KEPT TO A MINIMUM. VEGETATION & MULCH WILL BE APPLIED TO APPLICABLE AREAS IMMEDIATELY AFTER GRADING IS COMPLETED. LAND DISTURBING WILL BE KEPT TO A MINIMUM. VEGETATION IN AREAS OF CONCENTRATED WATER FLOWS, EROSION AT THE EXITS OF ALL STORM WATER STRUCTURES WILL BE PREVENTED BY THE INSTALLATION OF STORM DRAIN OUTLET PROTECTION DEVICES.

SEDIMENT CONTROL PROGRAM: SEDIMENT CONTROL WILL BE ACCOMPLISHED BY THE INSTALLATION OF SEDIMENT BASINS, SEDIMENT FENCES & ADDITIONAL MEASURES AS REQUIRED. OVERSPILLS & DAVES WILL BE INSTALLED TO PREVENT SEDIMENT LADEN RUNOFF INTO THE SEDIMENT BASINS & TO PROTECT CUT AND FILL SLOPES FROM ERODIVE WATER FLOWS. A TEMPORARY CONSTRUCTION EXIT WILL BE EMPLOYED TO PREVENT THE TRANSPORT OF SEDIMENT FROM SITE BY VEHICULAR TRAFFIC.

STANDARDS & SPECIFICATIONS:

ALL DESIGNS WILL CONFORM TO AND ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS & SPECIFICATIONS OF THE PUBLICATION ENTITLED "THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK & THE BEST MANAGEMENT PRACTICES MANUAL OF THE STORM WATER MANAGEMENT DEPARTMENT OF PUBLIC WORKS FOR THE CITY OF SOODY-DAISY."

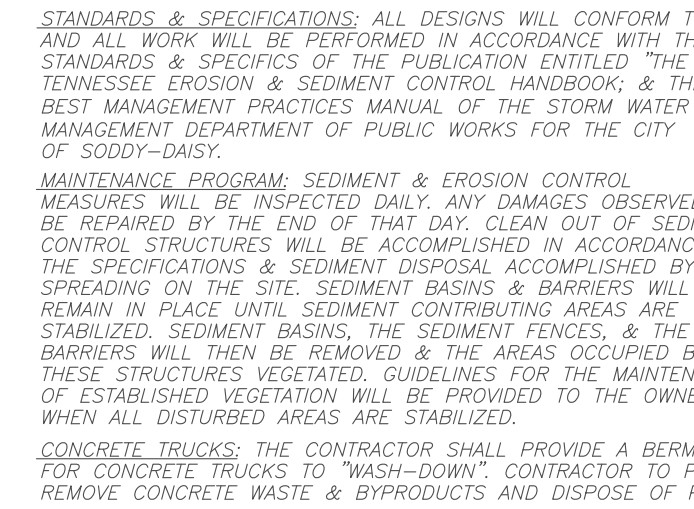
MAINTENANCE PROGRAM: SEDIMENT & EROSION CONTROL MEASURES WILL BE INSPECTED DAILY. ANY DAMAGES OBSERVED WILL BE REPAIRED BY THE END OF THAT DAY. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE SPECIFICATIONS & SEDIMENT DISPOSAL ACCOMPLISHED BY SPREADING ON THE SITE. SEDIMENT BASINS & BARRIERS WILL REMAIN IN PLACE UNTIL SEDIMENT CONTRIBUTING AREAS ARE STABILIZED. SEDIMENT BASINS, THE SEDIMENT FENCES, & THE BARRIERS WILL THEN BE REMOVED & THE AREAS OCCUPIED BY THESE STRUCTURES VEGETATED. FOR THE MAINTENANCE OF ESTABLISHED VEGETATION WILL BE PROVIDED TO THE OWNER WHEN ALL DISTURBED AREAS ARE STABILIZED.

CONCRETE TRUCKS: THE CONTRACTOR SHALL PROVIDE A BERMED AREA FOR CONCRETE TRUCKS TO "WASH-DOWN". CONTRACTOR TO PERIODICALLY REMOVE CONCRETE WASTE & BY-PRODUCTS AND DISPOSE OF PROPERLY.

SEDIMENT & EROSION CONTROL NOTES:

- CONTRACTOR IS TO ADHERE TO THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK & THE BEST MANAGEMENT PRACTICES MANUAL OF THE STORM WATER MANAGEMENT DEPARTMENT OF PUBLIC WORKS FOR THE CITY OF SOODY-DAISY.
- CONTRACTOR SHALL BE RESPONSIBLE DURING CONSTRUCTION FOR THE CONTINUOUS MAINTENANCE OF SEDIMENT & EROSION CONTROL MEASURES AS CALLED FOR ON THE DRAWINGS & PER THE TN EROSION & SEDIMENT CONTROL HANDBOOK & THE REQUIREMENTS OF THE CITY OF SOODY-DAISY.
- SEDIMENT & EROSION CONTROL FACILITIES, & STORM DRAINAGE FACILITIES SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONSTRUCTION.
- SEDIMENT & EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETE & UNTIL A PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
- ALL GRADED AREAS SHALL BE STABILIZED WITH A TEMPORARY FAST GROWING COVER AND/OR MULCH, NO LATER THAN 2 WEEKS AFTER EARTH DISTURBING ACTIVITY ENDS IN THOSE AREAS WHERE GRADING ACTIVITY HAS CEASED & FINE GRADING IS NOT TAKE PLACE FOR AT LEAST 15 DAYS.
- EXISTING DRAINAGE STRUCTURES TO BE INSPECTED, REPAIRED AS NEEDED & CLEANED OUT TO REMOVE ALL SILT & DEBRIS.
- SEEDING & FERTILIZING RATES FOR TEMPORARY AND PERMANENT STANDS OF GRASS SHALL BE PER CHARTS ON DETAIL SHEET.
- ADDITIONAL EROSION CONTROL DEVICES SHALL BE USED AS REQUIRED.
- SILT FENCE AND/OR SILT LOSS SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO 50% CAPACITY OF SILT FENCE AND/OR SILT LOSS.
- IF ANY FINES OR PENALTIES ARE LEVIED AGAINST THE PROPERTY OR PROPERTY OWNER BECAUSE OF LACK OF EROSION AND/OR SEDIMENT CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF SUCH FINES OR PENALTIES OR THE COST OF ANY FINES OR PENALTIES SHALL BE DEDUCTED FROM THE CONTRACT AMOUNT.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- CONSTRUCTION EXIT SHALL BE MAINTAINED ON A CONTINUOUS BASIS.
- THE CONTRACTOR SHALL USE WHATEVER MEASURES ARE REQUIRED TO PREVENT SILT & CONSTRUCTION DEBRIS FROM FLOWING INTO ADJACENT PROPERTIES. THIS CAN BE ACCOMPLISHED BY SMALL TEMPORARY SEDIMENT POINTS, SILT FENCES, WIRE & BURLAP OR BARRIERS OF CEDAR TREES AND/OR BALES OF STRAW. CONTRACTOR SHALL COMPLY WITH ALL LOCAL EROSION, CONSERVATION, & SILTATION ORDINANCES. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES & THE ESTABLISHMENT OF A STAND OF GRASS SUFFICIENT TO PREVENT EROSION.
- CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING, BY APPLYING CALCIUM CHLORIDE, OR BY OTHER METHODS AS DIRECTED BY ENGINEER AND/OR OWNER'S REPRESENTATIVE. AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR TO COMPLY WITH ALL STATE & LOCAL SEDIMENT CONTROL & AIR POLLUTION ORDINANCES OR RULES.
- ALL DISTURBED AREA TO BE GRASSED.
- TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO BEGINNING OF GRADING. CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION CONTROL DEVICES & SHALL REMOVE SILT FROM BERM DITCHES, SILT DAMS, & SILT FENCES AS NEEDED.
- ALL SIDE DITCHES TO BE CLEANED AND/OR REGRADED TO PROVIDE PROPER DRAINAGE.
- ALL AREAS NOT OTHERWISE SURFACED ARE TO BE SEED, LANDSCAPED, MULCHED, WATERED & MAINTAINED UNTIL AN ADEQUATE STAND OF GRASS IS OBTAINED.
- NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFER AS MEASURED FROM THE POINT OF WASTED VEGETATION WITHOUT FIRST OBTAINING EROSION CONTROL PLAN CHECKED AND, IF NECESSARY, REPAIRED TWICE A WEEK BY TDS LEVEL I CERTIFIED PERSON.

NOTE: REMOVE SEDIMENT WHEN ONE-HALF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST DUE TO SEDIMENT ACCUMULATION.



Sd2 C500 DETAIL: EXCAVATED INLET SEDIMENT TRAP (NTS)

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND DISTURBANCE ACTIVITIES.

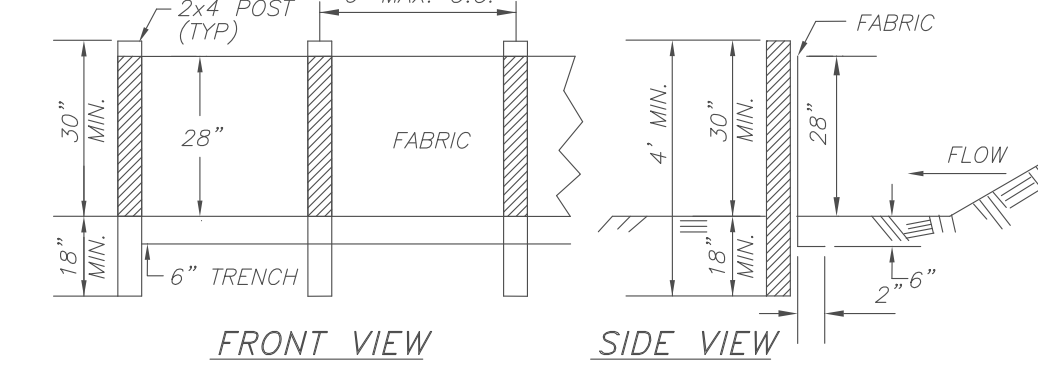
TOPSOIL STOCKPILE AREA SHALL BE COVERED WITH BLACK PLASTIC.

WIDTH OF FABRIC	SILT FENCE TYPE USES
TYPE A (36")	1. ON DEVELOPMENTS WHERE THE LIFE OF THE PROJECT IS GREATER THAN OR EQUAL TO 6 MONTHS. 2. WHERE THE SLOPE GRADIENT IS STEEPER THAN 3:1.
TYPE B (22")	1. ON PROJECTS, SUCH AS RESIDENTIAL HOME SITES OR SMALL COMMERCIAL DEVELOPMENTS, WHERE THE LIFE OF THE PROJECT IS LESS THAN 6 MONTHS. 2. WHERE THE SLOPE GRADIENT IS LESS THAN OR EQUAL TO 3:1.
TYPE C (36")	1. WHERE FILL SLOPES EXCEED A VERTICAL HEIGHT OF 20 FEET AND THE SLOPE GRADIENT IS STEEPER THAN 3:1.

MINIMUM LENGTH	TYPE OF POST	SIZE OF POST
TYPE A	SOFT WOOD GAL. STEEL	3" DIA. OR 2X4 1.5" x 1.5" MIN. 1.3lb./FT. MIN.
TYPE B	SOFT WOOD GAL. STEEL	2" DIA. OR 2X2 1" x 1" MIN. .75lb./FT. MIN.
TYPE C	STEEL	1.3lb./FT. MIN.

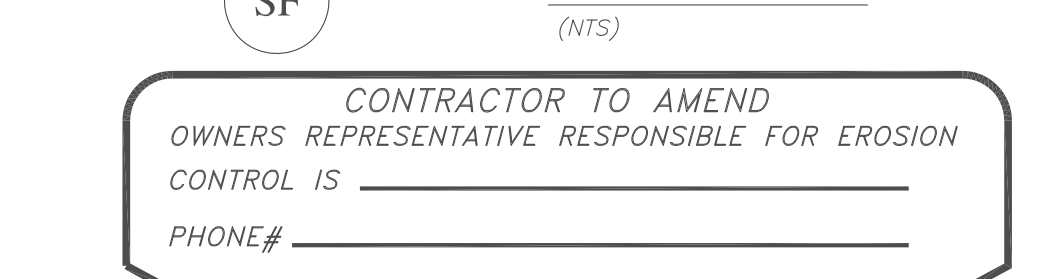
GAUGE	CROWN	LEGS	STAPLES/POST
WIRE STAPLES	17 MIN	3/4" WIDE	1/2" LONG 5 MIN.
GAUGE	LENGTH	BUITON HEADS	NAIL/POST
NAILS	14 MIN	1"	3/4" 4 MIN.

NOTE: FILTER FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CORD, AND POCKETS.



CE DETAIL: STONE PAD CONSTRUCTION EXIT (NTS)

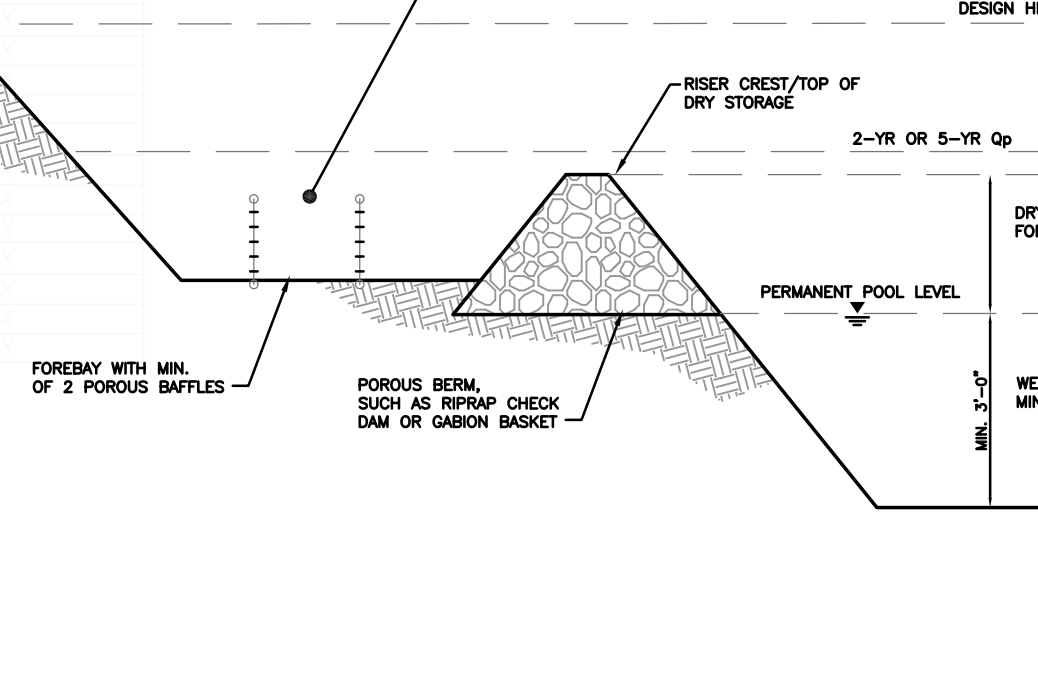
NOTE: USE 36" D.O.T. APPROVED FABRIC AND USE WOOD OR STEEL POSTS.



SF DETAIL: SILTY FENCE - TYPE A (NTS)

CONTRACTOR TO AMEND OWNERS REPRESENTATIVE RESPONSIBLE FOR EROSION CONTROL IS _____ PHONE# _____

REPRESENTATIVE MUST BE TNEPSC LEVEL I CERTIFIED



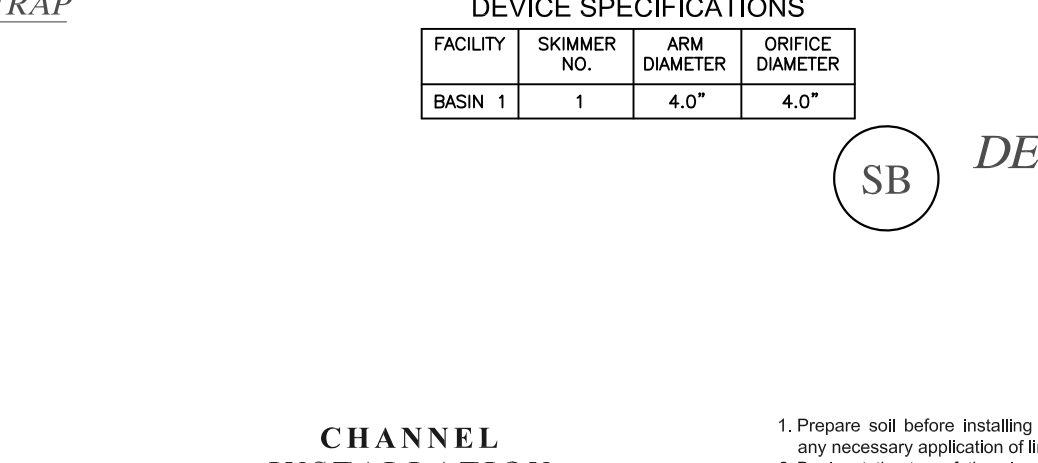
BASIN SCHEDULE

FACILITY	PIPE DIA. (FT.)	BARREL DIA. (FT.)	PERMANENT POOL ELEVATION FEET, AMSL	PRINCIPAL SPILLWAY ELEVATION FEET, AMSL	EMERGENCY SPILLWAY ELEVATION FEET, AMSL	EMERGENCY SPILLWAY WIDTH	EMERGENCY SPILLWAY SLOPE	TOP OF EMBANKMENT ELEVATION FEET, AMSL	BOTTOM OF BASIN ELEVATION FEET, AMSL
BASIN 1	30"	15"	847.00	850.0	851.0	6'	3H:1V	852.0	845.50

SKIMMER DEWATERING DEVICE SPECIFICATIONS

FACILITY	SKIMMER NO.	ARM DIAMETER	ORIFICE DIAMETER
BASIN 1	1	4.0"	4.0"

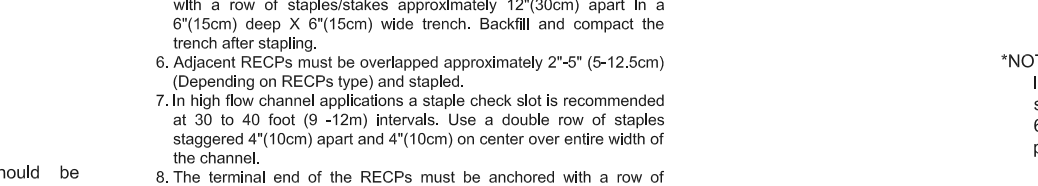
SB DETAIL: SEDIMENT BASIN (NTS)



CHANNEL INSTALLATION DETAIL

- Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
- Begin at the top of the slope by anchoring the RECPs in a 6" (15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/staples approximately 12" (30cm) apart in the trench. Backfill and compact the trench after stapping. Apply seed to the compacted soil and fold the remaining 12" (30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs back over the seed and compacted soil with a row of staples/staples spaced approximately 12" (30cm) apart across the width of the RECPs.
- Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/staples in appropriate locations as shown in the staple pattern guide.
- The edges of parallel RECPs back over the seed and compacted soil. All RECPs must be securely fastened to soil surface by placing staples/staples in appropriate locations as shown in the staple pattern guide.
- Roll center RECPs in direction of water flow in bottom of channel. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/staples in appropriate locations as shown in the staple pattern guide.
- Place consecutive RECPs end-to-end (Single slope) with a 4" (10cm) overlap. Use a double row of staples staggered 4" apart and 4" on center to secure RECPs.
- Full length edge of RECPs at top of side slopes must be anchored with a row of staples/staples approximately 12" (30cm) apart in a 6" (15cm) deep x 6" (15cm) wide trench. Backfill and compact the trench after stapping.
- Adjacent RECPs must be overlapped approximately 2'-0" (61cm) (Depending on RECPs type and stack).
- In high flow channel applications a staple check slot is recommended at 30 to 40 foot (9-12m) intervals. Use a double row of staples staggered 4" (10cm) apart and 4" (10cm) on center to secure RECPs.
- The terminal end of the RECPs must be anchored with a row of staples/staples approximately 12" (30cm) apart in a 6" (15cm) deep x 6" (15cm) wide trench. Backfill and compact the trench after stapping.

SLOPE INSTALLATION DETAIL

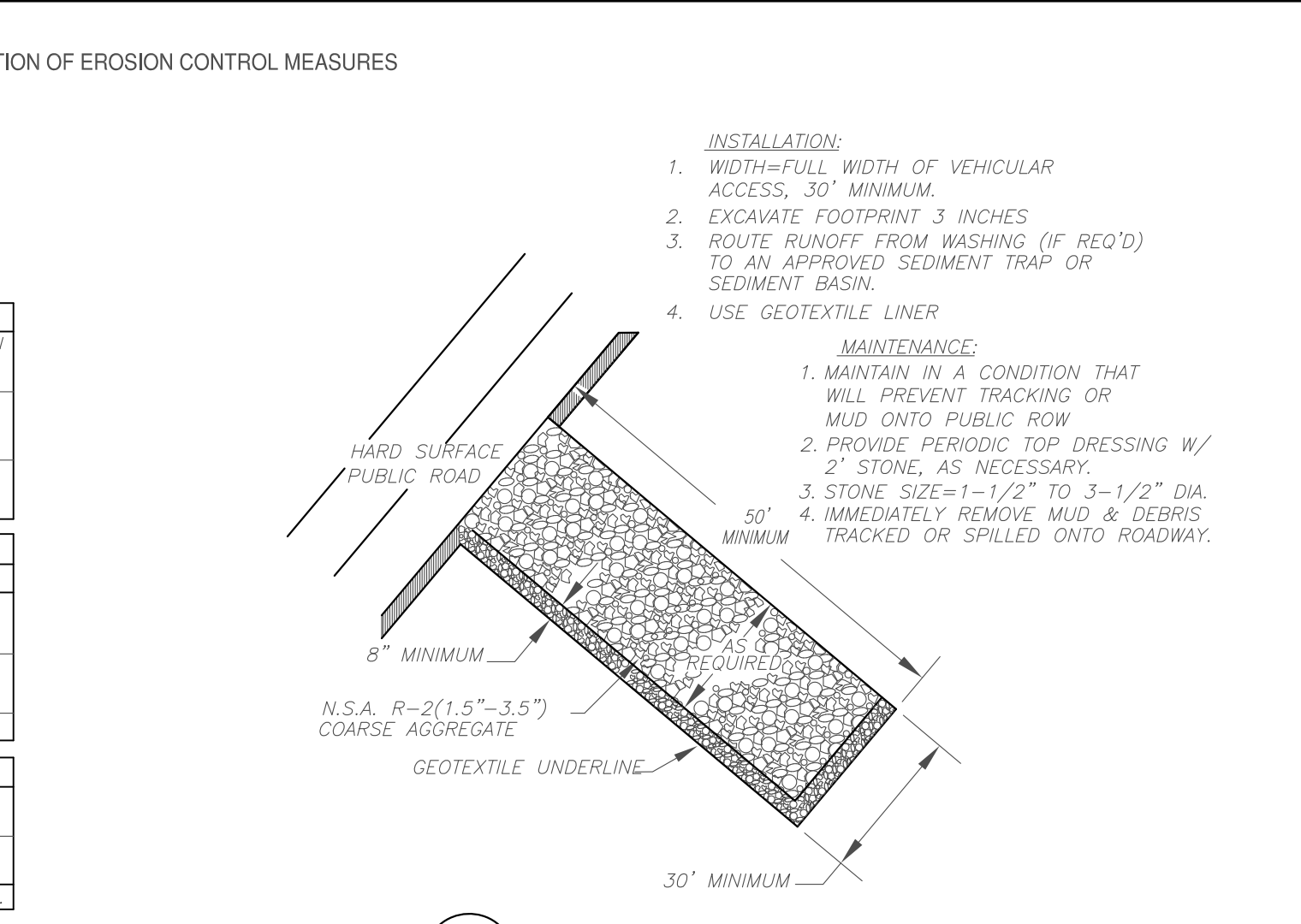


NOTE: In loose soil conditions, the use of staples or staple lengths greater than 6" (15cm) may be necessary to properly secure the RECPs.

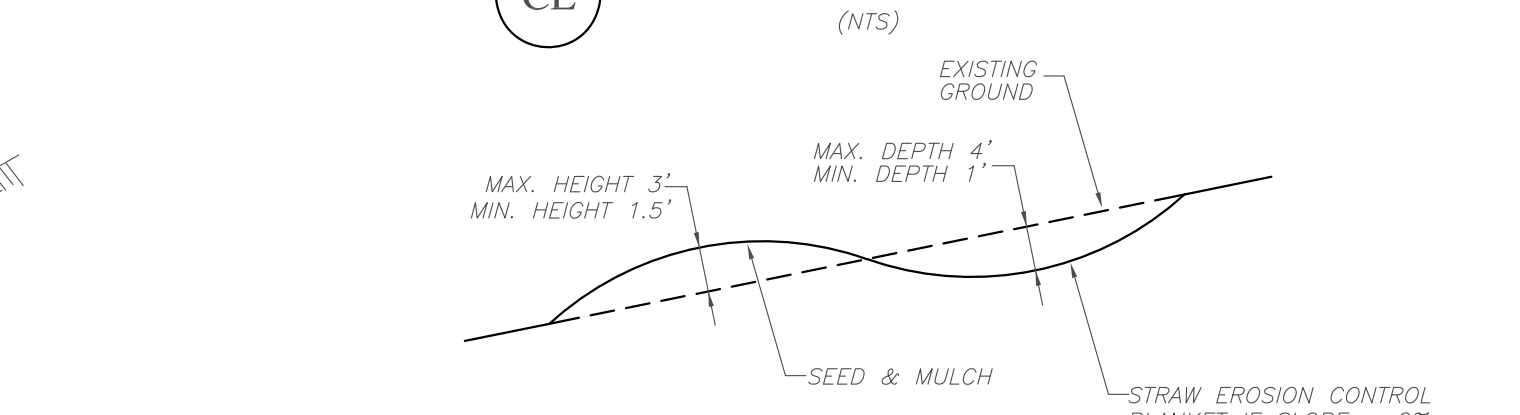
Drawing Not To Scale

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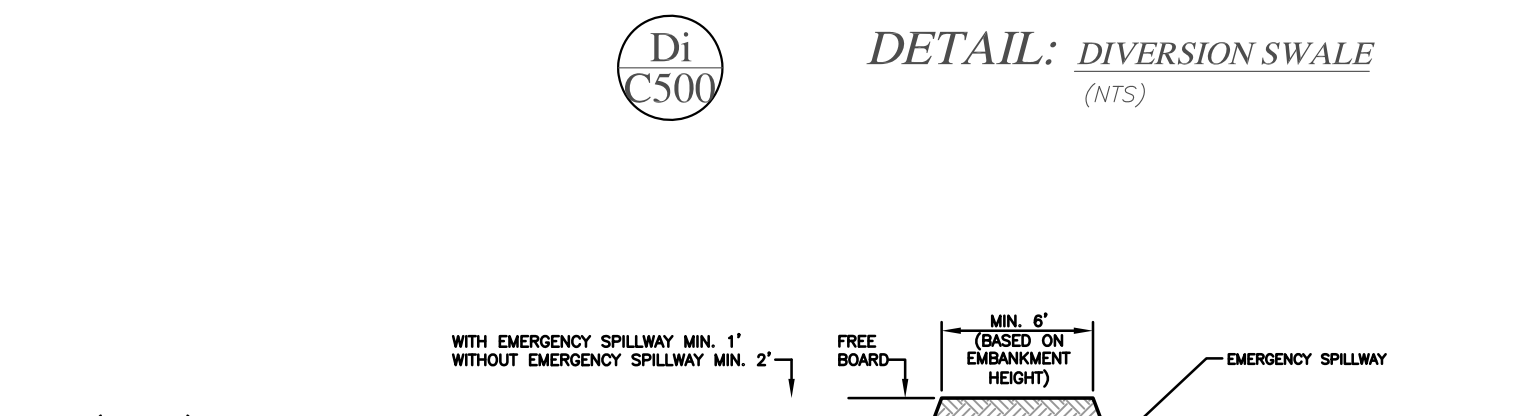
Mb C500 DETAIL: MATTING AND BLANKETS ON SLOPES



CE DETAIL: STONE PAD CONSTRUCTION EXIT (NTS)



Di C500 DETAIL: DIVERSION SWALE (NTS)



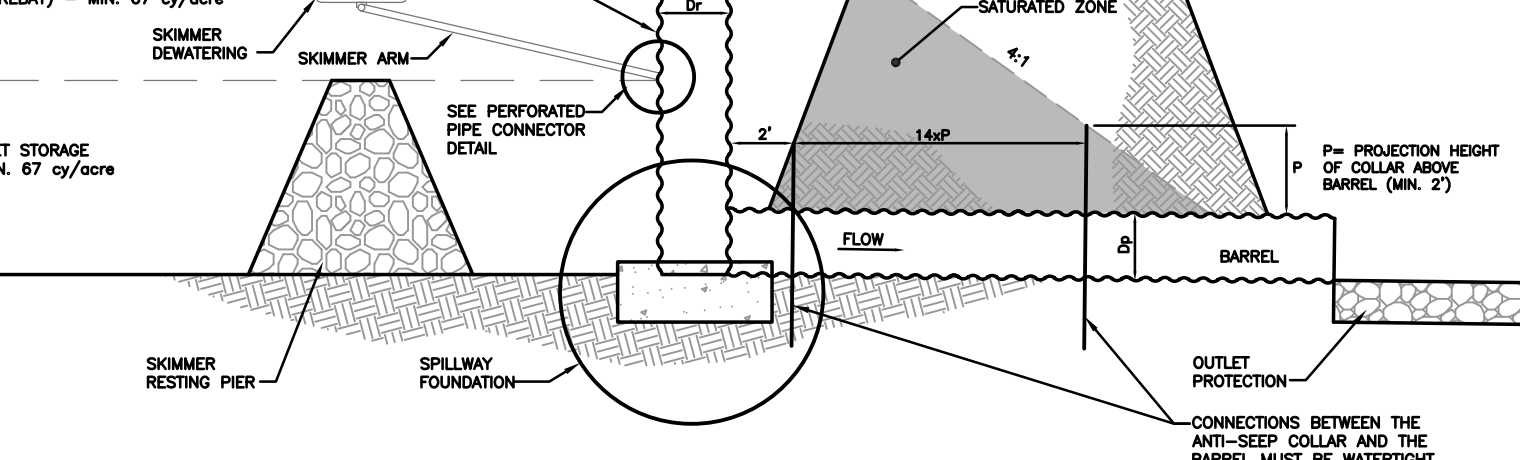
BASIN SCHEDULE

FACILITY	PIPE DIA. (FT.)	BARREL DIA. (FT.)	PERMANENT POOL ELEVATION FEET, AMSL	PRINCIPAL SPILLWAY ELEVATION FEET, AMSL	EMERGENCY SPILLWAY ELEVATION FEET, AMSL	EMERGENCY SPILLWAY WIDTH	EMERGENCY SPILLWAY SLOPE	TOP OF EMBANKMENT ELEVATION FEET, AMSL	BOTTOM OF BASIN ELEVATION FEET, AMSL
BASIN 1	30"	15"	847.00	850.0	851.0	6'	3H:1V	852.0	845.50

SKIMMER DEWATERING DEVICE SPECIFICATIONS

FACILITY	SKIMMER NO.	ARM DIAMETER	ORIFICE DIAMETER
BASIN 1	1	4.0"	4.0"

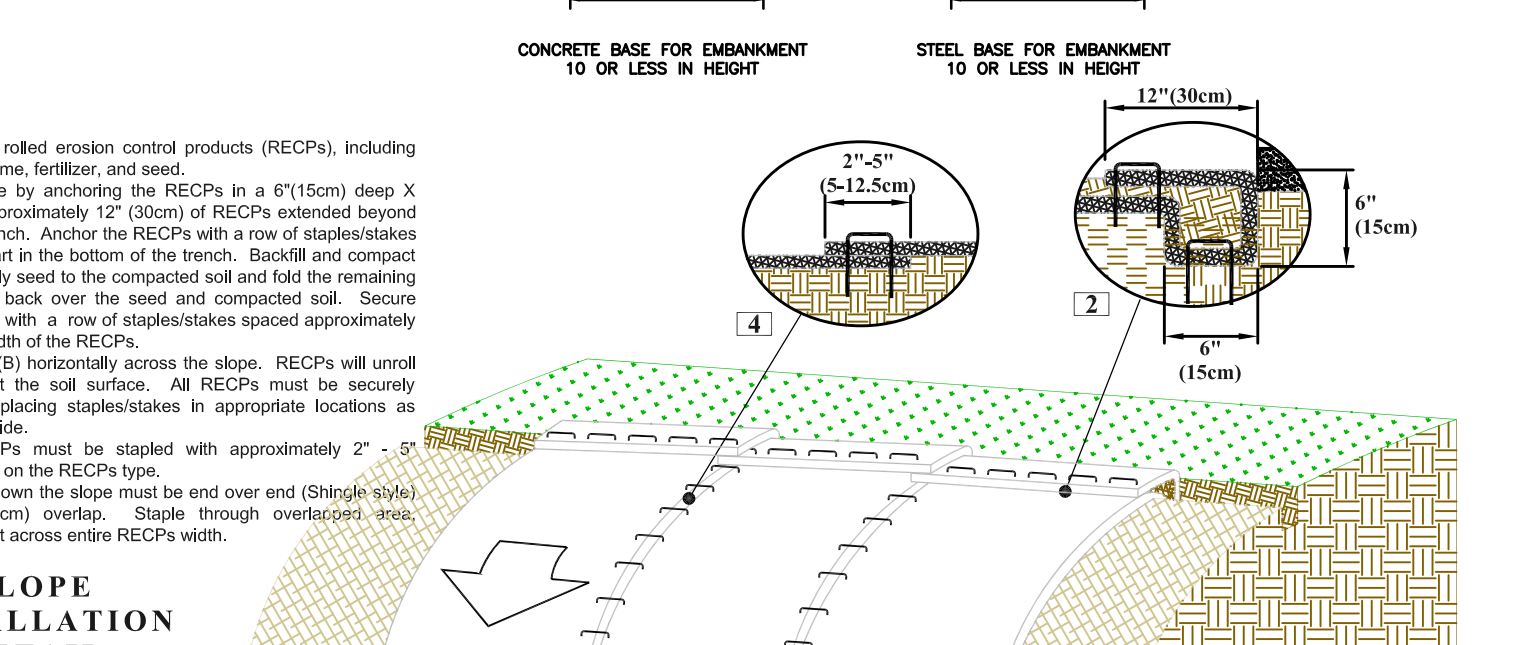
SB DETAIL: SEDIMENT BASIN (NTS)



CHANNEL INSTALLATION DETAIL

- Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
- Begin at the top of the slope by anchoring the RECPs in a 6" (15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/staples approximately 12" (30cm) apart in the trench. Backfill and compact the trench after stapping. Apply seed to the compacted soil and fold the remaining 12" (30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs back over the seed and compacted soil with a row of staples/staples spaced approximately 12" (30cm) apart across the width of the RECPs.
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- Adjacent RECPs must be overlapped approximately 2'-0" (61cm) (Depending on RECPs type and stack).
- In high flow channel applications a staple check slot is recommended at 30 to 40 foot (9-12m) intervals. Use a double row of staples staggered 4" (10cm) apart and 4" (10cm) on center to secure RECPs.
- The terminal end of the RECPs must be anchored with a row of staples/staples approximately 12" (30cm) apart in a 6" (15cm) deep x 6" (15cm) wide trench. Backfill and compact the trench after stapping.

SLOPE INSTALLATION DETAIL



NOTE: In loose soil conditions, the use of staples or staple lengths greater than 6" (15cm) may be necessary to properly secure the RECPs.

Drawing Not To Scale

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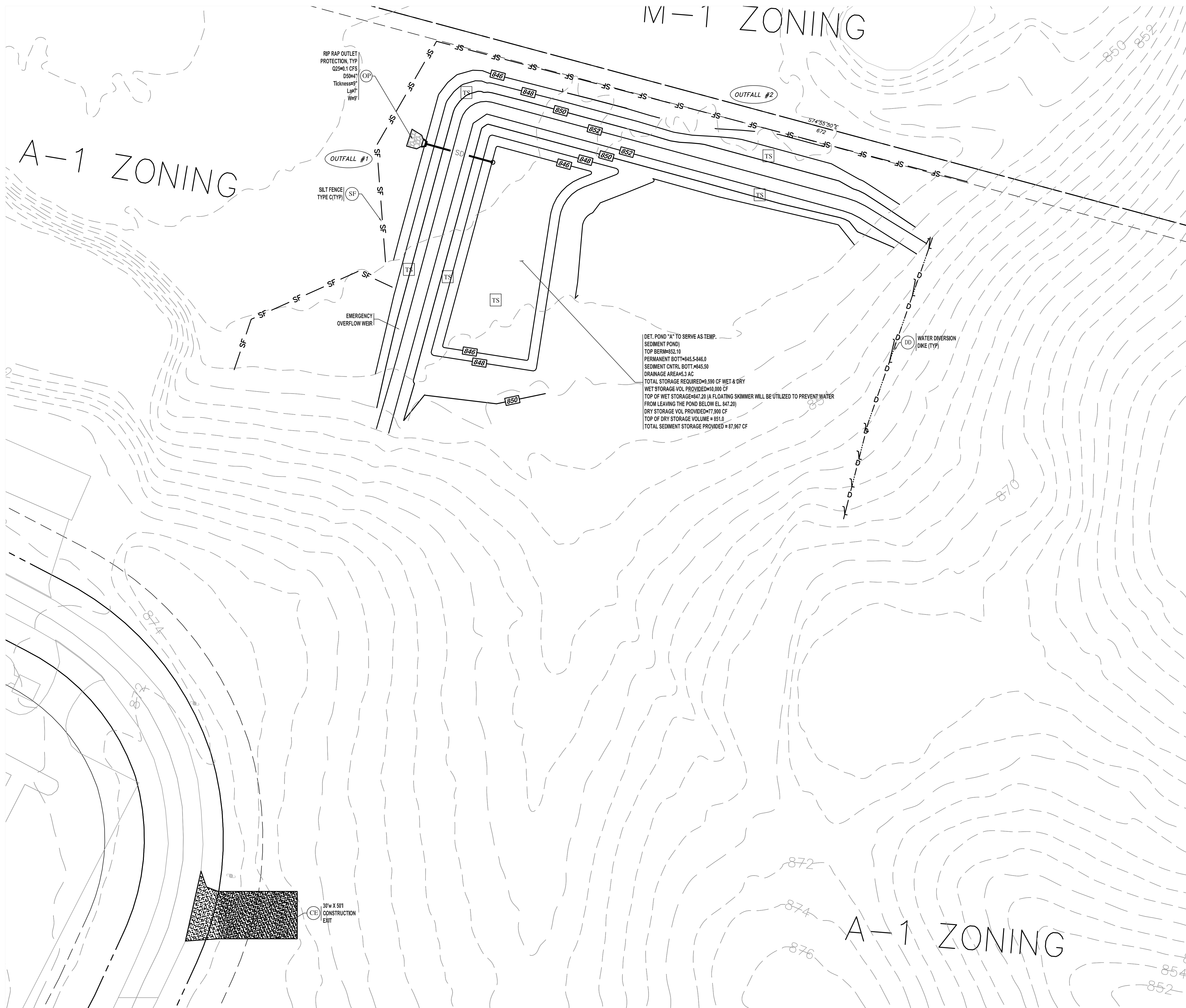
Mb C500 DETAIL: MATTING AND BLANKETS ON SLOPES

NO.	REVISIONS
1	
2	
3	
4	

SEE SHEET C500 FOR ALL SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

M-1 ZONING

A-1 ZONING



DET. POND "A" TO SERVE AS TEMP. SEDIMENT POND:
 TOP BERM=82.10
 PERMANENT BOTT=84.5-846.0
 SEDIMENT CNTRL BOTT=845.50
 DRAINAGE AREA=5.3 AC
 TOTAL STORAGE REQUIRED=9,590 CF WET & DRY
 WET STORAGE VOL PROVIDED=10,000 CF
 TOP OF WET STORAGE=847.20 (A FLOATING SKIMMER WILL BE UTILIZED TO PREVENT WATER FROM LEAVING THE POND BELOW EL. 847.20)
 DRY STORAGE VOL PROVIDED=77,900 CF
 TOP OF DRY STORAGE VOLUME = 851.0
 TOTAL SEDIMENT STORAGE PROVIDED = 87,907 CF

LEGEND

---	Ex. Curb
---	Ex. Centerline
---	Ex. Fence
---	Ex. Water Line
---	Ex. Fire Line
---	Ex. Irrigation Line
---	Ex. Storm Drainage Line
---	Ex. Sanitary Sewer Line
---	Ex. Sanitary Sewer Force Main
---	Ex. Swale Centerline
---	Ex. Ditch Centerline
---	Ex. Gas Line
---	Ex. Overhead Elect. or Utility Line
---	Ex. Underground Electrical
---	Ex. UGE
---	Ex. Underground Fiber Optics
---	Ex. Underground Telephone

PROPERTY LINE

---	BUILDING LINE
---	EASEMENT LINE
---	BUILDING SETBACK LINE
---	LANDSCAPE BUFFER LINE
---	LOT LINE
---	ROW LINE
---	CURB
---	CENTERLINE
---	PROP. FENCE LINE
---	PROP. LIMITS OF CONSTRUCTION
---	PROPOSED TREE PROTECTION
---	PROPOSED SWALE CENTERLINE
---	PROPOSED DITCH CENTERLINE
---	PROP. WATER LINE
---	PROP. FIRE LINE
---	PROP. IRRIGATION LINE
---	PROP. GAS LINE
---	PROP. STORM DRAINAGE LINE
---	PROP. SANITARY SEWER LINE
---	PROP. SANITARY SEWER FORCE MAIN
---	PROP. OVERHEAD ELECT. OR UTILITY LINE
---	PROP. UNDERGROUND ELECTRICAL
---	PROP. UNDERGROUND FIBER OPTICS
---	PROP. UNDERGROUND TELEPHONE
---	PROP. SILT FENCE OR SILT WADDE

ABBREVIATIONS:
 SSE = NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)
 DE = NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)
 WE = NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)
 L/A BUFFER = NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)
 F/SP = FRONT YARD SETBACK / R/SP = REAR YARD SETBACK
 FFE = FINISHED FLOOR ELEVATION
 TW = FINISH GRADE AT TOP OF RETAINING WALL
 SG = FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL
 SDDO / SSCD = STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 DS = ROOF DOWNSPOUT CONNECTION
 SSW = SINGLE SOLID WHITE LINE, DSYL = DOUBLE SOLID YELLOW LINE
 SOW = SINGLE DASHED WHITE LINE

REVISIONS

NO.	DATE	DESCRIPTION
1		
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12		

HCDE Bus Barn
 at
 9517 W Ridge Trail Road
 for
 HAMILTON CO
 DEPT. EDUCATION
 3074 Hickory Valley Rd
 Chattanooga, TN 37421
 423-498-7020

MA & A
 March Adams & Associates
 Consulting Engineers
 310 Dodds Ave.
 P.O. Box 3689
 Chattanooga, Tennessee 37404
 PH: (423)698-6675



DRAWN: AE
 CHECKED: JP
 JOB No. 21330
 DATE: 03/03/2023

C501
 SEDIMENT AND EROSION CONTROL PHASE I

NORTH ↑
 30' 0 30' 60'
 Scale 1" = 30'
 MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482

SEE SHEET C500 FOR ALL SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

M-1 ZONING

A-1 ZONING

A-1 ZONING

LEGEND

Ex. Curb	PROPERTY LINE
Ex. Centerline	BUILDING LINE
Ex. Fence Line	EASEMENT LINE
Ex. Water Line	BUILDING SETBACK LINE
Ex. Fire Line	LANDSCAPE BUFFER LINE
Ex. Irrigation Line	LOT LINE
Ex. Storm Drainage Line	ROW LINE
Ex. Sanitary Sewer Line	CURB
Ex. Sanitary Sewer Force Main	CENTERLINE
Ex. Swale Centerline	PROP. FENCE LINE
Ex. Ditch Centerline	
Ex. Gas Line	
Ex. Overhead Elect. or Utility Line	
Ex. Underground Electrical	PROPOSED SWALE CENTERLINE
Ex. Underground Fiber Optics	PROPOSED DITCH CENTERLINE
Ex. Underground Telephone	PROP. WATER LINE
	PROP. FIRE LINE
	PROP. IRRIGATION LINE
	PROP. GAS LINE
	PROP. STORM DRAINAGE LINE
	PROP. SANITARY SEWER LINE
	PROP. SANITARY SEWER FORCE MAIN
	PROP. OVERHEAD ELECT. OR UTILITY LINE
	PROP. UNDERGROUND ELECTRICAL
	PROP. UNDERGROUND FIBER OPTICS
	PROP. UNDERGROUND TELEPHONE

ABBREVIATIONS:

SSE - NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)
 DE - NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)
 WE - NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)
 L/LA BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)
 FTSB - FRONT YARD SETBACK/FTSB - SIDE YARD SETBACK / RYSB-REAR YARD SETBACK
 FTE - FINISHED FLOOR ELEVATION
 TW - FINISH GRADE AT TOP OF RETAINING WALL
 BW - FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL (GRASS GRADE)
 SODO / SSSO - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 DS - ROOF DOWNSPOUT CONNECTION
 SSWL - SINGLE SOLID WHITE LINE, DSYL - DOUBLE SOLID YELLOW LINE
 SOWL - SINGLE DASHED WHITE LINE

REVISIONS

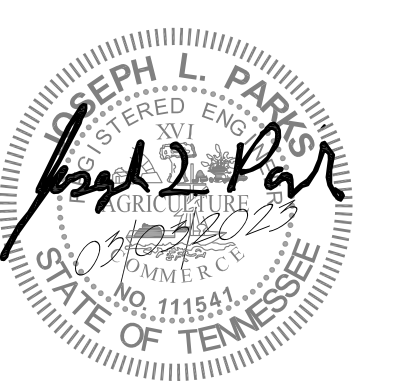
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4	ADDENDUM #1
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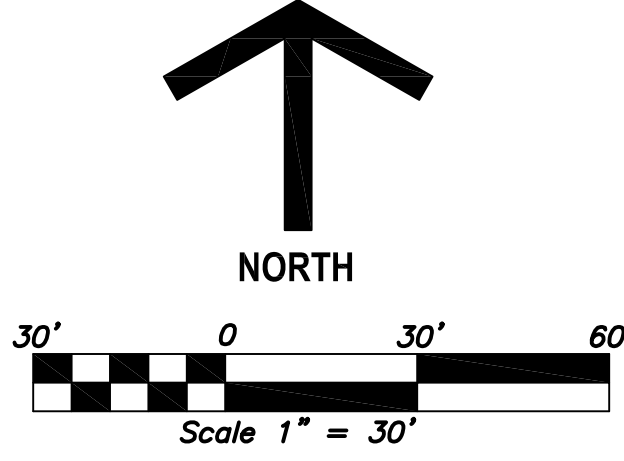
March Adams & Associates
 Consulting Engineers
 310 Dodds Ave.
 P.O. Box 3689
 Chattanooga, Tennessee 37404
 PH: (423)698-6675



DRAWN: AE
 CHECKED: JP
 JOB No. 21330
 DATE: 03/03/2023

C502

SEDIMENT AND EROSION CONTROL PHASE II



MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482

SEE SHEET C500 FOR ALL SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

M-1 ZONING

A-1 ZONING

LEGEND

Ex. Curb	---	PROPERTY LINE	---
Ex. Centerline	---	BUILDING LINE	---
Ex. Fence	---	EASEMENT LINE	---
Ex. Water Line	---	BUILDING SETBACK LINE	---
Ex. Fire Line	---	LANDSCAPE BUFFER LINE	---
Ex. Irrigation Line	---	LOT LINE	---
Ex. Storm Drainage Line	---	ROW LINE	---
Ex. Sanitary Sewer Line	---	CURB	---
Ex. Sanitary Sewer Force Main	---	CENTERLINE	---
Ex. Swale Centerline	---	PROP. FENCE LINE	---
Ex. Ditch Centerline	---		
Ex. Gas Line	---		
Ex. Overhead Elect. or Utility Line	---		
Ex. Underground Electrical	---		
Ex. Underground Fiber Optics	---		
Ex. Underground Telephone	---		
		PROPOSED SWALE CENTERLINE	---
		PROPOSED DITCH CENTERLINE	---
		PROP. WATER LINE	---
		PROP. FIRE LINE	---
		PROP. IRRIGATION LINE	---
		PROP. GAS LINE	---
		PROP. STORM DRAINAGE LINE	---
		PROP. SANITARY SEWER LINE	---
		PROP. SANITARY SEWER FORCE MAIN	---
		PROP. OVERHEAD ELECT. OR UTILITY LINE	---
		PROP. UNDERGROUND ELECTRICAL	---
		PROP. UNDERGROUND FIBER OPTICS	---
		PROP. UNDERGROUND TELEPHONE	---

ABBREVIATIONS:
 SSE - NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)
 SE - NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)
 WE - NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)
 LVA BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)
 FVSB - FRONT YARD SETBACK / SVSB - SIDE YARD SETBACK / RVSB - REAR YARD SETBACK
 FTE - FINISHED FLOOR ELEVATION
 TW - FINISH GRADE AT TOP OF RETAINING WALL
 BW - FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL (GRASS GRADE)
 SDCO / SSSCO - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 OS - ROOF DOWNPOUT CONNECTION
 SSWL - SINGLE SOLID WHITE LINE, DSWL - DOUBLE SOLID YELLOW LINE
 SSWL - SINGLE DASHED WHITE LINE

REVISIONS

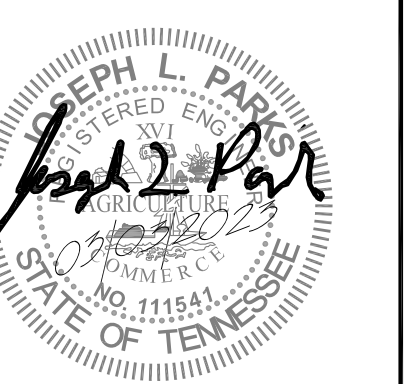
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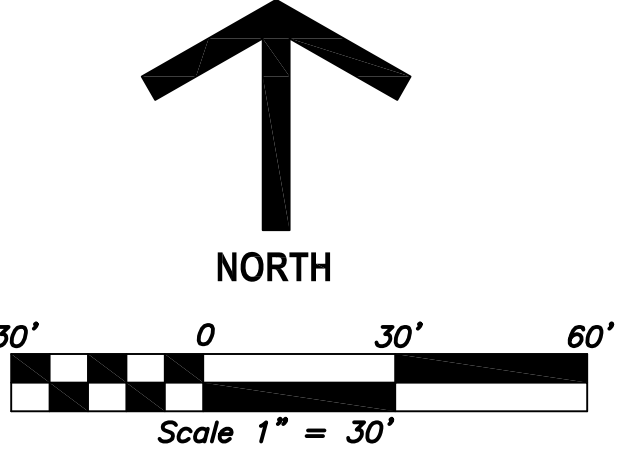


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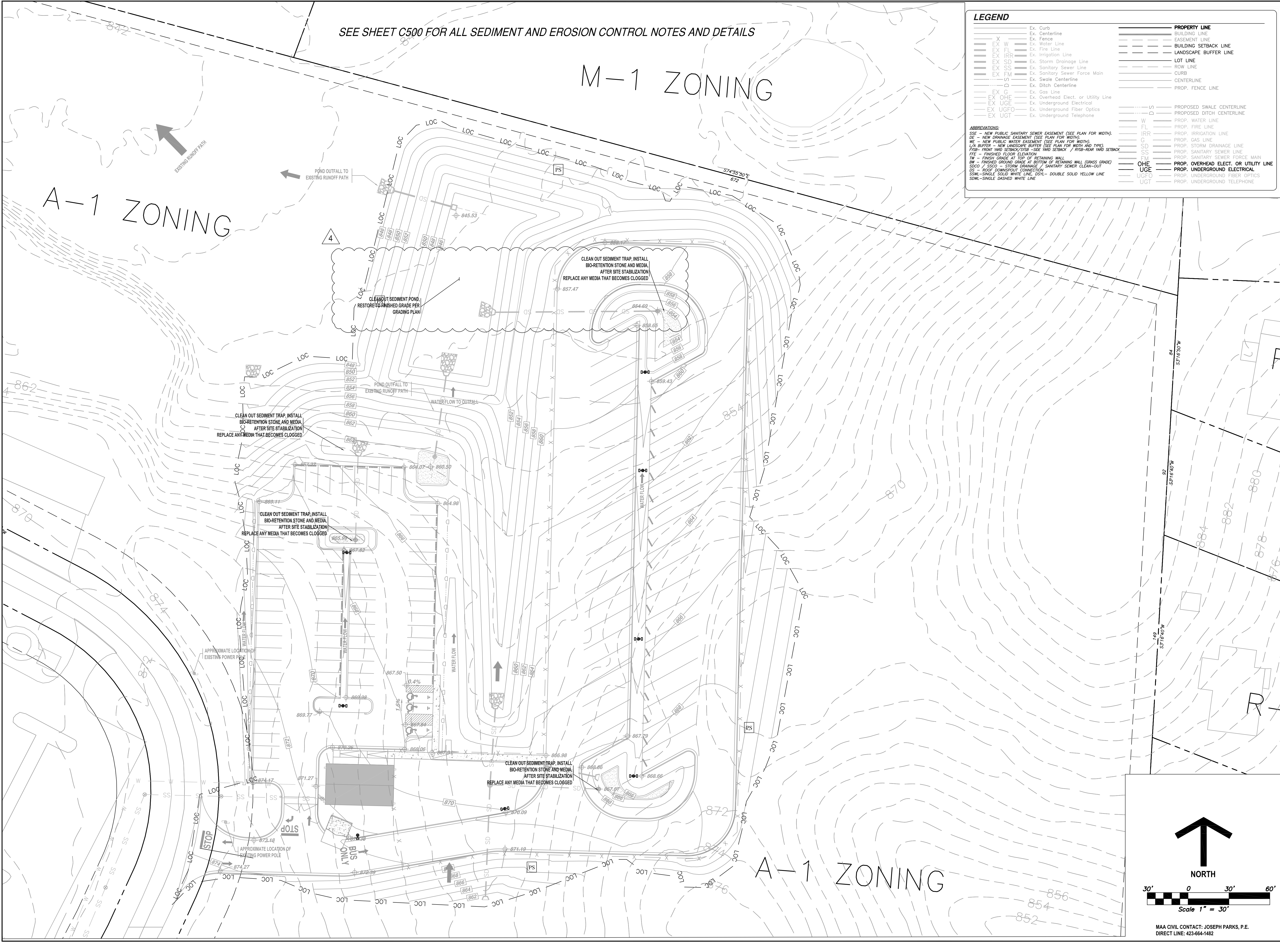


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 CHECKED: JP
 JOB No. 21330
 DATE: 03/03/2023

C503
 SEDIMENT AND EROSION
 CONTROL PHASE III



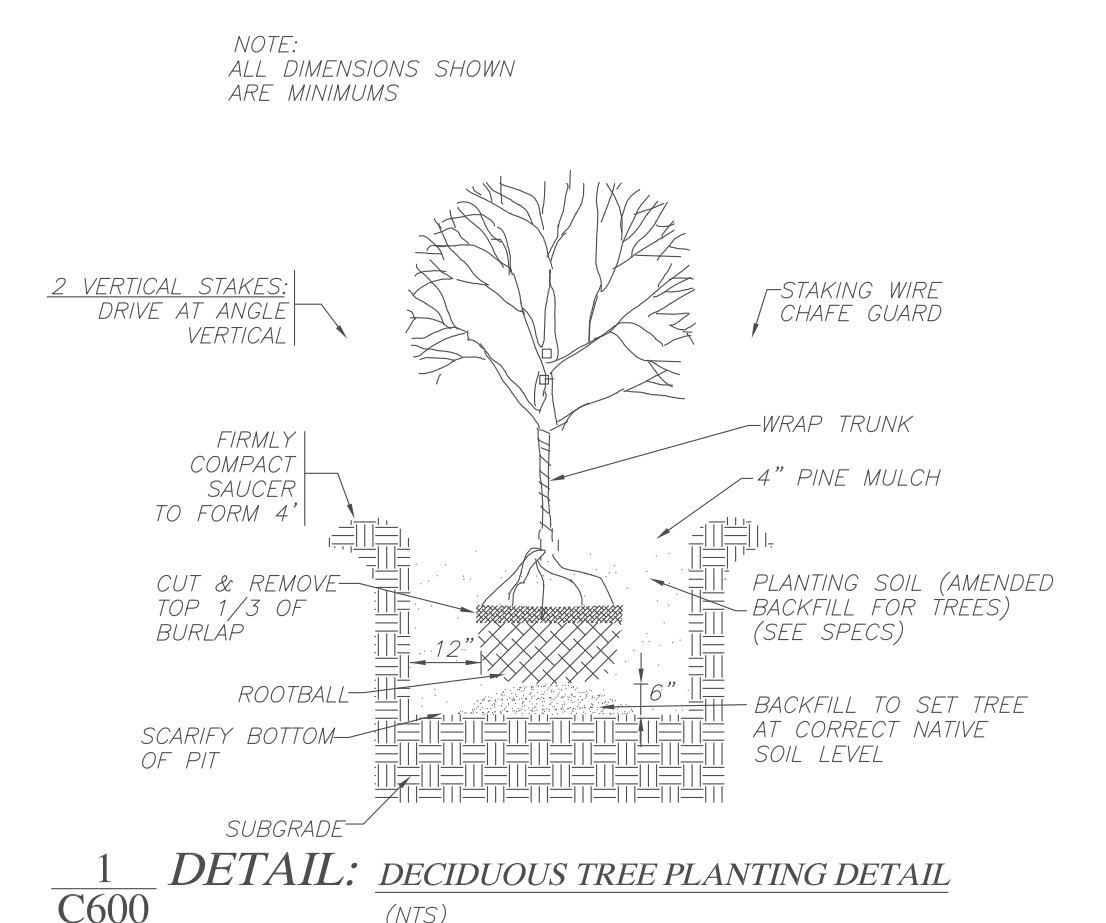
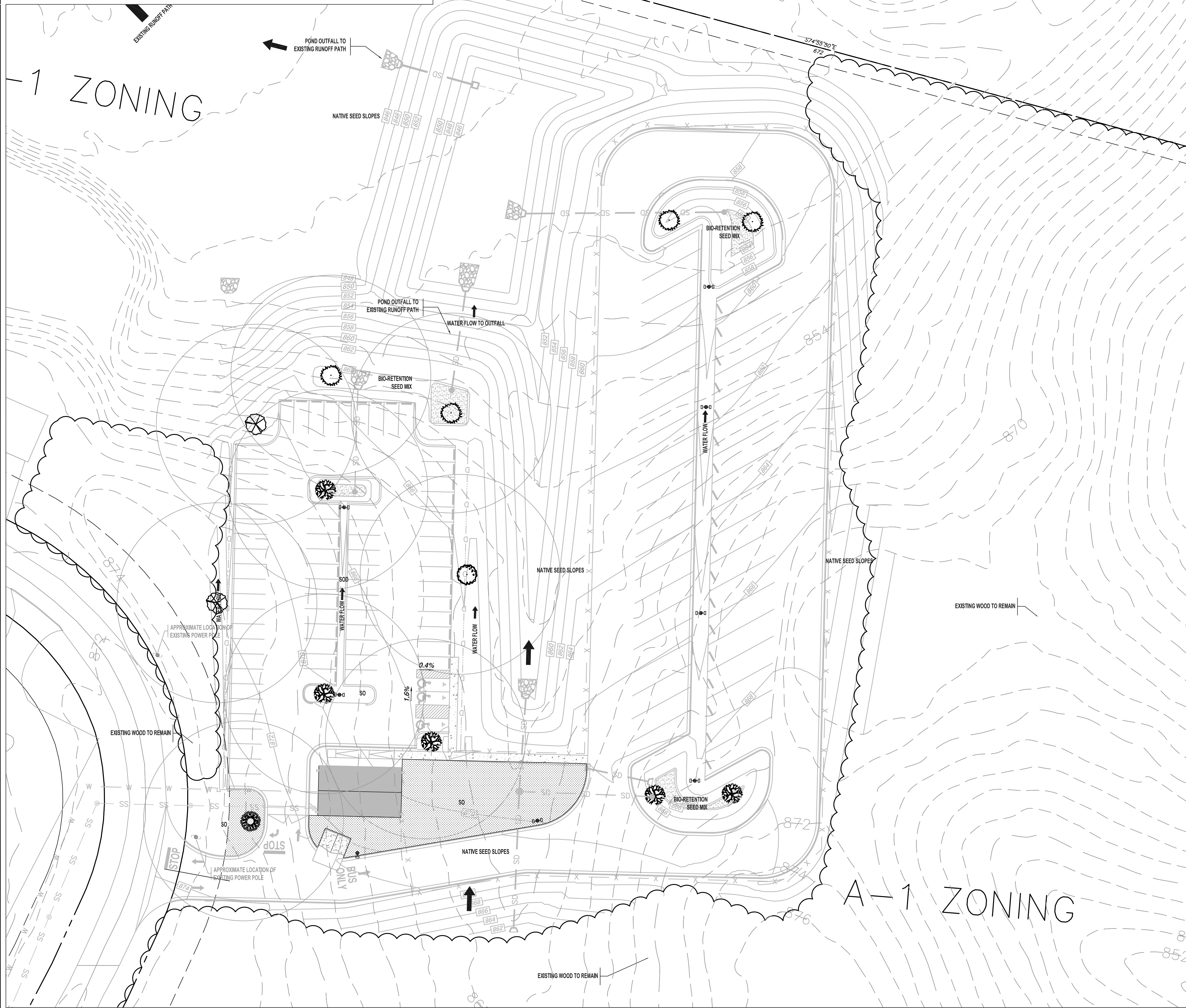
MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482



PLANT LIST						
TREES SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	CALIPER (DBH)	SPACING	REMARKS
	5	ACER RUBRUM	RED MAPLE	2"	AS SHOWN	'OCTOBER GLORY'
	1	GINKGO BILOBA	GINKGO	2"	AS SHOWN	FULL, SINGLE TRUNK
	2	QUERCUS PHellos	WILLOW OAK	2"	AS SHOWN	FULL, SINGLE TRUNK
	4	RIVER BIRCH	BETULA NIGRA	2"	AS SHOWN	FULL, SINGLE TRUNK
	1	FLOWERING DOGWOOD	CORNUS FLORIDA AND CULTIVARS	1.5"	AS SHOWN	FULL

LEGEND	
	Ex. Curb
	Ex. Centerline
	Ex. Fence
	Ex. Water Line
	Ex. Fire Line
	Ex. Irrigation Line
	Ex. Storm Drainage Line
	Ex. Sanitary Sewer Line
	Ex. Sanitary Sewer Force Main
	Ex. Swale Centerline
	Ex. Ditch Centerline
	Ex. Gas Line
	Ex. Overhead Elect. or Utility Line
	Ex. Underground Electrical
	Ex. Underground Fiber Optics
	Ex. Underground Telephone
PROPERTY LINE	
	PROP. FENCE LINE
	BUILDING LINE
	EASEMENT LINE
	BUILDING SETBACK LINE
	LANDSCAPE BUFFER LINE
	LOT LINE
	ROW LINE
	CURB
	CENTERLINE
	PROP. LIMITS OF CONSTRUCTION
	PROPOSED TREE PROTECTION
	PROPOSED SWALE CENTERLINE
	PROPOSED DITCH CENTERLINE
	PROP. WATER LINE
	PROP. FIRE LINE
	PROP. IRRIGATION LINE
	PROP. GAS LINE
	PROP. STORM DRAINAGE LINE
	PROP. SANITARY SEWER LINE
	PROP. SANITARY SEWER FORCE MAIN
	PROP. OVERHEAD ELECT. OR UTILITY LINE
	PROP. UNDERGROUND ELECTRICAL
	PROP. UNDERGROUND FIBER OPTICS
	PROP. UNDERGROUND TELEPHONE
	PROP. SILT FENCE OR SILT WADDE

ABBREVIATIONS
 SSE - NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)
 DE - NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)
 WE - NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)
 LPA BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)
 FISH - FRONT YARD STRIP, SOB - SIDE YARD STRIP, FISH-REAR YARD STRIP
 FFE - FINISHED FLOOR ELEVATION
 TR - FINISH GRADE AT TOP OF RETAINING WALL
 BW - FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL
 SODD / SODS - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT
 DS - ROOF DOWNSPOUT CONNECTION
 SOW - SINGLE SOLID WHITE LINE, DSW - DOUBLE SOLID YELLOW LINE
 SOWM - SINGLE DASHED WHITE LINE

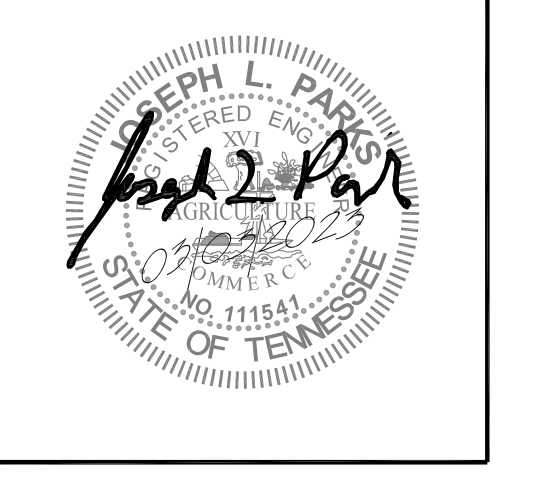


REVISIONS	
NO.	DESCRIPTION
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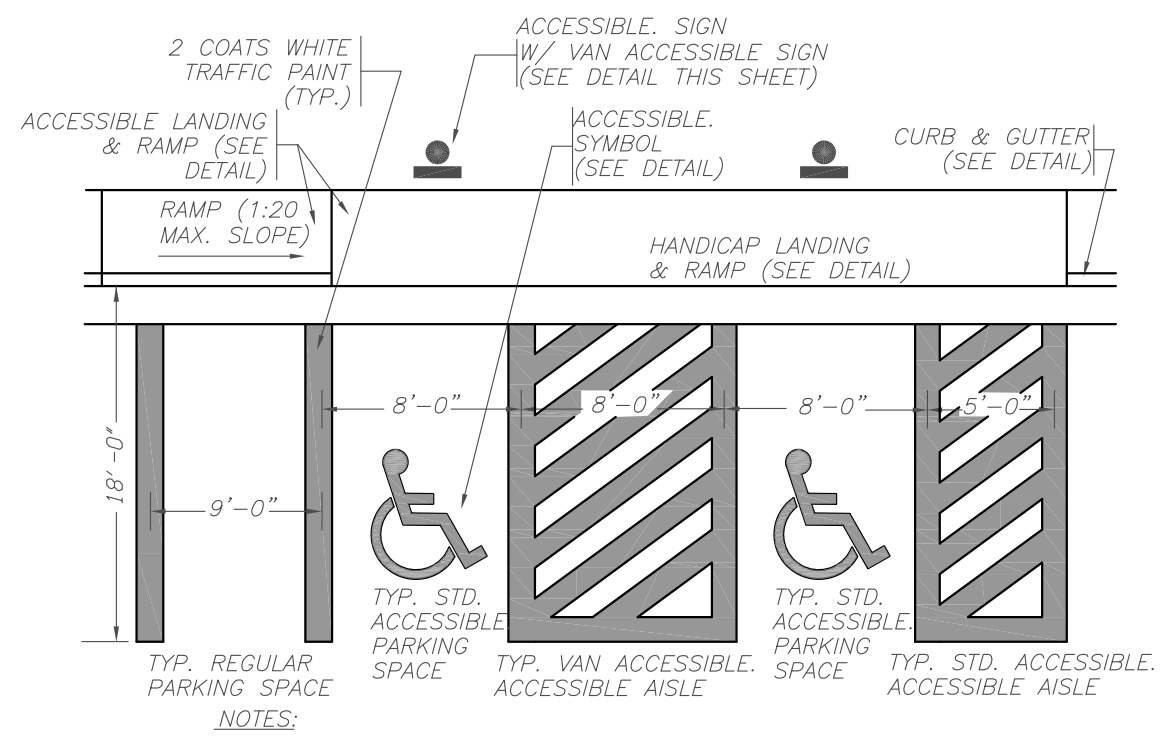


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JOB No.	21330
DATE:	03/03/2023

C600

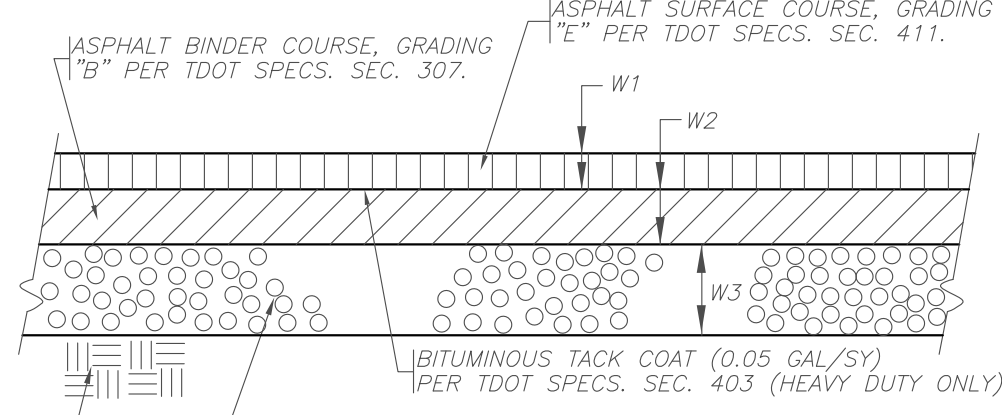
SITE LANDSCAPE PLAN

MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
 DIRECT LINE: 423-664-1482

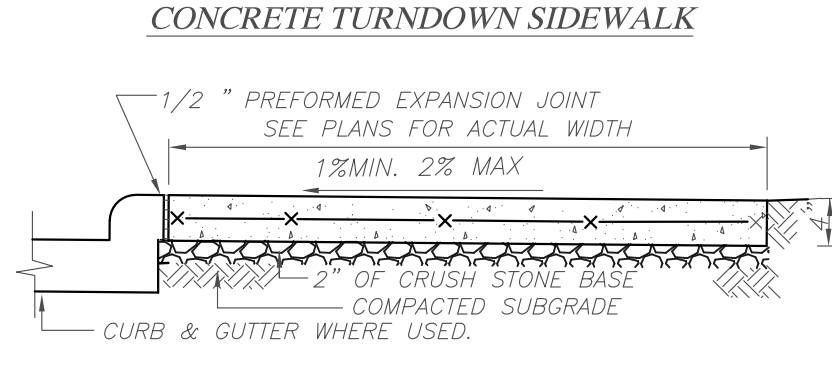
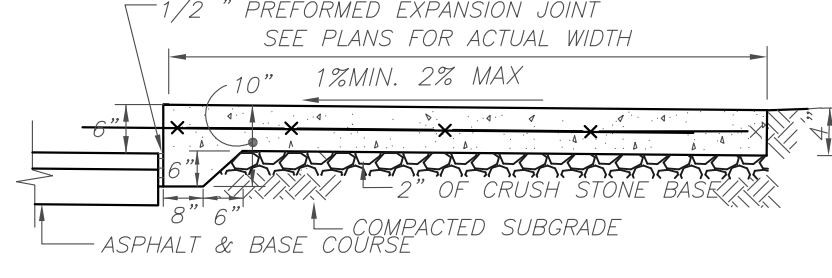
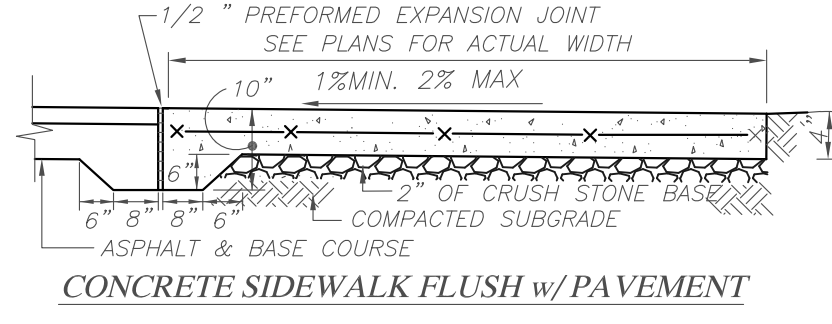
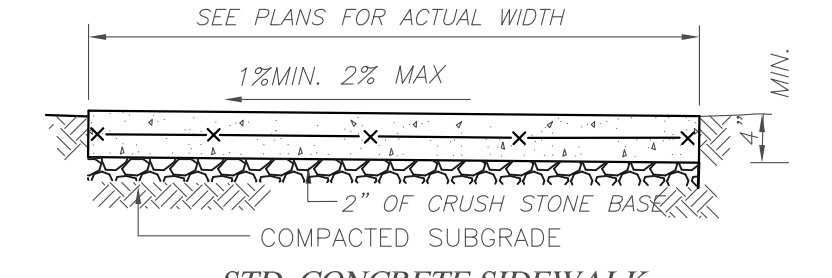


1 C700 **DETAIL: 90° PARKING**
(NTS)

	MEDIUM DUTY THICKNESS
ASPH. SURFACE COURSE THICKNESS "W1"	1.5"
ASPH. BINDER COURSE THICKNESS "W2"	2.5"
AGGREGATE BASE THICKNESS "W3"	6"

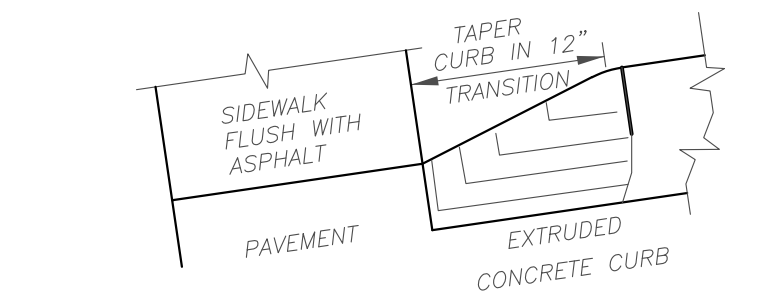


2 C700 **DETAIL: ASPHALT PAVEMENT SECTIONS**
(NTS)



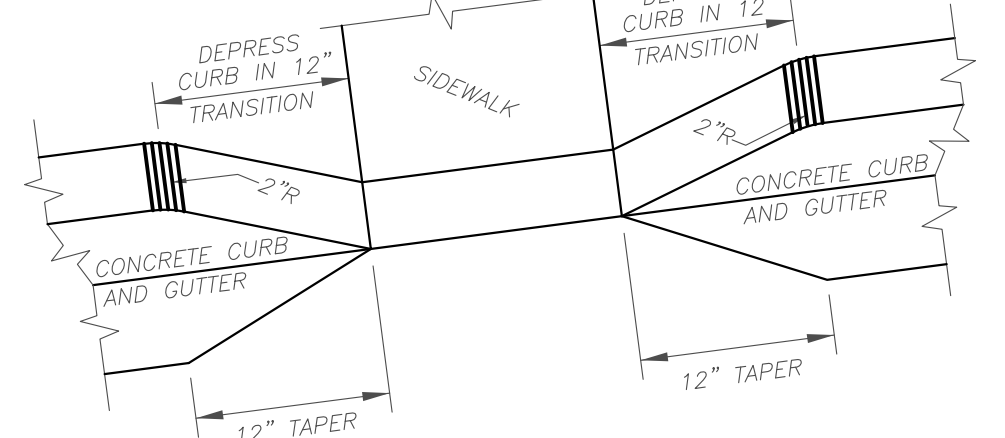
- NOTES:**
- 4,000 PSI CONCRETE @ 28 DAYS WITH REINFORCEMENT - 6X6-W1.4 X W1.4 W.W.M.
 - SEE ALSO DETAIL: TYP. CONSTRUCTION, CONTROL & EXPANSION JOINTS
 - PROVIDE 1" DEEP TRANSVERSE GROOVES AT 5'-0" INTERVALS, OR AS SHOWN ON PLAN.
 - PROVIDE 1/2" WIDE EXPANSION JOINT AT 20' INTERVALS AND AT ALL CURBS, RIGID STRUCTURES AND RIGID PAVEMENT.
 - TOOL ALL EXPOSED EDGES AND JOINTS TO 1/4" RADIUS.
 - BROOM FINISH ACROSS DIRECTION OF TRAVEL.
 - MAXIMUM SLOPE: 5%
 - "BERMESH" ALTERNATIVE: MIX AND RATE OF APPLICATION OF "BERMESH" SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3 C700 **DETAIL: CONCRETE SIDEWALK**
(NTS)

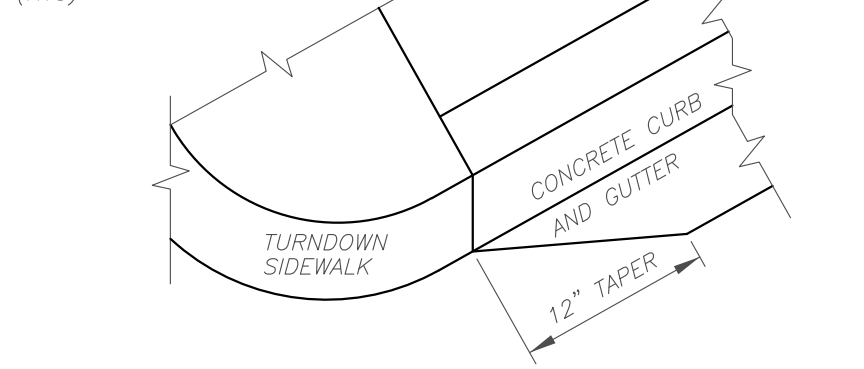


EXTRUDED CONCRETE CURB TAPER
(NTS)

12" DEPRESSION OF CONCRETE CURB & GUTTER
(NTS)

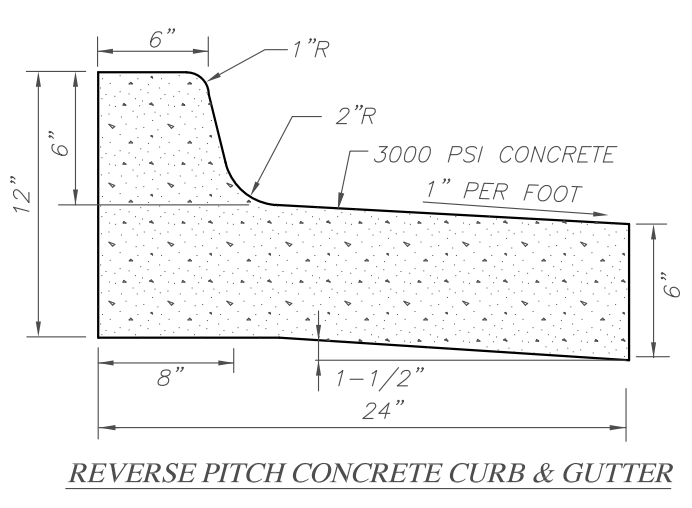


12" DEPRESSION & 12" TAPER OF CONCRETE CURB & GUTTER AT A SIDEWALK OPENING
(NTS)

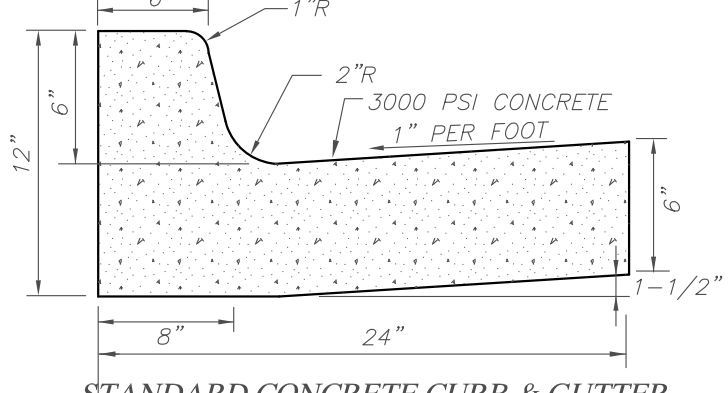


12" TAPER OF CONCRETE CURB & GUTTER AT A SIDEWALK
(NTS)

4 C700 **DETAIL: CONCRETE EXTRUDED CURB & CURB & GUTTER TAPER OR TRANSITION**
(NTS)

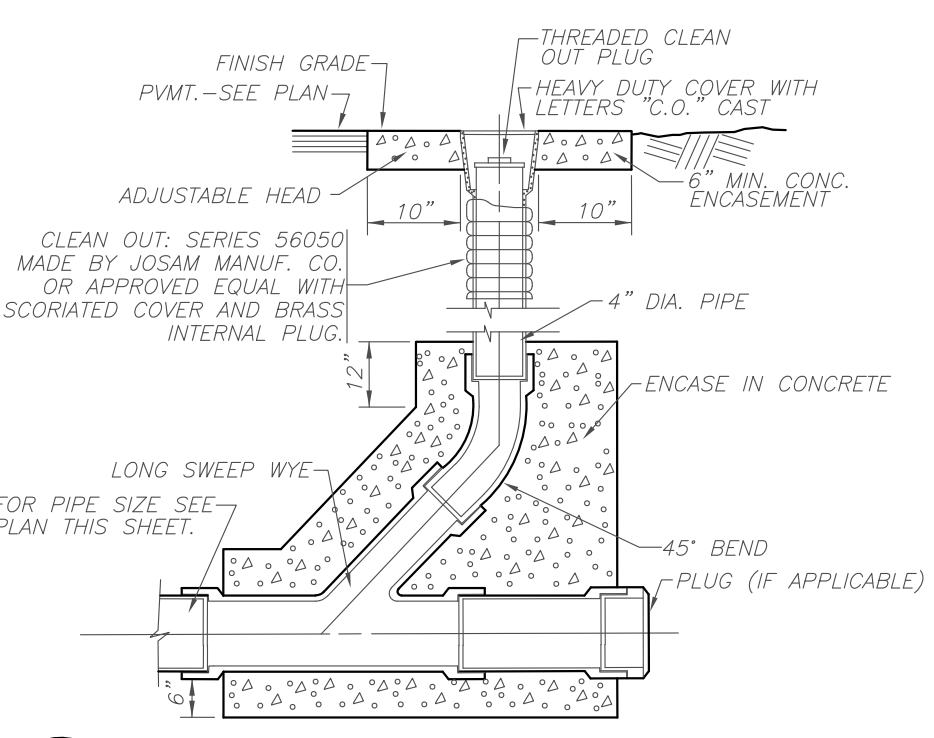


REVERSE PITCH CONCRETE CURB & GUTTER

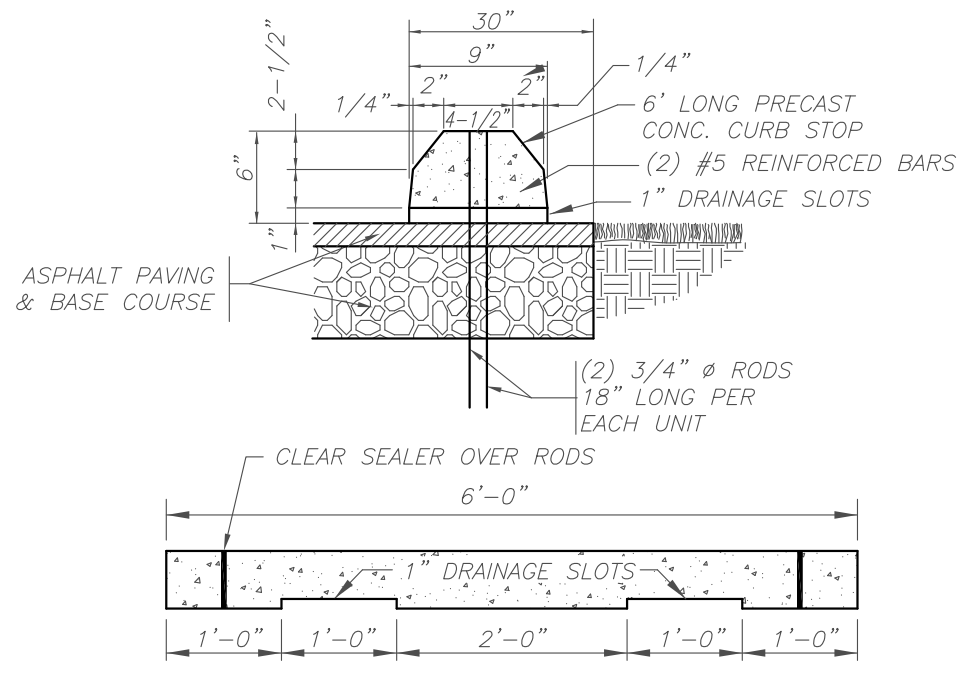


STANDARD CONCRETE CURB & GUTTER

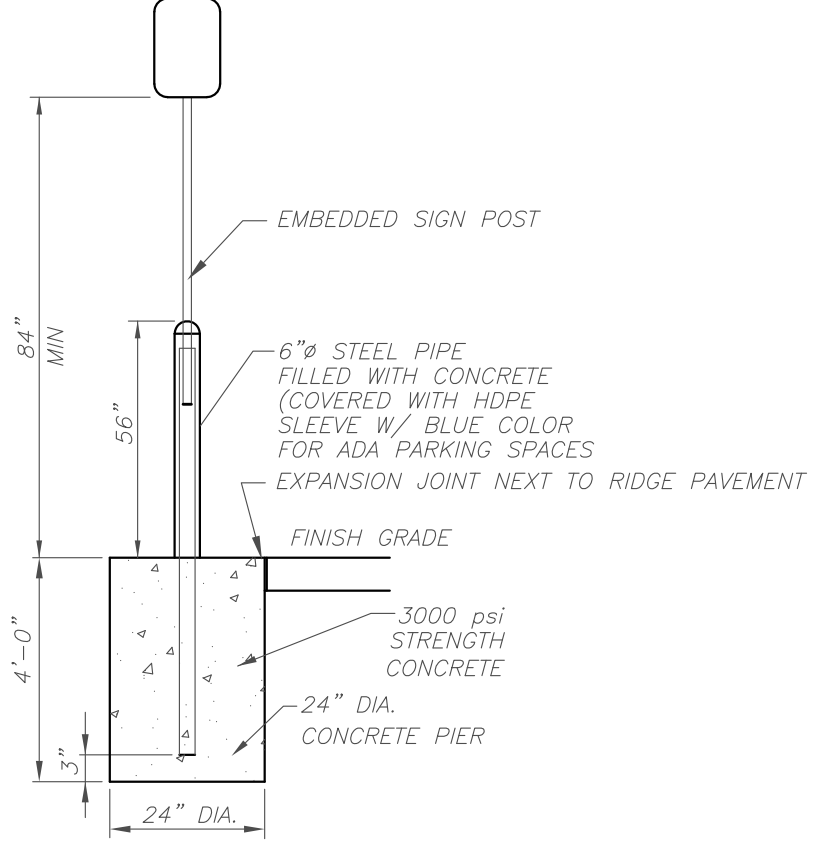
5 C700 **DETAIL: 24" CONCRETE CURB & GUTTER**
(NTS)



6 C700 **DETAIL: SANITARY SEWER CLEAN-OUT**
(NTS)

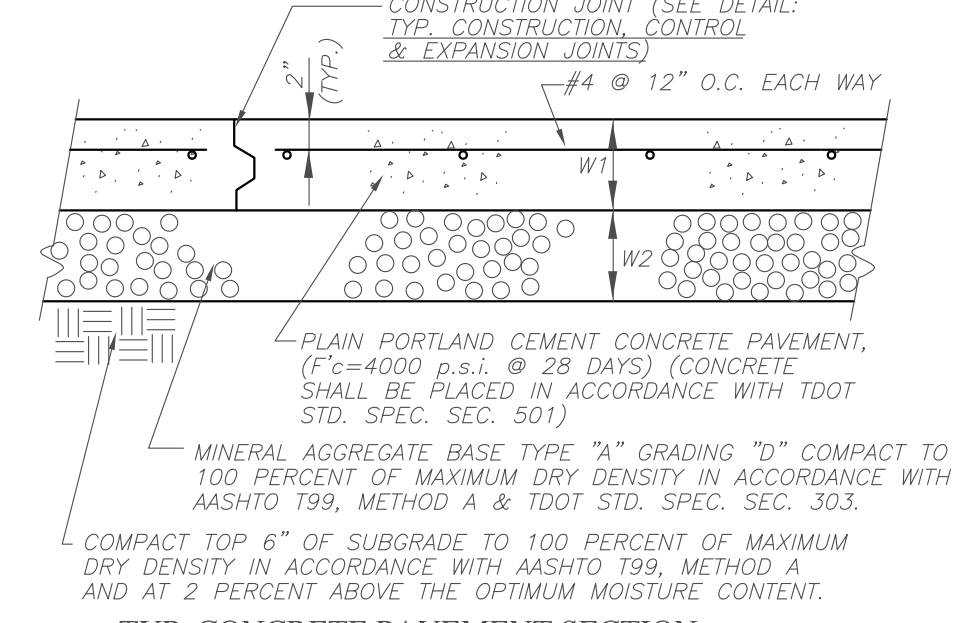


7 C700 **DETAIL: PRE-CAST CONC. CURB STOP DETAIL**
(NTS)

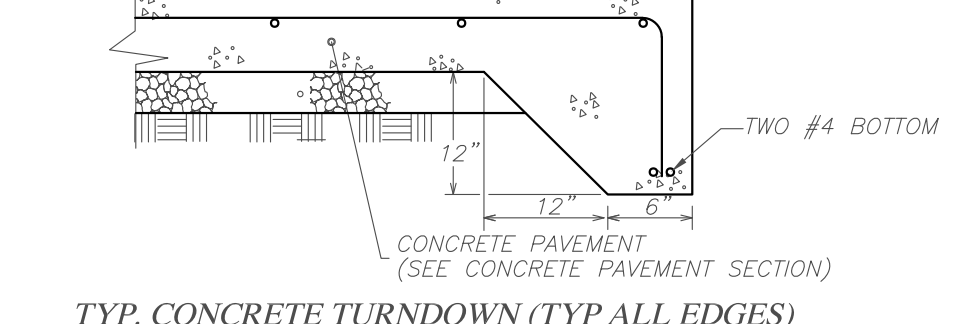


8 C700 **DETAIL: BOLLARD FOUNDATION w/ADA SIGN**
(NTS)

	HEAVY DUTY THICKNESS
CONC. P.V.M.T. THICKNESS "W1"	6"
AGGR. BASE THICKNESS "W2"	4"

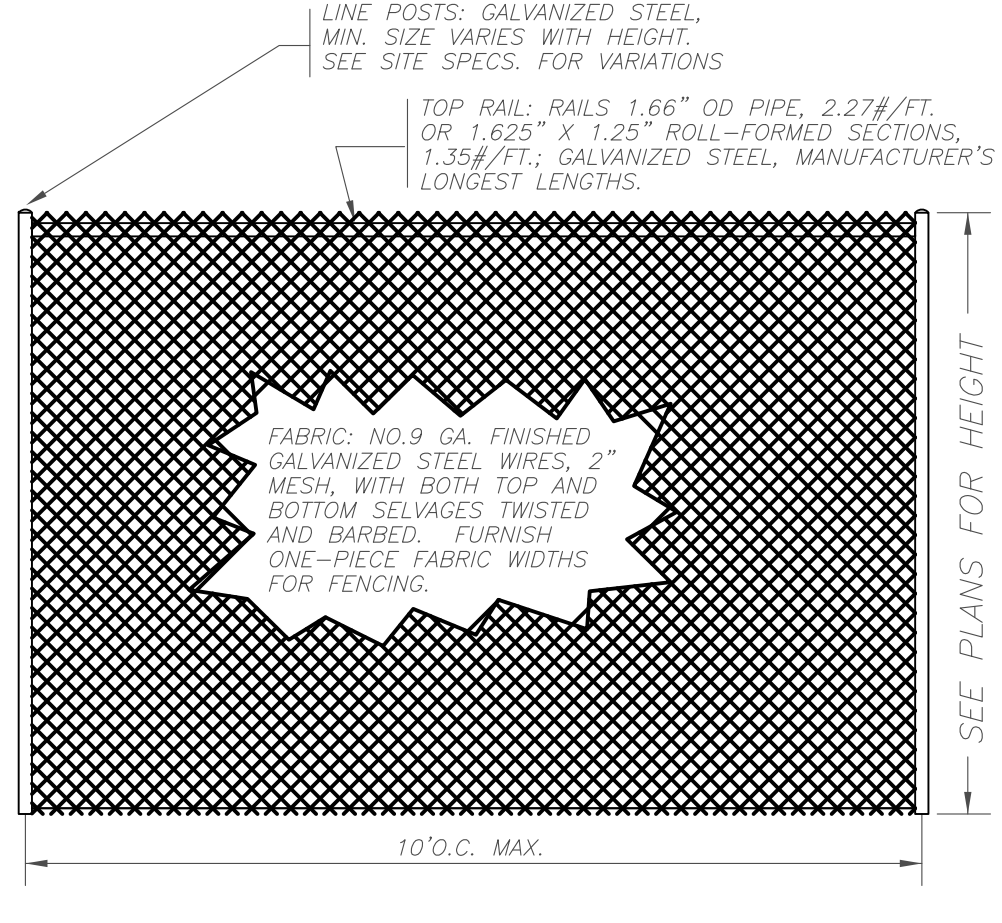


TYP. CONCRETE PAVEMENT SECTION
(NTS)

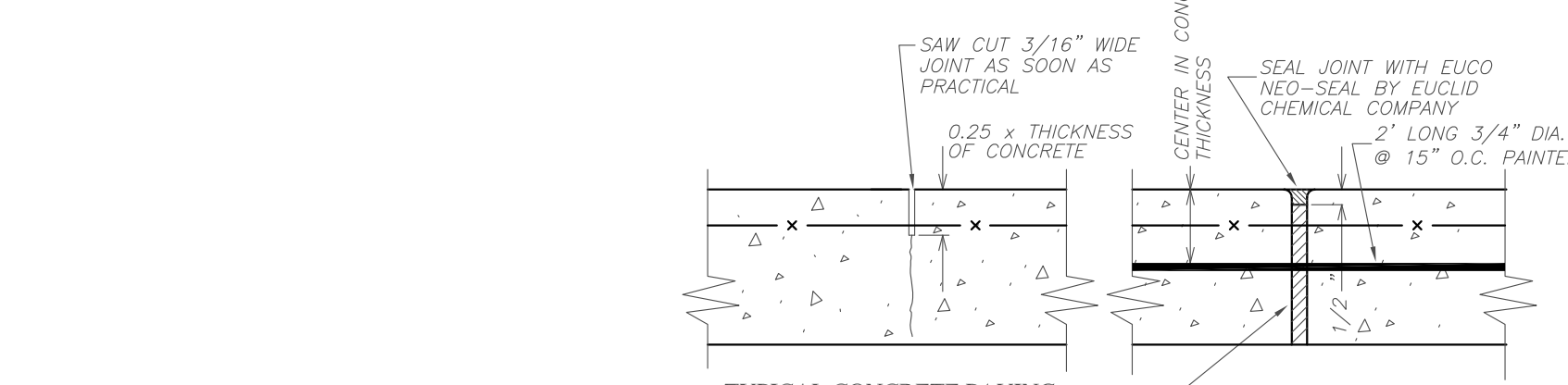


TYP. CONCRETE TURNDOWN (TYP ALL EDGES)
(NTS)

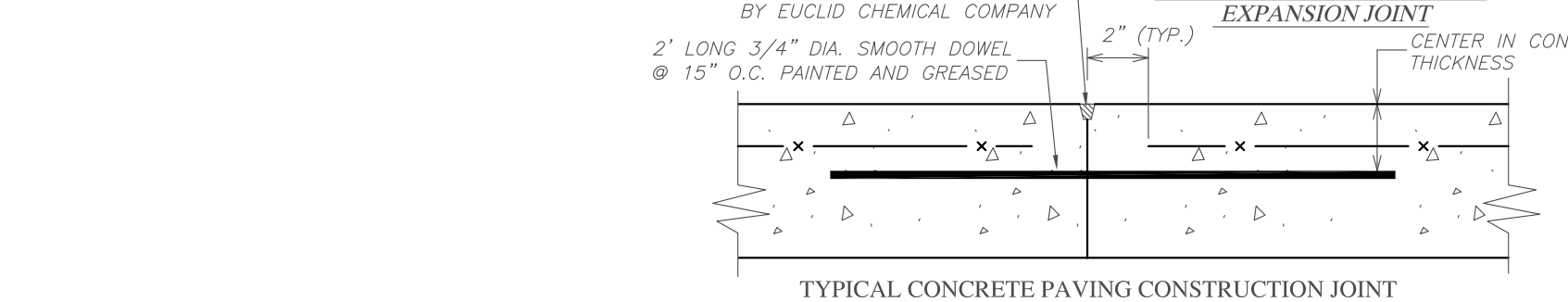
9 C700 **DETAIL: TYP. CONCRETE PAVEMENT w/ TURNDOWN**
(NTS)



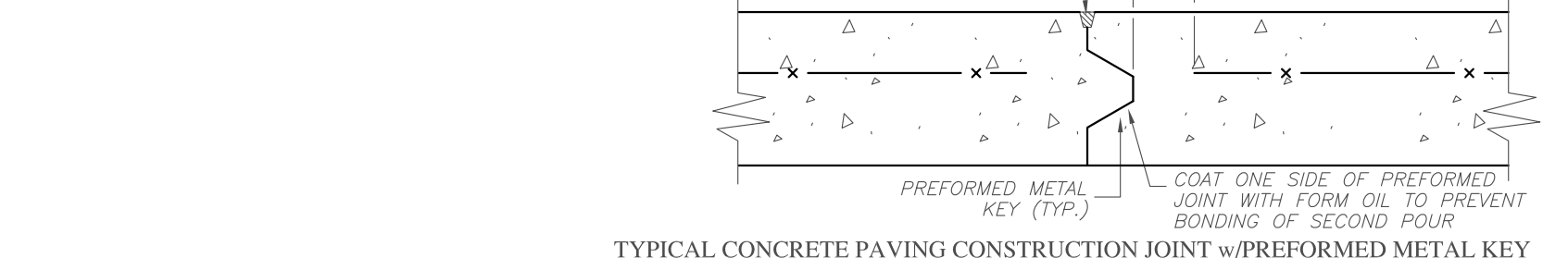
10 C700 **DETAIL: CHAIN LINK FENCE**
(NTS)



TYPICAL CONCRETE PAVING CONSTRUCTION JOINT

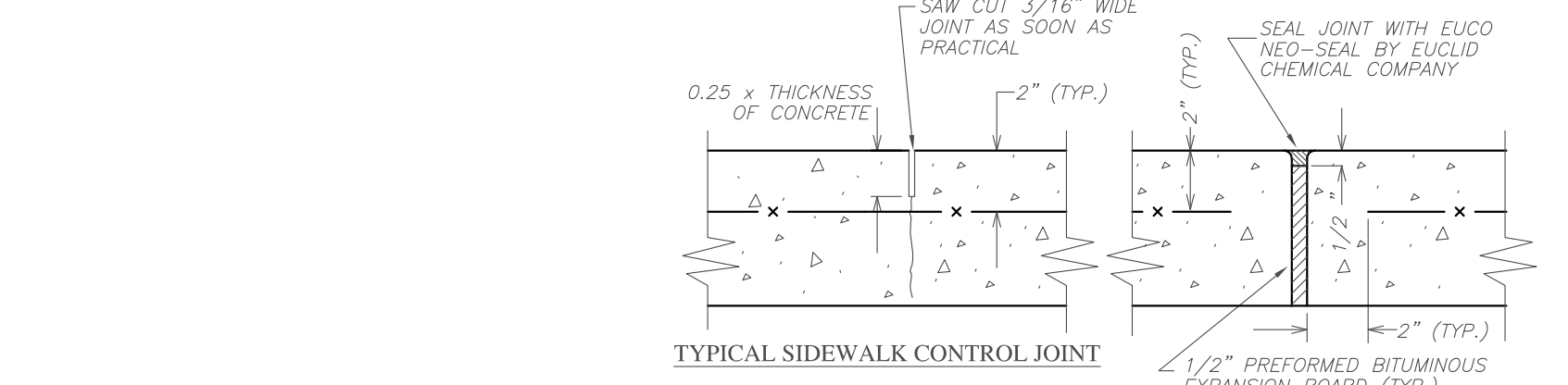


TYPICAL CONCRETE PAVING EXPANSION JOINT

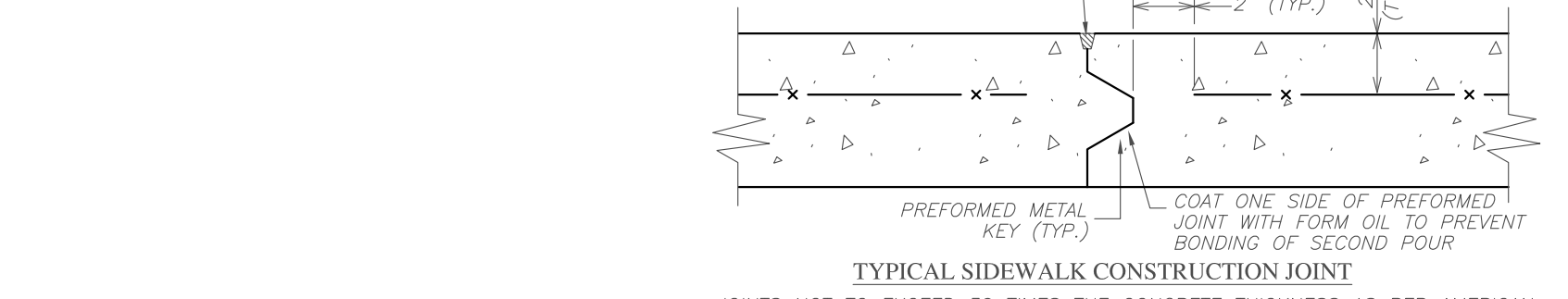


TYPICAL CONCRETE PAVING CONSTRUCTION JOINT w/PREFORMED METAL KEY

- NOTES:**
- JOINTS NOT TO EXCEED 30 TIMES THE CONCRETE THICKNESS AS PER AMERICAN CONCRETE INSTITUTES RECOMMENDATIONS.
 - DOWEL BARS SHALL BE HELD IN PLACE BY BAR SUPPORT ASSEMBLY. DOWEL CONG. PAVEMENT TO CURB & GUTTER. PROVIDE EXPANSION JOINT WHERE CONG. PAVEMENT AND CURB & GUTTER MEET.

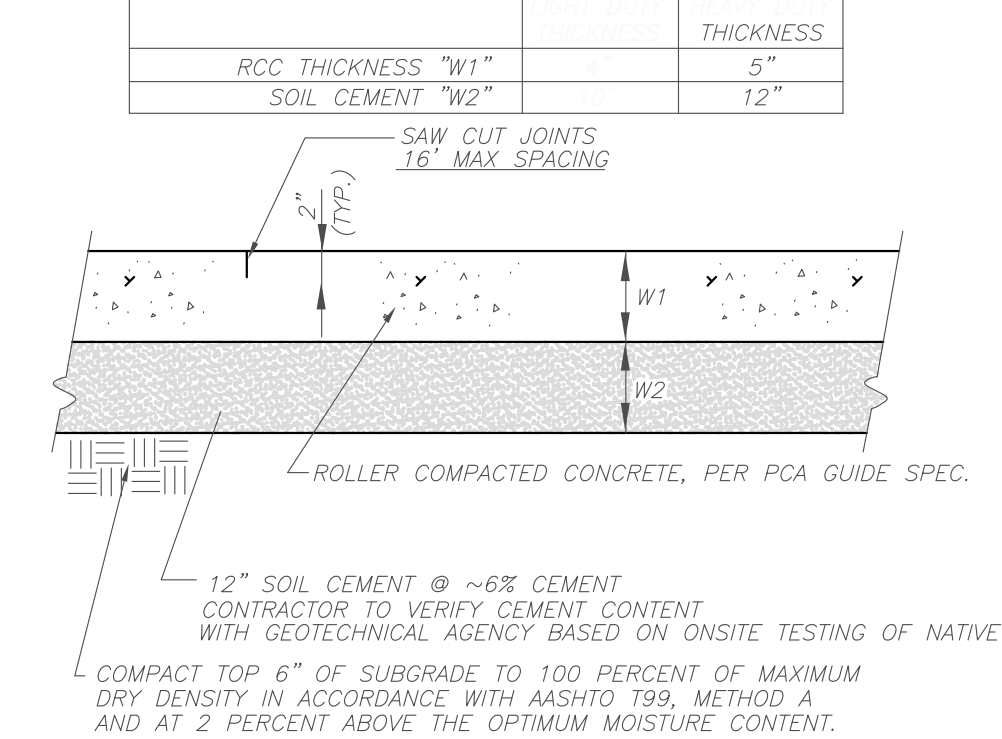


TYPICAL SIDEWALK CONTROL JOINT

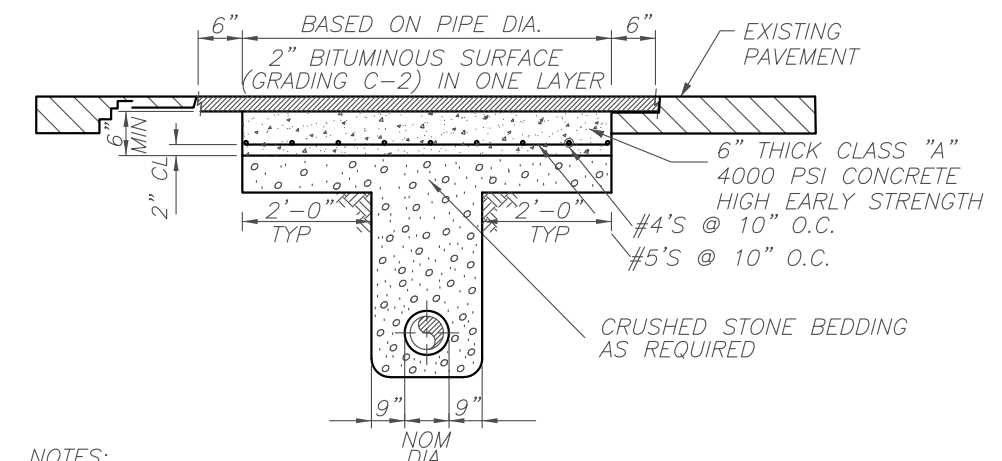


TYPICAL SIDEWALK EXPANSION JOINT

11 C700 **DETAIL: TYP. CONSTRUCTION, CONTROL & EXPANSION JOINTS**
(NTS)

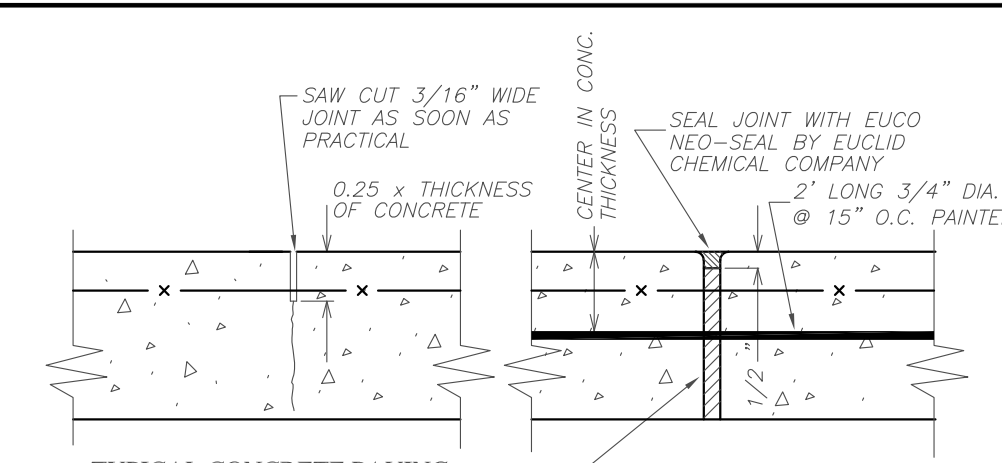


12 C700 **DETAIL: ROLLER COMPACTED CONCRETE (ALTERNATIVE)**
(NTS)

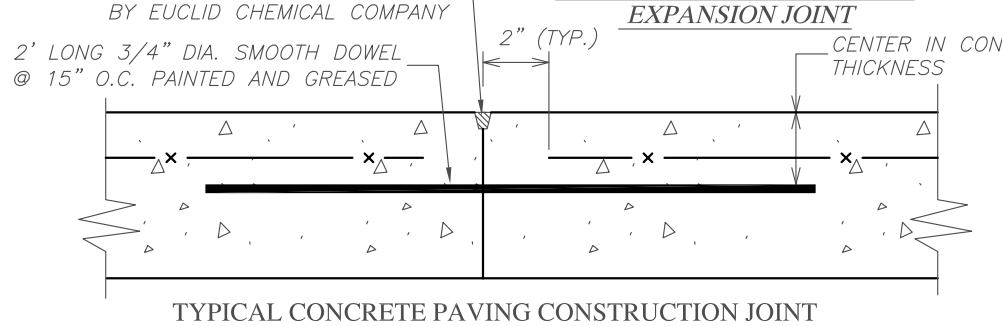


- NOTES:**
- ALL LATERAL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTICEABLE DEFLECTION. PLATES TO REMAIN IN PLACE UNTIL THE CONCRETE BASE HAS GAINED SUFFICIENT STRENGTH TO WITHSTAND TRAFFIC LOADS (24 HR. MINIMUM).
 - ON LONGITUDINAL CUTS 150 FT. IN LENGTH, THE CONCRETE IN THE TRENCH WILL BE BROUGHT FLUSH WITH THE EXISTING PAVEMENT AND THE ENTIRE WIDTH OF ROADWAY RESURFACED WITH A MINIMUM OF 1" OF TYPE "F" ASPHALT TOPPING OR 1/2" OF TYPE "E" ASPHALT TOPPING OR SURFACE COURSE.
 - THE CONTRACTOR SHALL REPLACE ALL OTHER DAMAGED PAVEMENT OUTSIDE OF LIMITS SHOWN AT HIS OWN EXPENSE.

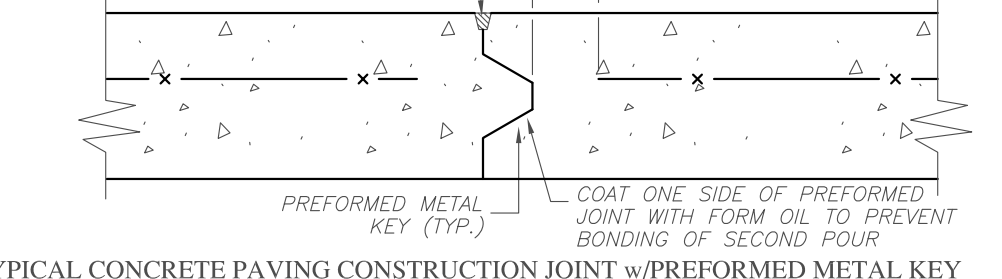
14 C700 **DETAIL: PAVEMENT CUT & REPLACEMENT**
(NTS)



TYPICAL CONCRETE PAVING CONSTRUCTION JOINT

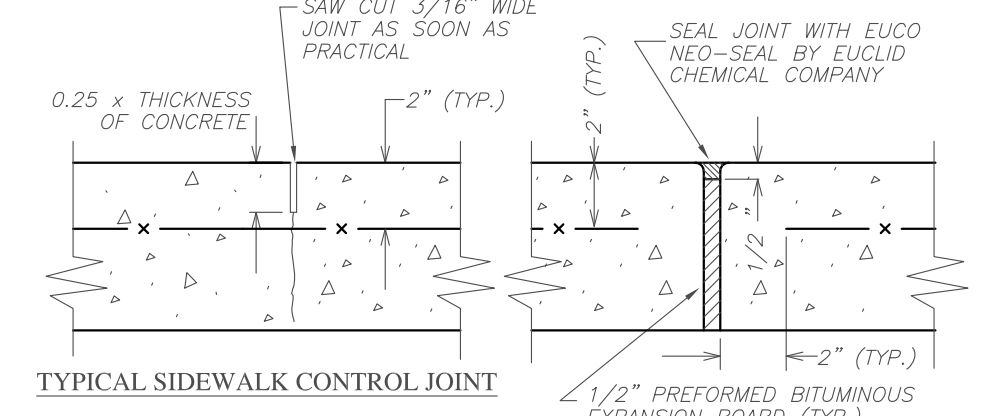


TYPICAL CONCRETE PAVING EXPANSION JOINT

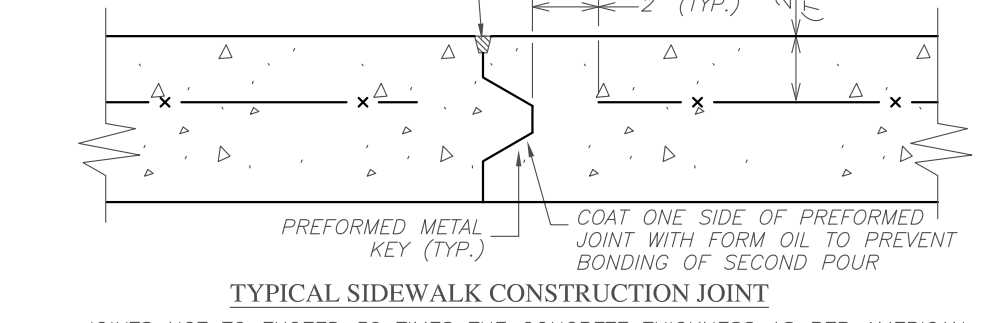


TYPICAL CONCRETE PAVING CONSTRUCTION JOINT w/PREFORMED METAL KEY

- NOTES:**
- JOINTS NOT TO EXCEED 30 TIMES THE CONCRETE THICKNESS AS PER AMERICAN CONCRETE INSTITUTES RECOMMENDATIONS.
 - DOWEL BARS SHALL BE HELD IN PLACE BY BAR SUPPORT ASSEMBLY. DOWEL CONG. PAVEMENT TO CURB & GUTTER. PROVIDE EXPANSION JOINT WHERE CONG. PAVEMENT AND CURB & GUTTER MEET.

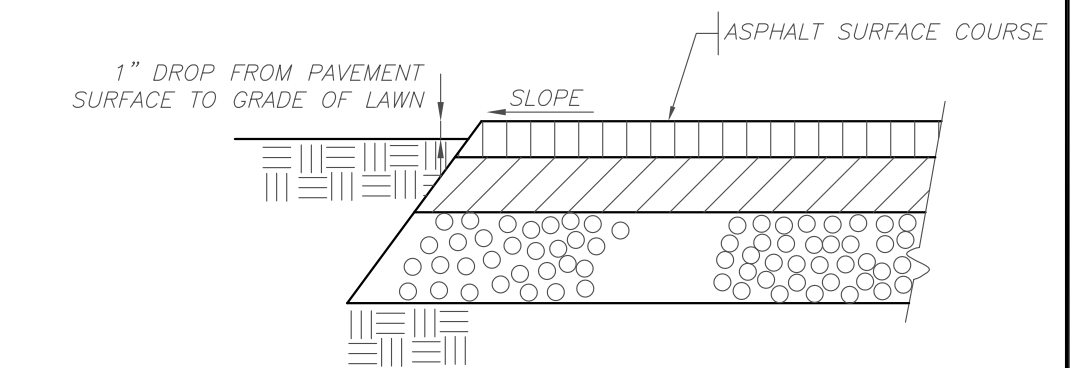


TYPICAL SIDEWALK CONTROL JOINT



TYPICAL SIDEWALK EXPANSION JOINT

13 C700 **DETAIL: ASPHALT PAVEMENT TO GRASS TRANSITION**
(NTS)



13 C700 **DETAIL: ASPHALT PAVEMENT TO GRASS TRANSITION**
(NTS)

REVISIONS

NO.	DATE	DESCRIPTION
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HCDE Bus Barn

at
9517 W Ridge Trail Road

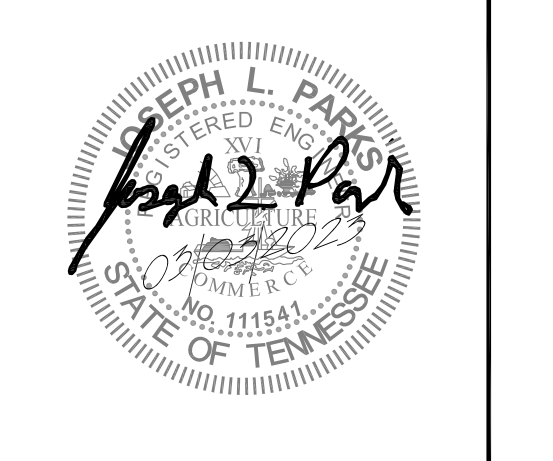
for

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Chattanooga, TN 37421
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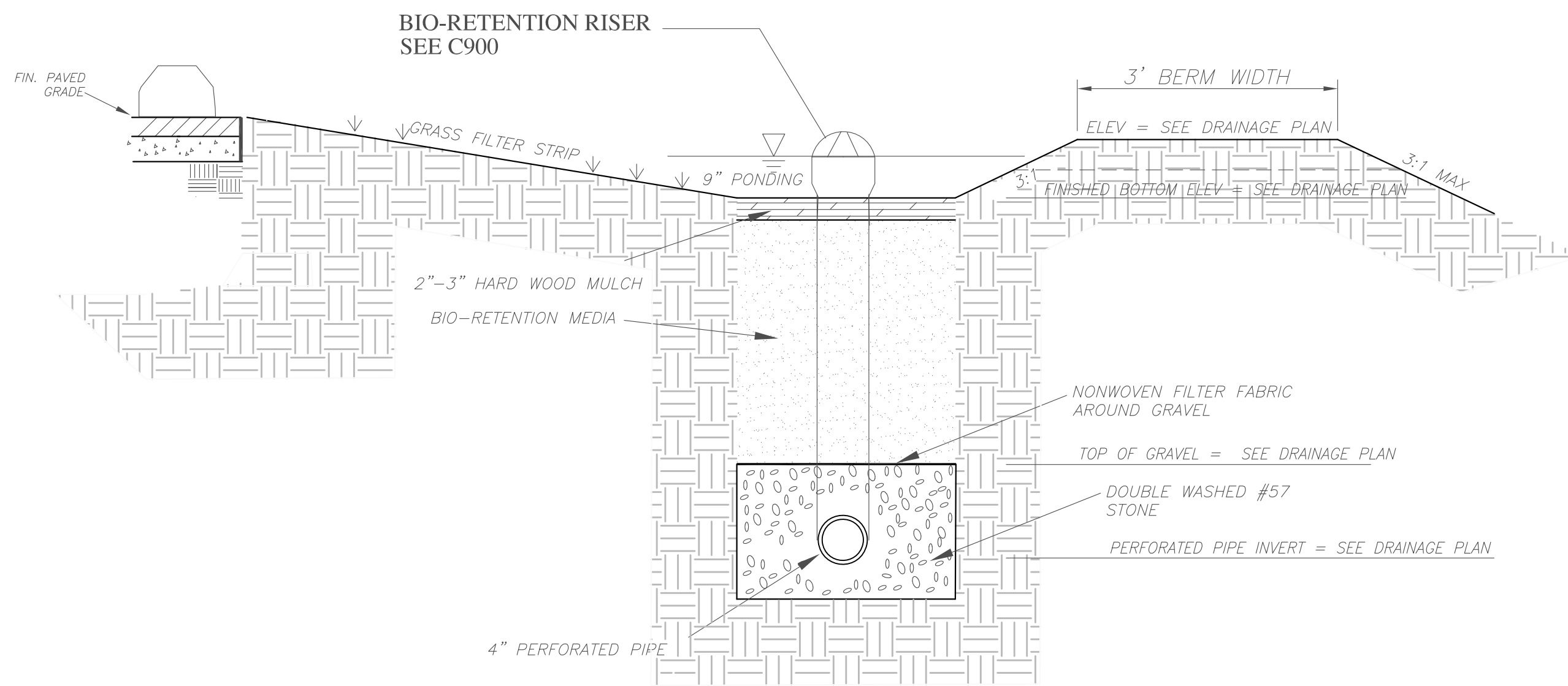


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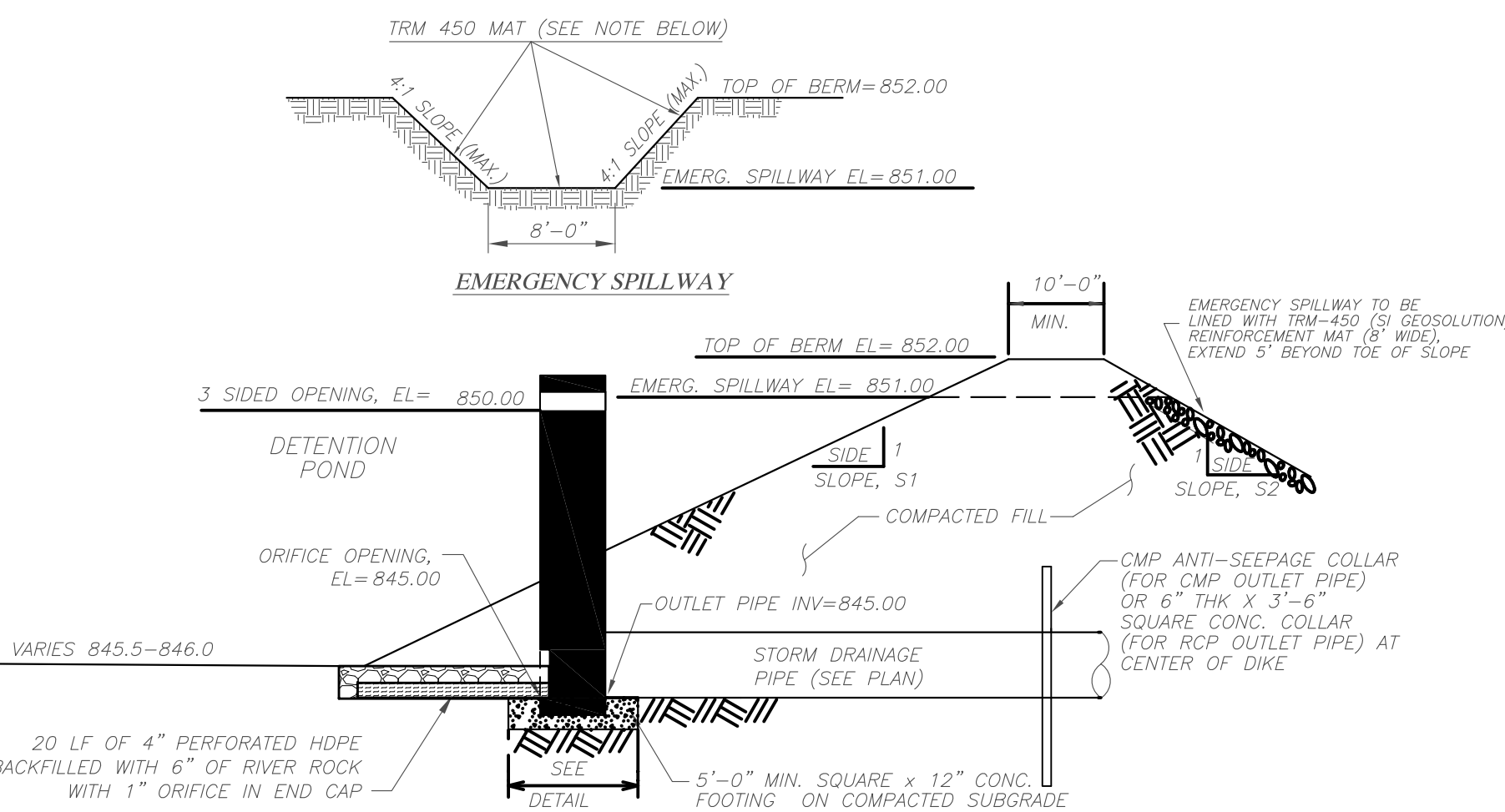
C700

SITE DETAILS

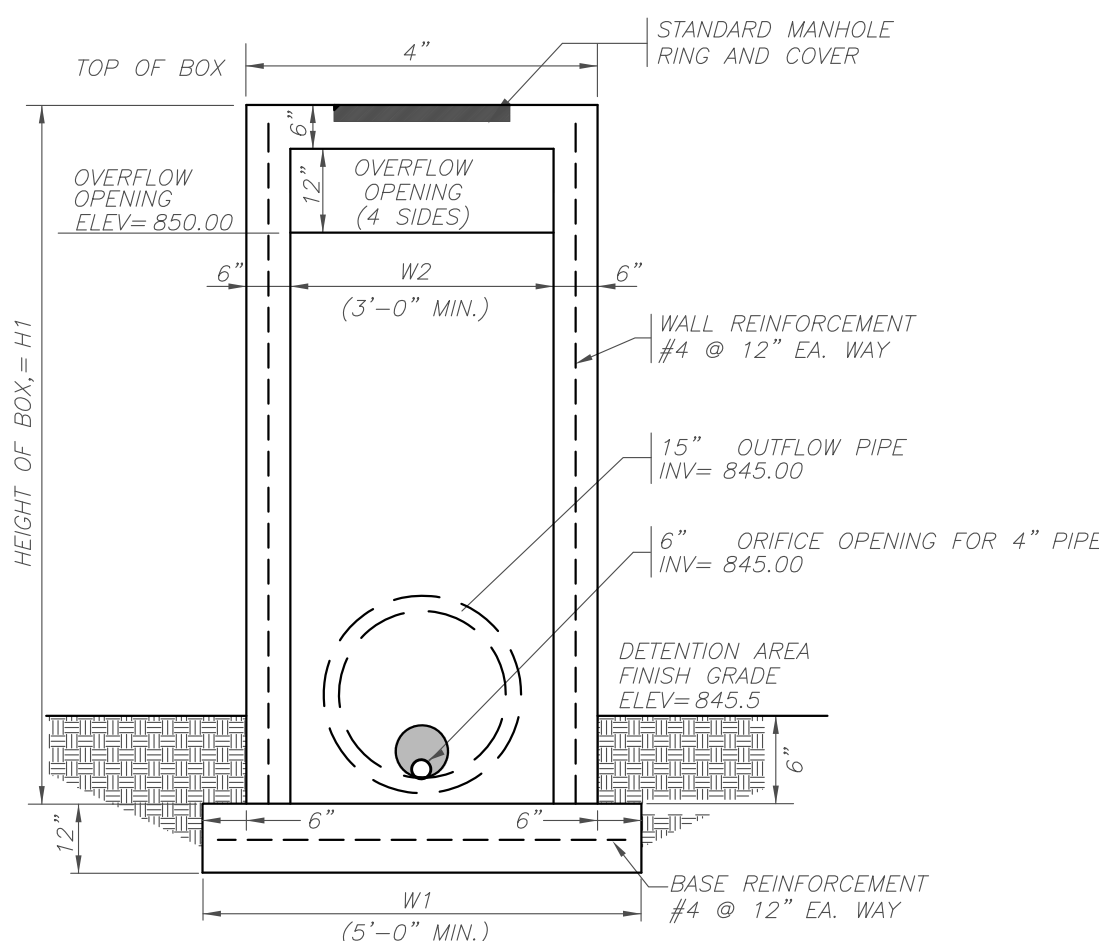
MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
DIRECT LINE: 423-664-1482



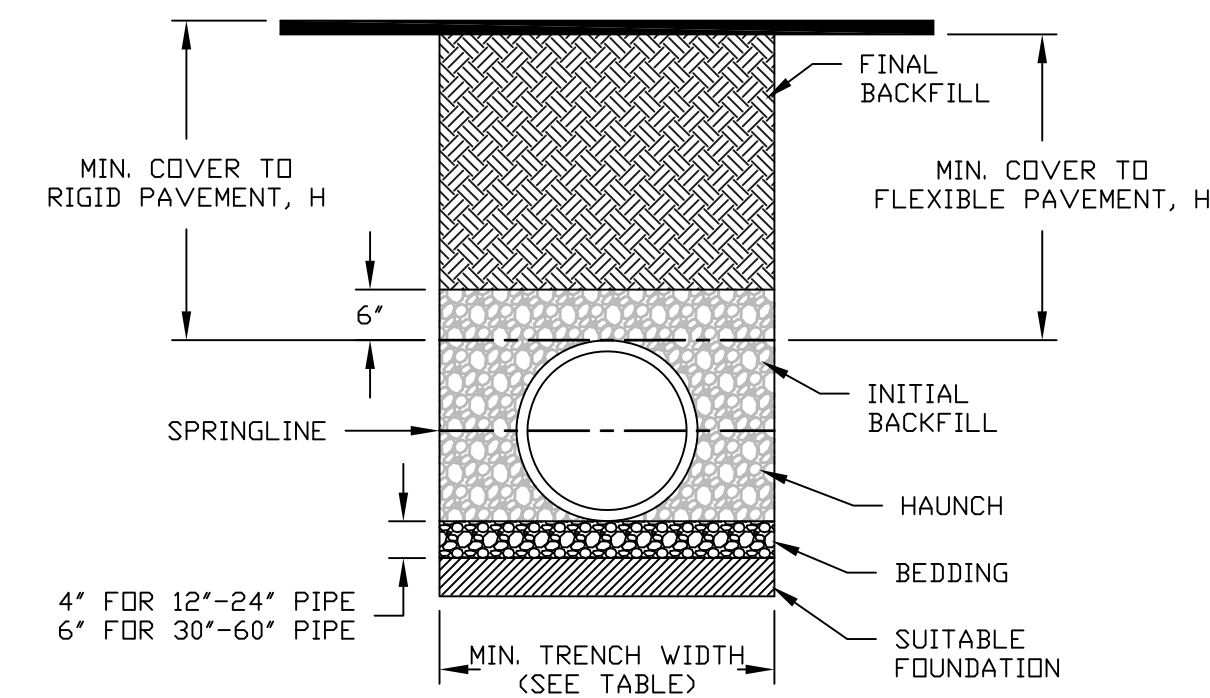
1
C800 **DETAIL: BIO-RETENTION AREA**
(NTS)



2
C800 **DETAIL: DETENTION POND w/ OUTLET CONTROL STRUCTURE**
(NTS)



4
C800 **DETAIL: OUTLET CONTROL STRUCTURE**
(NTS)

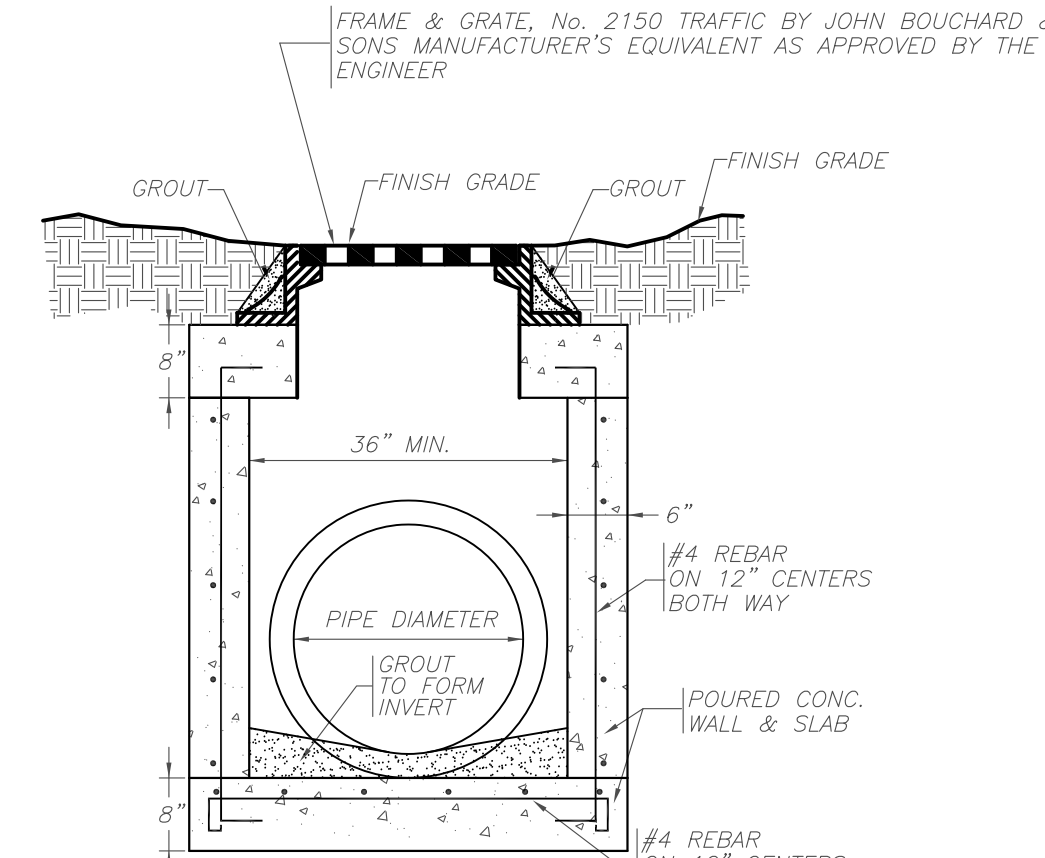


- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

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3
C800 **DETAIL: HDPE PIPE TRENCH**
(NTS)

- NOTES:**
- 8" CONCRETE BRICK MAY BE USED FOR WALL CONSTRUCTION.
 - BOXES OVER 4" IN DEPTH SHALL HAVE 12" WIDE POLYPROPYLENE PLASTIC STEPS PROTRUDE 4" MIN. FROM INSIDE OF STRUCTURE.
 - PRE-CAST CONCRETE MANHOLES MAY BE USED AS APPROVED BY THE ENGINEER.
 - STRUCTURES OVER 6' IN DEPTH SHALL BE PRE-CAST CONCRETE MANHOLES.



5
C800 **DETAIL: STANDARD CATCH BASIN (GRASSED AREAS)**
(NTS)

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

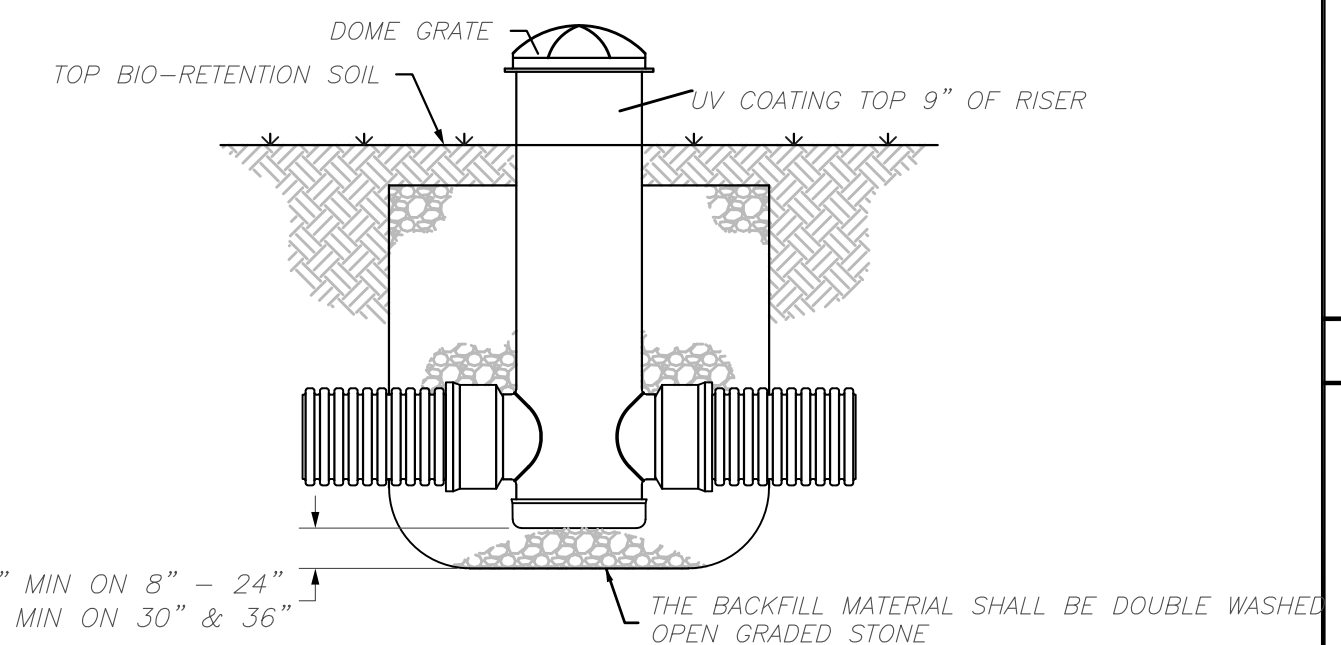
PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

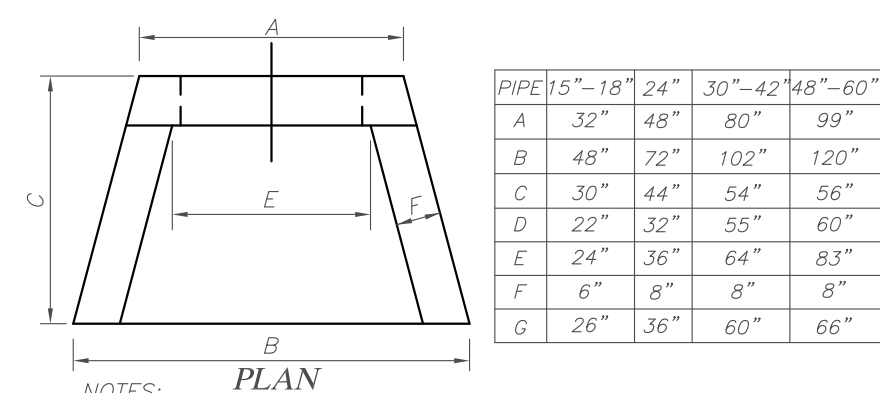
MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80**	
	UP TO 24"	24" - 60"
UP TO 24"	24"	36"
30"-36"	36"	48"

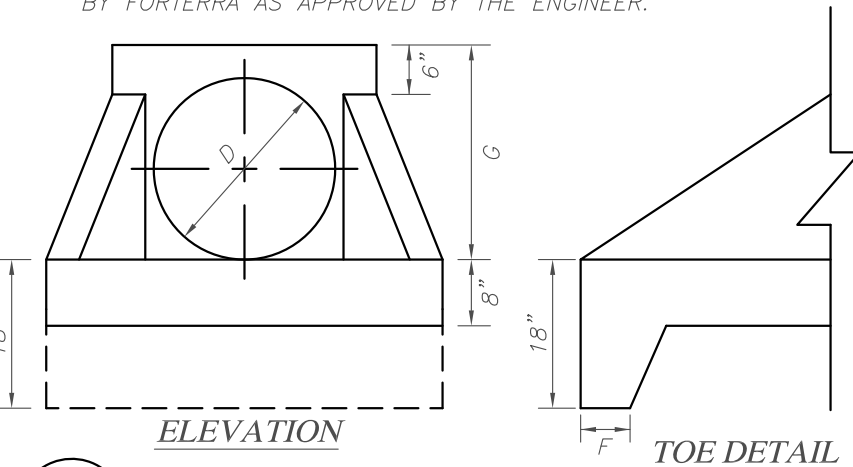
** COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.
*** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.



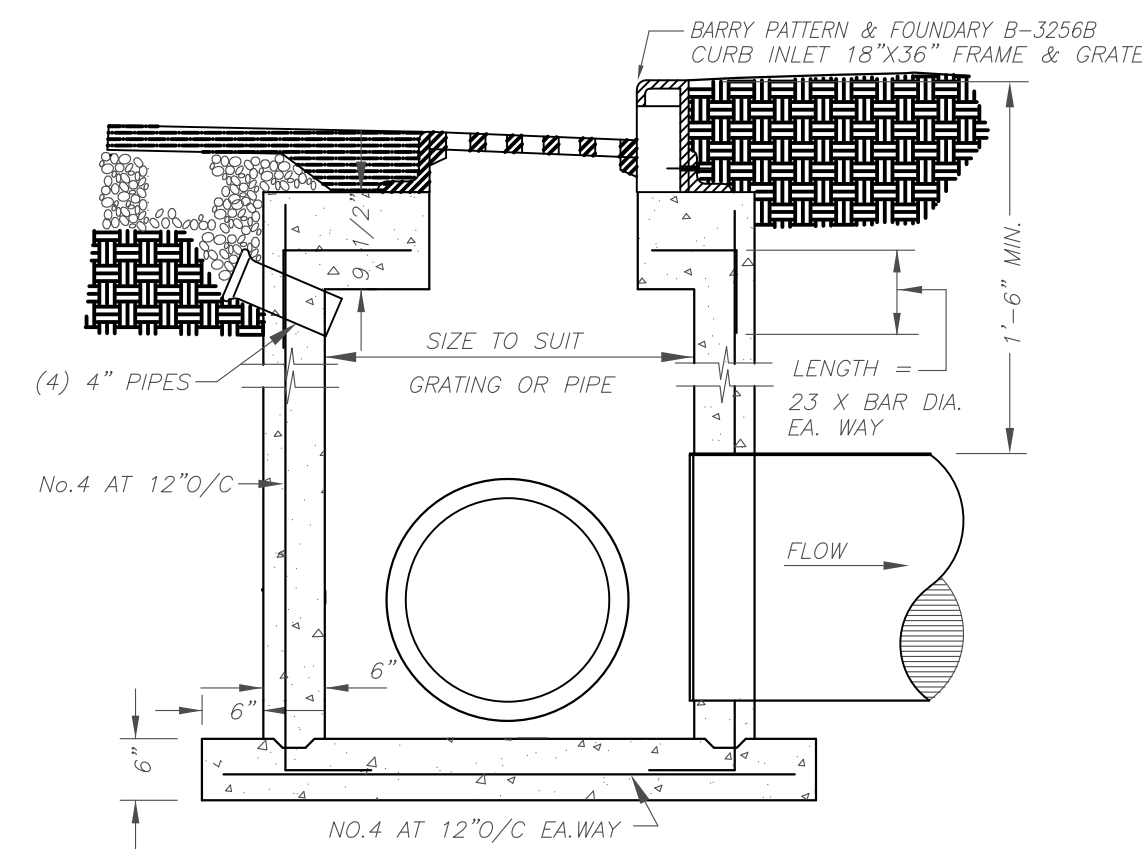
6
C800 **DETAIL: DRAIN BASIN RISER (FOR BIO-RETENTION)**
(NTS)



- NOTES:**
- CONCRETE 3000 PSI @ 28 DAYS.
 - REINFORCING: #4 BAR @ 12" EACH WAY - GR. 60
 - MINIMUM REBAR COVERAGE - 2"
 - 3/4" CHAMFER ON ALL EXPOSED EDGES.
 - CONTRACTOR MAY USE EQUIVALENT PRE-CAST STRUCTURE BY FORTERRA AS APPROVED BY THE ENGINEER.



7
C800 **DETAIL: CONCRETE HEADWALL**
(NTS)



8
C800 **DETAIL: CURB INLET W/ FRAME & GRATE**
(NTS)

REVISIONS

HCDE Bus Barn

at
9517 W Ridge Trail Road

for

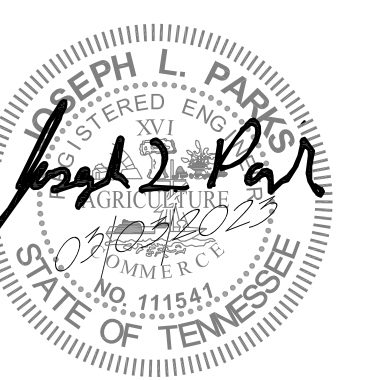
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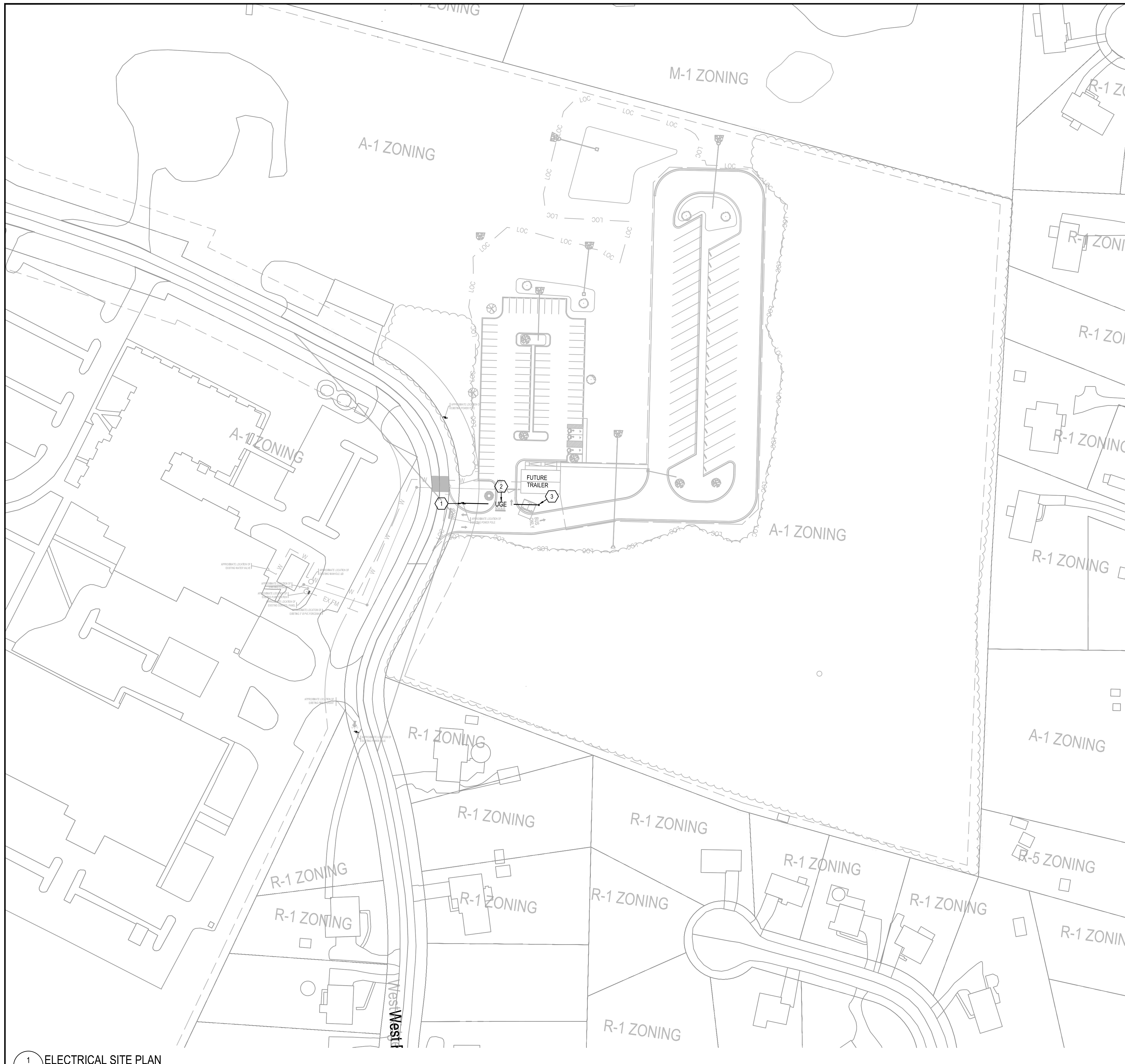


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JOB No. 21330
DATE: 03/03/2023

C800

DRAINAGE DETAILS

MAA CIVIL CONTACT: JOSEPH PARKS, P.E.
DIRECT LINE: 423-664-1482



- ### GENERAL SITE NOTES
1. ALL CONDUCTOR SIZES SHOWN ARE BASED ON THE NEC AMPACITIES OF COPPER CONDUCTORS. TYPE THW UNLESS OTHERWISE NOTED. SECONDARY CONDUCTORS TO MAIN ARE ALUMINUM.
 2. ALL UNDERGROUND WIRING IS TO BE INSTALLED IN SCHEDULE 40 PVC CONDUIT PER THE WRITTEN SPECIFICATIONS. RIGID STEEL ELBOWS ARE TO BE USED ON THE CONDUIT WHEREVER IT TURNS UP AND EXITS THE GROUND.
 3. THE CONTRACTOR SHALL SUPPLY A SEPARATE GREEN INSULATED GROUND WIRE IN ALL RUNS OF PVC CONDUIT, WHETHER SHOWN ON THE DRAWINGS OR NOT.
 4. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL CONCRETE AND RELATED WORK FOR ALL POLE BASES, TRANSFORMER PADS, ETC., WHICH ARE IN HIS SCOPE OF WORK.
 5. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVISION OF ELECTRICAL WIRING AND ASSOCIATED EQUIPMENT REQUIRED TO PROVIDE SERVICE TO ALL PYLON SIGNS.
 6. ALL WORK IS TO COMPLY WITH THE LATEST VERSION OF THE NEC AND ALL APPLICABLE STATE, LOCAL, AND MUNICIPAL CODES.
 7. THE ELECTRICAL CONTRACTOR IS TO COORDINATE ALL OF HIS WORK WITH ALL OF THE OTHER DISCIPLINES AND TRADES. WATER, SEWER, STORM DRAINAGE, ETC., ROUTING TAKE PRECEDENCE OVER THE ELECTRICAL WIRE AND CONDUIT ROUTING. THE ELECTRICAL CONTRACTOR IS TO RELOCATE OR REROUTE AS REQUIRED TO CLEAR SUCH.
 8. COORDINATE ALL SITE WORK WITH CIVIL DRAWINGS.

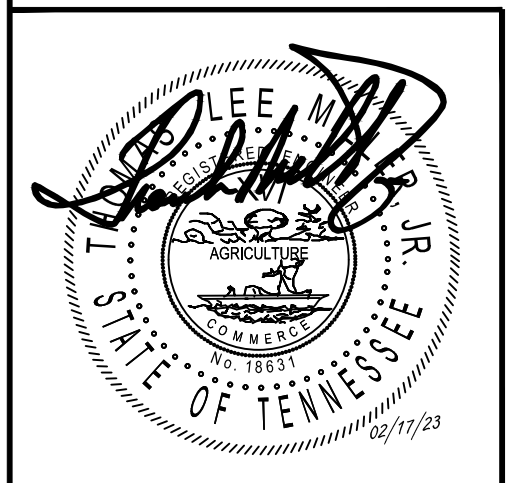
- ### UTILITY SUPPLY NOTES
1. ALL UTILITY SERVICES SHOWN ARE FOR SCHEMATIC REPRESENTATION ONLY. NO EXPRESSED OR IMPLIED GUARANTEE IS GIVEN AS TO THE EXACT LOCATION, GRADE OR ELEVATION OF THE ABOVE MENTIONED ITEMS. ACTUAL LOCATIONS ARE TO BE BASED ON UTILITY COMPANY AND OWNER INSTRUCTIONS.
 2. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE SECONDARY SERVICES AND METER INSTALLATION FEES. ANY POWER CO. AID TO CONSTRUCTION COST TO BE PAID BY THE OWNER.
 3. BECAUSE OF ALL OF THE ABOVE REASONS, ALL ELECTRICAL CONTRACTORS DESIRING TO BID ON THIS PROJECT ARE REQUIRED TO VISIT THE JOB SITE PRIOR TO BIDDING SO THAT THEY MAY BECOME FAMILIAR WITH ALL CIRCUMSTANCES WHICH WILL AFFECT THE ELECTRICAL WORK.
 4. CONTRACTOR SHALL INCLUDE OVERTIME AND AFTER HOURS PREMIUM LABOR CHANGES IN HIS BID AS REQUIRED TO COMPLETE THE INSTALLATION OF THIS PROJECT IN ACCORDANCE PROJECT IN ACCORDANCE WITH THE ARCHITECTS SCHEDULE.
 5. ALL ELECTRICAL CONTRACTORS ARE REQUIRED TO VISIT THE JOB SITE PRIOR TO BID AND TO INCLUDE ALL REQUIRED COST TO PROVIDE A COMPLETE, FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION.
 6. COORDINATE SERVICE PROVISIONS FOR TELEPHONE, CATV AND POWER FOR UNDERGROUND SERVICE TO BUILDING.
 7. OWNER WILL BE RESPONSIBLE FOR AID TO CONSTRUCTION UTILITY COST FOR PROVISION OF SERVICE TO THIS BUILDING.
 8. ALL REQUIRED 90° ELBOWS OF UTILITY CONDUITS TO BE OF SWEEPING TYPE.
 9. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH TEMPORARY POWER, BE IT 10 OR 30, AS REQUIRED FOR THIS PROJECT.

- ### ELECTRICAL KEYED NOTES
1. EXISTING POWER POLE, POWER CO. TO SET NEW AERIAL TRANSFORMER BANK FOR NEW ELECTRICAL SERVICE. POWER CO. TO REPLACE POLE AS REQUIRED.
 2. UNDERGROUND ELECTRICAL SECONDARY FROM POLE TO METER & PANEL. INCLUDE AN EMPTY 2". (WITH PULL ROPE) FROM POWER POLE TO STUB NEAR FUTURE TRAILER FOR COMMUNICATIONS.
 3. METER & PANEL "A" ON PIPE & STRUT RACK. SEE RISER DIAGRAM.

REVISIONS

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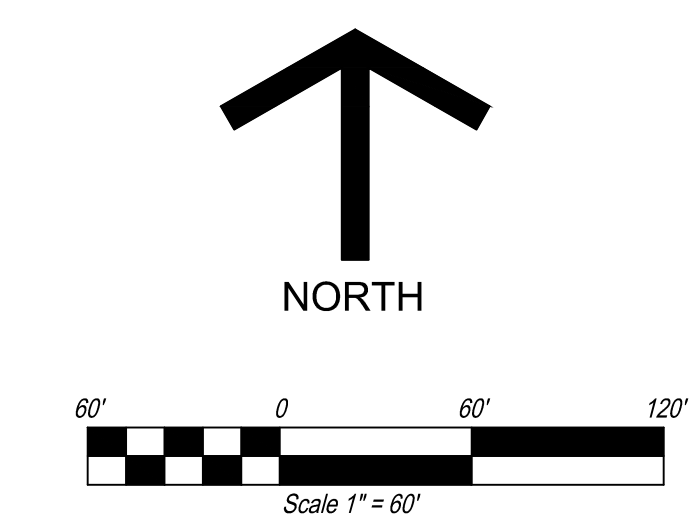
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DATE:	02/24/2023

ES101
 ELECTRICAL SITE PLAN

1 ELECTRICAL SITE PLAN
 ES1.1 SCALE: 1"=60'-0"



LIGHTING CONTACTOR SCHEDULE							
CONTACTOR	CIRCUITS CONTROLLED	CONTROLLED BY	POLES	AMPS PER POLE	COIL	MFG.	MODEL NUMBER
LC-A-1	A-1,3,5,7	"TC-A-1"	6	30	120V	-	-

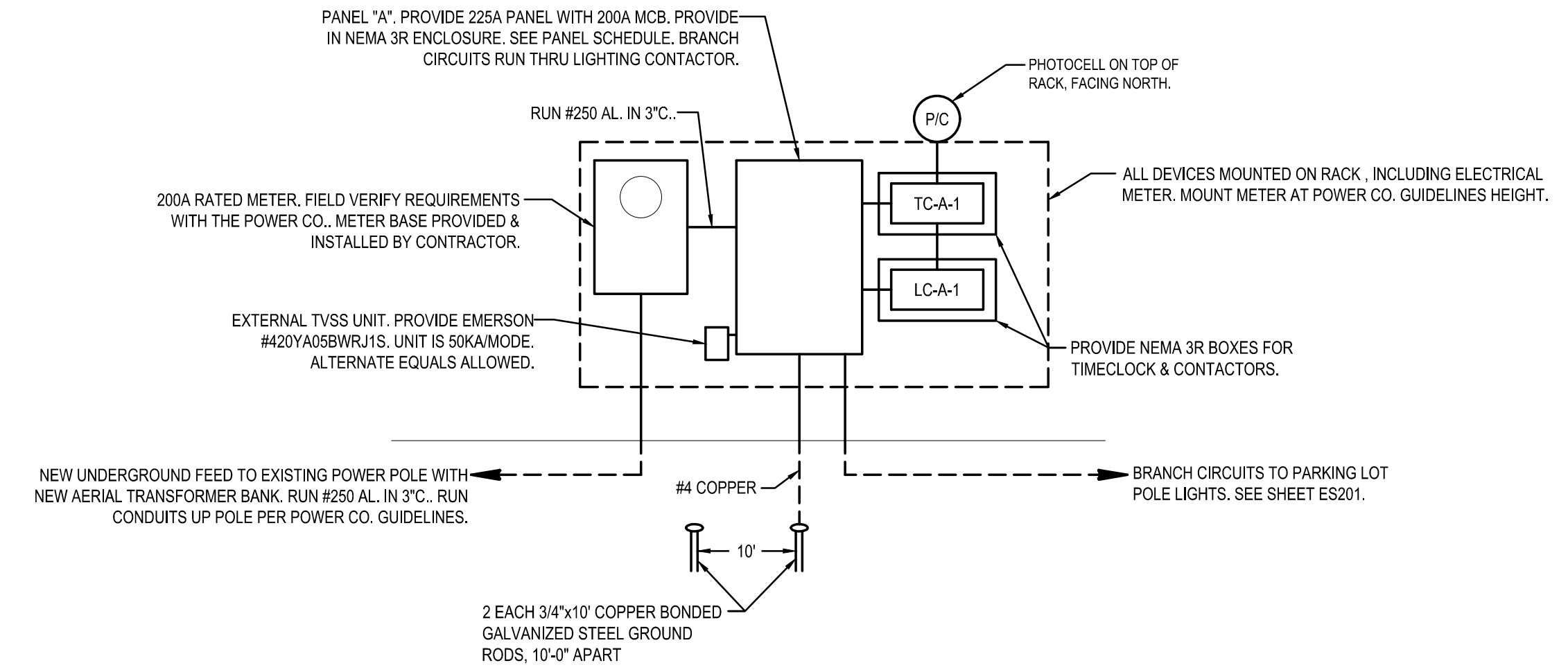
SCHEDULE NOTES:

- ALL CONTACTORS SHALL BE ELECTRICALLY HELD/ELECTRICALLY OPERATED.
- ALL CONTACTORS TO BE LOCATED AT PANEL.
- ALL CONTACTORS TO BE EQUIPPED WITH HDA SWITCH ON COVER.
- PROVIDE LABEL ON COVER OF ALL CONTACTORS.

TIMECLOCK SCHEDULE						
TIMECLOCK	CONTACTOR CONTROLLED	CONTROLLED BY	AMPS PER POLE	CLOCK MOTOR VOLTAGE	MFG.	MODEL NUMBER
TC-A-1	"LC-A-1"	PHOTOCELL	40A	120V	INTERMATIC	T103

SCHEDULE NOTES:

- ALL TIMECLOCKS TO BE LOCATED ADJACENT TO ASSOCIATED PANEL.
- ALL TIMECLOCK SETTINGS TO BE DETERMINED BY OWNER.
- PROVIDE 120V CONNECTION TO TIMECLOCK MOTORS AND CONTACTOR COILS FROM ASSOCIATED PANEL.
- PROVIDE LABEL ON COVER OF ALL TIMECLOCKS.



1 PANEL "A" ELECTRICAL SERVICE PANEL RISER DIAGRAM
ES102 SCALE: NONE

PANEL SCHEDULE												
NAME: A			VOLTAGE: 208/120, 3 PH., 4 WIRE									
FRAME: 225A			FEEDS FROM: METER									
MAIN: 200A MCB			PROVIDE NEUTRAL BAR									
TRIM: SURFACE, NEMA 3R			PROVIDE GROUND BAR									
AIC RATING: SERIES RATED AT 65K												
CKT	LOAD	TRIP	PLS	PHASE LOAD TOTALS			PLS	TRIP	LOAD	CKT		
				A	B	C						
L 1	POLE LIGHTS	30	2	735			-	-	SPACE ONLY	2		
3				735			-	-	SPACE ONLY	4		
L 5	POLE LIGHTS	30	2		840		-	-	SPACE ONLY	6		
7				840			-	-	SPACE ONLY	8		
9	SPACE ONLY	-	-				-	-	SPACE ONLY	10		
11	SPACE ONLY	-	-				-	-	SPACE ONLY	12		
13	SPACE ONLY	-	-				-	-	SPACE ONLY	14		
15	SPACE ONLY	-	-				-	-	SPACE ONLY	16		
17	SPACE ONLY	-	-				-	-	SPACE ONLY	18		
19	SPACE ONLY	-	-				-	-	SPACE ONLY	20		
21	SPACE ONLY	-	-				-	-	SPACE ONLY	22		
23	SPACE ONLY	-	-				-	-	SPACE ONLY	24		
25	SPACE ONLY	-	-				-	-	SPACE ONLY	26		
27	SPACE ONLY	-	-				-	-	SPACE ONLY	28		
29	SPACE ONLY	-	-				-	-	SPACE ONLY	30		
31	SPACE ONLY	-	-				-	-	SPACE ONLY	32		
33	SPACE ONLY	-	-				-	-	SPACE ONLY	34		
35	SPACE ONLY	-	-				-	-	SPACE ONLY	36		
37	TVSS UNIT	30	3				-	-	SPACE ONLY	38		
39							-	-	SPACE ONLY	40		
41							-	-	SPACE ONLY	42		

L - RUN CIRCUIT THRU LIGHTING CONTACTOR.

PHASE LOAD TOTALS		
A	B	C
1575	735	840

PROVIDE TYPEWRITTEN SCHEDULES WITH PLASTIC COVER. CIRCUIT NAMES TO BE EXACTLY AS LISTED HERE. PROVIDE ENGRAVED NAMEPLATE ON FACE OF PANEL.

TOTAL CONNECTED LOAD = 3.2 KVA

TOTAL CONNECTED AMPS = 8.7 AMPS

REVISIONS

1	2	3	4	5	6	7	8	9	10	11	12
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HCDE Bus Barn

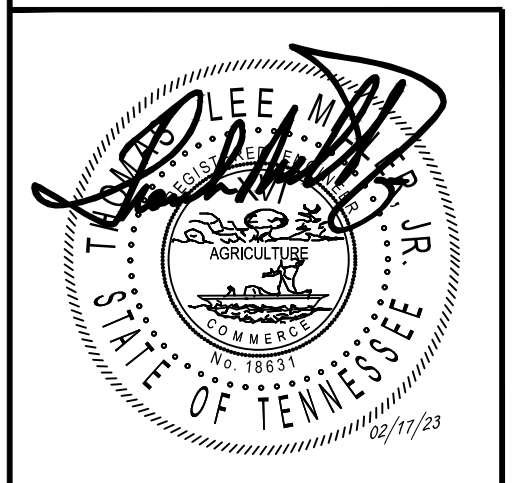
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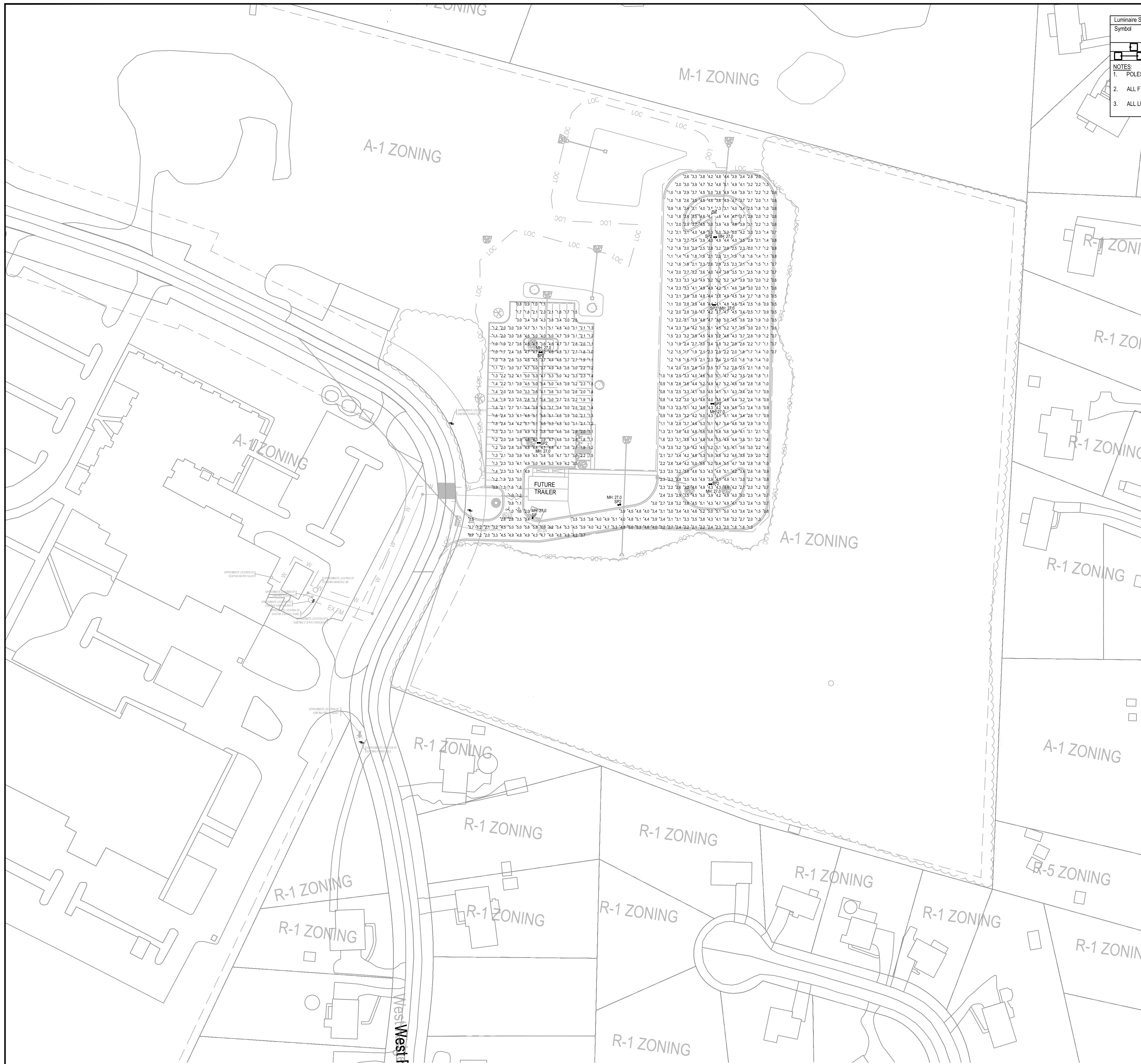


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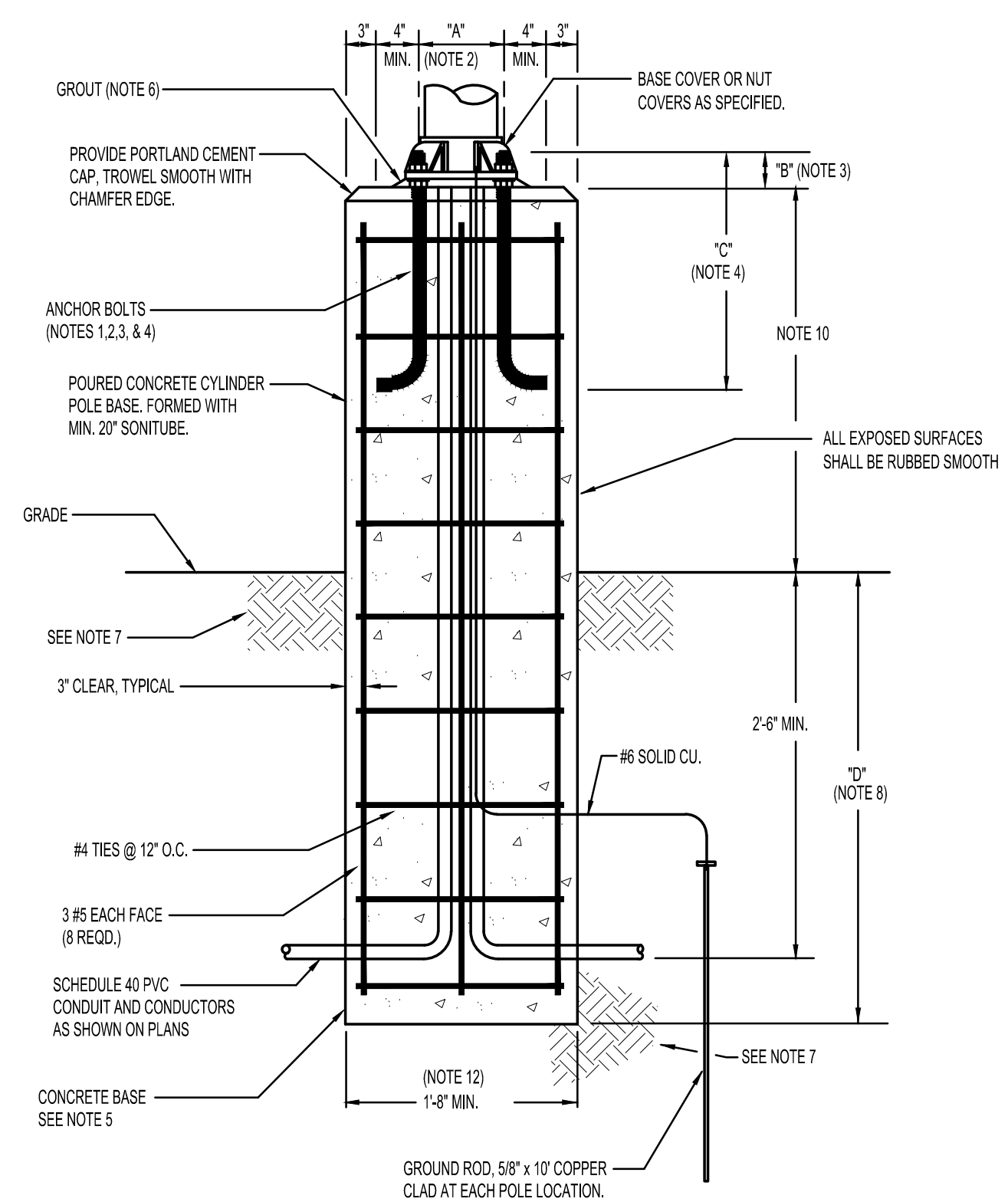
ES102
ELECTRICAL SITE
DETAILS



Symbol	Qty	Label	(MANUFAC)	Description	Arrangement	LLF	Luminaire Lumens	Luminaire Watts
[Symbol]	1	SP	CURRENT (EXO)	ASL2-320L-210-4K7-2-U	Single	0.900	28723	210
[Symbol]	7	SP2	CURRENT (EXO)	ASL2-320L-210-4K7-4W-U	Back-Back	0.900	28140	210

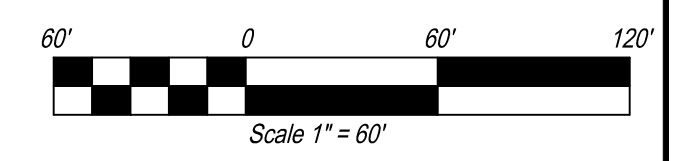
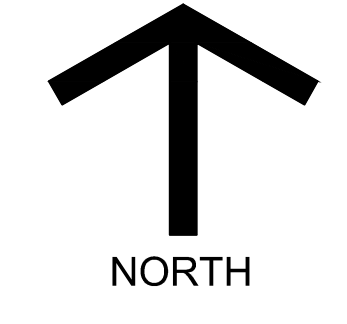
NOTES:
 1. POLES ARE TO BE 25' SQUARE STRAIGHT STEEL POLE.
 2. ALL FIXTURE & POLE COLOR FINISHES ARE TO BE DARK BRONZE.
 3. ALL LUMINAIRES TO BE FULLY SHIELDED.

Label	Calc-Type	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	3.1	6.0	0.5	6.2	12.0
Property Line	Illuminance	Fc	0.0	0.5	0.0	N.A.	N.A.



- DETAIL NOTES:**
- POLE SHALL BE PROVIDED WITH MINIMUM OF FOUR ANCHOR BOLTS WITH DOUBLE NUTS, DOUBLE FLAT WASHERS, AND ONE LOCK WASHER SIZED TO MATCH EACH ANCHOR BOLT. ALL NUTS, WASHERS, AND BOLTS SHALL BE HOT DIPPED GALVANIZED.
 - ANCHOR BOLT GAGE, DIMENSION "A", SHALL BE AS REQUIRED BY POLE MANUFACTURER. EXACT LOCATION OF ANCHOR BOLTS SHALL BE DETERMINED BY CONTRACTOR AFTER POLES ARE PURCHASED AND BEFORE CONCRETE BASE IS CONSTRUCTED.
 - BOLT PROJECTION, DIMENSION "B", SHALL BE AS RECOMMENDED BY POLE MANUFACTURER AND SHALL NOT BE LESS THAN 3".
 - ANCHOR BOLT EMBEDMENT, DIMENSION "C", SHALL BE AS RECOMMENDED BY POLE MANUFACTURER AND SHALL NOT BE LESS THAN 12". ANCHOR BOLT DIAMETER SHALL NOT BE LESS THAN 3/4".
 - CONCRETE BASE SHALL BE OF MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, W/C RATIO OF .55. REINFORCING BARS SHALL BE DEFORMED STEEL, GRADE 60.
 - GROUT SHALL BE PRE-BAG MIX NON-SHRINK, NON-METALLIC, 5000 PSI MINIMUM, ONE TO TWO INCHES THICK.
 - SOIL AROUND FOUNDATION BASE SHALL BE NON-ORGANIC GRANULAR SOIL COMPACTED TO 95% STANDARD PROCTOR (ASTM D-698). TOP 4" TO 6" MAY BE TOP SOIL OR PAVEMENT.
 - FOUNDATION EMBEDMENT DEPTH, DIMENSION "D", SHALL BE 15 PERCENT OF POLE HEIGHT ABOVE GRADE, MINIMUM OF 6'-0".
 - CONTRACTOR TO PAINT PEDESTAL AS DIRECTED BY ARCHITECT.
 - THE ABOVE GRADE PEDESTAL HEIGHT IS TO BE 36".
 - ALLOWABLE PASSIVE PRESSURE MUST BE 170 PSF OR GREATER
 - POLE BASE TOTAL DIAMETER TO BE 8 INCHES GREATER THAN THAT OF THE ANCHOR BOLT CIRCLE DIAMETER. MINIMUM OF 20 INCHES.

2 POLE BASE DETAIL
 ES22 SCALE: NONE

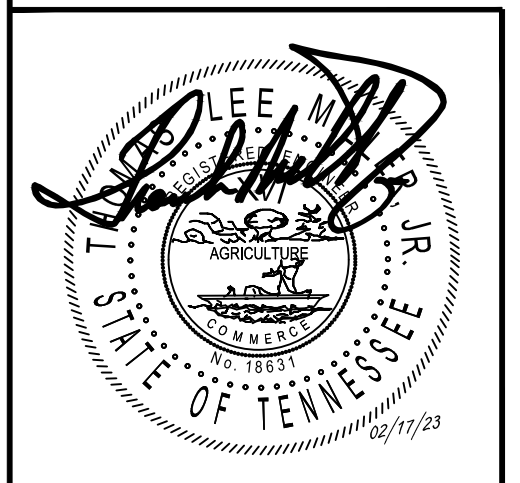


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ES202

ELECTRICAL SITE
 LIGHTING
 PHOTOMETRIC PLAN