

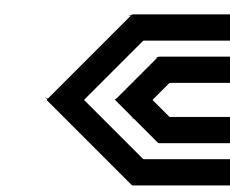
# PRELIMINARY/FINAL LAND DEVELOPMENT PLAN FOR TOMMY CAR WASH SYSTEM P2825 3523 UNION DEPOSIT ROAD SUSQUEHANNA TOWNSHIP DAUPHIN COUNTY, PENNSYLVANIA

PREPARED BY:



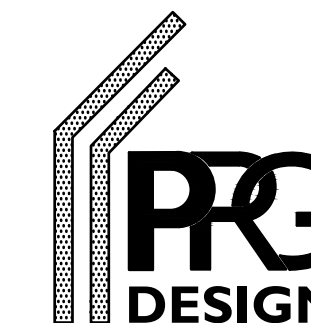
2601 Market Place, Suite 350  
Harrisburg, PA 17110  
(717) 651-9850  
(717) 651-9858 Fax

PREPARED FOR:

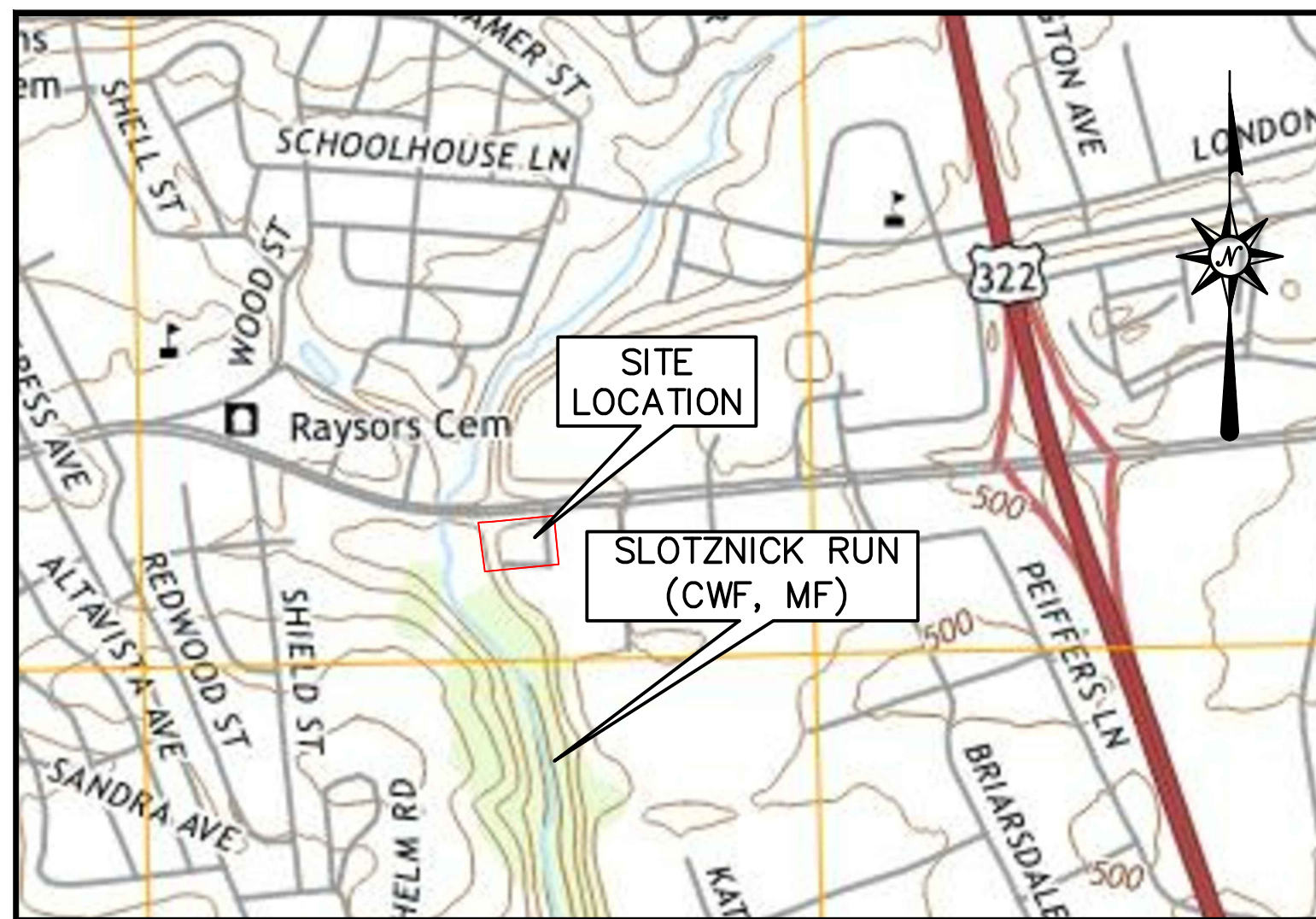


CHRISTIANSON  
COMPANIES  
4609 33<sup>RD</sup> AVENUE SOUTH, SUITE 400  
FARGO, NORTH DAKOTA 58104  
(701) 281-9500  
(701) 281-9501 Fax

DESIGN COORDINATOR:

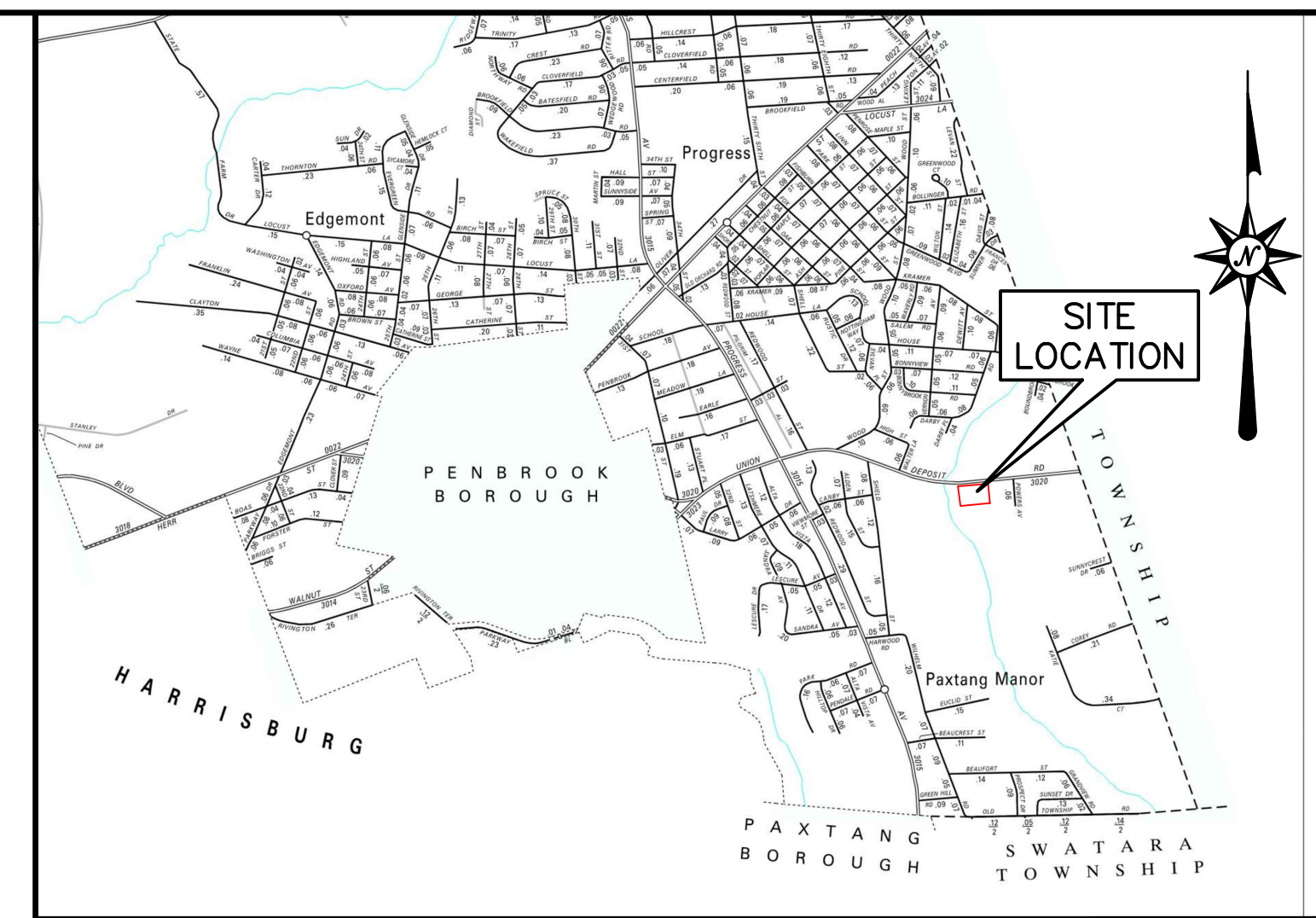
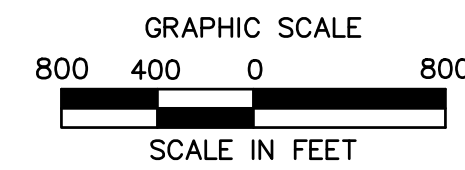


4609 33<sup>RD</sup> AVENUE SOUTH, SUITE 400  
FARGO, NORTH DAKOTA 58104  
(701) 499-0212  
(701) 281-9501 Fax



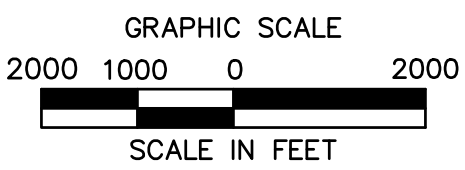
VICINITY MAP

SCALE: 1"=800'



LOCATION MAP

SCALE: 1"=2000'



## ACT 287 LIST OF UTILITIES

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996 FOR NOTIFICATION OF UTILITIES BEFORE EXCAVATION IN CONTRACT AREA. THE ONE UNDERGROUND UTILITIES LOCATION CALL NUMBER IS 1-800-242-1776. DESIGN SERIAL NUMBER IS 20211932347, SUBMITTED ON 07/12/2021.

UTILITIES AND RESPONSES PROVIDED BY PA ONE CALL:

- |   |   |
|---|---|
| (CDC) CAPITAL REGION WATER<br>3003 NORTH FRONT STREET<br>HARRISBURG, PA 17110<br>CONTACT: THOMAS YORK<br>EMAIL: thomas.york@capitalregionwater.com  | (SB) COMCAST<br>4801 SMITH STREET<br>HARRISBURG, PA 17109<br>CONTACT: MICHAEL SWEIGARD<br>EMAIL: mike_sweigard@cable.comcast.com  |
| (DH) SUEZ WATER PENNSYLVANIA INC.<br>8189 ADAMS DRIVE<br>HUMMELSTOWN, PA 17036<br>CONTACT: LOUISE DOLAN<br>EMAIL: louise.dolan@suez.com             | (SXH) SUSQUEHANNA TOWNSHIP AUTHORITY/<br>SUSQUEHANNA TOWNSHIP<br>1900 LINGLESTOWN ROAD<br>HARRISBURG, PA 17110<br>CONTACT: NATHAN SPRIGGS<br>EMAIL: nspriggs@susquehannatwp.com |
| (HC) VERIZON PENNSYLVANIA LLC<br>1026 HAY STREET<br>PITTSBURGH, PA. 15221<br>CONTACT: DEBORAH BARUM<br>EMAIL: deborah.d.della@verizon.com           | (UJ) UGI UTL LANCASTER<br>1301 AIP DRIVE<br>MIDDLETOWN, PA. 17057<br>CONTACT: STEPHEN BATEMAN<br>EMAIL: sbateman@ugi.com  |
| (M) VERIZON BUSINESS FORMERLY MCI<br>400 INTERNATIONAL PARKWAY<br>RICHARDSON, TX 75081<br>CONTACT: DEAN BOYERS<br>EMAIL: investigations@verizon.com | (WD) SUSQUEHANNA TOWNSHIP AUTHORITY/<br>SUSQUEHANNA TOWNSHIP<br>1900 LINGLESTOWN ROAD<br>HARRISBURG, PA 17110<br>CONTACT: NATHAN SPRIGGS<br>EMAIL: nspriggs@susquehannatwp.com  |
| (PRD) PPL ELECTRIC UTILITIES CORPORATION<br>434 SUSQUEHANNA TRAIL<br>NORTHUMBERLAND, PA 17857<br>CONTACT: DOUG HAUPT<br>EMAIL: dhaupt@pplweb.com    |   |

## Pennsylvania One Call System Response List

ONE CALL NUMBER	REQUESTER NAME	LAST RESPONSE RECEIVED (HH:MM)	PA ONE CALL
20211932347	CDC CAPITAL REGION WATER	07/12/2021 15:16:44	ENGINEERING COMPLETED - A PDF FILE OR MARKED UP PLANS WERE SENT TO THE REQUESTER * 07/12/2021 15:16:44
06	SUEZ WATER PENNSYLVANIA INC	07/13/2021 07:08:58	CLEAR. NO FACILITIES OR FACILITIES NOT INVOLVED BASED ON TICKET INFORMATION * 07/13/2021 07:08:58
0C	VERIZON PENNSYLVANIA LLC	07/13/2021 14:17:11	CLEAR. NO FACILITIES OR FACILITIES NOT INVOLVED BASED ON TICKET INFORMATION * 07/13/2021 14:17:11
0E	VERIZON BUSINESS FORMERLY MCI	07/27/2021 09:01:09	DID NOT RESPOND THROUGH PA ONE CALL * 07/27/2021 09:01:09
0F	PPL ELECTRIC UTILITIES CORPORATION	07/27/2021 07:32:29	CLEAR. NO FACILITIES OR FACILITIES NOT INVOLVED BASED ON TICKET INFORMATION * 07/27/2021 07:32:29
0B	COMCAST CABLE COMMUNICATIONS INC	07/27/2021 07:32:29	CLEAR. NO FACILITIES OR FACILITIES NOT INVOLVED BASED ON TICKET INFORMATION * 07/27/2021 07:32:29
00A	SUSQUEHANNA TWP AUTH/SUSQUEHANNA TWP	07/13/2021 15:17:28	ENGINEERING COMPLETED - A PDF FILE OR MARKED UP PLANS WERE SENT TO THE REQUESTER * 07/13/2021 15:17:28
01	UGI UTL HARRISBURG	07/13/2021 13:08:22	DESIGN COMPLETE. PLEASE SEND PLANS TO: CHAIRMAN BUSHNER, UGI UTL HARRISBURG, 1300 AIP DR, HARRISBURG PA 17057 * 07/13/2021 13:08:22
00L	SUSQUEHANNA TWP AUTH/SUSQUEHANNA TWP	07/13/2021 15:18:10	ENGINEERING COMPLETED - A PDF FILE OR MARKED UP PLANS WERE SENT TO THE REQUESTER * 07/13/2021 15:18:10

## Sheet List Table

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## ADD ON SHEETS

- SIGNAGE PLAN (1 SHEET)  
LANDSCAPE PLAN (1 SHEET)  
LIGHTING PLAN (3 SHEETS)

**SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS**  
THIS PLAN APPROVED BY THE SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED  
ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_,  
CHAIRMAN \_\_\_\_\_ SECRETARY \_\_\_\_\_

**SUSQUEHANNA TOWNSHIP PLANNING COMMISSION**  
THIS PLAN RECOMMENDED FOR APPROVAL BY THE SUSQUEHANNA TOWNSHIP PLANNING COMMISSION  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_,  
CHAIRMAN \_\_\_\_\_ SECRETARY \_\_\_\_\_

**SUSQUEHANNA TOWNSHIP ENGINEER**  
THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_,  
TOWNSHIP ENGINEER \_\_\_\_\_

**CERTIFICATION OF ACCURACY (SURVEY)**  
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.  
\_\_\_\_\_, 20\_\_\_\_  
GREGORY CONDON, P.L.S.  
REG. NO. P.L.S. SU32480E

**RECORDER OF DEEDS**  
THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR DAUPHIN COUNTY  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_  
PLAN BOOK \_\_\_\_\_ VOLUME \_\_\_\_\_ PAGE \_\_\_\_\_ INSTRUMENT \_\_\_\_\_

**DAUPHIN COUNTY PLANNING COMMISSION**  
THIS PLAN REVIEWED BY THE DAUPHIN COUNTY PLANNING COMMISSION  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_,  
CHAIRMAN \_\_\_\_\_ SECRETARY \_\_\_\_\_

**CERTIFICATION OF ACCURACY (ENGINEER)**  
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.  
\_\_\_\_\_, 20\_\_\_\_  
ALARIC J. BUSHNER, P.E.  
REG. NO. PE60320

## CERTIFICATE OF OWNERSHIP (OWNER)

STATE OF PENNSYLVANIA  
COUNTY OF \_\_\_\_\_  
ON THIS, THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BEFORE ME, THE UNDERSIGNED PERSONALLY APPEARS,  
OWNER(S) \_\_\_\_\_  
OWNER(S) \_\_\_\_\_  
WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.  
WITNESS MY HAND AND NOTORIAL SEAL THE DAY AND DATE ABOVE WRITTEN

NOTARY PUBLIC  
MY COMMISSION EXPIRES \_\_\_\_\_, 20\_\_\_\_

## CERTIFICATE OF OWNERSHIP (EQUITABLE OWNER)

STATE OF PENNSYLVANIA  
COUNTY OF \_\_\_\_\_  
ON THIS, THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BEFORE ME, THE UNDERSIGNED PERSONALLY APPEARS,  
EQUITABLE OWNER(S) \_\_\_\_\_  
EQUITABLE OWNER(S) \_\_\_\_\_  
WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY ARE THE EQUITABLE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.  
WITNESS MY HAND AND NOTORIAL SEAL THE DAY AND DATE ABOVE WRITTEN

NOTARY PUBLIC  
MY COMMISSION EXPIRES \_\_\_\_\_, 20\_\_\_\_

**PLAN PURPOSE**  
THE PURPOSE OF THIS PLAN IS THE CONSTRUCTION OF A NEW 4,551 S.F. CAR WASH BUILDING AND ALL ASSOCIATED SITE IMPROVEMENTS ON THE SUBJECT PROPERTY, 3523 UNION DEPOSIT ROAD.

**DEVELOPER/APPLICANT**  
CHRISTIANSON COMPANIES  
4609 33<sup>RD</sup> AVENUE SOUTH, SUITE 400  
FARGO, NORTH DAKOTA 58104  
C/O MR. TANNER BRANDT  
(701) 281-9500

**DATES**  
ISSUE DATE: AUGUST 6, 2021  
LAST REVISED: SEPTEMBER 13, 2021

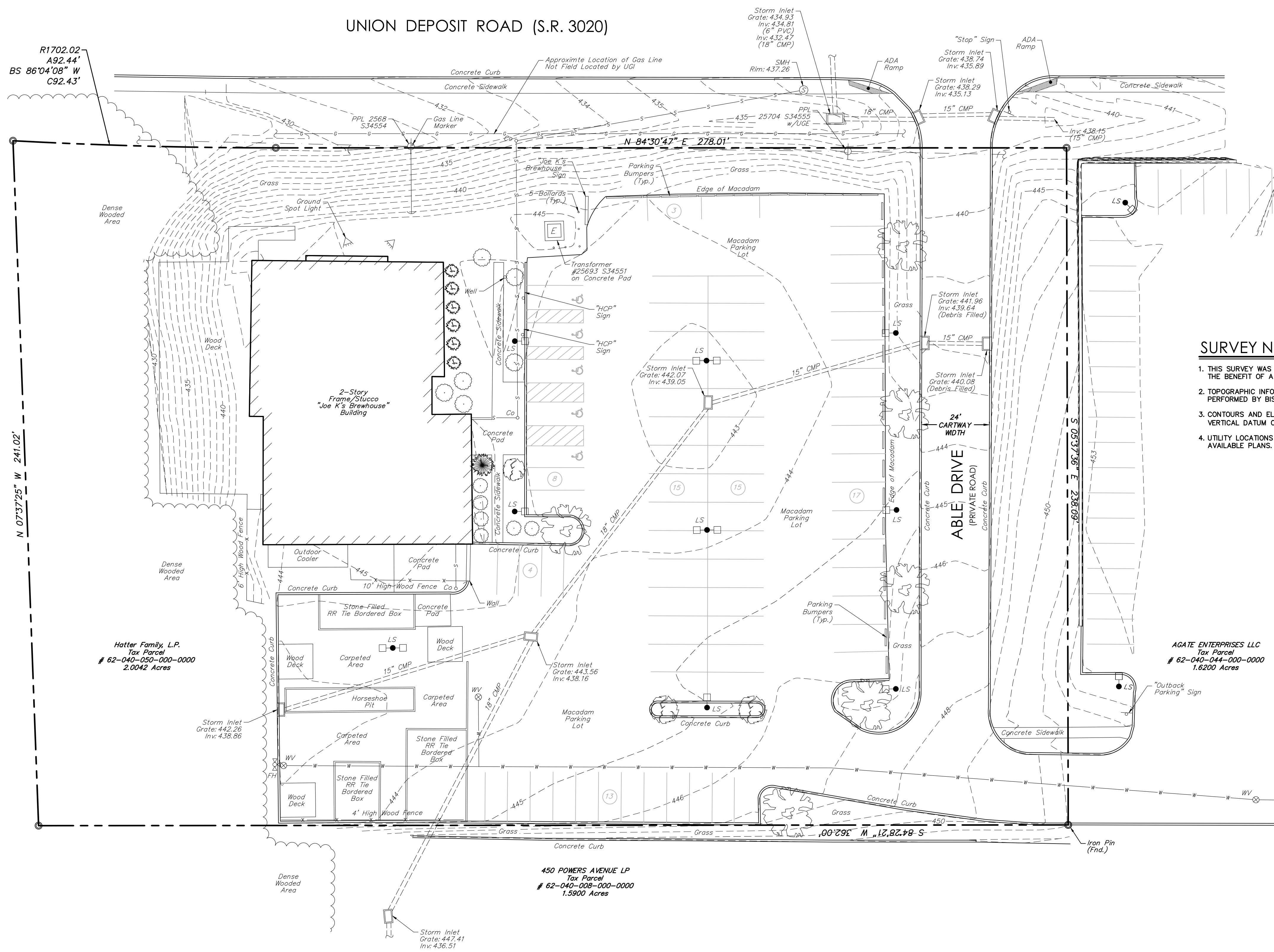
**CV-1 No. 01 of 14**



LEGEND	
	PROPERTY LINE
	R.O.W./EASEMENT LINE
	CONTOUR
	WATER LINE
	ELECTRIC LINE
	SANITARY SEWER LINE
	OVERHEAD WIRES
	FENCE
	UTILITY POLE & GUY WIRE
	LIGHT POLE
	CATCH BASIN
	SANITARY SEWER MANHOLE
	SANITARY SEWER CLEANOUT
	HYDRANT
	WATER VALVE
	SIGN
	BOLLARD
	TREE LINE
	TREE/SHRUBS

DATE:	08/06/2021
PROJECT NO:	2101256
DRAWN BY:	JRJ
CHECKED BY:	AJB
REVISIONS:	
1	PER TWP COMMENTS 2021-09-13

UNION DEPOSIT ROAD (S.R. 3020)



SURVEY NOTES:

1. THIS SURVEY WAS PERFORMED AND MAPPING PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH.
2. TOPOGRAPHIC INFORMATION SHOWN ARE BASED ON A FIELD SURVEY PERFORMED BY BISCON AERO, COMPLETED IN JULY, 2021.
3. CONTOURS AND ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. UTILITY LOCATIONS ARE BASED ON SURFACE EVIDENCE AND AVAILABLE PLANS.

RK, LAND  
Tax Parcel  
# 62-040-051-000-0000  
17.8300 Acres

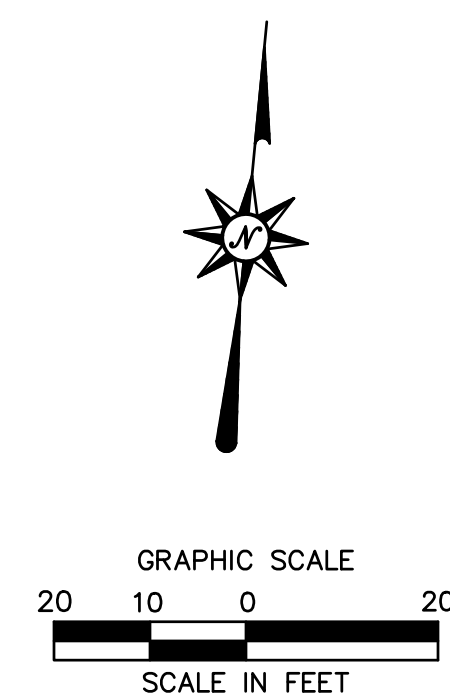
Hatter Family, L.P.  
Tax Parcel  
# 62-040-050-000-0000  
2.0042 Acres

AGATE ENTERPRISES LLC  
Tax Parcel  
# 62-040-044-000-0000  
1.6200 Acres

450 POWERS AVENUE LP  
Tax Parcel  
# 62-040-009-000-0000  
1.5900 Acres



PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH. PA ONE-CALL SERIAL NO. 20211932347-000



FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

**TOMMY CAR WASH SYSTEM**  
3523 UNION DEPOSIT RD  
HARRISBURG, PA

**P2825**

Architecture  
Engineering  
Environmental  
Land Surveying

2601 Market Place  
Suite 350  
Harrisburg, PA 17110  
(717) 943-1665  
(717) 651-9858 Fax  
Project No. 2101256

**CHRISTIANSON**  
COMPANIES

PH. (701) 281-9500  
FAX (701) 281-9501

4609 33RD AVE. S.  
SUITE 400  
FARGO, ND 58104

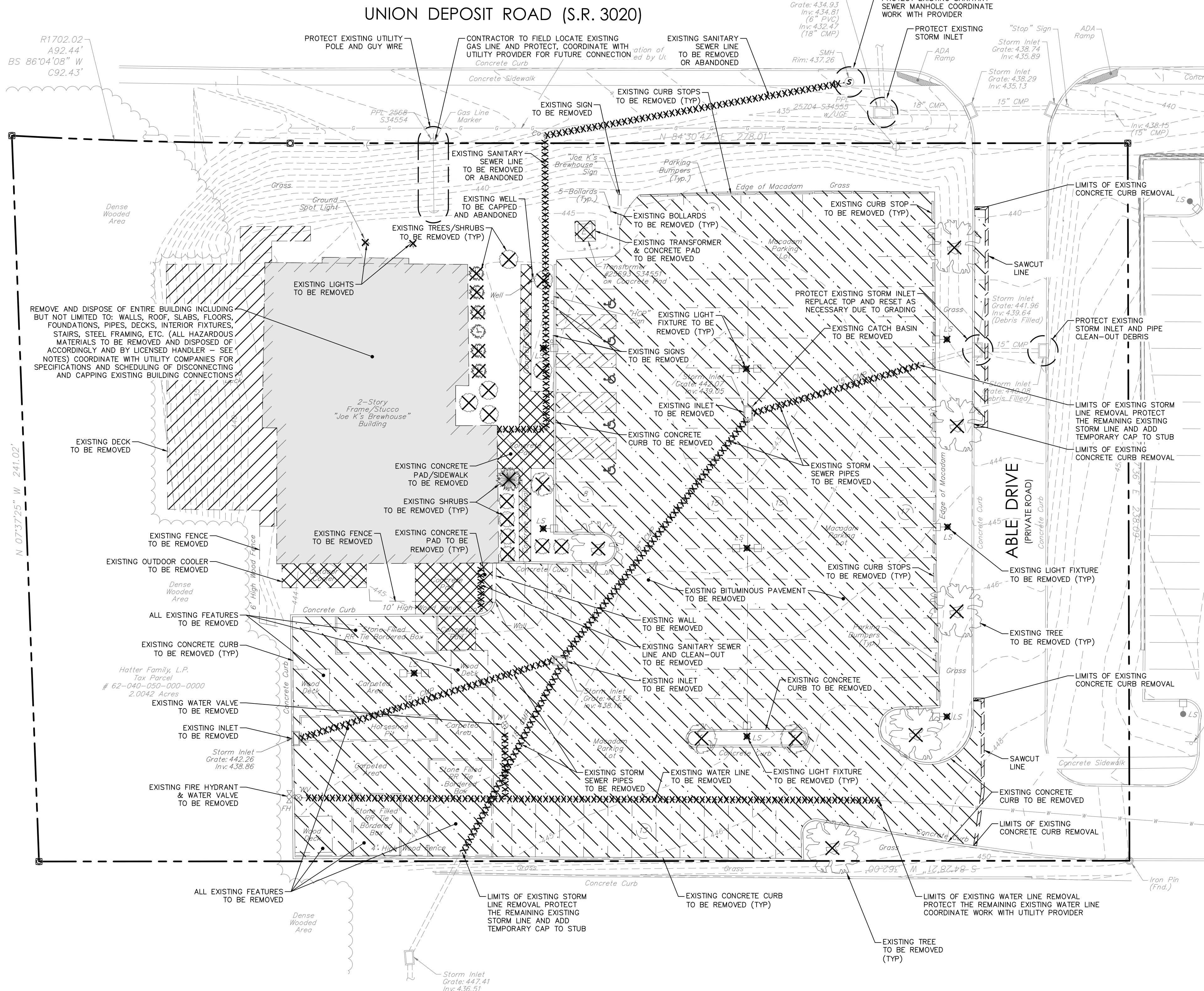
**IRG**  
DESIGN

PH. (701) 499-0212  
FAX (701) 281-9501

**SHEET DESCRIPTION:**  
EXISTING  
CONDITIONS  
PLAN

Sheet  
**EX-1**  
No. 03 of 14

LEGEND	
	PROPERTY LINE
	R.O.W./EASEMENT LINE
	CONTOUR
	WATER LINE
	ELECTRIC LINE
	SANITARY SEWER LINE
	OVERHEAD WIRES
	FENCE
	UTILITY POLE & GUY WIRE
	LIGHT POLE
	CATCH BASIN
	SANITARY SEWER MANHOLE
	SANITARY SEWER CLEANOUT
	HYDRANT
	WATER VALVE
	SIGN
	BOLLARD
	TREE LINE
	TREE/SHRUBS
	EXISTING BITUMINOUS PAVEMENT TO BE REMOVED
	EXISTING CONCRETE PAD/SIDEWALK TO BE REMOVED
	EXISTING TREE/SHRUB/LIGHT TO BE REMOVED
	EXISTING STRUCTURE TO BE PROTECTED



### DEMOLITION NOTES

- CONTRACTOR SHALL SECURE ANY PERMITS, PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
- EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE EROSION AND SEDIMENTATION PLAN SHALL BE INSTALLED BY THE DEMOLITION CONTRACTOR PRIOR TO START OF DEMOLITION, AND CLEARING AND GRUBBING OPERATIONS.
- REMOVE AND DISPOSE OF ANY DEMOLITION MATERIAL, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL, BY AN APPROVED HAULER. HAULER SHALL COMPLY WITH ALL REGULATORY REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
- THE CONTRACTOR SHALL PREPARE ALL MANIFEST DOCUMENTS AS REQUIRED PRIOR TO COMMENCEMENT OF DEMOLITION.
- THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND PLUG ALL SERVICE PIPING AS REQUIRED, OR AS OTHERWISE NOTED HEREON. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED. THE OWNER SHALL PAY ALL UTILITY CO. PROVIDER FEES FOR ABANDONMENT'S AND REMOVALS.
- THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING DEMOLITION ACTIVITIES. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, AND OR PROPERTY CORNERS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- THE DEMOLITION CONTRACTOR SHALL STABILIZE THE SITE AND KEEP EROSION CONTROL MEASURES IN PLACE UNTIL THE COMPLETION OF HIS WORK OR UNTIL THE COMMENCEMENT OF WORK BY THE SITE CONTRACTOR, WHICHEVER OCCURS FIRST, AS REQUIRED OR DEMAED NECESSARY BY THE ENGINEER OR OWNER'S REPRESENTATIVE. THE SITE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE MAINTENANCE OF EXISTING EROSION AND SEDIMENT CONTROLS AND FOR INSTALLATION OF ANY NEW EROSION AND SEDIMENT CONTROLS AS PER THE EROSION AND SEDIMENTATION PLAN, AT THAT TIME.
- THE CONTRACTOR SHALL ADHERE TO ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOSTS, ETC. IN PROXIMITY OF OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT THE POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID BY THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC CONTROLLERS AS REQUIRED OR ORDERED BY THE ENGINEER, OR REQUIRED BY THE LOCAL GOVERNING AUTHORITIES. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE APPROPRIATE GOVERNING AGENCY IS GRANTED.
- INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY, AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION THE CONTRACTOR SHALL CONTACT PENNSYLVANIA ONE CALL 72 HOURS BEFORE COMMENCEMENT OF WORK AT (800) 242-1776 AND VERIFY ALL UTILITY AND DRAINAGE LOCATIONS.
- THE CONTRACTOR SHALL PROVIDE DISCONNECT NOTIFICATION TO ALL UTILITIES LISTED WITHIN THE PA ONE-CALL INFORMATION PROVIDED ON SHEET CV-1 AT LEAST THREE WEEKS PRIOR TO BEGINNING DEMOLITION.
- BACKFILL AND COMPACT DEPRESSIONS, FOUNDATION HOLES AND REMOVED DRIVEWAY AREAS WITH APPROVED SOIL MATERIAL. FERTILIZE, SEED AND MULCH DISTURBED AREAS NOT SUBJECT TO FURTHER SITE CONSTRUCTION. BUILDING FOUNDATION AREA TO BE BACKFILLED IN 6" LIFTS WITH GRAVEL FILL OR MATERIAL SPECIFIED IN THE PROJECT GEOTECHNICAL REPORT. COMPACTED TO 95% MAX. DRY DENSITY PER ASTM D1557 AT +/- 3% OF OPTIMUM MOISTURE CONTENT. EMPLOY WATERING EQUIPMENT FOR DUST CONTROL.
- THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, UTILITY PAVEMENT, CURBS, SIDEWALKS, DRAINAGE STRUCTURE, SWALE OR LANDSCAPED AREAS DISTURBED DURING DEMOLITION TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER, EAST PENNSBORO TOWNSHIP AND PENNDOT.
- THE CONTRACTOR SHALL CUT AND REMOVE AT LUMINARIE AND SIGN LOCATIONS ANY PROTRUDING CONDUITS TO 24" BELOW GRADE. THE CONTRACTOR SHALL REMOVE ALL CABLE AND CONDUCTORS FROM REMAINING LIGHTING AND SIGNING CONDUITS TO BE ABANDONED. ANY REMAINING LIGHTING TO REMAIN IN PLACE SHALL BE RECRUITED OR REWIRED AS NECESSARY TO REMAIN IN OPERATION.
- NO WORK ON THIS SITE SHALL BE INITIATED BY THE CONTRACTOR UNTIL A PRE-CONSTRUCTION MEETING WITH OWNER AND THE PROJECT ENGINEER IS PERFORMED. THE CONTRACTOR SHOULD BE AWARE OF ANY SITE INFORMATION AVAILABLE SUCH AS GEOTECHNICAL AND ENVIRONMENTAL REPORTS, AS WELL AS HAVE ONE CALL DIG MARK OUTS OF EXISTING UTILITIES COMPLETED PRIOR TO MEETING.
- THE CONTRACTOR OR DEMOLITION CONTRACTOR SHALL INSTALL TEMPORARY SHEETING OR SHORING AS NECESSARY FOR PROTECTION DURING CONSTRUCTION AND DEMOLITION. SHEETING OR SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THIS STATE AND EVIDENCE OF SUCH SUBMITTED TO THE OWNER PRIOR TO INSTALLATION.
- NO SALVAGE SHALL BE PERMITTED UNLESS PAID TO THE OWNER AS A CREDIT.
- THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY WITH CFR29 PART 1926 FOR EXCAVATION, TRENCHING, AND TRENCH PROTECTION REQUIREMENTS.
- THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OR UTILITY DISCONNECTIONS UNTIL AUTHORIZED TO DO SO BY THE OWNER.
- CARE SHOULD BE TAKEN TO PREVENT DUST AND DEBRIS FROM LEAVING THE BOUNDARIES OF THE PROPERTY.
- EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- ALL EXISTING ABOVE AND BELOW GROUND STRUCTURES WITHIN THE LIMITS OF NEW CONSTRUCTION SHALL BE RAZED UNLESS NOTED OTHERWISE WITHIN THIS CONSTRUCTION SET, ARCHITECTURAL PLANS AND/OR PROJECT SPECIFICATIONS. THIS INCLUDES FOUNDATION SLABS, WALLS, AND FOOTINGS.
- THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
- UTILITY CONTACTS ARE LISTED ON SHEET CV-1.
- ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.

DATE:	08/06/2021
PROJECT NO:	2101256
DRAWN BY:	JRJ
CHECKED BY:	AJB
REVISIONS:	
1	PER TWP COMMENTS 2021-09-13

**TOMMY CAR WASH SYSTEM**  
 3523 UNION DEPOSIT RD  
 HARRISBURG, PA  
**P2825**

Architecture  
 Engineering  
 Environmental  
 Land Surveying  
**BC Companies**  
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 Suite 350  
 Harrisburg, PA 17110  
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 Project No. 2101256

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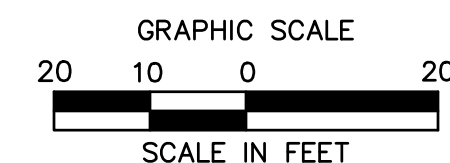
**IRG**  
 DESIGN  
 PH. (701) 499-0212  
 FAX (701) 281-9501

**SHEET DESCRIPTION:**  
 DEMOLITION  
 PLAN

Sheet  
**DM-1**  
 No. 04 of 14



PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH. PA ONE-CALL SERIAL NO. 20211932347-000



DATE: 08/06/2021  
 PROJECT NO: 2101256  
 DRAWN BY: JRJ  
 CHECKED BY: AJB  
 REVISIONS:  
 1 PER TWP COMMENTS 2021-09-13

**TOMMY CAR WASH SYSTEM**  
 3523 UNION DEPOSIT RD  
 HARRISBURG, PA  
**P2825**

Architecture  
 Engineering  
 Environmental  
 Land Surveying  
**Companies**  
 2601 Market Place  
 Suite 350  
 Harrisburg, PA 17110  
 (717) 943-1465  
 (717) 651-9858 Fax  
 Project No. 2101256

**CHRISTIANSON**  
 COMPANIES  
 PH. (701) 281-9500  
 FAX (701) 281-9501  
 4609 33RD AVE. S.  
 SUITE 400  
 FARGO, ND 58104

**RG**  
 DESIGN  
 PH. (701) 499-0212  
 FAX (701) 281-9501

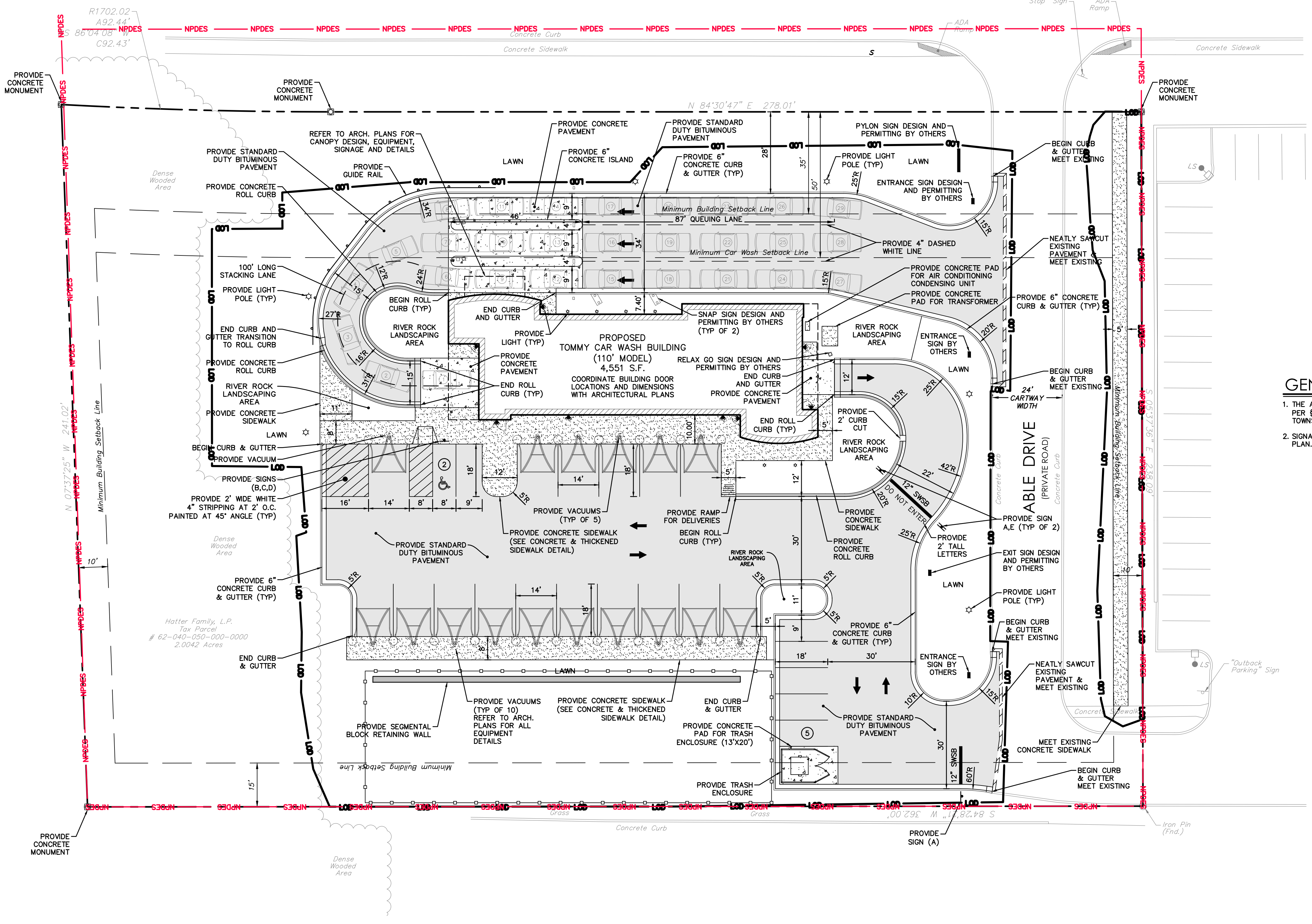
**SHEET DESCRIPTION:**  
 SITE PLAN

Sheet  
**SP-1**  
 No.05 of 14

**UNION DEPOSIT ROAD (S.R. 3020)**

**LEGEND**

	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
	PROPERTY LINE
	SAWCUT LINE
	EXISTING GRADES
	CONCRETE CURB AND GUTTER
	ROLLED CONCRETE CURB
	GUIDERAIL
	SIGN
	4' HIGH CHAIN LINK FENCE
	CONCRETE SIDEWALK
	HEAVY DUTY CONCRETE
	STANDARD DUTY BITUMINOUS PAVEMENT



**GENERAL SITE NOTES**

1. THE ADDRESS SHALL BE PROMINENTLY DISPLAYED ON THE BUILDING PER §22-1112 STREET ADDRESS REQUIREMENTS OF THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.
2. SIGNAGE WILL NOT APPROVED AS PART OF THE LAND DEVELOPMENT PLAN. ALL SIGNAGE TO BE APPROVED AT TIME OF PERMITTING

**SIGN LEGEND**

NO.	DOT NO. / SIGN SIZE	LEGEND
A	R1-1 30"x30"	STOP
B	R7-8 12"x18"	RESERVED
C	R7-8A 6"x12"	VAN ACCESSIBLE
D	R7-8F 12"x18"	RESERVED
E	R5-1 30"x30"	DO NOT ENTER

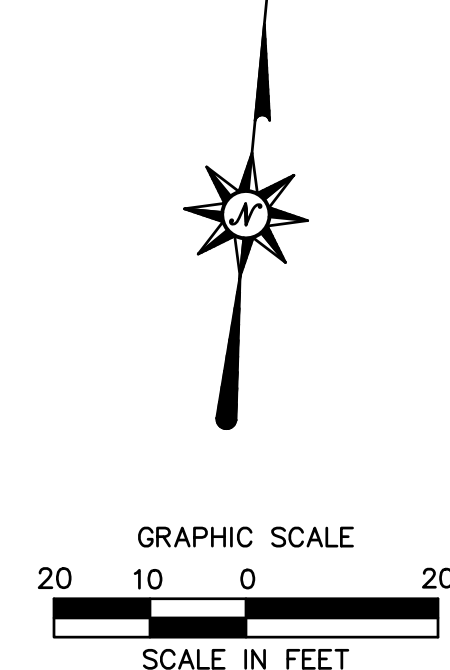
**PARKING INFORMATION**

ITEM #	ITEM	REQUIREMENTS	PROPOSED
1	BUILDING SIZE	NONE REQUIRED	4,551 SF
2	PARKING REQUIRED BY TOWNSHIP	CAR WASH: 4 SPACES FOR EACH WASHING BAY 1 WASHING BAY x 4 = 4	7 SPACES
3	MINIMUM PARKING DIMENSIONS	9 FEET X 18 FEET	9 FEET X 18 FEET
4	MINIMUM AISLE WIDTH	24 FEET	24 FEET

**ZONING INFORMATION**

LOCATION: SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY  
 ZONE: COMMERCIAL HIGHWAY (CH)  
 USE: CAR WASH (PERMITTED USE)

ITEM #	ITEM	REQUIREMENTS	PROPOSED
1	MINIMUM LOT AREA	NONE REQUIRED	2.0042 ACRES
2	MINIMUM FRONT SETBACK	35 FEET	>35 FEET
3	MINIMUM SIDE SETBACK	10 FEET	>10 FEET
4	MINIMUM REAR SETBACK	15 FEET	>15 FEET
5	MAXIMUM BUILDING HEIGHT	60 FEET	<60 FEET
6	MAXIMUM BUILDING COVERAGE	50 PERCENT	5 PERCENT
7	MAXIMUM IMPERVIOUS COVERAGE	80 PERCENT	52 PERCENT
8	MINIMUM VEGETATIVE COVERAGE	20 PERCENT	48 PERCENT

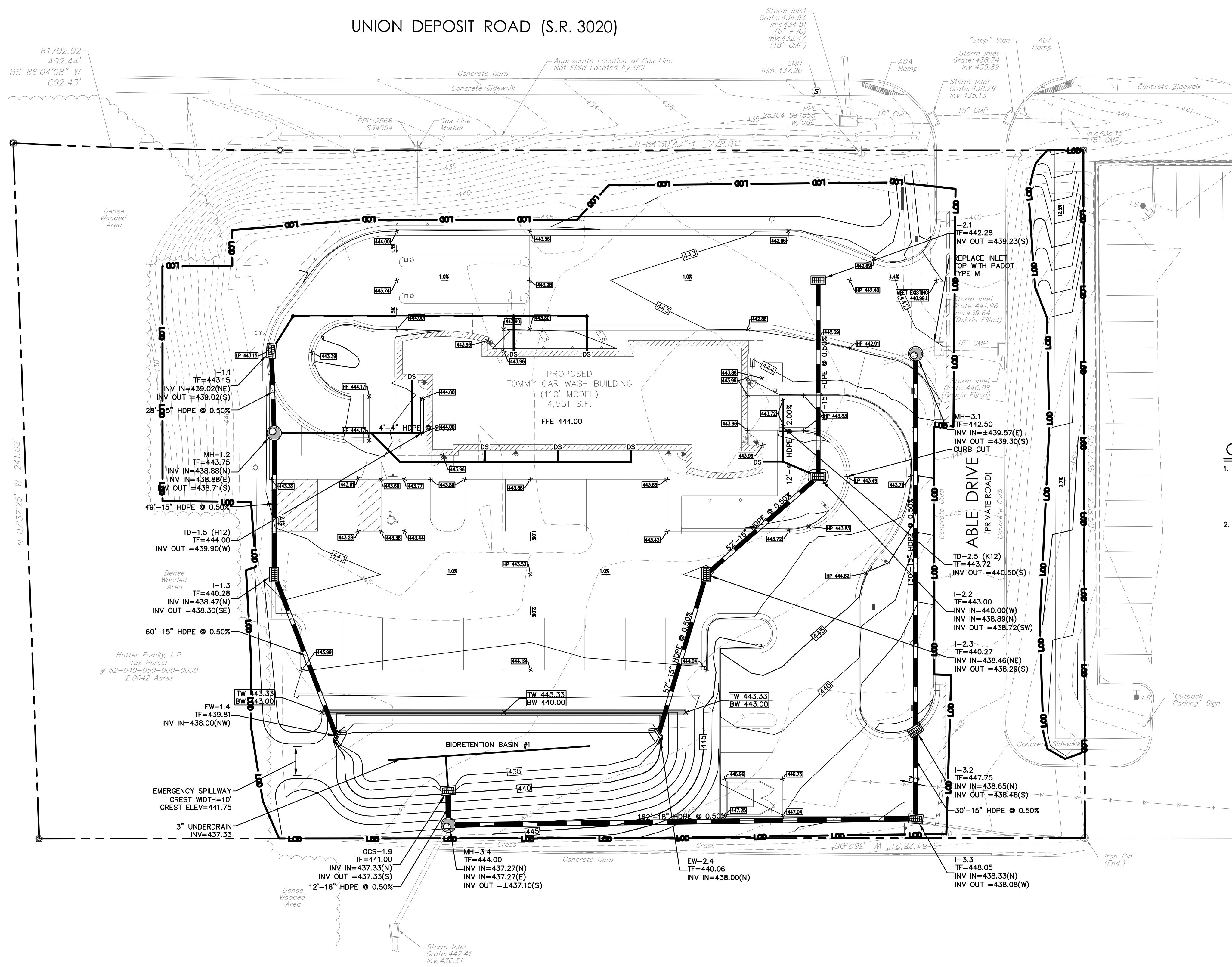


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LEGEND	
---	LOD - LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
---	PROPERTY LINE
---	EXISTING GRADES
---	PROPOSED GRADE BREAK
---	PROPOSED 1" GRADES
---	PROPOSED 5" GRADES
---	SPOT GRADES
---	STORM LINE
---	"M" TYPE CATCH BASIN
---	"C" TYPE CATCH BASIN
---	STORM MANHOLE
---	RIP RAP
---	DOWNSPOUT

DATE:	08/06/2021
PROJECT NO:	2101256
DRAWN BY:	JRJ
CHECKED BY:	AJB
REVISIONS:	
1	PER TWP COMMENTS 2021-09-13
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UNION DEPOSIT ROAD (S.R. 3020)



- GENERAL NOTES**
1. A BLANKET DRAINAGE EASEMENT IS PROVIDED FOR ACCESS TO INSPECTION OF, AND MAINTENANCE OF, ALL ON-SITE STORMWATER MANAGEMENT OR DRAINAGE FACILITIES, INCLUDING BUT NOT LIMITED TO DETENTION FACILITIES, INFILTRATION FACILITIES, ALL STORMWATER BMPs, DRAINAGE SWALES, AND DRAINAGE FACILITIES (I.E. PIPES, INLETS, MANHOLES, HEADWALLS, ENDWALLS, ETC.).
  2. LIMIT OF DISTURANCE = 1.32 ACRES

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**PRG**  
 DESIGN

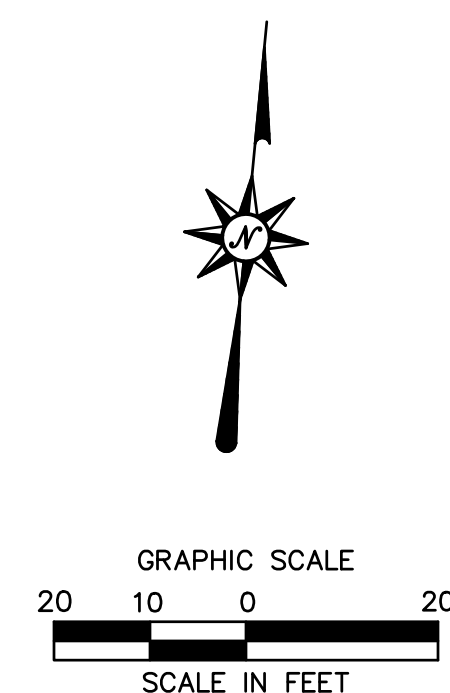
PH. (701) 499-0212  
 FAX (701) 281-9501

**SHEET DESCRIPTION:**  
 GRADING PLAN

Sheet  
**GD-1**  
 No.06 of 14



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FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

LEGEND	
---	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
---	PROPERTY LINE
W	DOMESTIC/FIRE PROTECTION WATER LINE
S	SANITARY PIPE CENTER LINE
E	PRIMARY ELECTRIC LINE TO TRANSFORMER
G	GAS LINE
⊕	WATER VALVE
⊕	GAS VALVE
⊕	FIRE HYDRANT
⊕	4" DIAMETER SANITARY MANHOLE
⊕	OIL-WATER SEPARATOR
⊕	SANITARY CLEANOUT
⊕	PULL BOX

DATE:	08/06/2021
PROJECT NO:	2101256
DRAWN BY:	JRJ
CHECKED BY:	AJB
REVISIONS:	
1	PER TWP COMMENTS 2021-09-13

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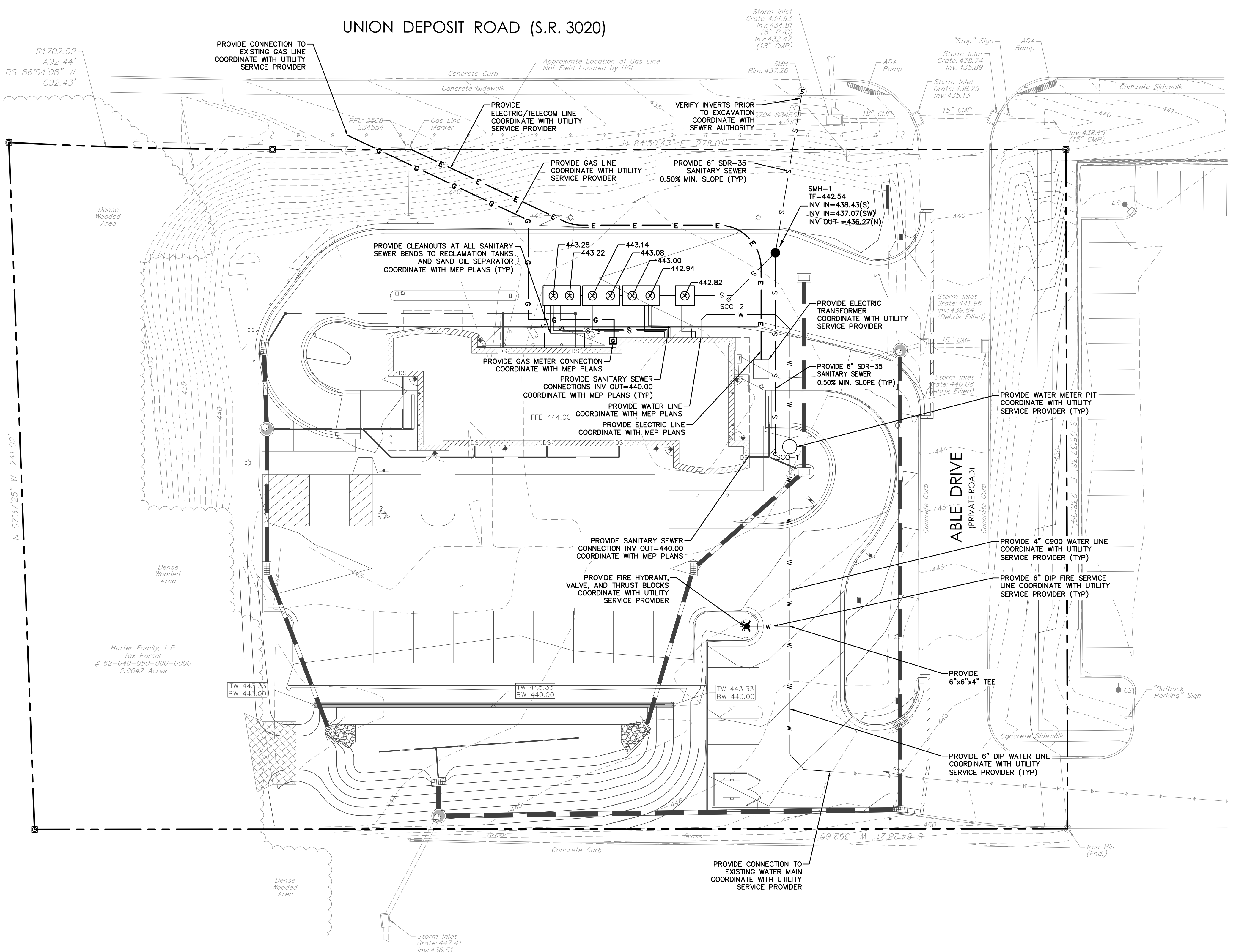
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 DESIGN

PH. (701) 499-0212  
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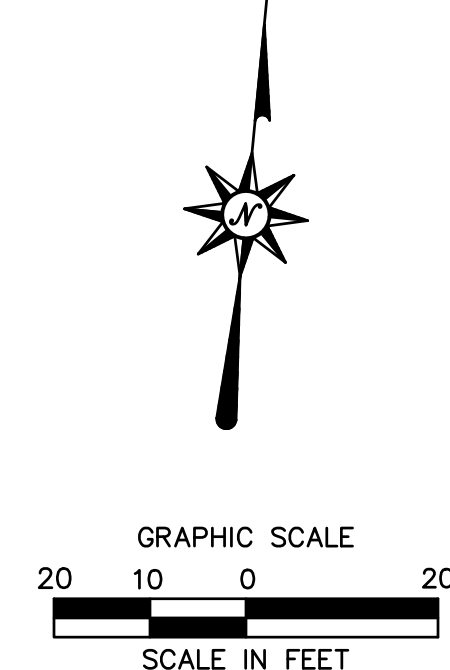
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 SITE UTILITY PLAN

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**SU-1**  
 No. 07 of 14

**UNION DEPOSIT ROAD (S.R. 3020)**

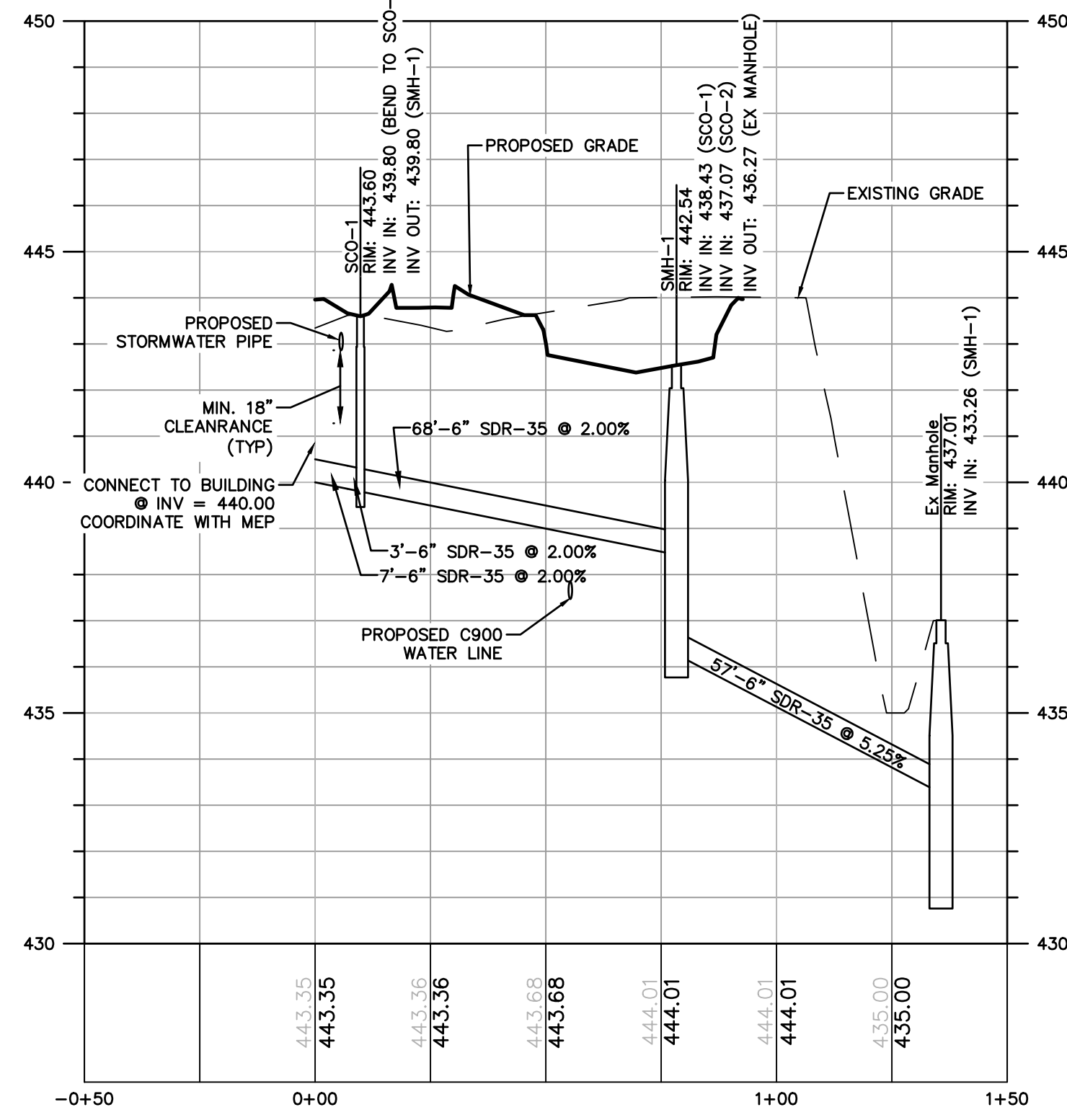


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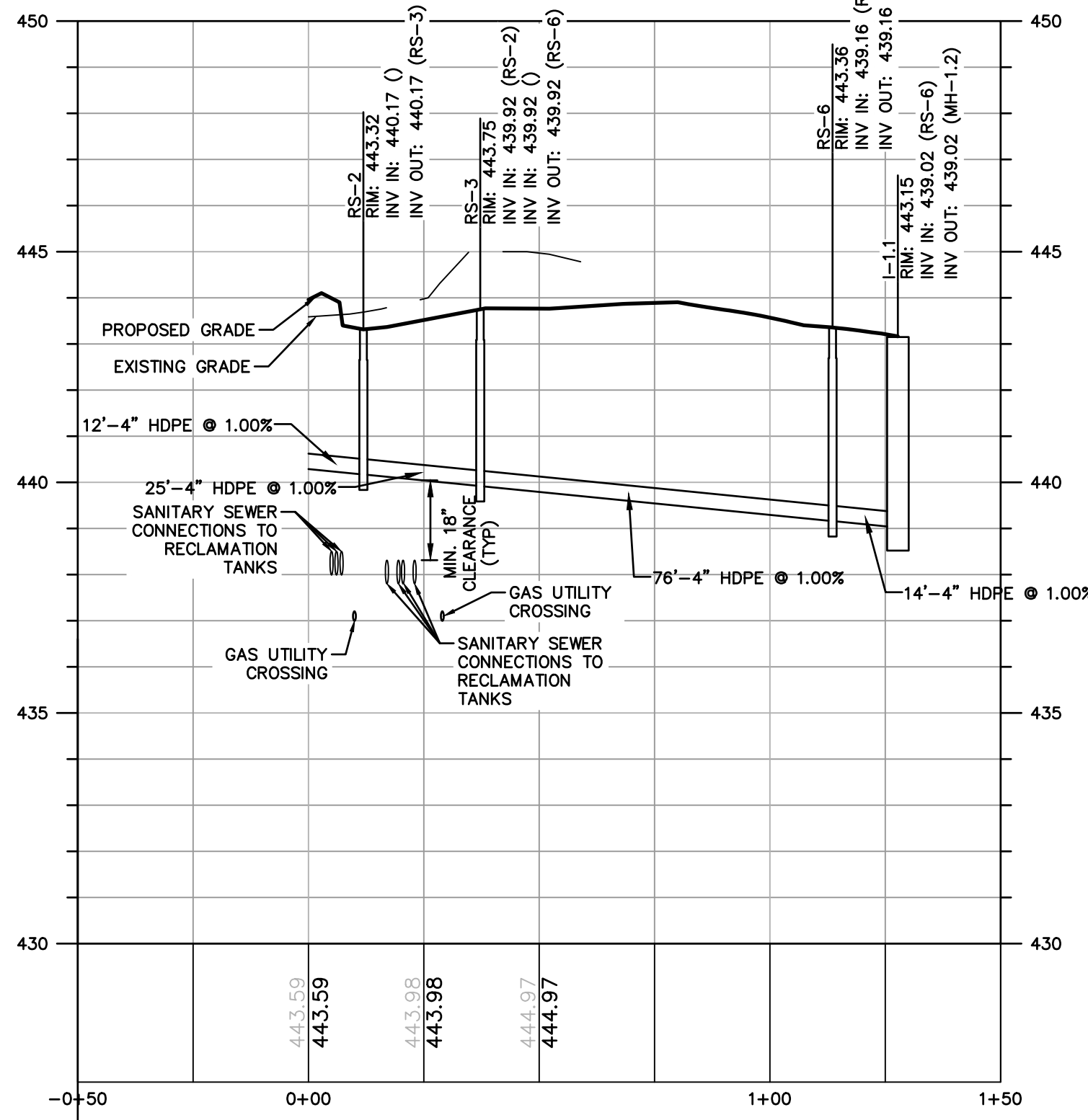


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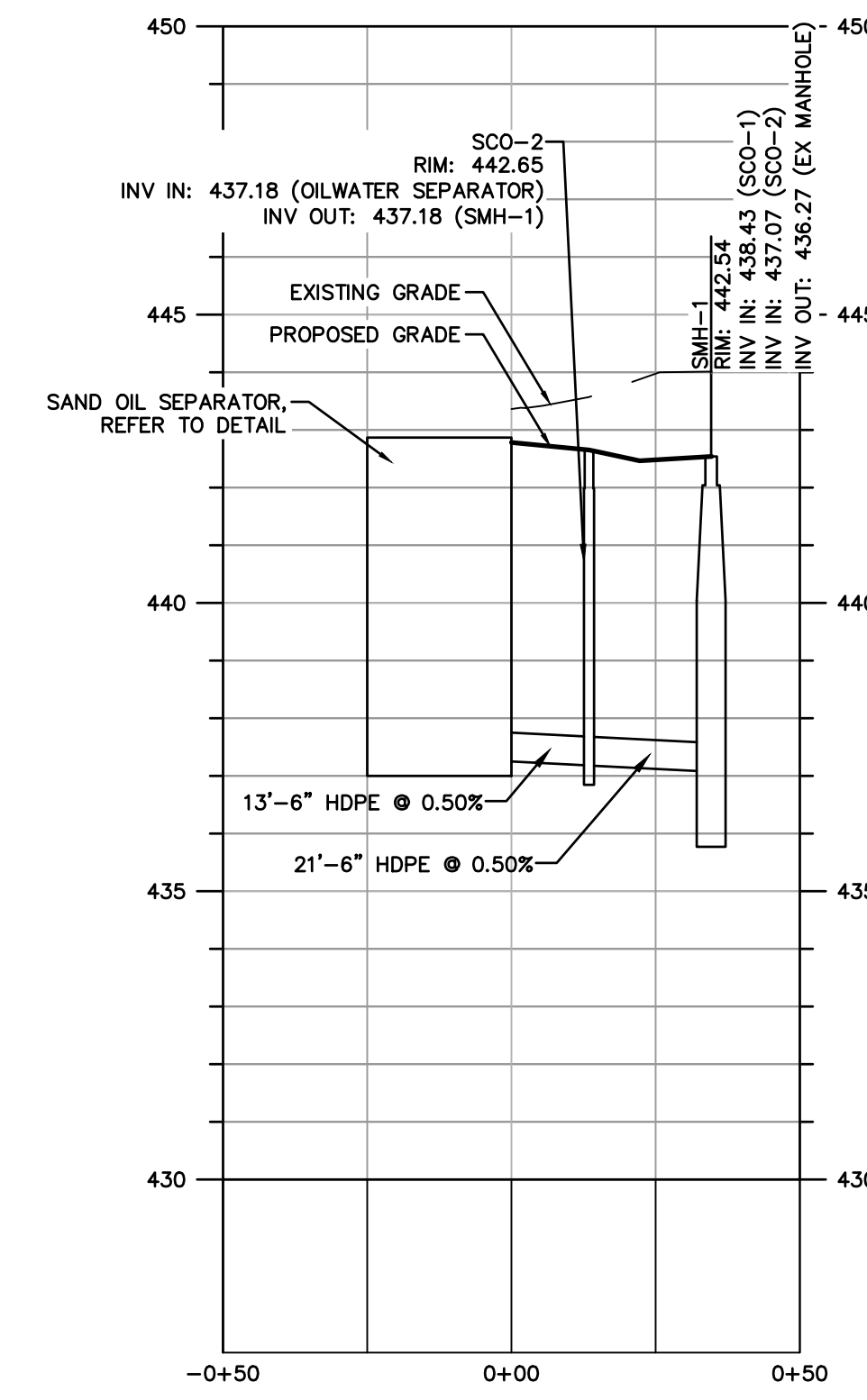
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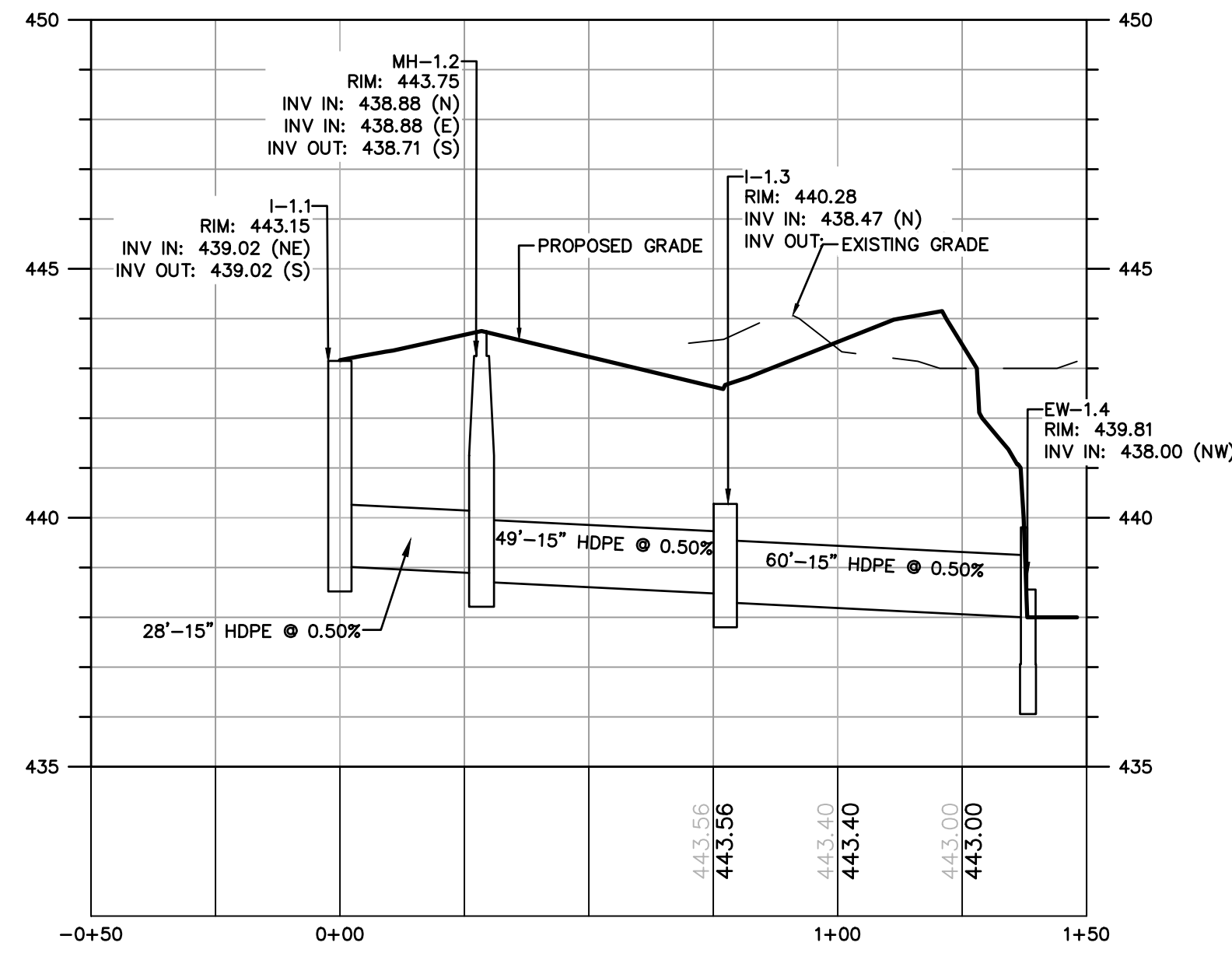
### ROOF DRAIN TO I-1.1



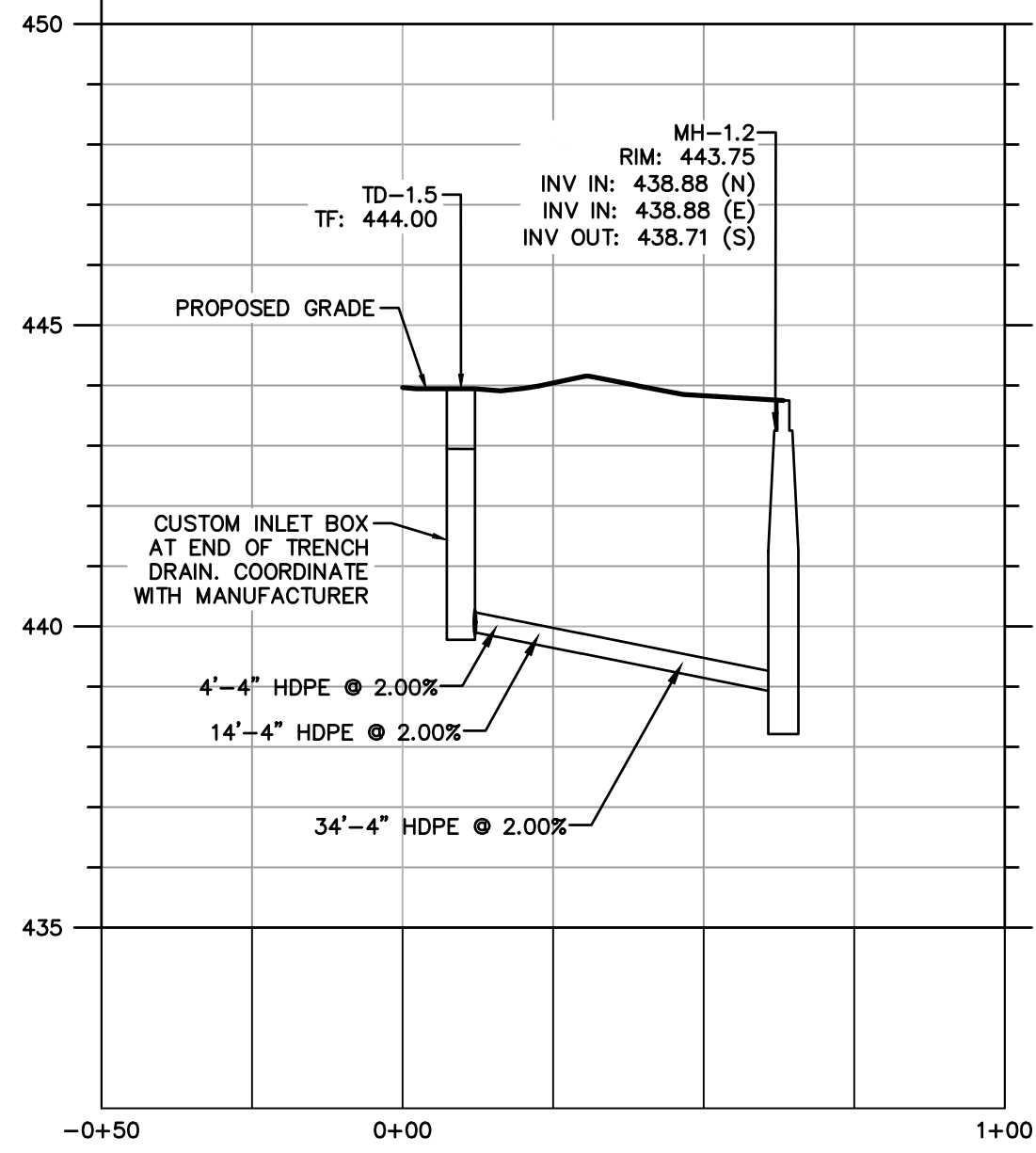
### oil separator to SMH-1



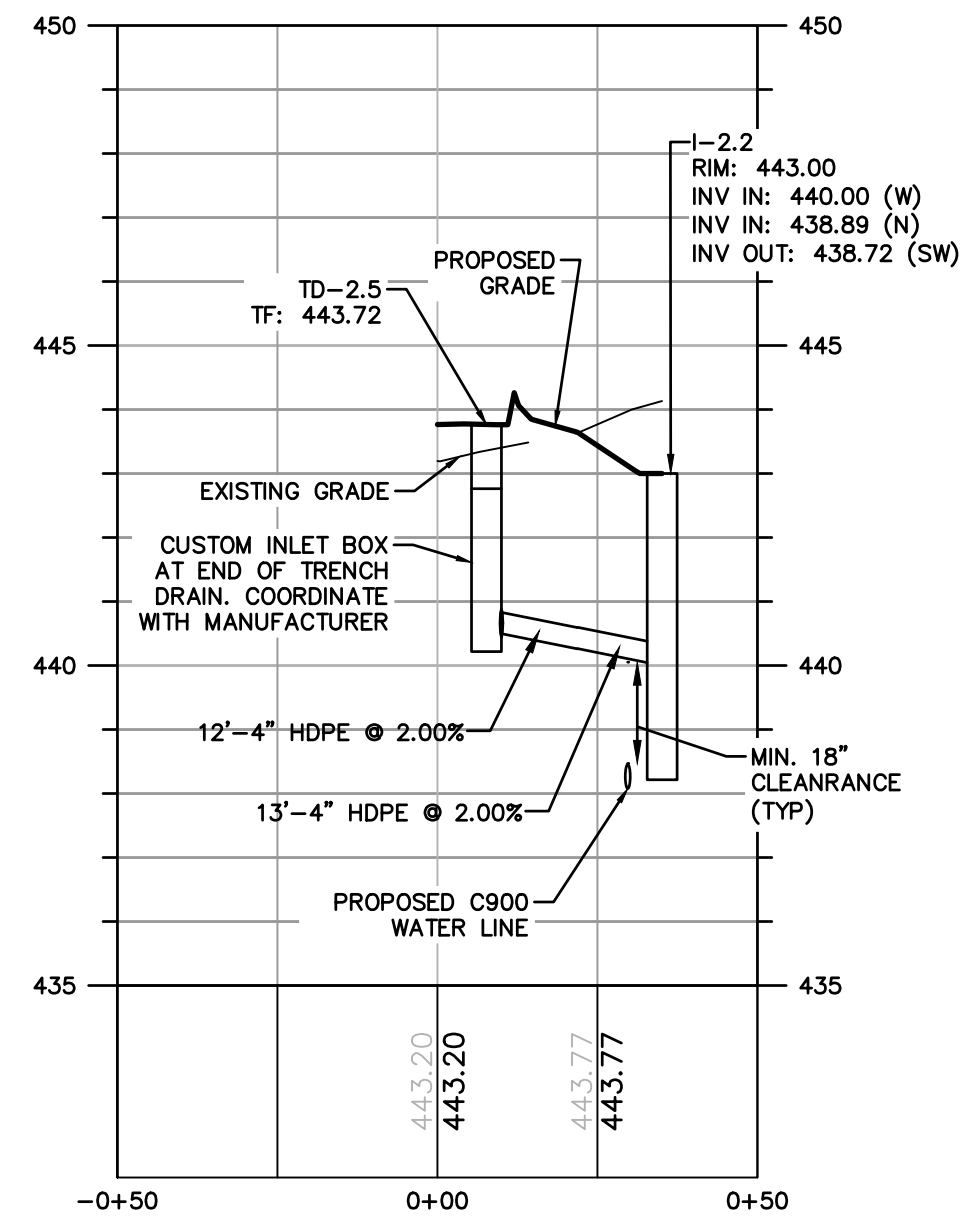
### STORM: I-1.1 to EW-1.4



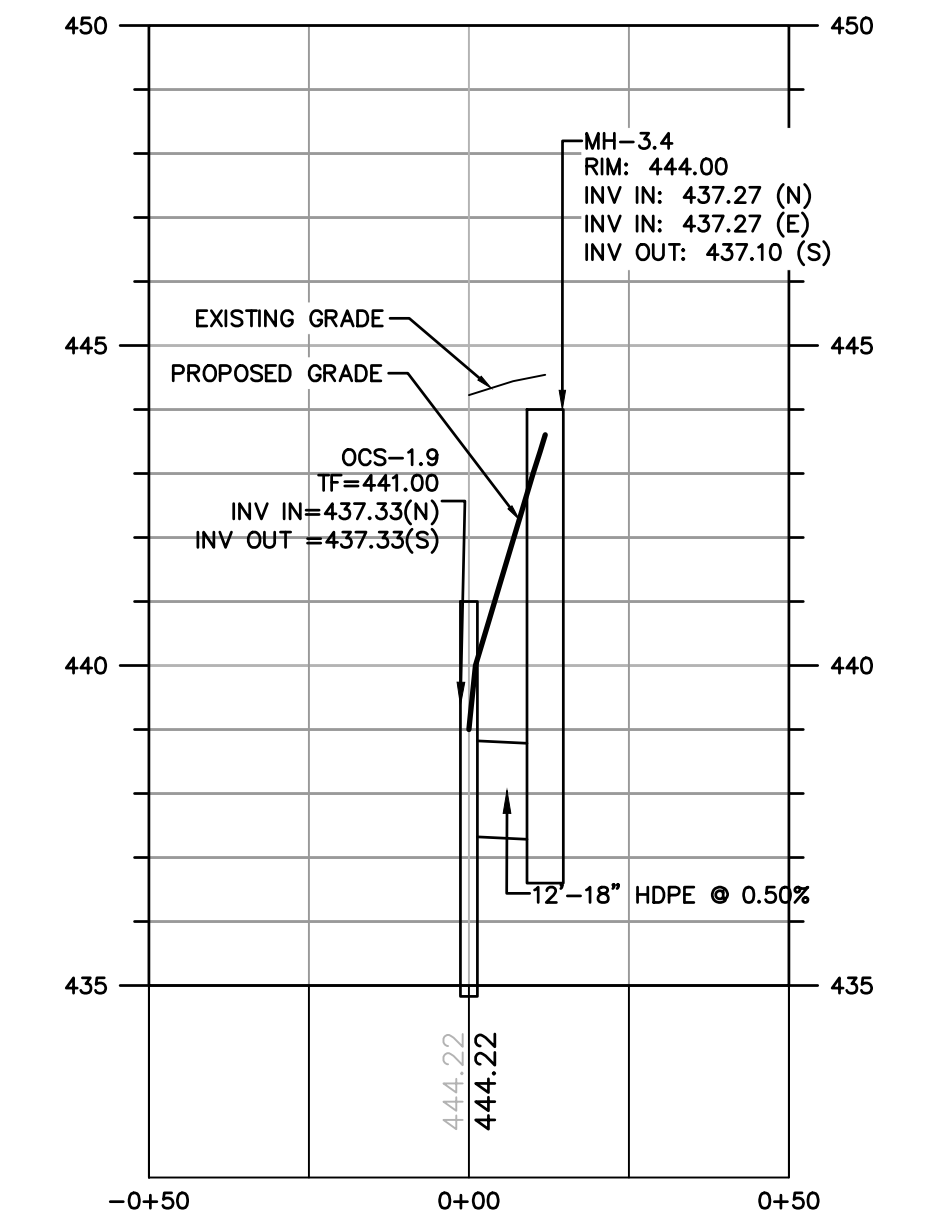
### STORM: TD-1.5 to MH-1.2



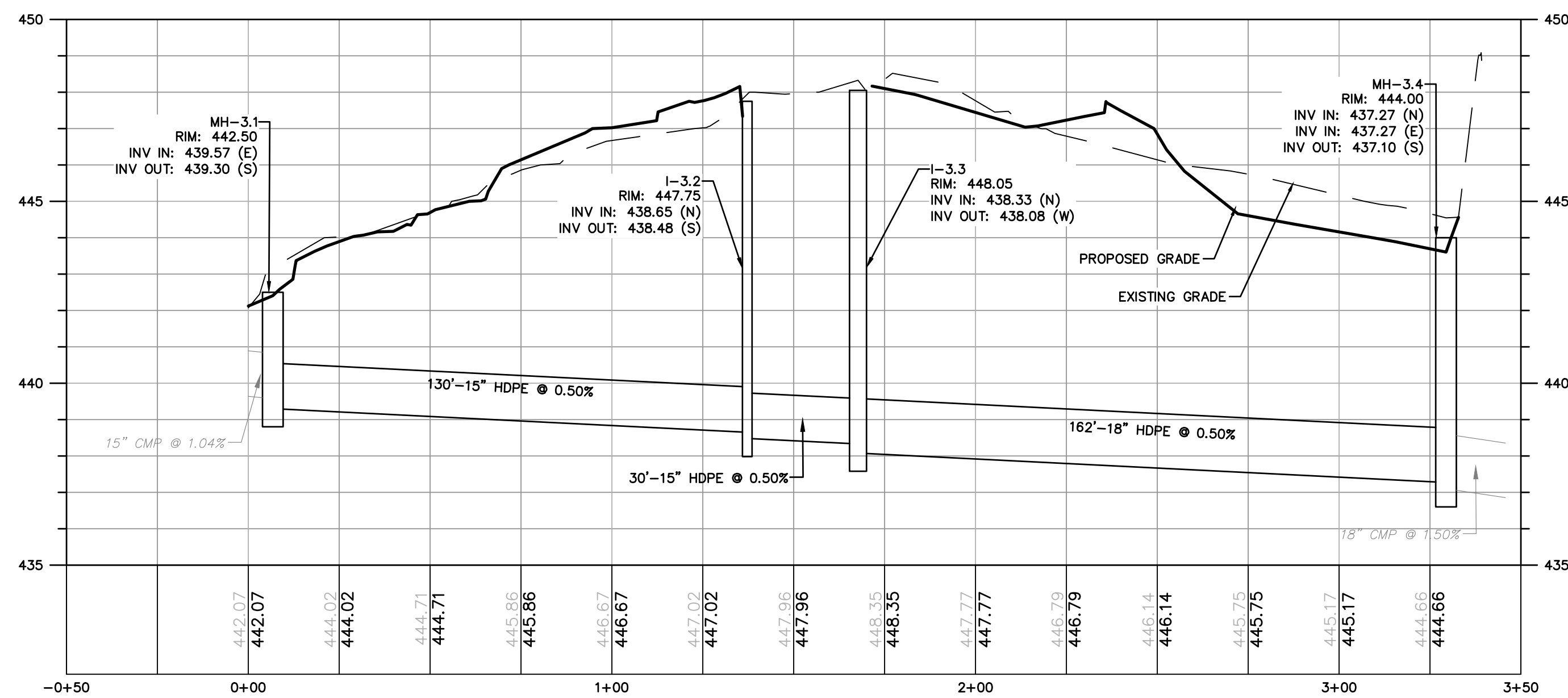
### STORM: TD-2.5 to MH-2.2



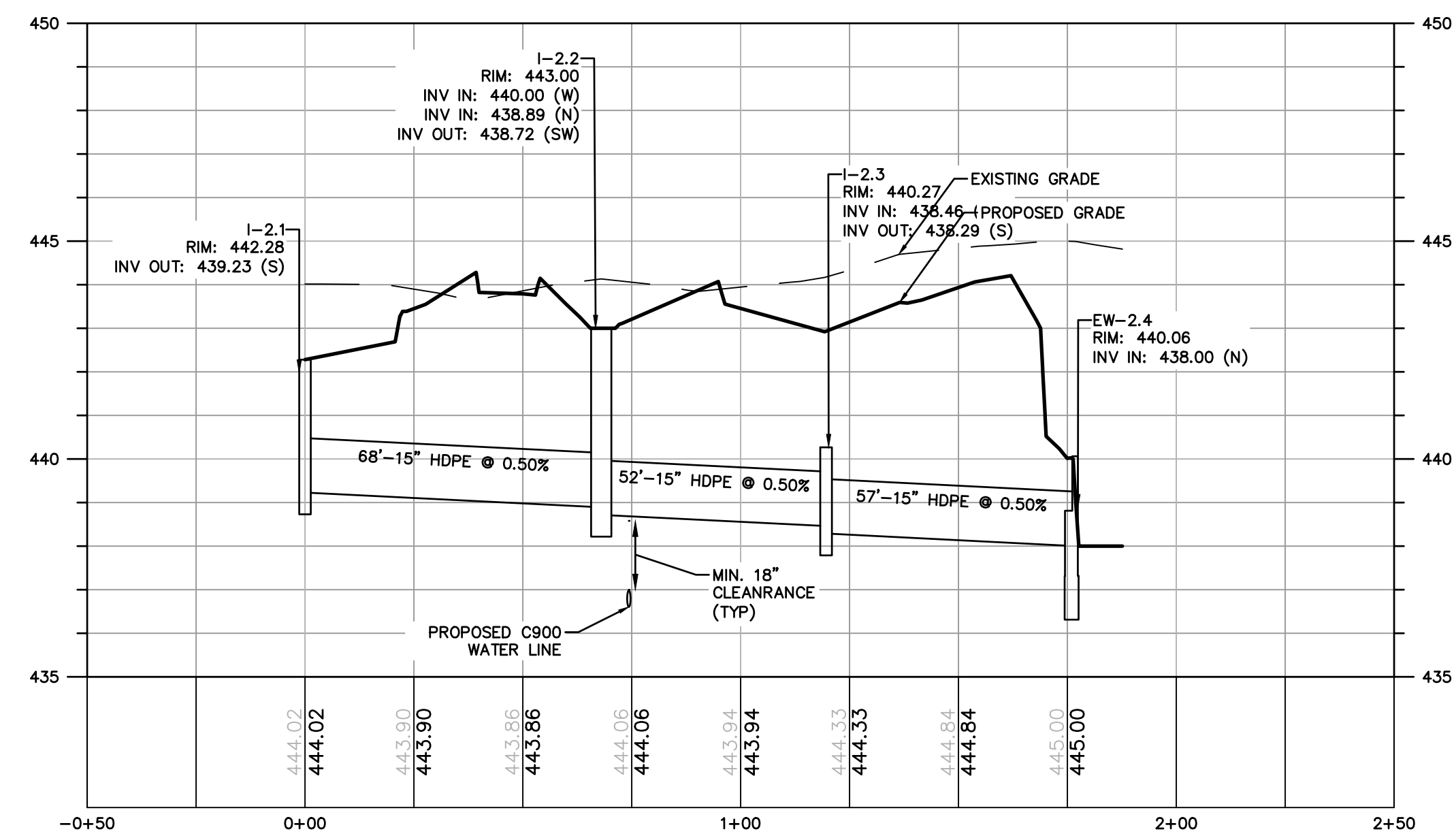
### STORM: OCS-1.9 to MH-3.4



### STORM: Ex Inlet to MH-3.4



### STORM: I-2.1 to EW-2.4



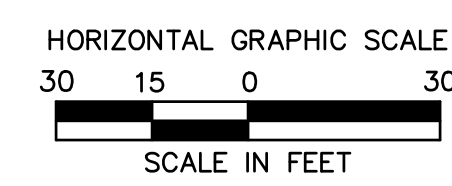
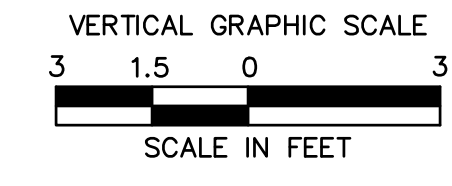
DATE:	08/06/2021
PROJECT NO:	2101256
DRAWN BY:	JRJ
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REVISIONS:	
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**TOMMY CAR WASH SYSTEM**  
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**HARRISBURG, PA**  
**P2825**

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**DESICAS** NOTED  
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**SHEET DESCRIPTION:**  
 PROFILES  
 Sheet  
**PR-1**  
 No. 08 of 14



FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION



DATE: 08/06/2021  
 PROJECT NO: 2101256  
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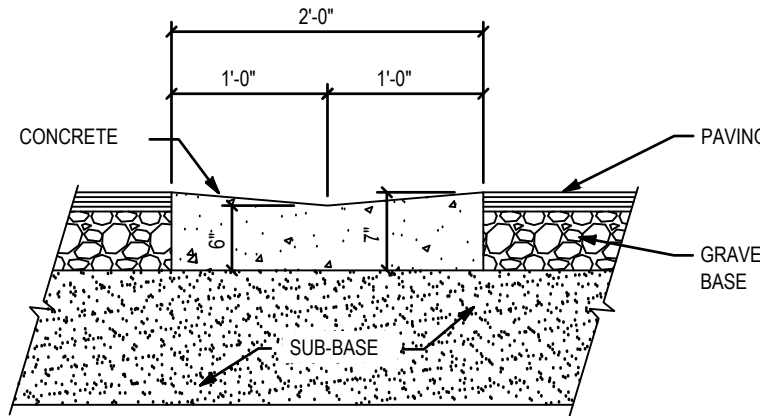
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**RG**  
 DESIG. N.T.S.  
**PH. (701) 499-0212**  
**FAX (701) 281-9501**

**SHEET DESCRIPTION:**  
 DETAIL SHEET

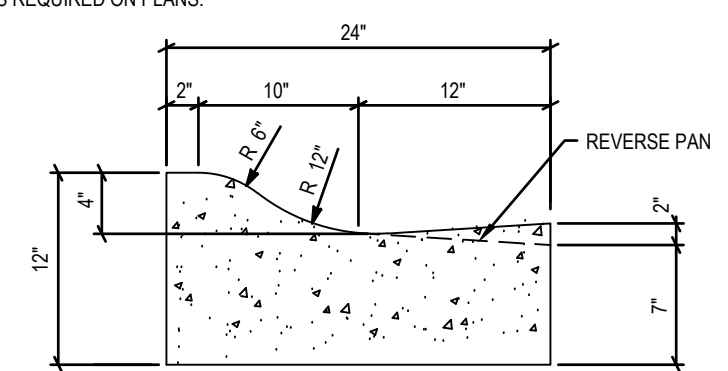
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**DN-1**  
 No. 09 of 14

NOTE: ALL DIMENSIONS ARE TO BE VERIFIED WITH ACTUAL MANUFACTURER OF TRENCH DRAIN.

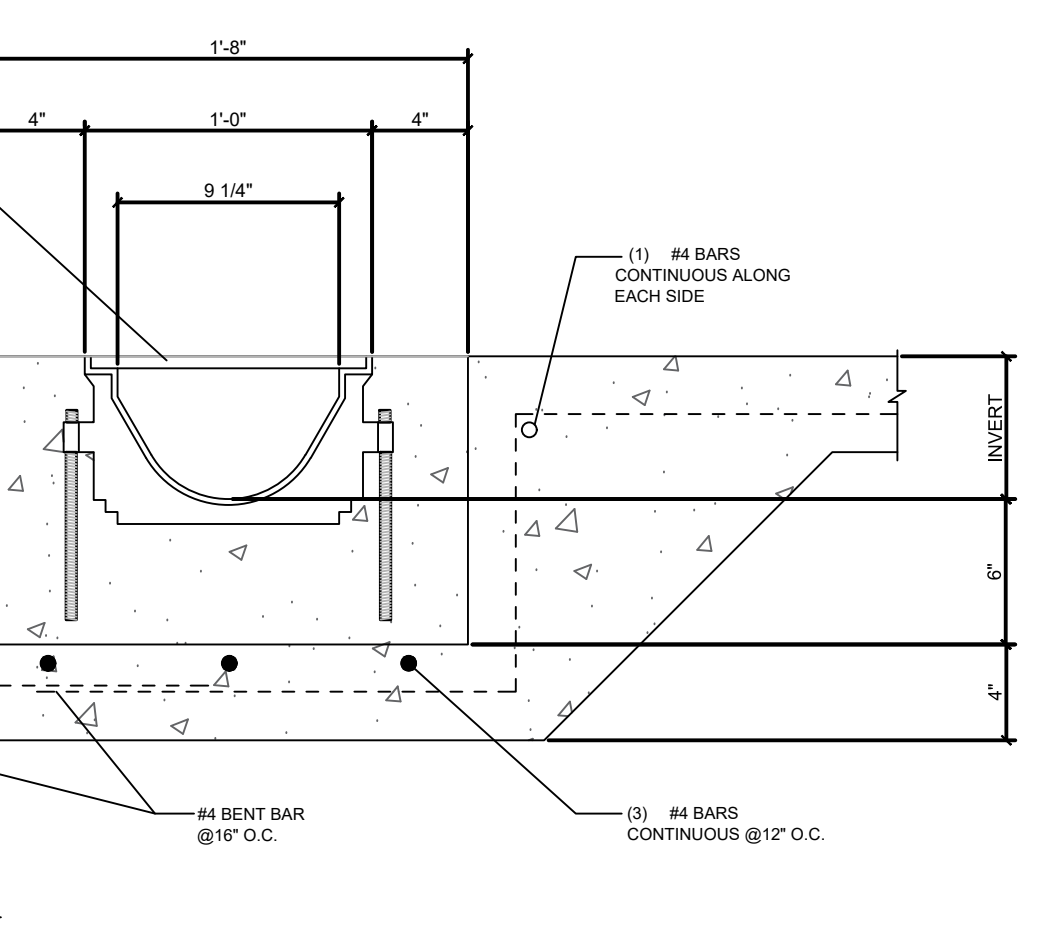


**D5 TYPICAL GUTTER PAN DETAIL**  
 NOT TO SCALE

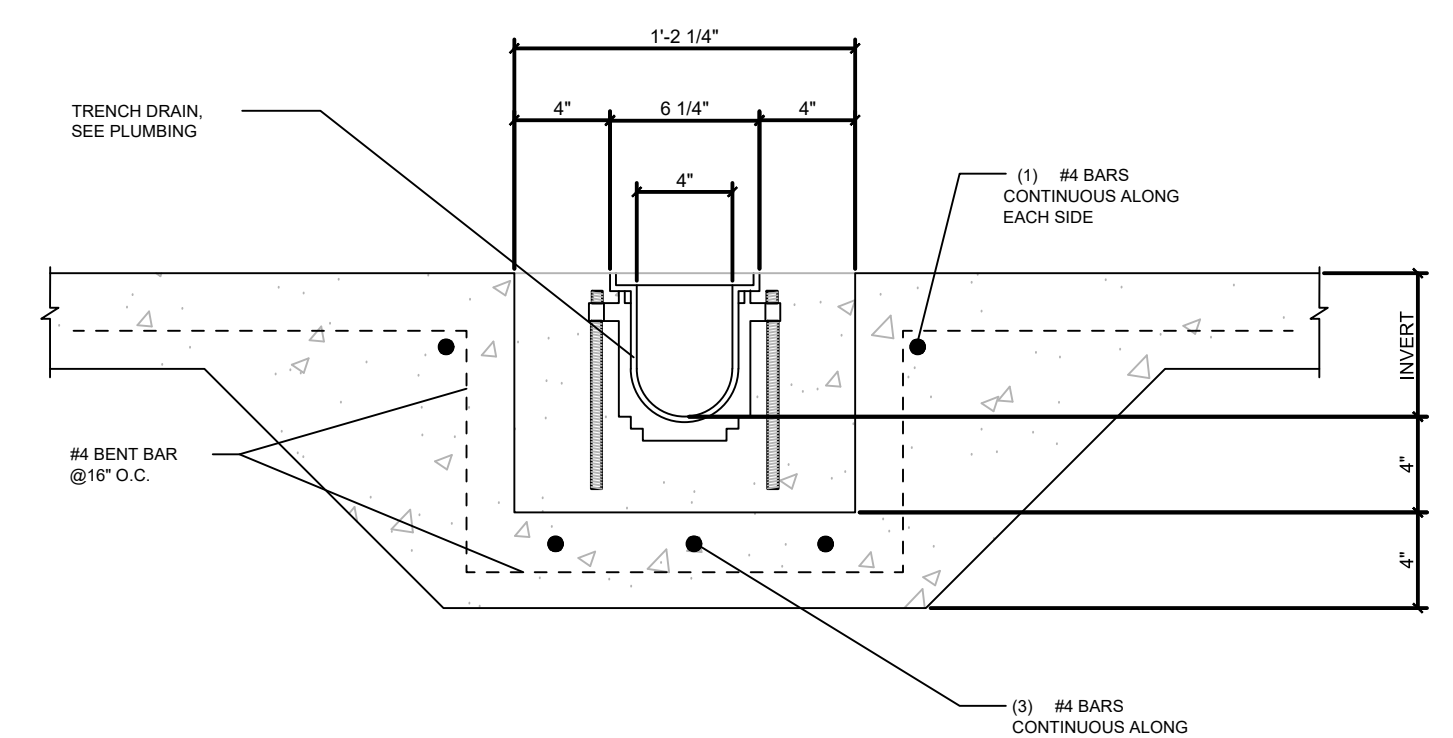
NOTE: REVERSE SLOPE ON GUTTER PAN AS REQUIRED ON PLANS.



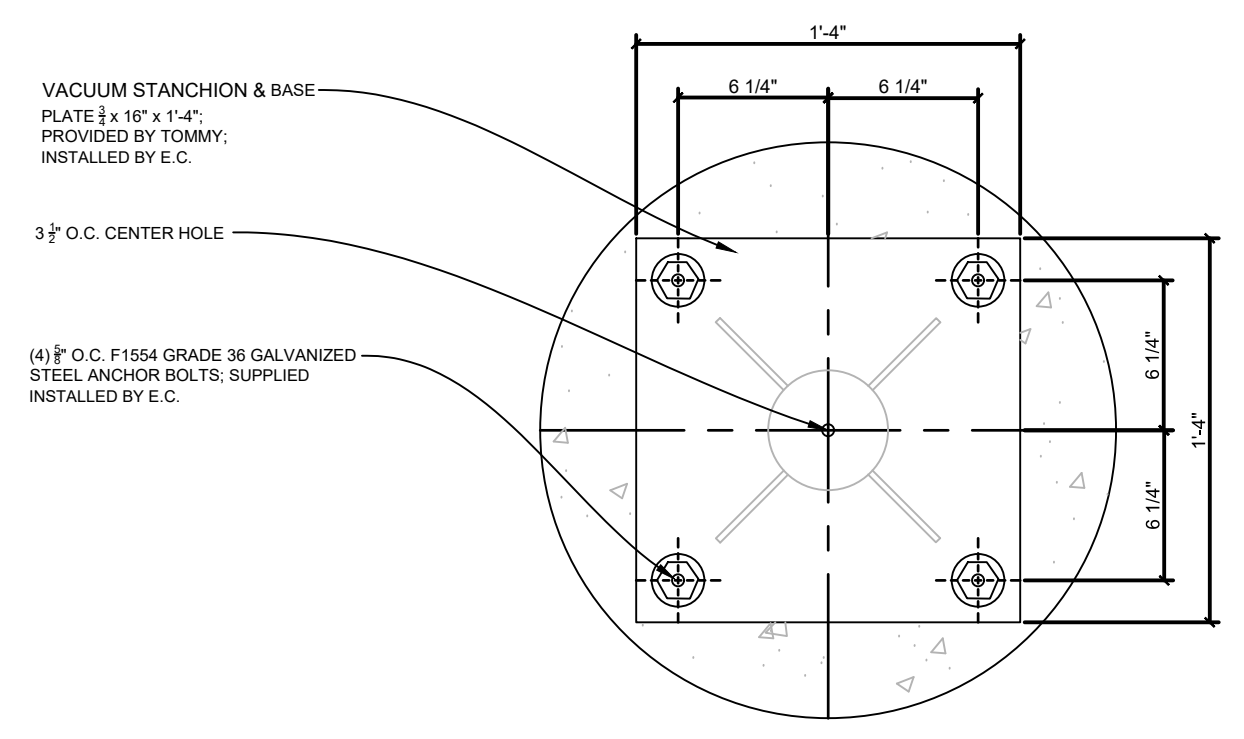
**D6 STANDARD ROLL CURB DETAIL**  
 NOT TO SCALE



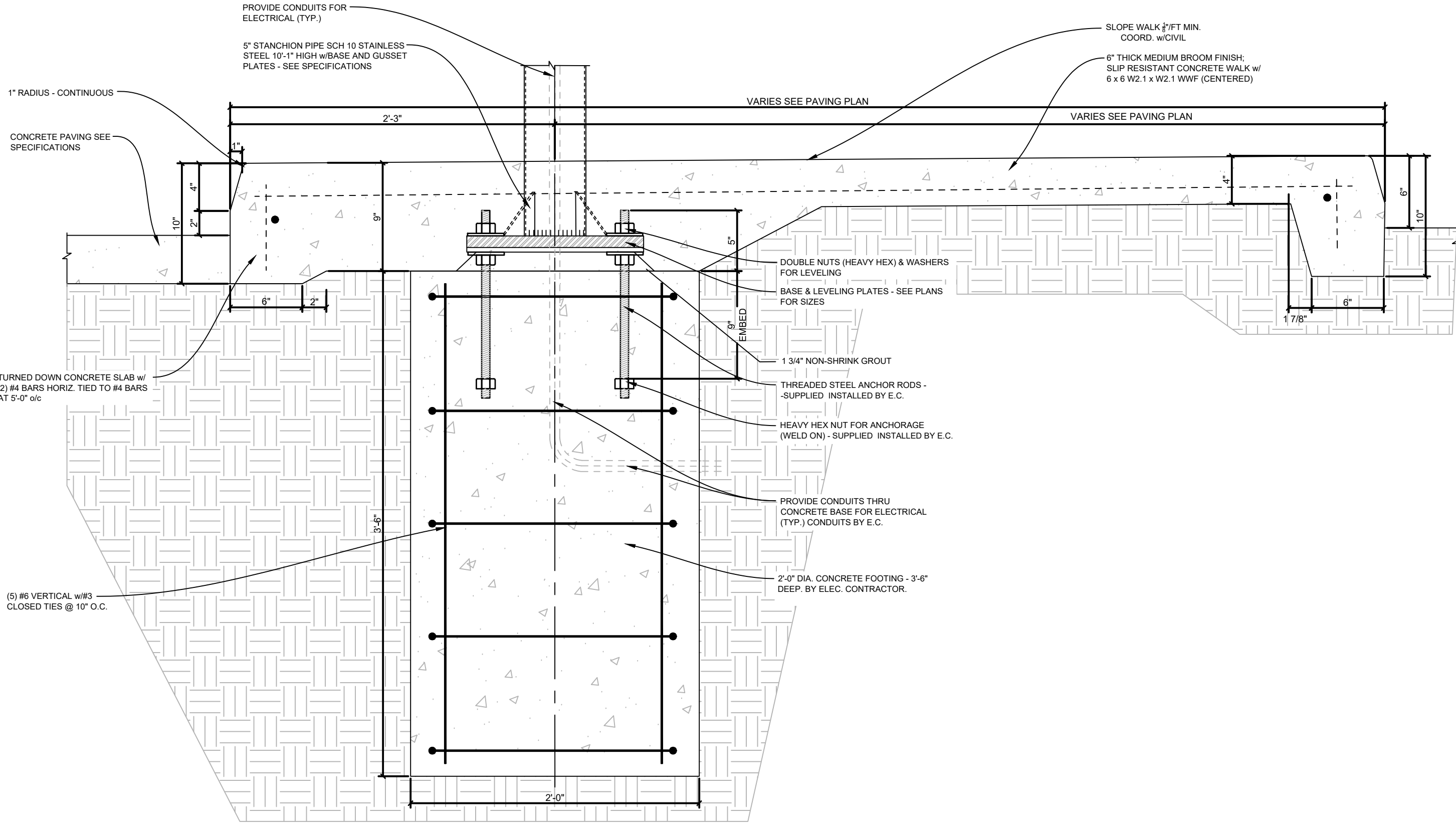
**H12 TRENCH DRAIN DETAIL**  
 (PLUMBER TO INSTALL TRENCH DRAIN COORDINATE WITH MECH. DRAWINGS.) NOT TO SCALE



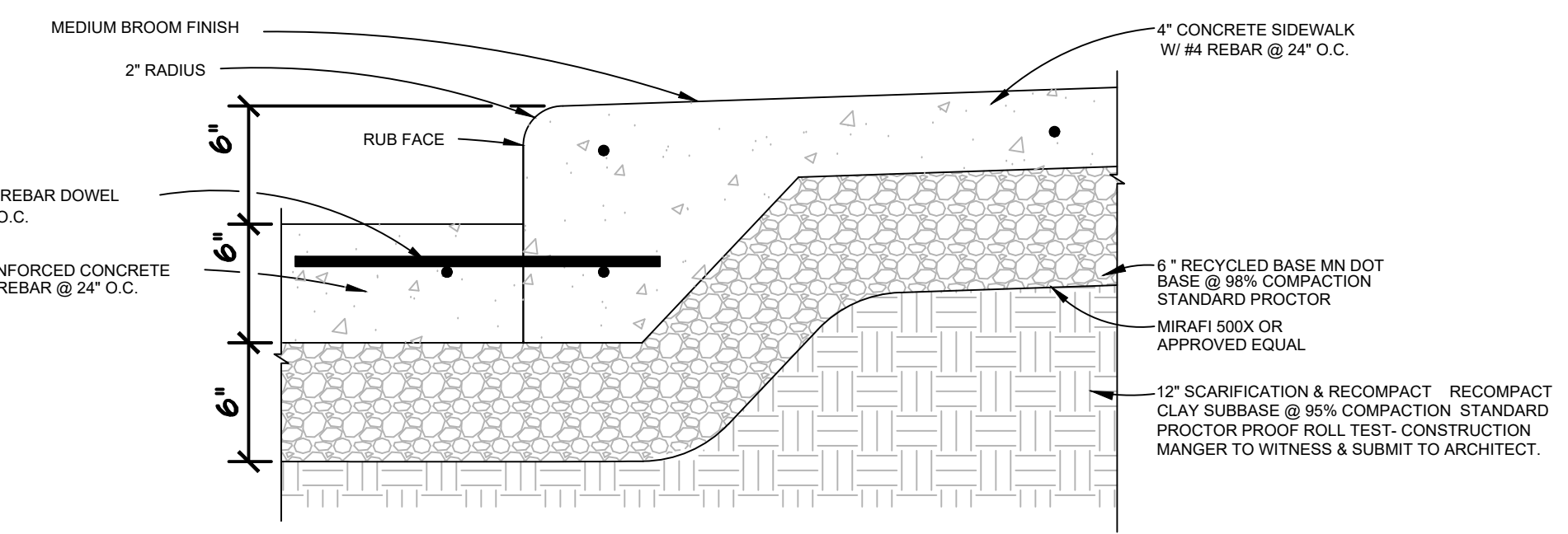
**K12 TRENCH DRAIN DETAIL**  
 (PLUMBER TO INSTALL TRENCH DRAIN COORDINATE WITH MECH. DRAWINGS.) NOT TO SCALE



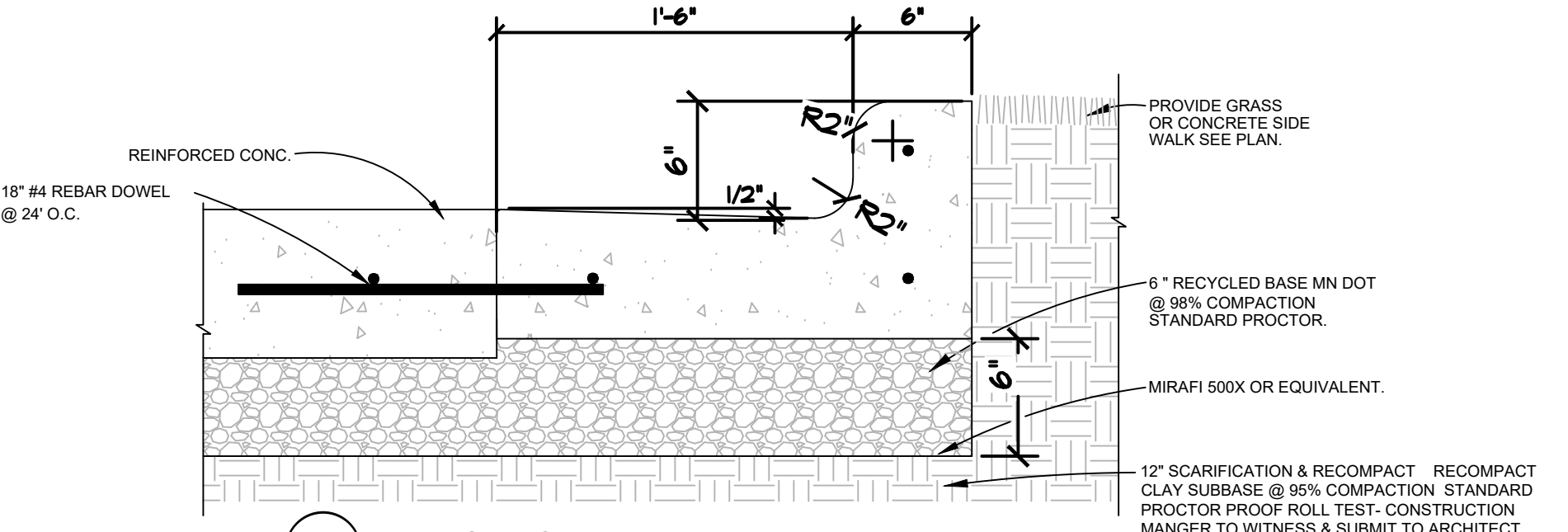
PLAN VIEW



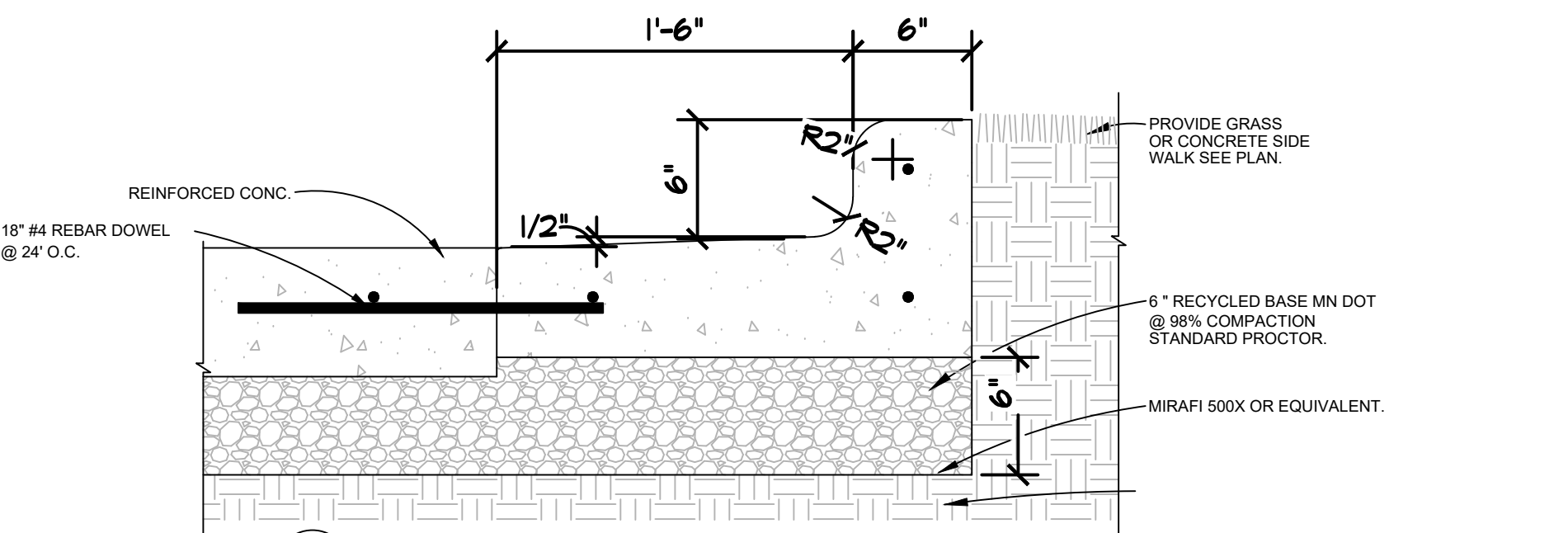
**VACUUM BASE & CURB DETAIL**  
 NOT TO SCALE



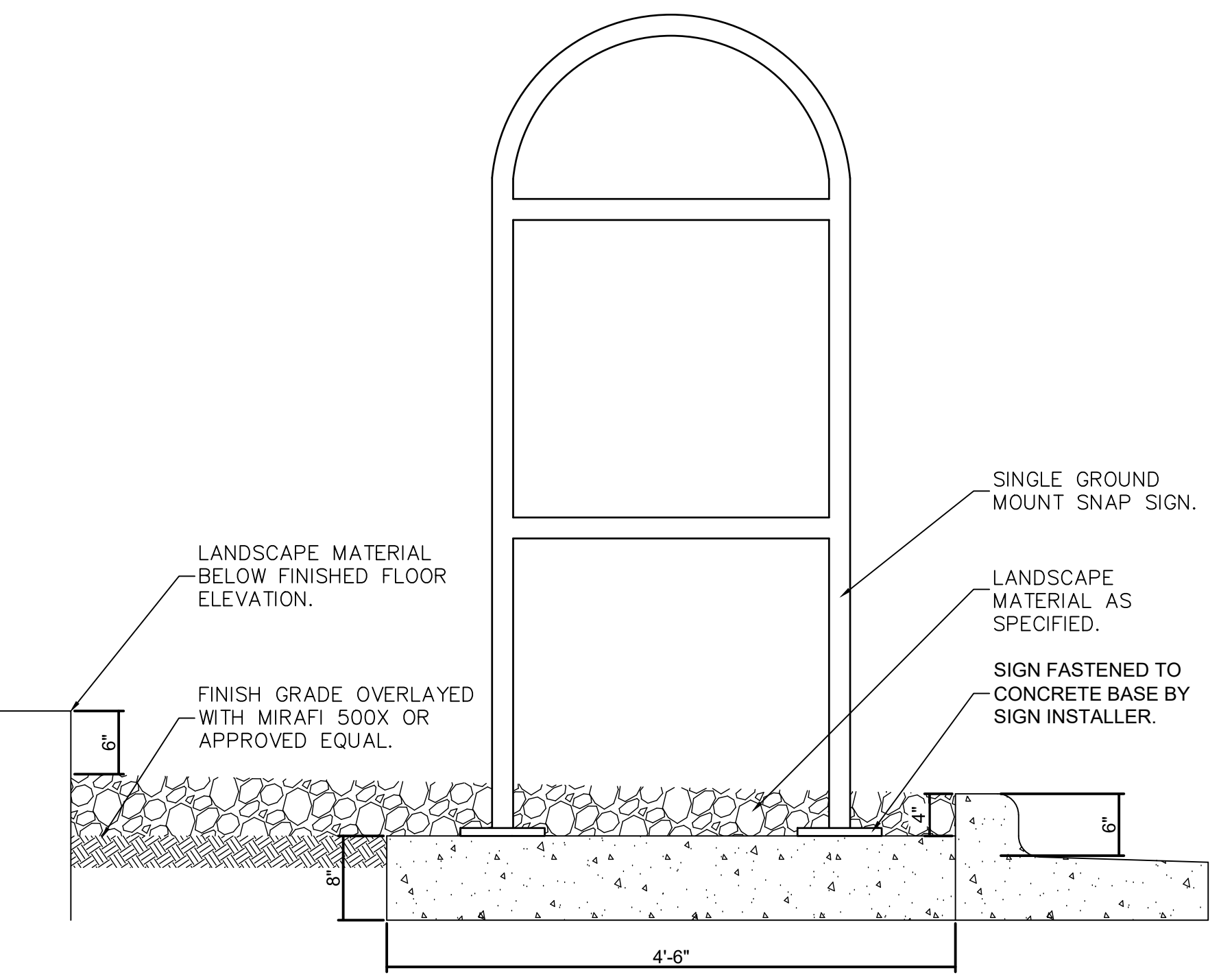
**G13 CONC. & THICKENED SIDE WALK EDGE**  
 NOT TO SCALE



**H13 INFLOW CURB**  
 NOT TO SCALE



**K13 OUTFLOW CURB**  
 NOT TO SCALE



**SINGLE GROUND MOUNT SNAP SIGN (E-MARK-101-A) DETAIL**  
 NOT TO SCALE

DATE:	08/06/2021	
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REVISIONS:		
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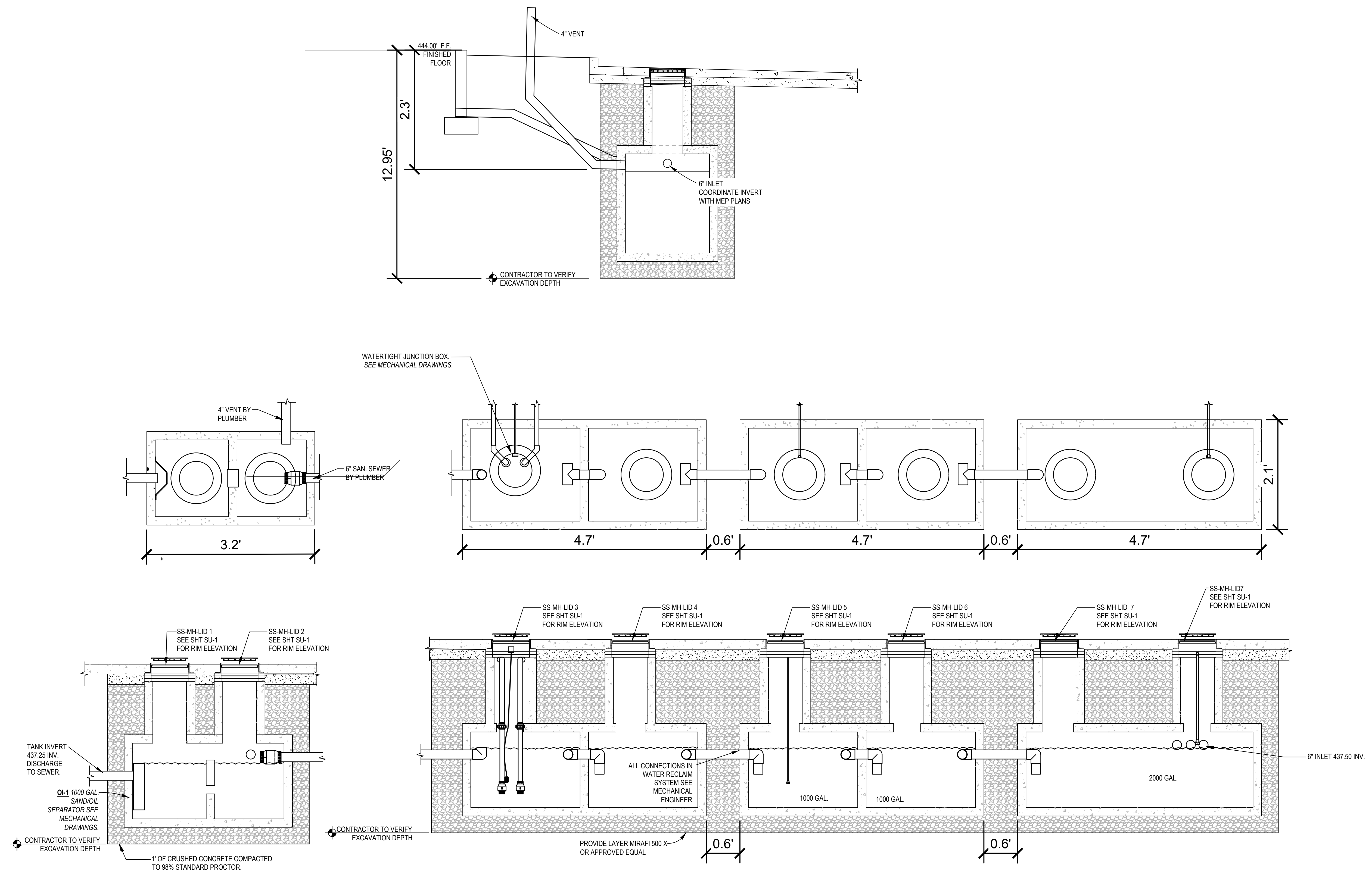


**PRG  
 DESIGN** N.T.S.

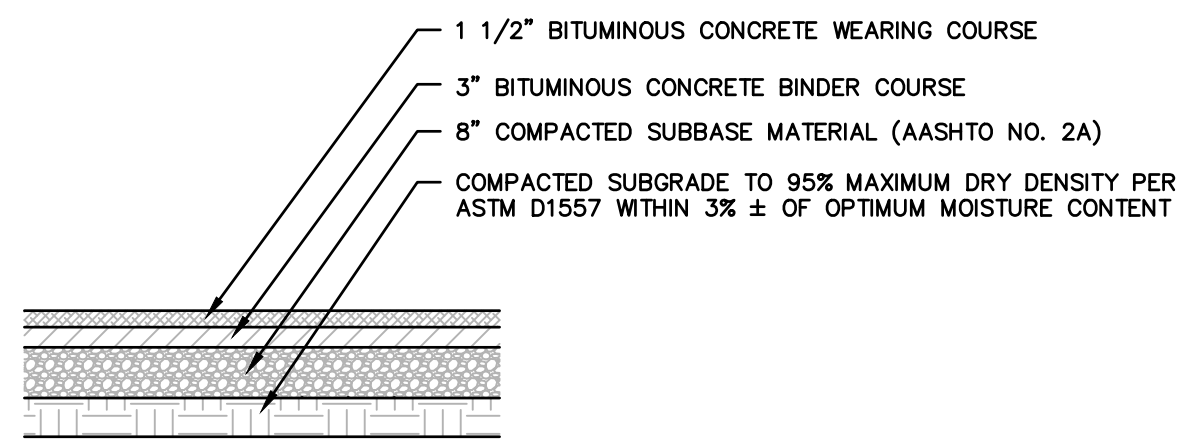
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**SHEET DESCRIPTION:**  
 DETAIL SHEET

Sheet  
**DN-2**  
 No. 10 of 14



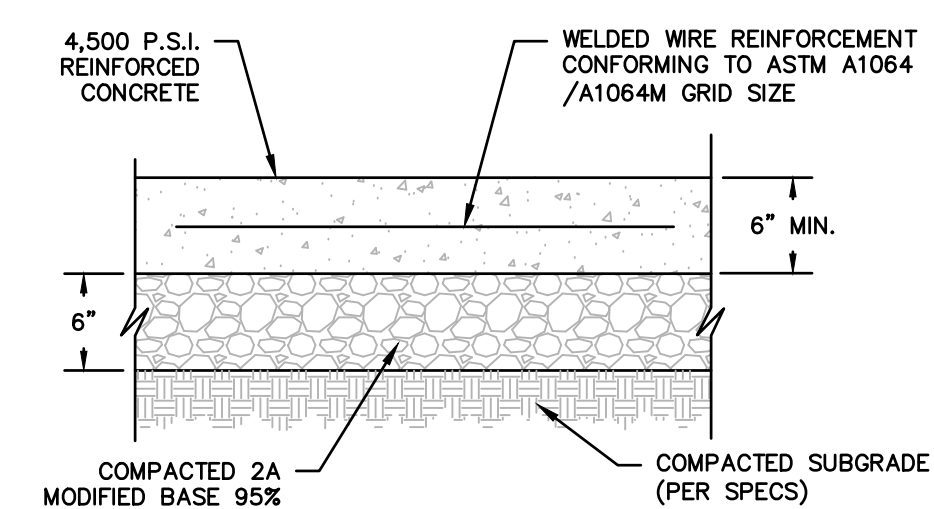
○ WATER RECLAIM & SAND OIL SEPARATOR BASIN DETAIL  
 (SEE MECHANICAL PLANS FOR ALL PIPE CONNECTIONS AND NOTES)



NOTES:  
1. ALL PAVING MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENNDOT STANDARDS, PUB. 408.

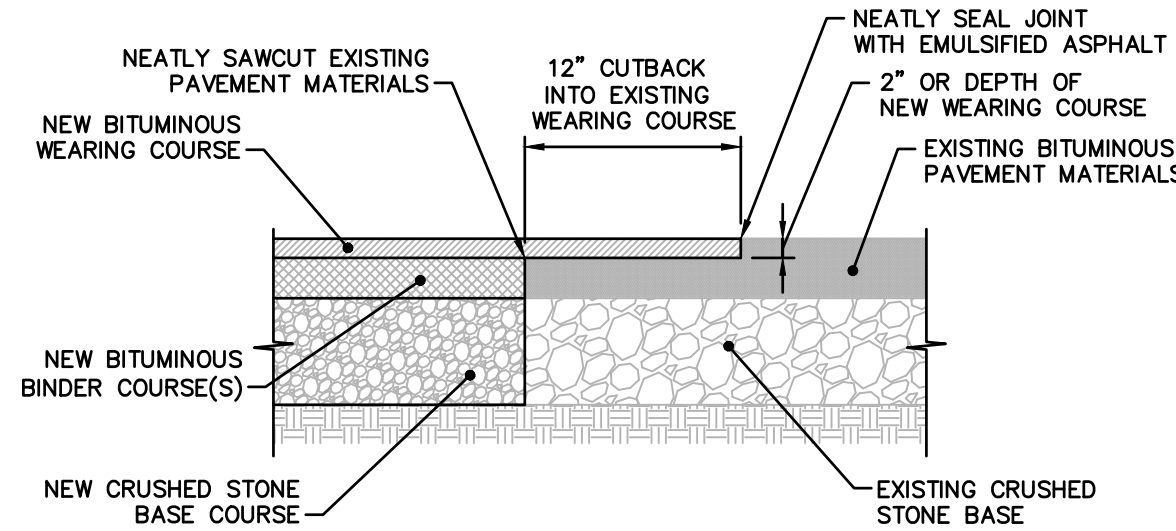
**STANDARD DUTY BITUMINOUS PAVING DETAIL**

N.T.S.



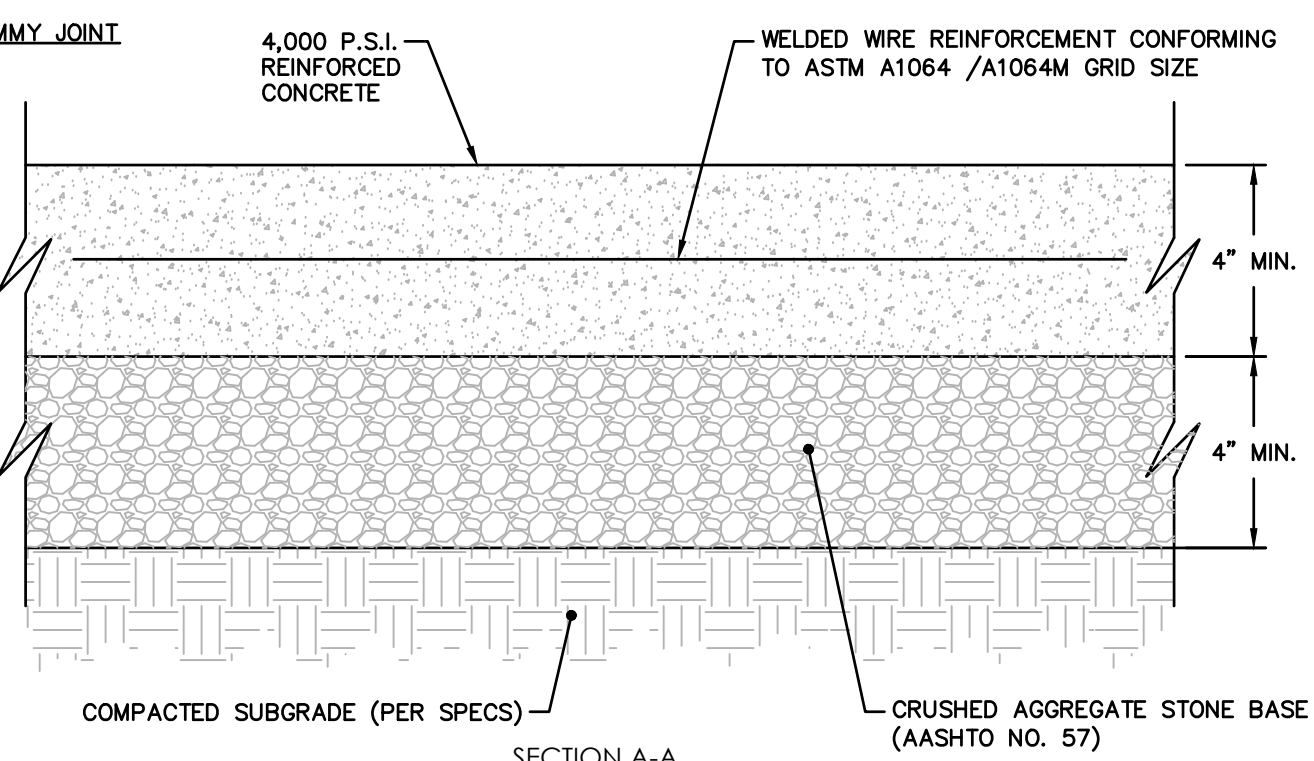
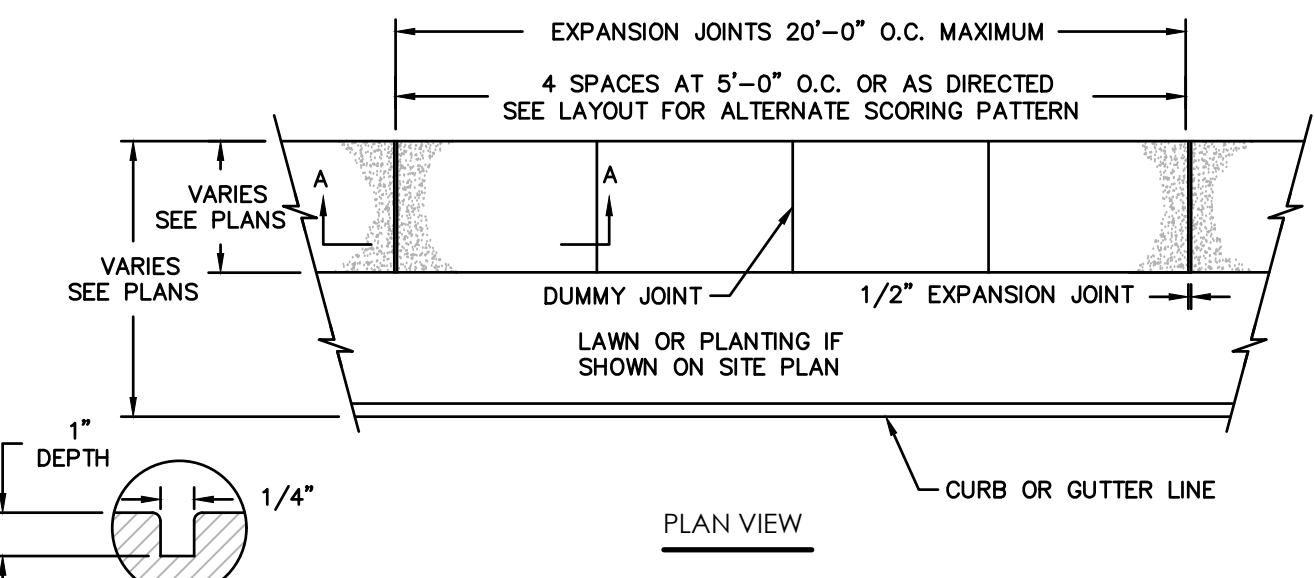
**DUMPSTER PAD CONCRETE PAVEMENT SECTION**

N.T.S.



**PAVEMENT JOINT WITH CUTBACK**

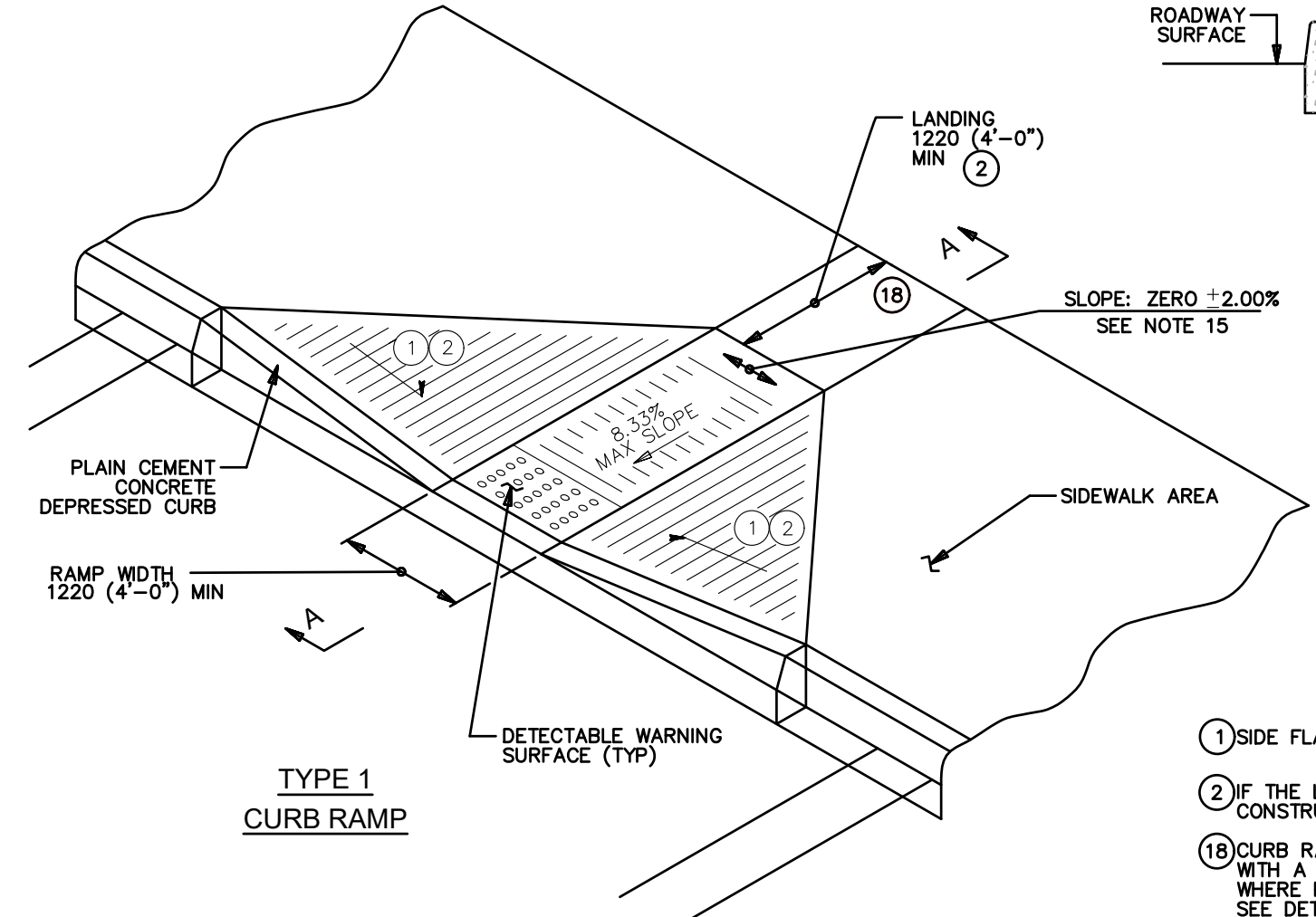
N.T.S.



- NOTES:
- 1/4" WIDE x 1" DEEP DUMMY JOINTS SCORED AT 5'-0" INTERVALS.
  - CONSTRUCTION EXPANSION JOINTS, 1/2" IN THICKNESS, SPACED EVERY 20' AND WHERE SIDEWALK ABUTS CURB, WALL, BUILDING, OR ANY OTHER STRUCTURE.
  - SIDEWALK TO BE BROOM FINISHED.
  - SIDEWALK CROSS SLOPE SHALL BE 2% MAXIMUM. SEE PLAN SHEET GD-1 FOR SPOT ELEVATIONS.
  - SIDEWALKS SHALL BE BOXED OUT AROUND LIGHT STANDARDS, FIRE HYDRANTS, ETC., WITH PREMOULDED EXPANSION JOINT, 1/2" IN THICKNESS.

**SIDEWALK DETAIL**

N.T.S.



**TYPE 1 CURB RAMP**

N.T.S.

- NOTES:
1. THE CONSTRUCTION OF ALL CURB RAMP SHALL BE IN COMPLIANCE WITH ICC A 117.1.
  - 1) SIDE FLARES 10.00% MAX SLOPE
  - 2) IF THE LANDING IS INDICATED TO BE LESS THAN 1220 (4'-0"), CONSTRUCT SIDE FLARES 8.33% MAX. SLOPE.
  - 18) CURB RAMP REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS.

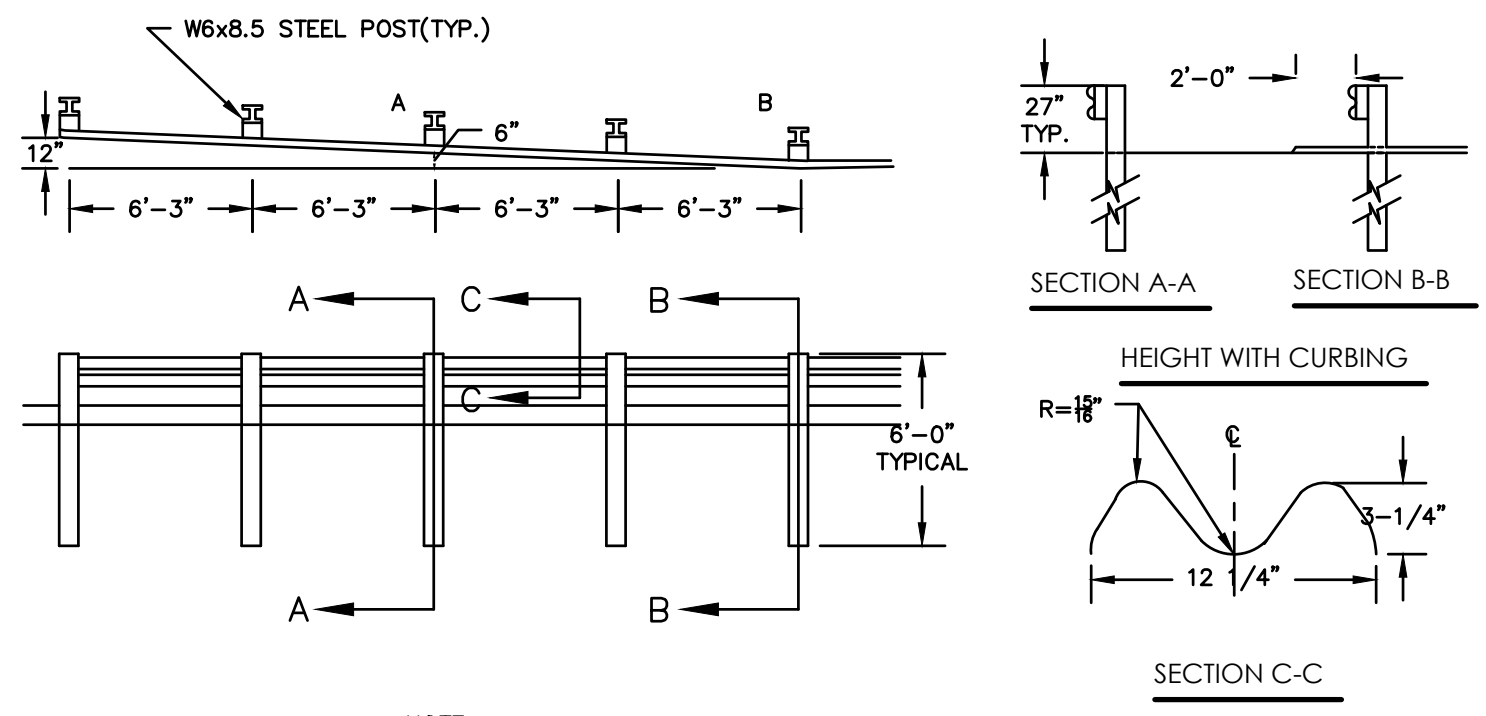
NOTE:  
1. THE CONSTRUCTION OF ALL CURB RAMP SHALL BE IN COMPLIANCE WITH ICC A 117.1.

**TYPE 1 CURB RAMP**

N.T.S.

**TYPE 1 CURB RAMP**

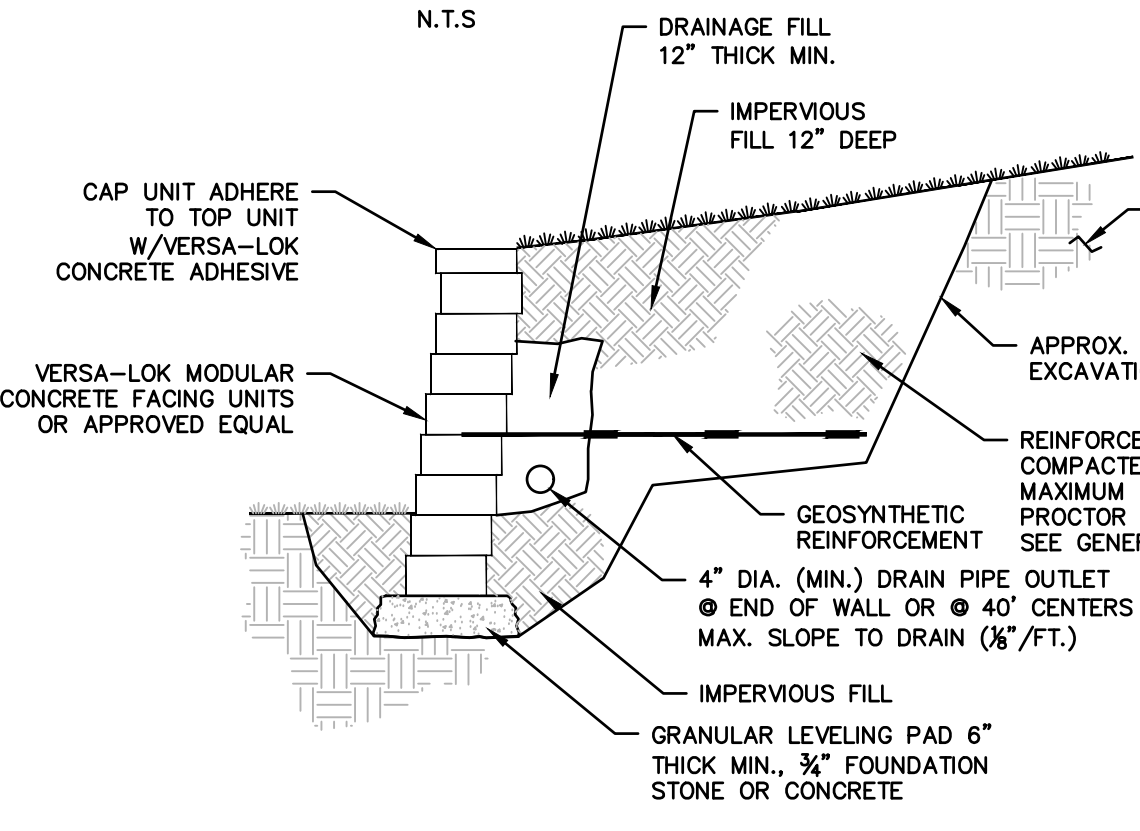
N.T.S.



**METAL BEAM GUIDE RAIL PENNDOT TYPE 2-S STEEL**

N.T.S.

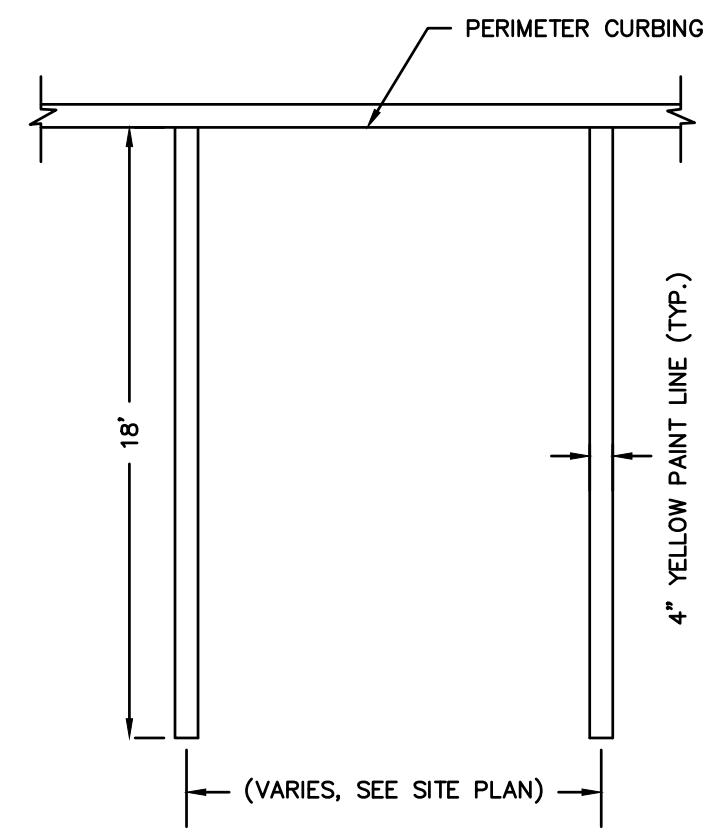
NOTE:  
GUIDE RAIL PER PENNDOT RC-52M MARCH 30, 2006. REFER TO CURRENT RC-52M FOR ADDITIONAL DETAILS OF PENNDOT TYPE 2 STEEL STRONG POST AND END TERMINALS.



- NOTES:
- CONTRACTOR SHALL SUPPLY DESIGN SHOP DRAWINGS AND ELEVATION FOR ALL WALLS AS SHOWN ON PLANS. SHOP DRAWINGS SHALL BE SIGNED BY A PENNSYLVANIA PROFESSIONAL ENGINEER.
  - SOME WALL AREAS MAY REQUIRE DYNAMIC COMPACTION TO THE SUBGRADE PRIOR TO CONSTRUCTION. (COORDINATE W/GEOTECHNICAL ENGINEER FOR LOCATION AND SPECIFIC REQUIREMENTS)

**TYPICAL SECTION SEGMENTAL RETAINING WALL**

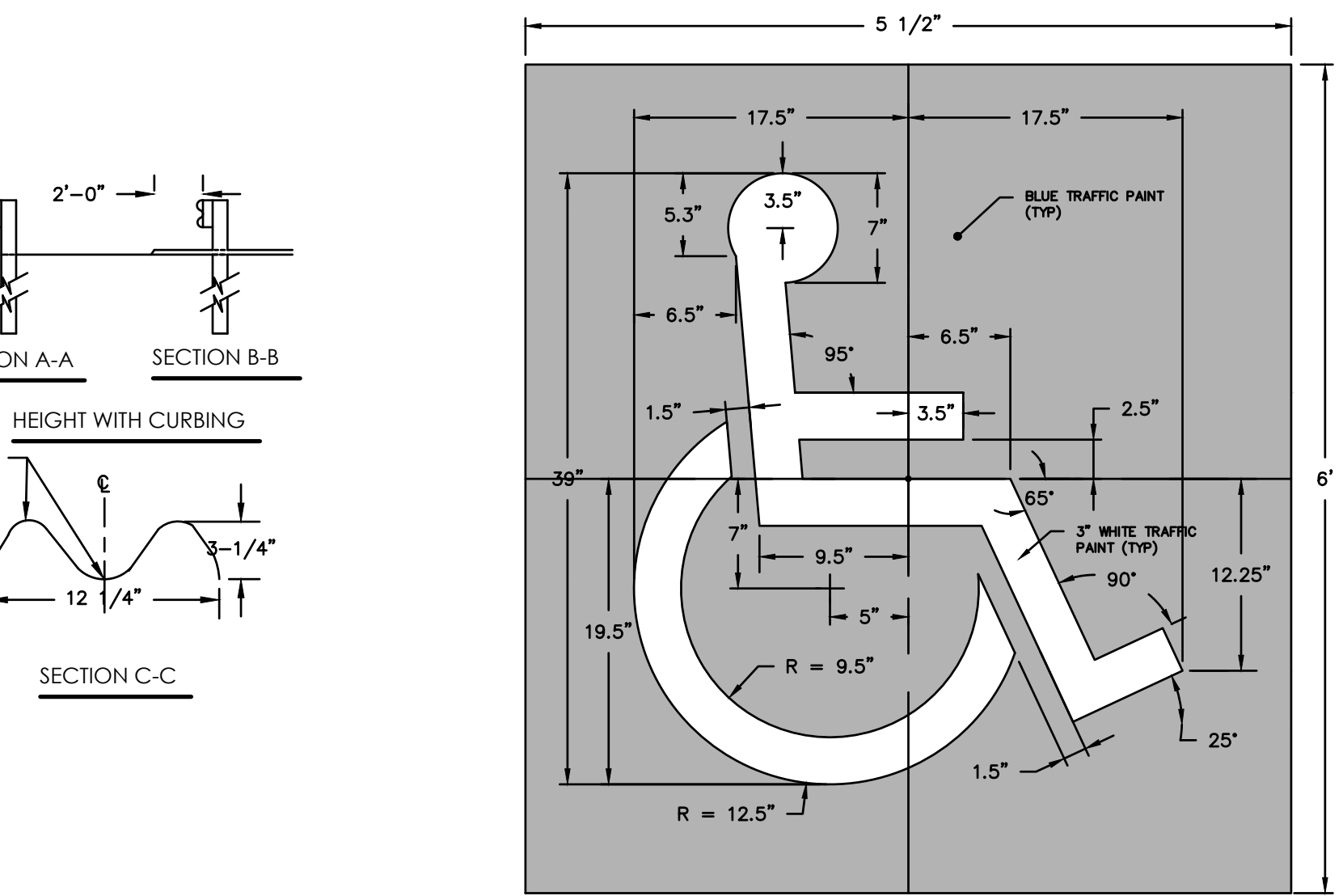
N.T.S.



- NOTES:
- PROVIDE TWO COATS OF PAINT ON ALL SURFACES.
  - SEE PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.

**PARKING STALL DETAIL**

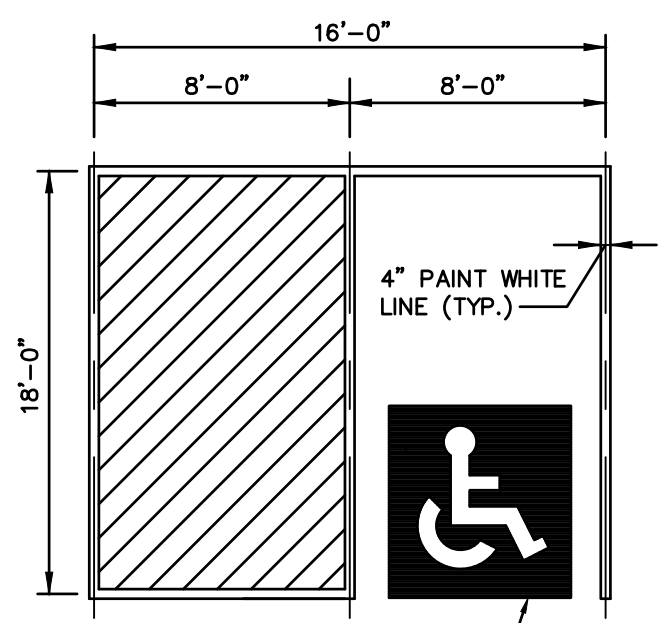
N.T.S.



**ACCESSIBLE SYMBOL**

N.T.S.

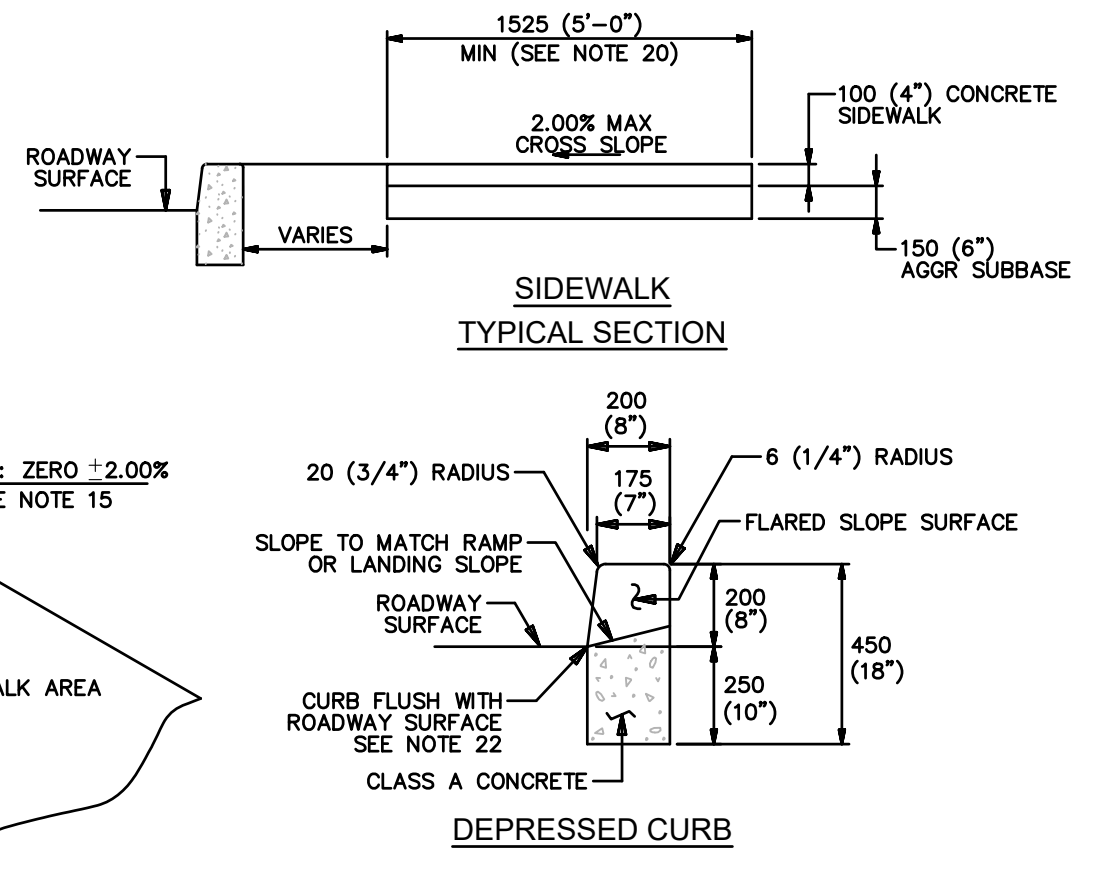
SEE SITE PLAN FOR LOCATIONS



- NOTE: LAYOUT SHALL CONFORM TO THE REQUIREMENTS OF THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS, SECTION 4.3.2. & 2010 ADA (AS AMENDED AND UPDATED) AND ICC A 117.1 (AS AMENDED AND UPDATED)

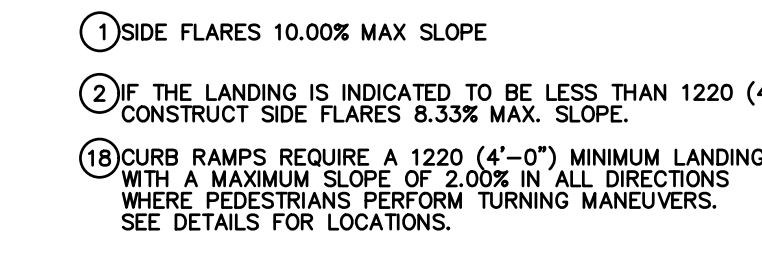
**TYPICAL ACCESSIBLE PARKING STALL LAYOUT**

N.T.S.



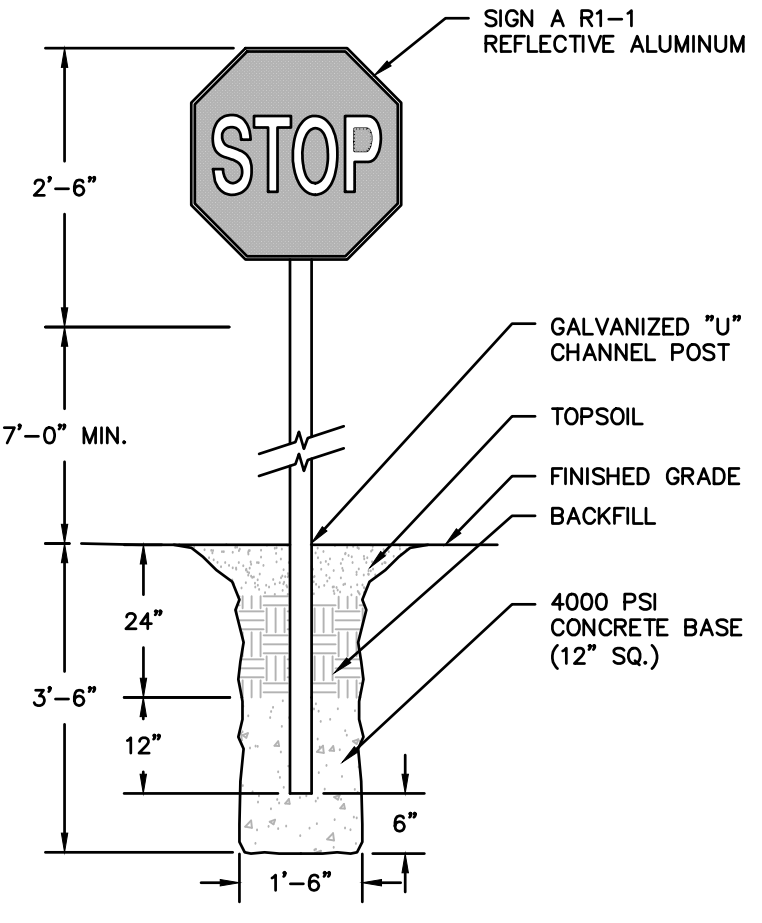
**SIDEWALK TYPICAL SECTION**

N.T.S.



**DEPRESSED CURB**

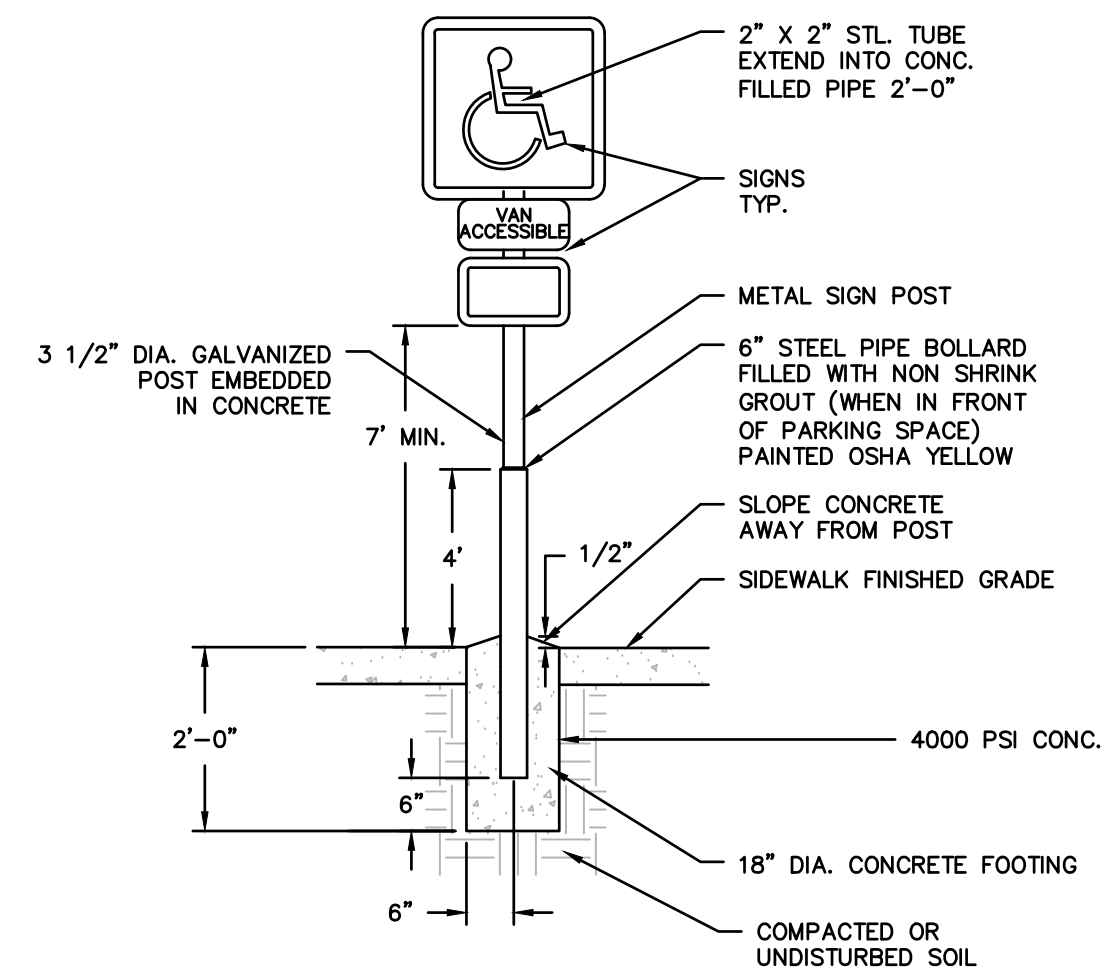
N.T.S.



**STOP SIGN DETAIL**

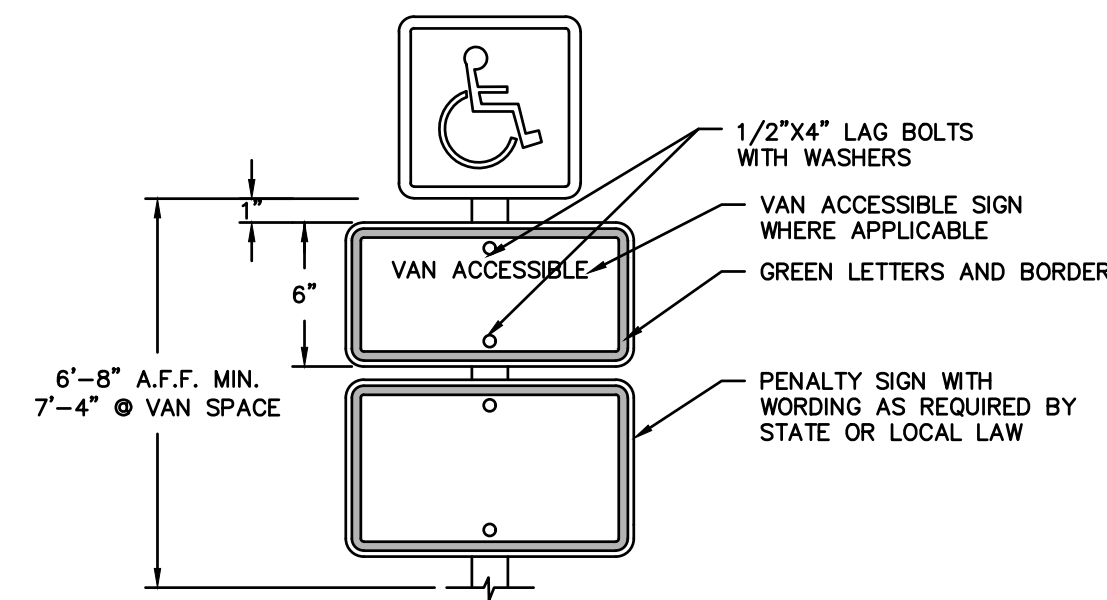
N.T.S.

NOTES:  
1. CONSTRUCT SIGN IN ACCORDANCE WITH PENNDOT SPECIFICATIONS.



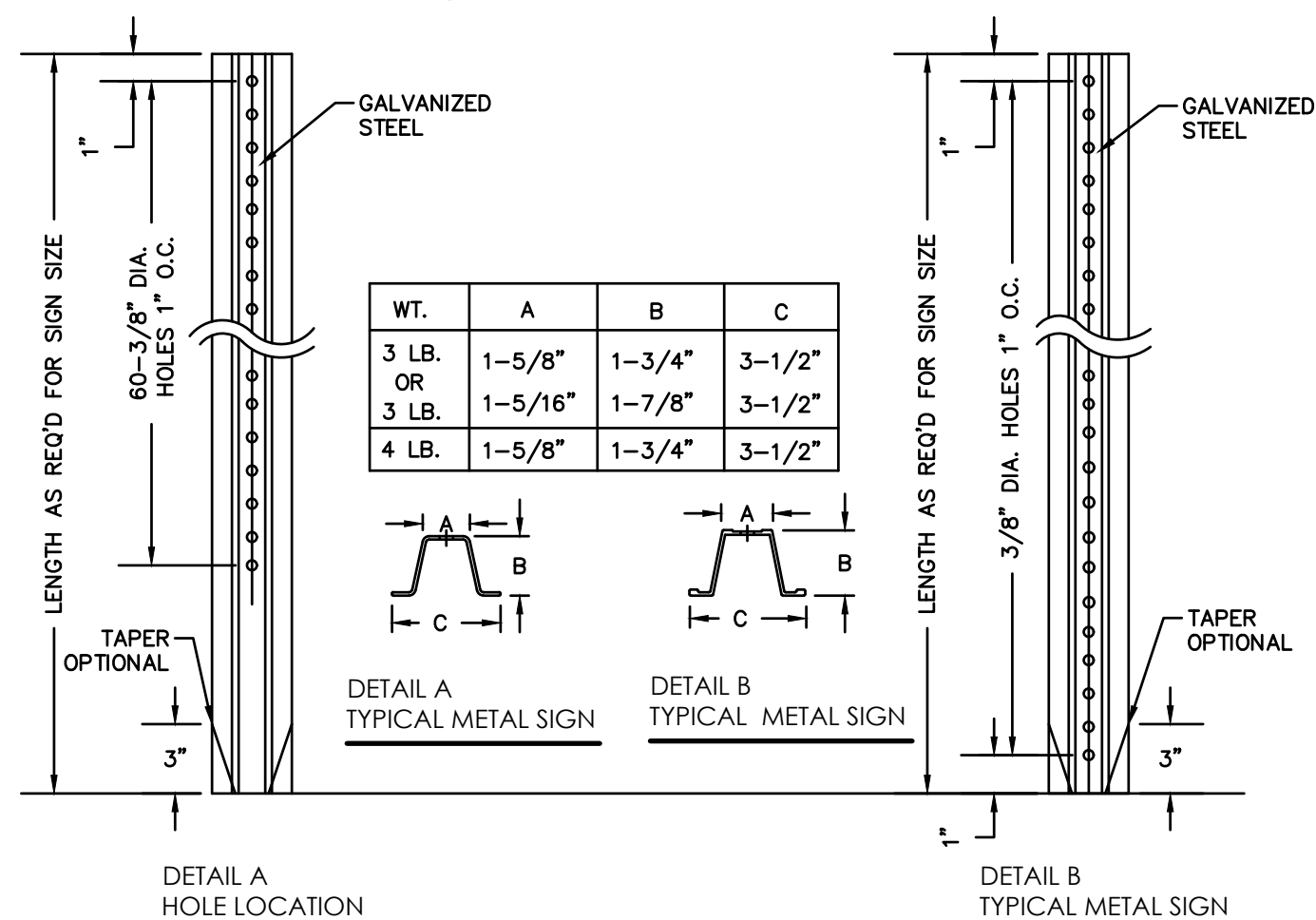
**6" CONCRETE. FILLED STEEL PIPE SIGN POST**

N.T.S.



**TYPICAL ACCESSIBLE SIGN**

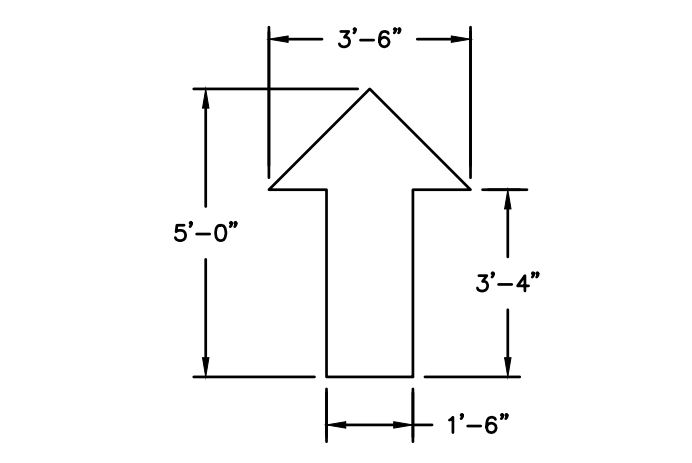
N.T.S.



- NOTES:
- STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 30 LBS OR GREATER PER LINEAR FOOT.
  - AFTER FABRICATION ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A-123.
  - SIGN MOUNTING HEIGHT TO BE PER MUTCD REQUIREMENTS.
  - ALL SIGN POSTS SHALL HAVE "BREAK AWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS". THE "BREAK AWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGN SHOWN ON THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

**TYPICAL METAL SIGN POST**

N.T.S.



- NOTE:  
1. WHITE (ARROWS) TO BE CENTERED IN TRAVEL LANE) FOR EMPLOYEE PARKING

**PAINTED TRAFFIC ARROW DETAIL**

N.T.S.

DATE: 08/06/2021  
PROJECT NO: 2101256  
DRAWN BY: JRJ  
CHECKED BY: AJB  
REVISIONS:  
1 PER TWP COMMENTS 2021-09-13

**TOMMY CAR WASH SYSTEM**  
3523 UNION DEPOSIT RD  
HARRISBURG, PA

**P2825**

Architecture  
Engineering  
Environmental  
Land Surveying

2601 Market Place  
Suite 350  
Harrisburg, PA 17110  
(717) 943-1665  
(717) 651-9858 Fax  
Project No. 2101256

**CHRISTIANSON COMPANIES**

PH. (701) 281-9500  
FAX (701) 281-9501

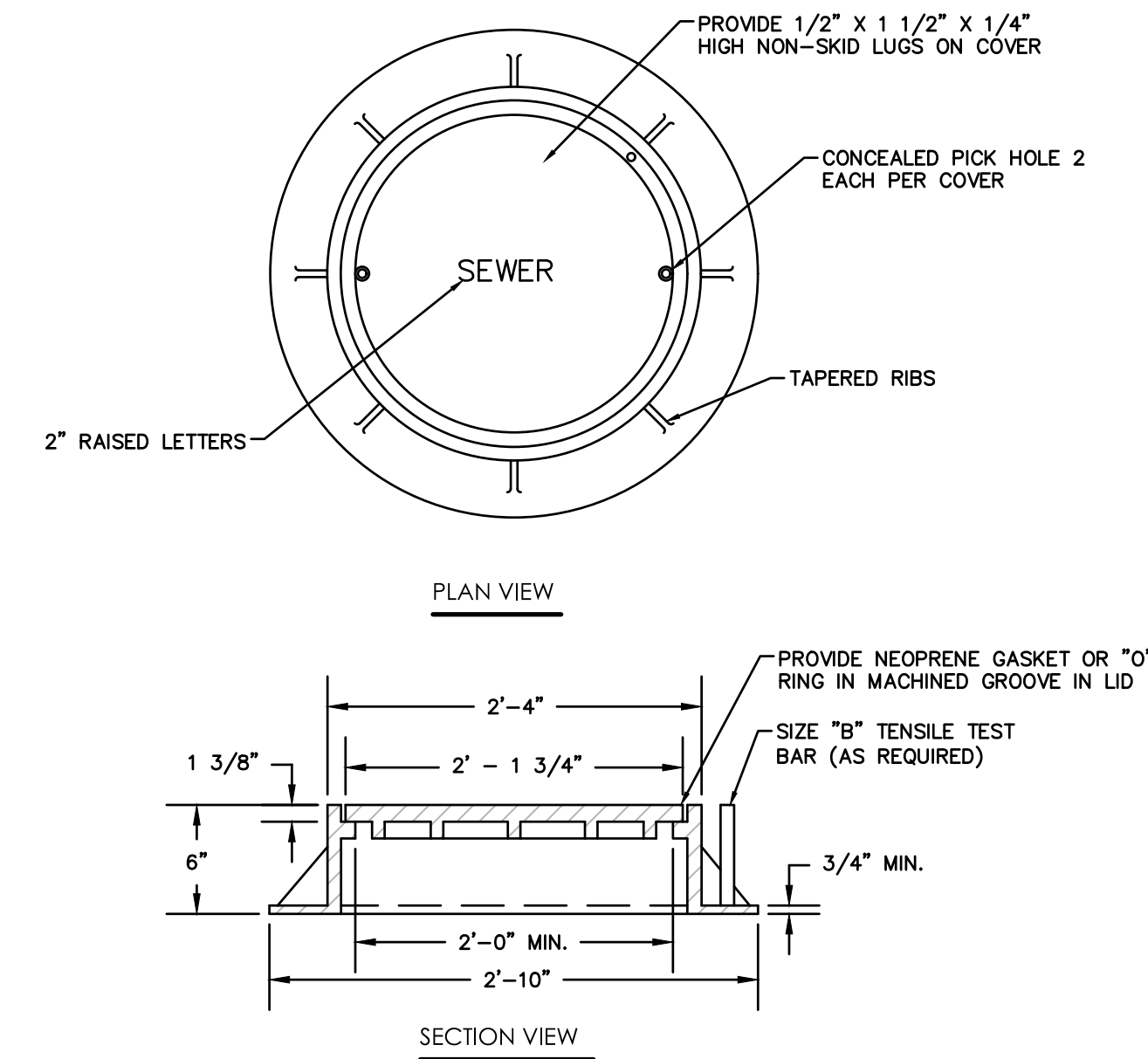
4609 33RD AVE. S.  
SUITE 400  
FARGO, ND 58104

**RG DESIGN**

PH. (701) 499-0212  
FAX (701) 281-9501

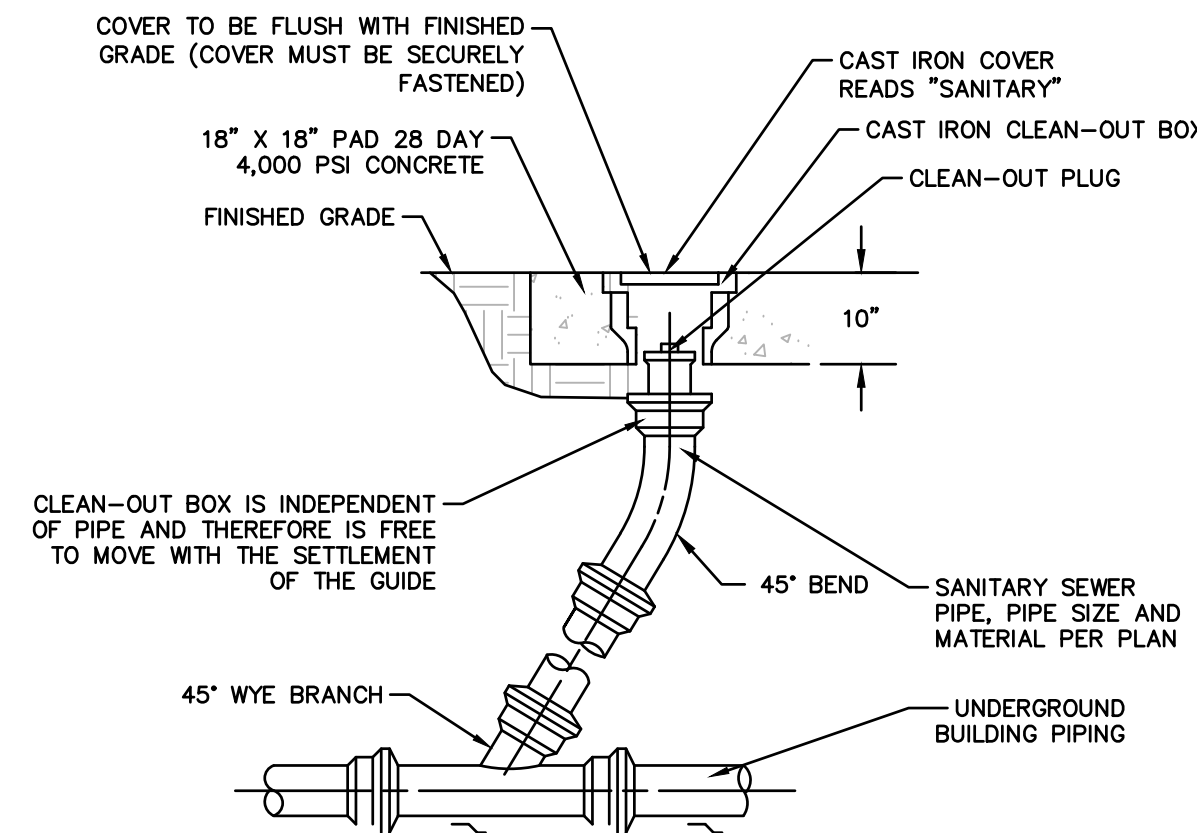
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DETAIL SHEET

Sheet  
**DN-3**  
No. 11 of 14



**STANDARD MANHOLE FRAME AND COVER**

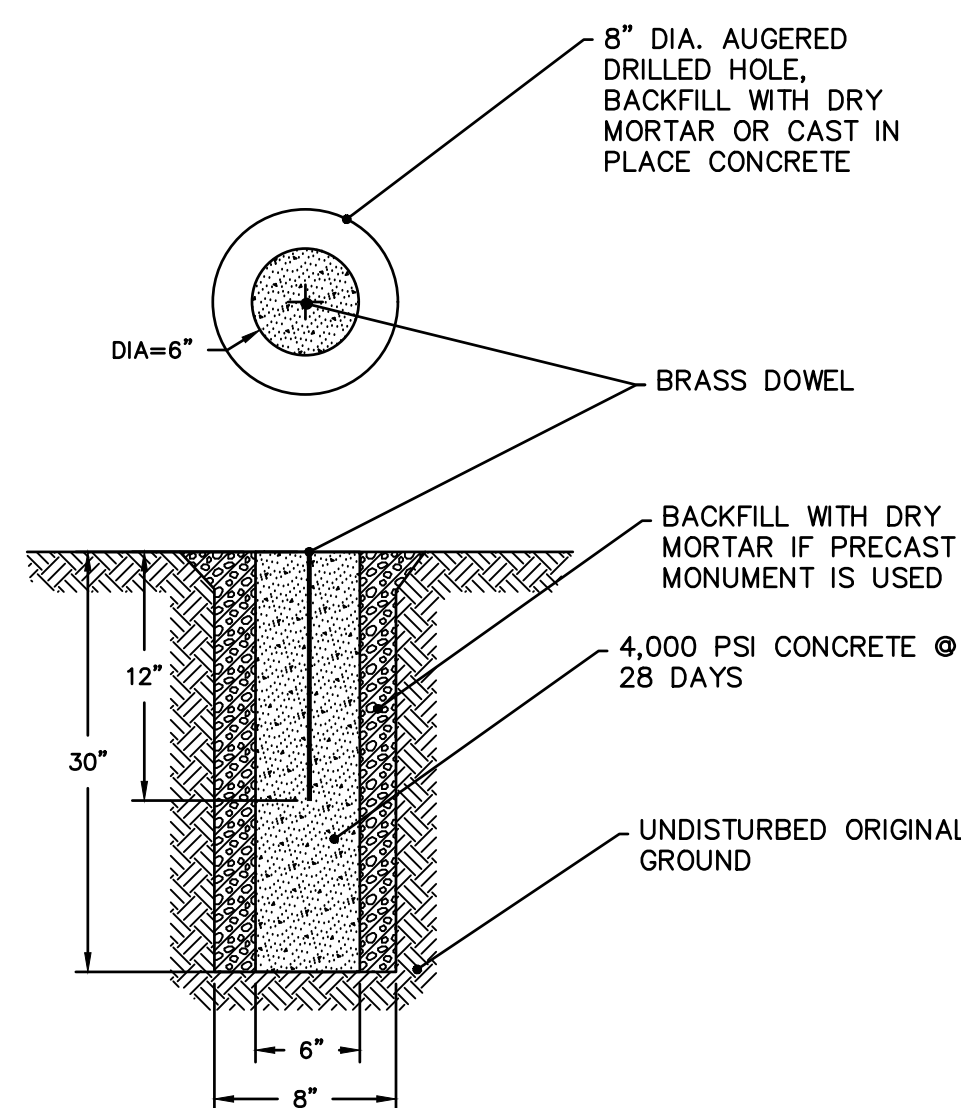
N.T.S.



- NOTES:
- USE NON-SHEAR COUPLING TO MAKE CONNECTIONS TO DISSIMILAR MATERIALS. MANUFACTURER NEENAH FOUNDRY R-1970-78 HEAVY DUTY OR APPROVED EQUAL. CONTACT 1-800-558-5075.
  - SUBMIT SHOP DRAWINGS PRIOR TO CONSTRUCTION.

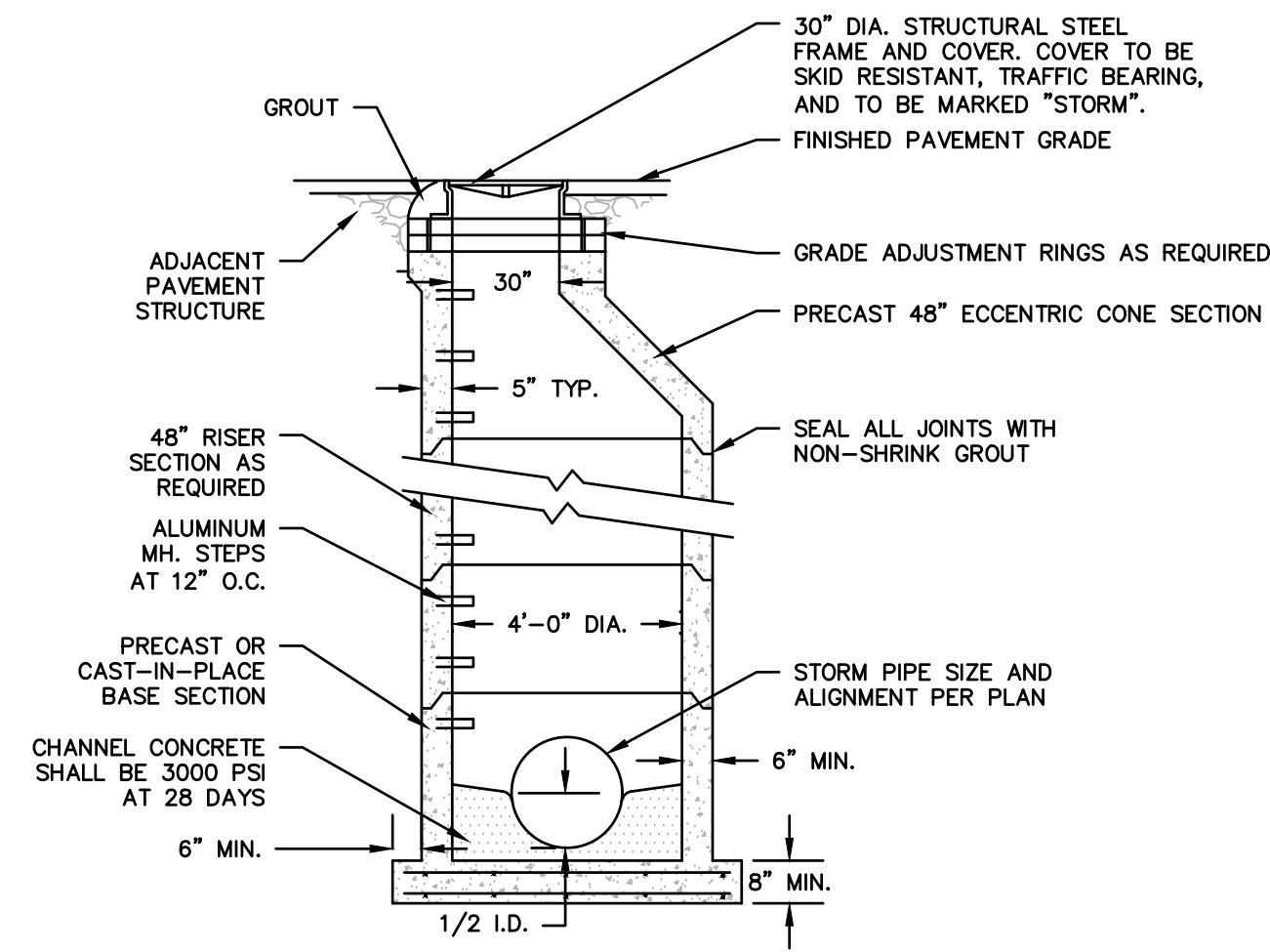
**CLEANOUT DETAIL**

N.T.S.



**CONCRETE MONUMENT DETAIL**

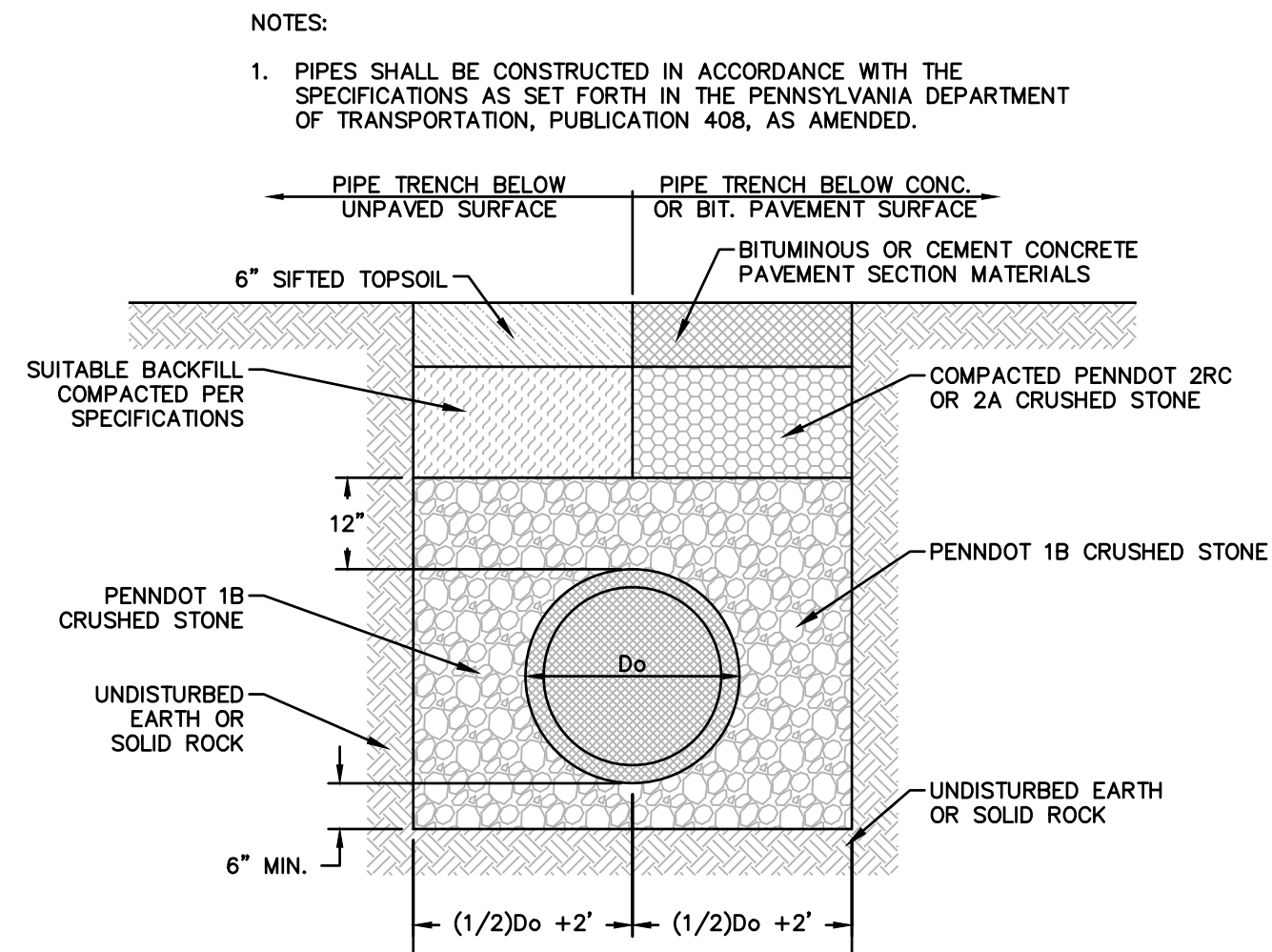
N.T.S.



- NOTE:
- CONSTRUCT MANHOLE IN ACCORDANCE WITH PENNDOT PUBLICATION 72, RC-39 FOR PRECAST CONCRETE MANHOLES.
  - ALL MATERIALS AND CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH PENNDOT PUBLICATIONS/408, LATEST EDITION, AND AS DETAILED IN PENNDOT PUBLICATION 72M, LATEST EDITION.

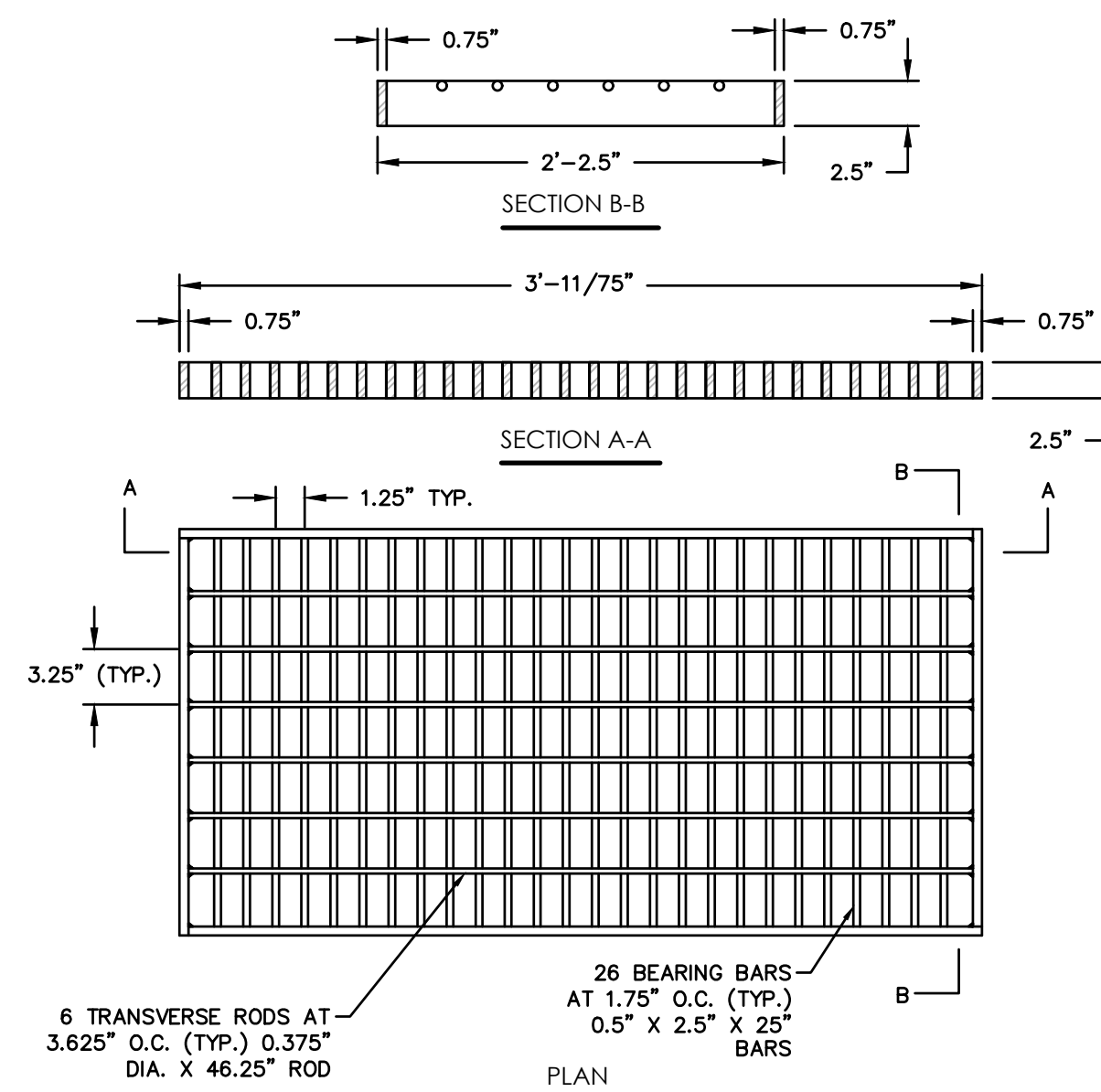
**TYPICAL STORM SEWER MANHOLE**

N.T.S.



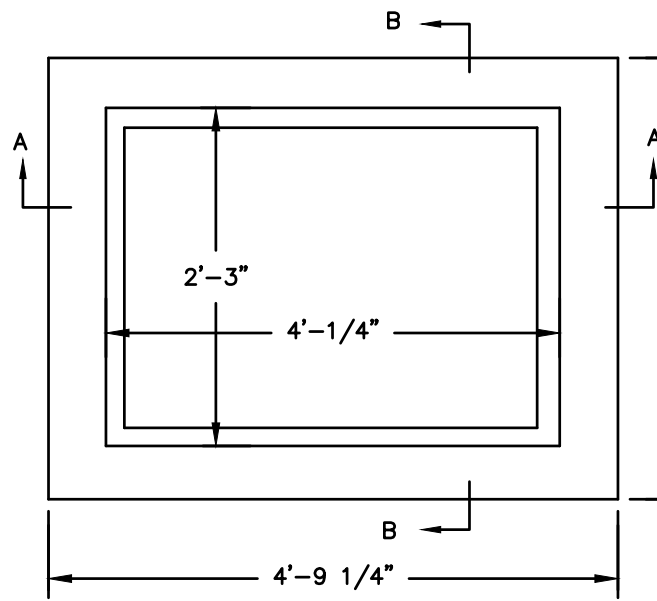
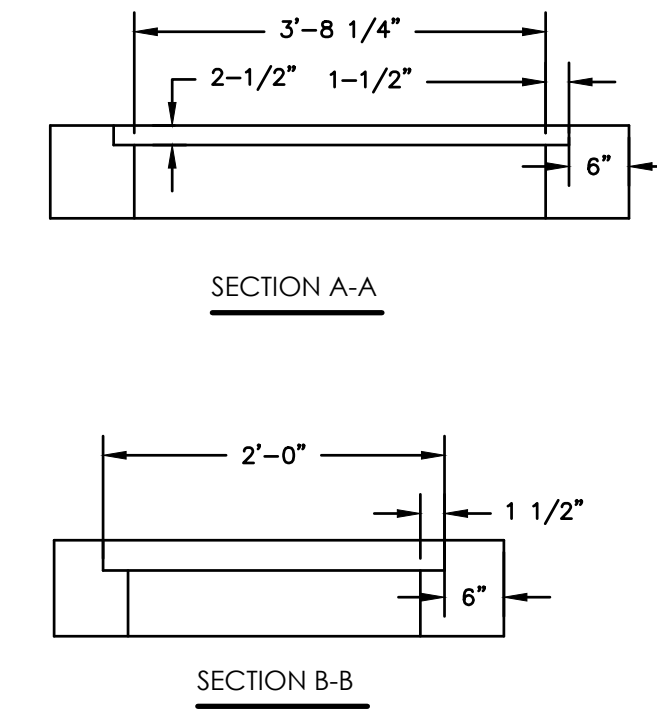
**STORM PIPE TRENCH SECTION**

N.T.S.



**STRUCTURAL STEEL BICYCLE SAFE GRATE**

N.T.S.

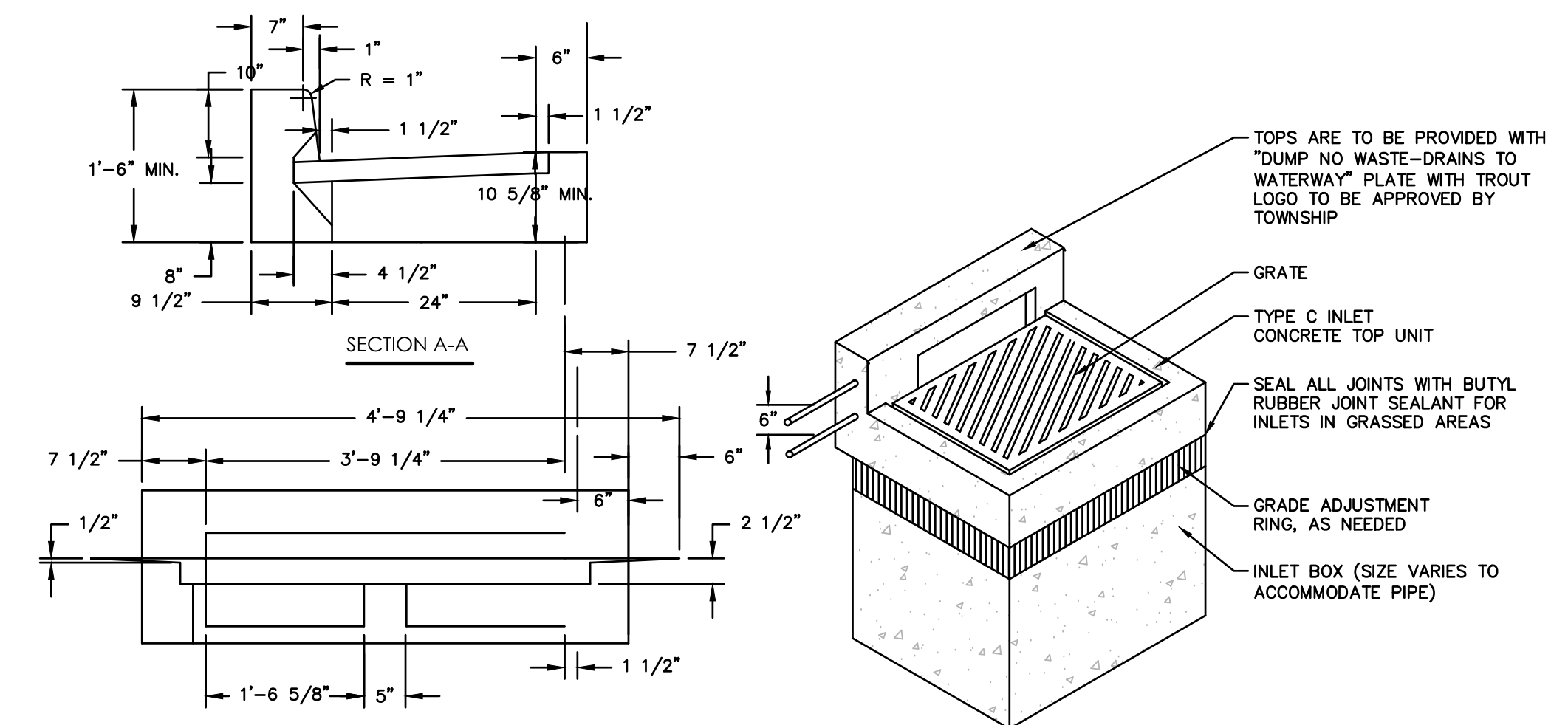


NOTES:

- ALL MATERIALS AND CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH PENNDOT PUBLICATIONS/408, LATEST EDITION, AND AS DETAILED IN PENNDOT PUBLICATION 72M, LATEST EDITION AND CERTIFIED FOR H2O LOADING
- PROVIDE BICYCLE SAFE GRATE

**TYPE "M" INLET**

N.T.S.



NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-45 AND RC-46 (PUB. 72M, LATEST EDITION). CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES.
- ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.
- ALL PENNDOT INLETS ARE TO BE PROVIDED WITH EITHER A PAINTED STENCILED LOGO ON THE ROADWAY OR ANOTHER ACCEPTABLE MARKING APPROVED BY THE GOVERNING AGENCY.
- ALL FRAMES, CONCRETE TOP UNITS, AND GRADE ADJUSTMENT RINGS SHALL BE SET IN A BED OF FULL MORTAR ACCORDING TO PUBLICATION 408
- PROVIDE WEEP HOLES COVERED WITH GEOTEXTILE FABRIC AND PLACED AT THE APPROPRIATE ELEVATION TO COMPLETELY DRAIN THE SUBGRADE PRIOR TO PLACING THE BASE COURSE OF PAVEMENT.

NOTES:

- ALL MATERIALS AND CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH PENNDOT PUBLICATIONS/408, LATEST EDITION, AND AS DETAILED IN PENNDOT PUBLICATION 72M, LATEST EDITION AND CERTIFIED FOR H2O LOADING
- PROVIDE BICYCLE SAFE GRATE.

**TYPE "C" INLET**

N.T.S.

DATE:	08/06/2021
PROJECT NO:	2101256
DRAWN BY:	JRJ
CHECKED BY:	AJB
REVISIONS:	
1	PER TWP COMMENTS 2021-09-13
COPYRIGHT © 2021 DESSA RESOURCES GROUP	

**TOMMY CAR WASH SYSTEM**

3523 UNION DEPOSIT RD  
HARRISBURG, PA

**P2825**

Architecture  
Engineering  
Environmental  
Land Surveying

**BC Companies**

2601 Market Place  
Suite 350  
Harrisburg, PA 17110  
(717) 943-1665  
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Project No. 2101256

**CHRISTIANSON**  
COMPANIES

PH. (701) 281-9500  
FAX (701) 281-9501

4609 33RD AVE. S.  
SUITE 400  
FARGO, ND 58104

**IRG**  
DESIGN

PH. (701) 499-0212  
FAX (701) 281-9501

**SHEET DESCRIPTION:**  
DETAIL SHEET

Sheet  
**DN-4**  
No. 12 of 14

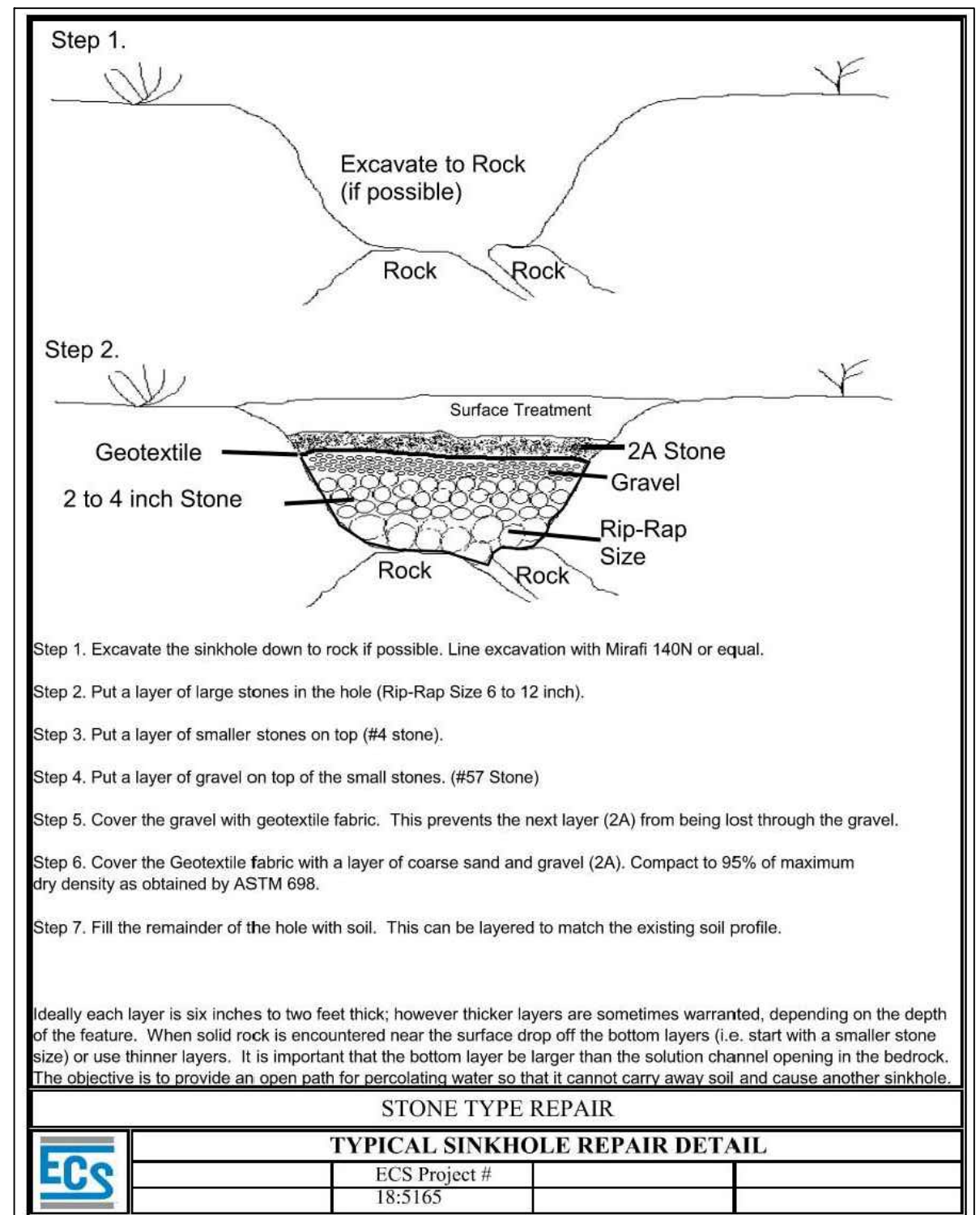
**OPERATION & MAINTENANCE PROGRAM FOR BMPs**

BIORETENTION FACILITY / RAIN GARDEN	
OPERATION & MAINTENANCE PROCEDURES	
ACTIVITY	SCHEDULE
DECOMPACT THE BASIN BOTTOM TO A DEPTH OF 8". SEED WITH PLANTING MIX SHOWN ON APPROVED PLANS. QUALIFIED PROFESSIONAL OR THEIR DESIGNEE SHALL ENSURE THAT DESIGN INFILTRATION RATE IS BEING ACHIEVED. BASIN 1: 0.25 TO 10.00 IN/HR	AT CONSTRUCTION OF PERMANENT INFILTRATION FACILITY
FIRST GROWING SEASON: WHENEVER VEGETATION REACHES A HEIGHT OF 18-24". TRIM TO A HEIGHT OF 8". HAND PULL UNWANTED VEGETATION AND INVASIVE SPECIES. SECOND GROWING SEASON: PRIOR TO NEW SPRING GROWTH REACHING A HEIGHT OF 2". TRIM ALL VEGETATION DOWN TO 6". HAND PULL UNWANTED VEGETATION AND INVASIVE SPECIES.	FIRST AND SECOND GROWING SEASONS, AND AS NEEDED
REMOVE LITTER AND DEBRIS. INSPECT FOR SEDIMENT BUILDUP, EROSION, AND VEGETATIVE CONDITIONS. STABILIZE ERODED BANKS. REPAIR UNDERCUT AND ERODED AREAS AT INFLOW AND OUTFLOW STRUCTURES. AND RESEED AS NECESSARY TO INSURE STABILIZATION. CONTACT QUALIFIED PROFESSIONAL IF SIGNIFICANT SEDIMENT BUILDUP (I.E. POND VOLUME HAS BEEN REDUCED BY 10%) OR EROSION HAS OCCURRED.	MONTHLY
INSPECT FACILITY FOR SIGNS OF WEINNESS OR DAMAGE TO STRUCTURES. NOTE ERODED AREAS. IF DEAD OR DYING GRASS ON THE BOTTOM IS OBSERVED, CHECK TO ENSURE THAT WATER IS PERCOLATING WITHIN THE DESIGN DEWATERING TIME (SEE BELOW).	TWICE PER YEAR
IF AFTER A 2-YEAR STORM EVENT, WATER HAS NOT INFILTRATED WITHIN THE DESIGN DEWATERING TIME (SEE BELOW), WAIT UNTIL AFTER THE NEXT 2-YEAR STORM EVENT TO SEE IF DESIGN DEWATERING TIME HAS BEEN ACHIEVED. IF THE BASIN IS STILL NOT DEWATERING APPROPRIATELY, CONTACT A QUALIFIED PROFESSIONAL TO EVALUATE THE BMP AND IMMEDIATELY CORRECT THE DETERMINED MALFUNCTION TO ACHIEVE DEWATERING TIMES AS FOLLOWS: BASIN 1: 24 - 72 HOURS	TWICE PER YEAR FOR FIRST THREE YEARS
1. VEGETATION ALONG THE SURFACE OF THE BASIN BOTTOM SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE. 2. VEGETATIVE COVER SHALL BE MAINTAINED AT A MINIMUM OF 95%. 3. VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON BASIN BOTTOM. AVOID COMPACTION. 4. DURING PERIODS OF EXTENDED DROUGHT, INFILTRATION AREA MAY REQUIRE WATERING.	

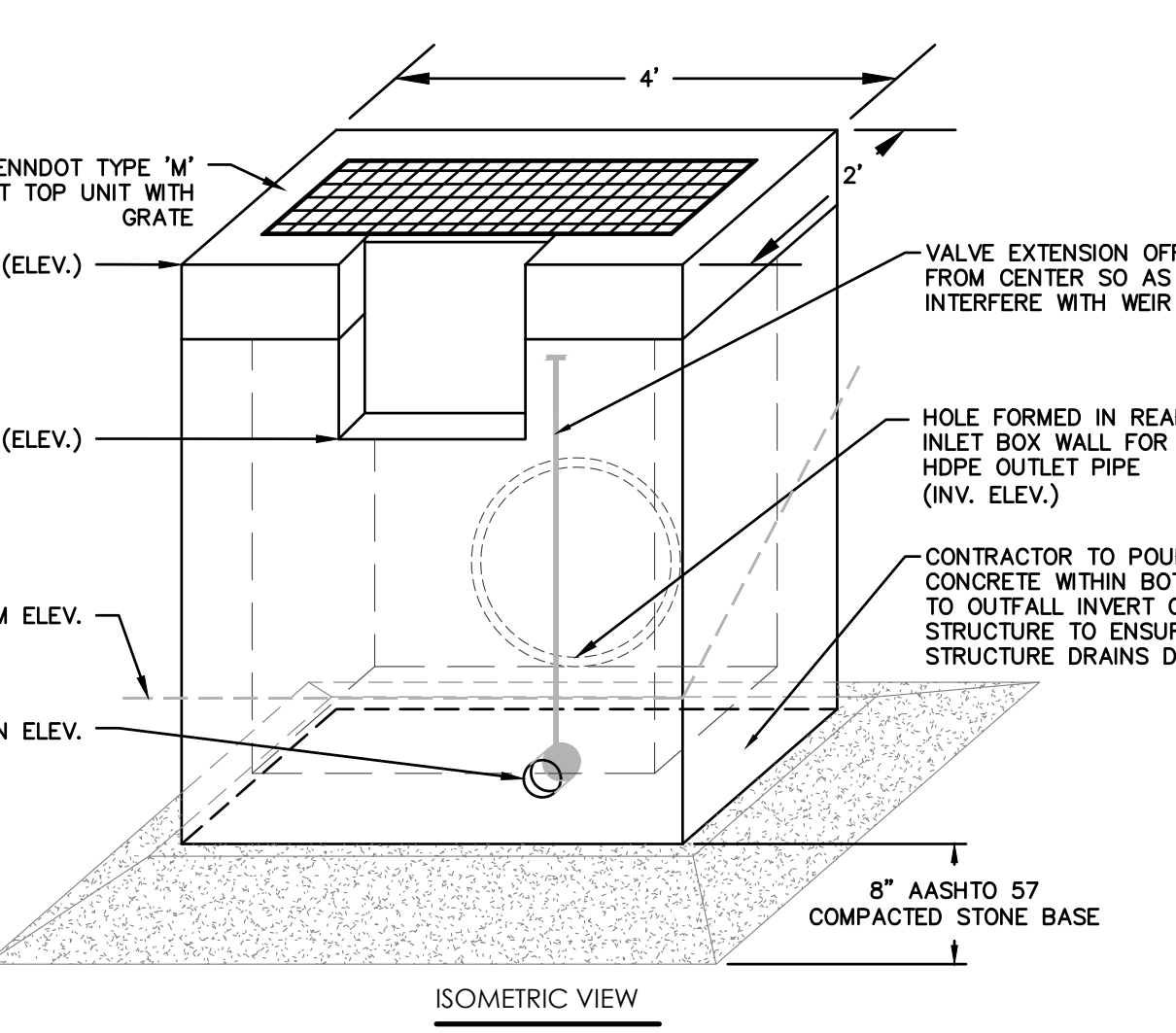
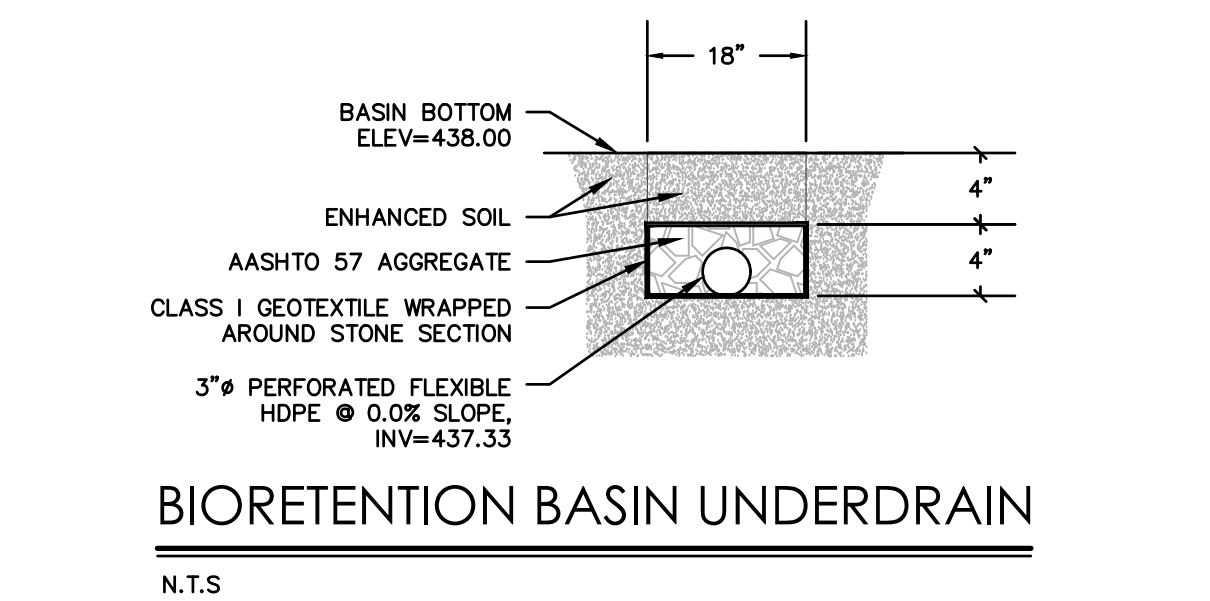
STORMWATER COLLECTION/CONVEYANCE	
OPERATION & MAINTENANCE PROCEDURES	
ACTIVITY	SCHEDULE
INLETS & CATCH BASINS SHOULD BE CLEANED OF DEBRIS. REPAIRS SHOULD BE MADE AS SOON AS PROBLEMS ARISE.	CLEAN ONCE PER YEAR & REPAIR AS NEEDED
INSPECT OUTFALL STRUCTURES QUARTERLY DURING 1ST YEAR & ONCE PER YEAR THEREAFTER	QUARTERLY & ONCE PER YEAR
COLLECTION/CONVEYANCE SYSTEMS SHOULD BE INSPECTED FOR DEBRIS, TRASH, AND SEDIMENT ACCUMULATION TWICE PER YEAR MINIMUM AND AFTER STORM EVENTS OF 1" OR GREATER.	TWICE PER YEAR & AFTER 1" STORMS OR GREATER

GENERAL MAINTENANCE NOTES:  
 1. VACUUM TRUCKS MAY BE AN EFFICIENT CLEANING MECHANISM.  
 2. CATCH BASINS SHOULD BE CLEANED BEFORE HALF FULL.



STONE TYPE RIPRAP						
TYPICAL SINKHOLE REPAIR DETAIL						
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE (R-...)	THICK. Rt (IN)	LENGTH Ai (FT)	INITIAL Wdth AiW (FT)	TERMINAL Wdth Atw (FT)
EW-1.4	15	3	9	8	3.75	11.75
EW-2.4	15	3	9	8	3.75	11.75

**SINKHOLE REPAIR DETAIL**  
 N.T.S.



STRUCTURE ID	STRUCTURE TYPE	BASIN BOTTOM ELEV.	OUTLET/ UNDERDRAIN INVERT ELEV.	WEIR ELEV.	WEIR CREST [N]	WEIR HEIGHT [N]	RISER TOP ELEV.	OUTLET PIPE SIZE [IN]
OCS-1.9	PADOT TYPE M	438.00	437.33	440.00	18	12	441.00	18

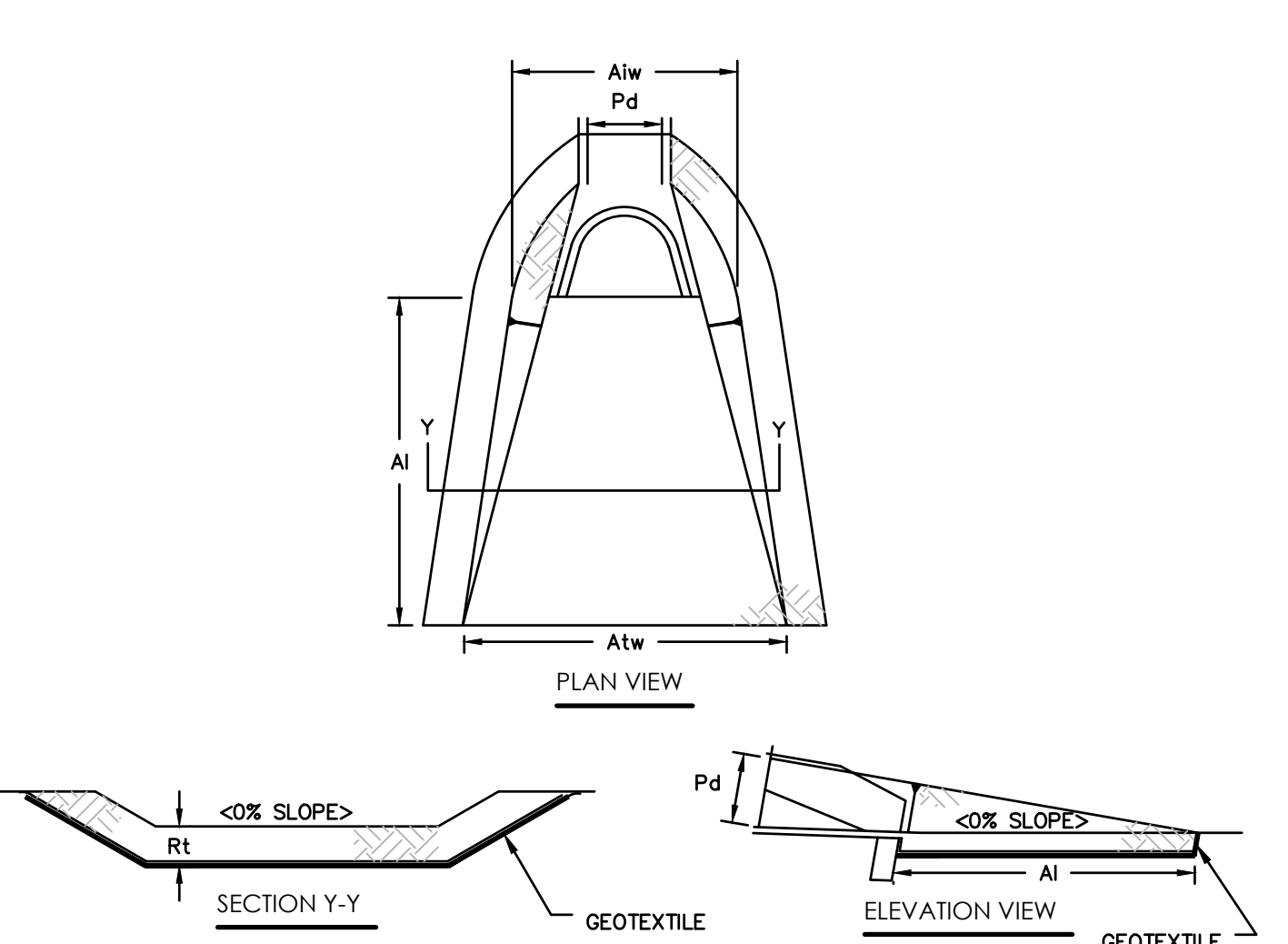
- NOTES:  
 1. THE PROPOSED OUTLET STRUCTURE SHALL BE A STANDARD TYPE "M" INLET IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-45 AND RC-46.  
 2. IF RISER SECTIONS ARE REQUIRED TO PRODUCE AN INLET BOX OF SUFFICIENT HEIGHT TO MEET THE DIMENSIONS REQUIRED BY THE PROJECT, THE JOINT BETWEEN EACH INLET BOX RISER SECTION SHALL BE SEALED WITH BLACK MASTIC SEALING COMPOUND.

**BIORETENTION BASIN OUTLET CONTROL STRUCTURE**  
 N.T.S.

- HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY. RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR. THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.  
 \* SEE MANUFACTURER'S SPECIFICATIONS

**EMERGENCY SPILLWAY WITH TRM LINING DETAIL**  
 N.T.S. PAEP-7-13

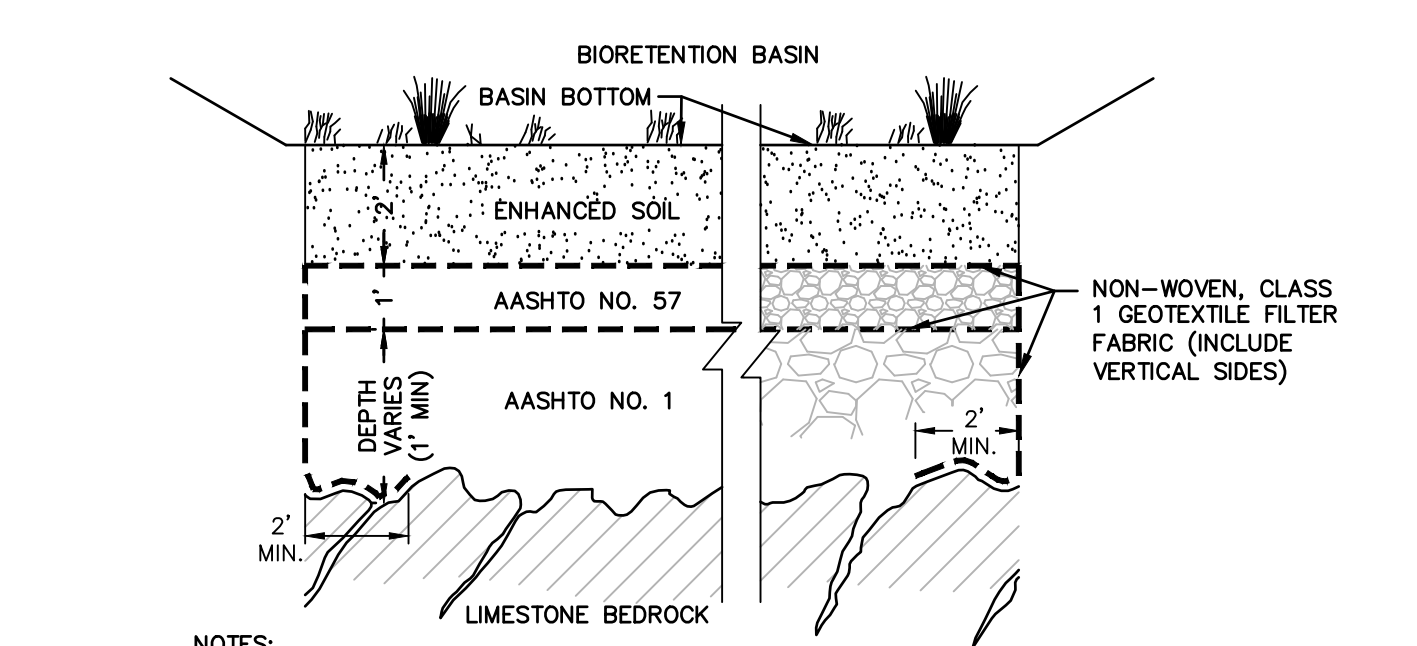
FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION



RIPRAP		APRON				
OUTLET NO.	PIPE DIA Pd (IN)	SIZE (R-...)	THICK. Rt (IN)	LENGTH Ai (FT)	INITIAL Wdth AiW (FT)	TERMINAL Wdth Atw (FT)
EW-1.4	15	3	9	8	3.75	11.75
EW-2.4	15	3	9	8	3.75	11.75

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.  
 ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

**RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL DETAIL**  
 N.T.S. PAEC-9-1



- NOTES:  
 1. SEE BIORETENTION BASIN CROSS SECTION FOR WHEN THIS DETAIL SHOULD BE APPLIED.  
 2. OVER-EXCAVATE A MINIMUM 48 INCHES BELOW THE BASIN BOTTOM. THE INSTALLATION OF THE GEOTEXTILE FABRIC AND THE STONE SHOULD BE COMPLETED UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER OF RECORD.

**ENGINEERED FILL MATERIAL SECTION**  
 N.T.S.

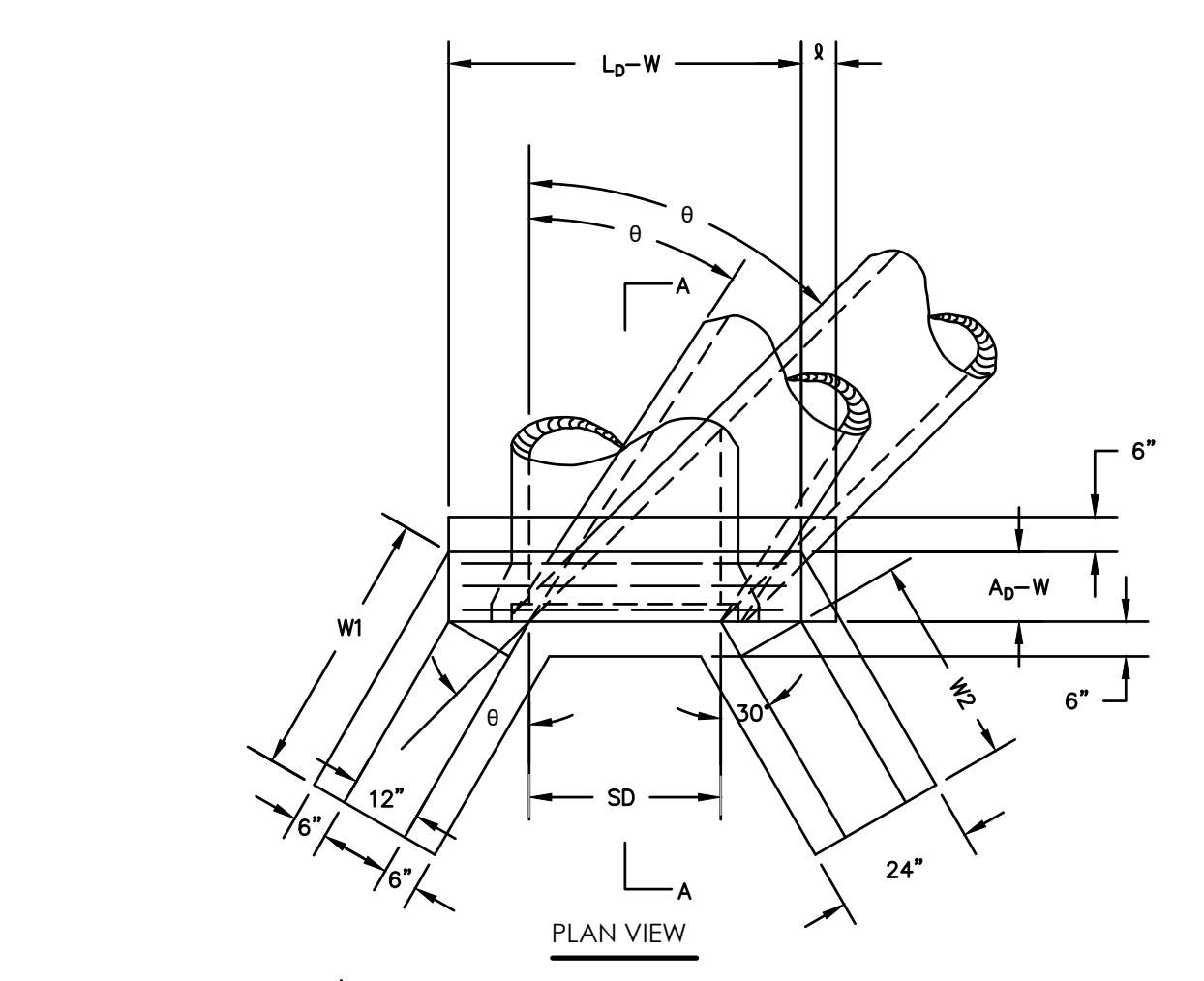
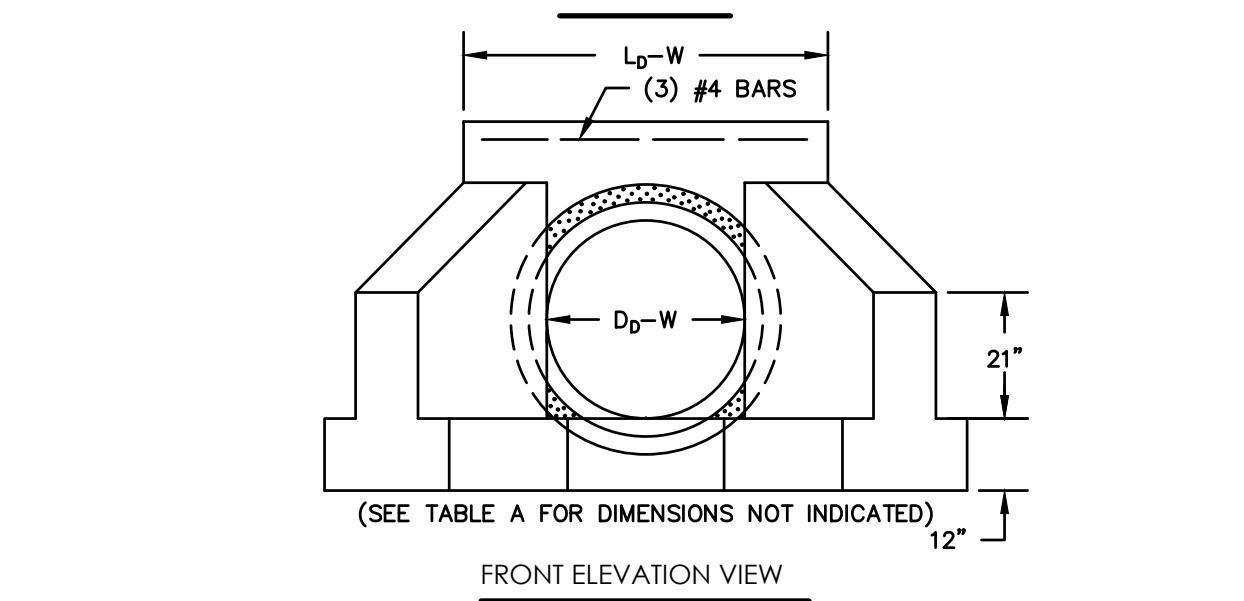


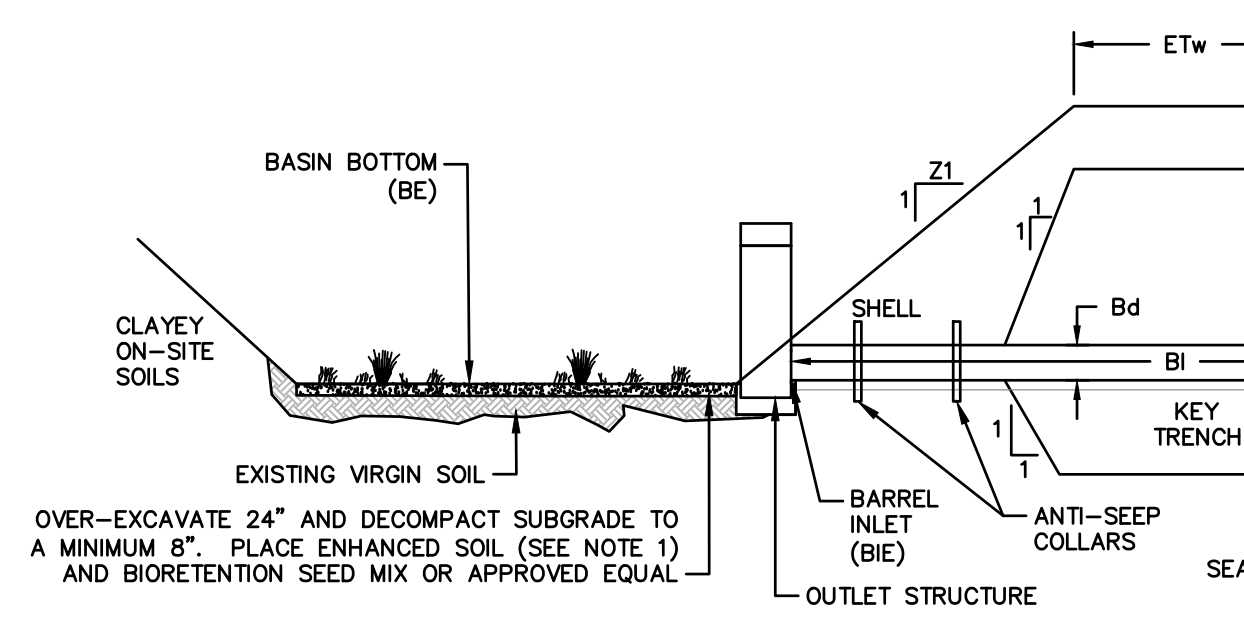
TABLE A			
PIPE DIA	L	W	A
18" <=	4.0'	4.0'	12"
24"	4.6'	4.25'	12"
36"	5.8'	4.6'	12"
42"	6.3'	5.8'	12"
48"	6.9'	6.9'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.2'	15"
72"	9.2'	11.5'	15"

NOTES:  
 - CONCRETE SHALL BE CLASS "A"  
 - EXPOSED EDGES SHALL BE CHAMFERED ONE (1) INCH



- NOTES:  
 1. ALL ENDWALLS AND HEADWALLS SHALL HAVE A TRASH SCREEN (SEE DETAIL).

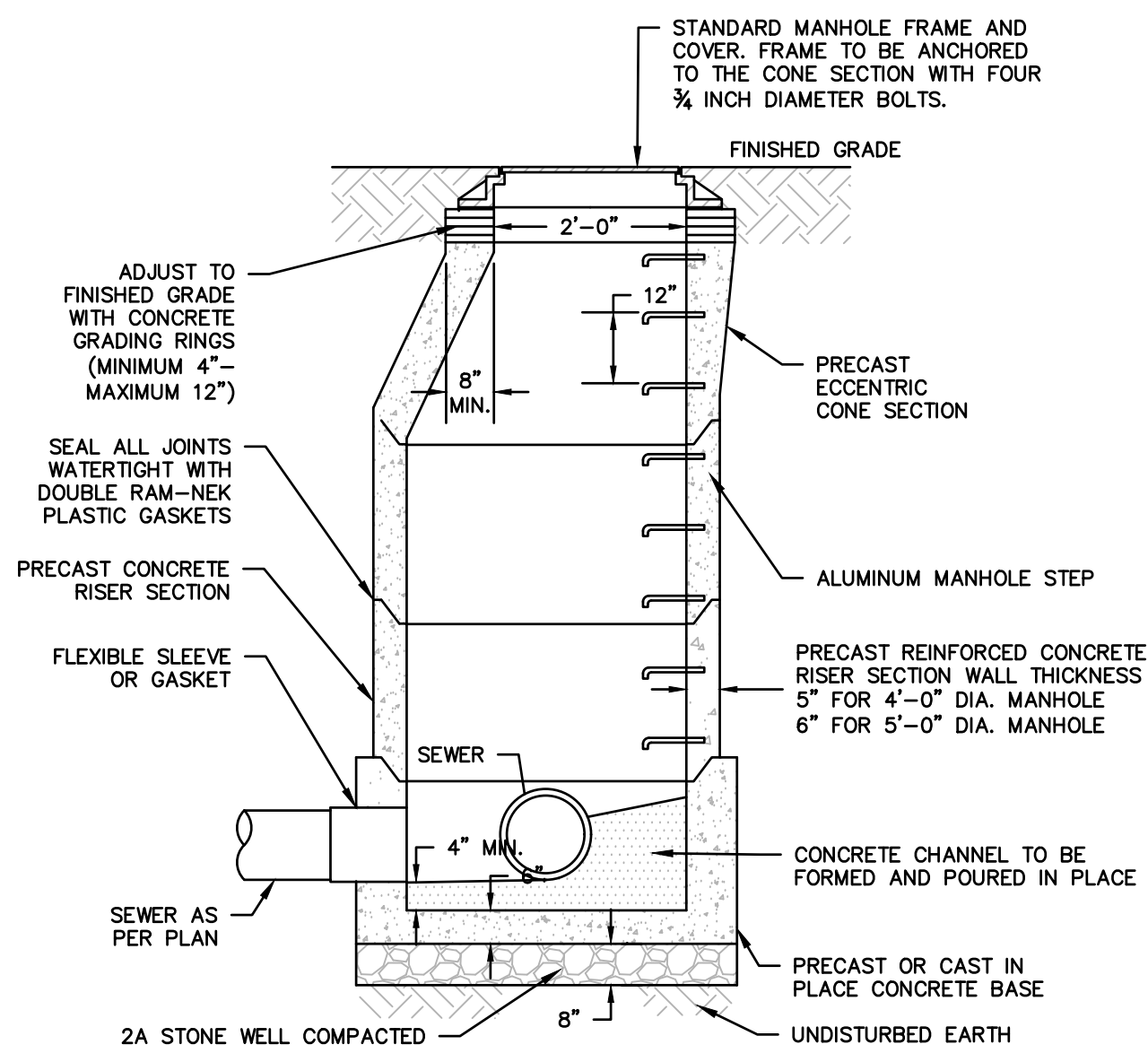
**TYPE DW ENDWALL**  
 N.T.S.



BASIN NO.	Z1 (FT)	Z2 (FT)	EMBANKMENT				BOTTOM ELEV BE (FT)	OUTLET BARREL				
			TOP ELEV ETE (FT)	TOP WIDTH ETW (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)		DIA Bd (IN)	INLET ELEV BIE (FT)	MATL	LENGTH BI (FT)	OUTLET ELEV BOE (FT)
1	3	3	443.33	8.00	2.00	4.00	438.00	18.0	437.33	HDPE	12	433.27

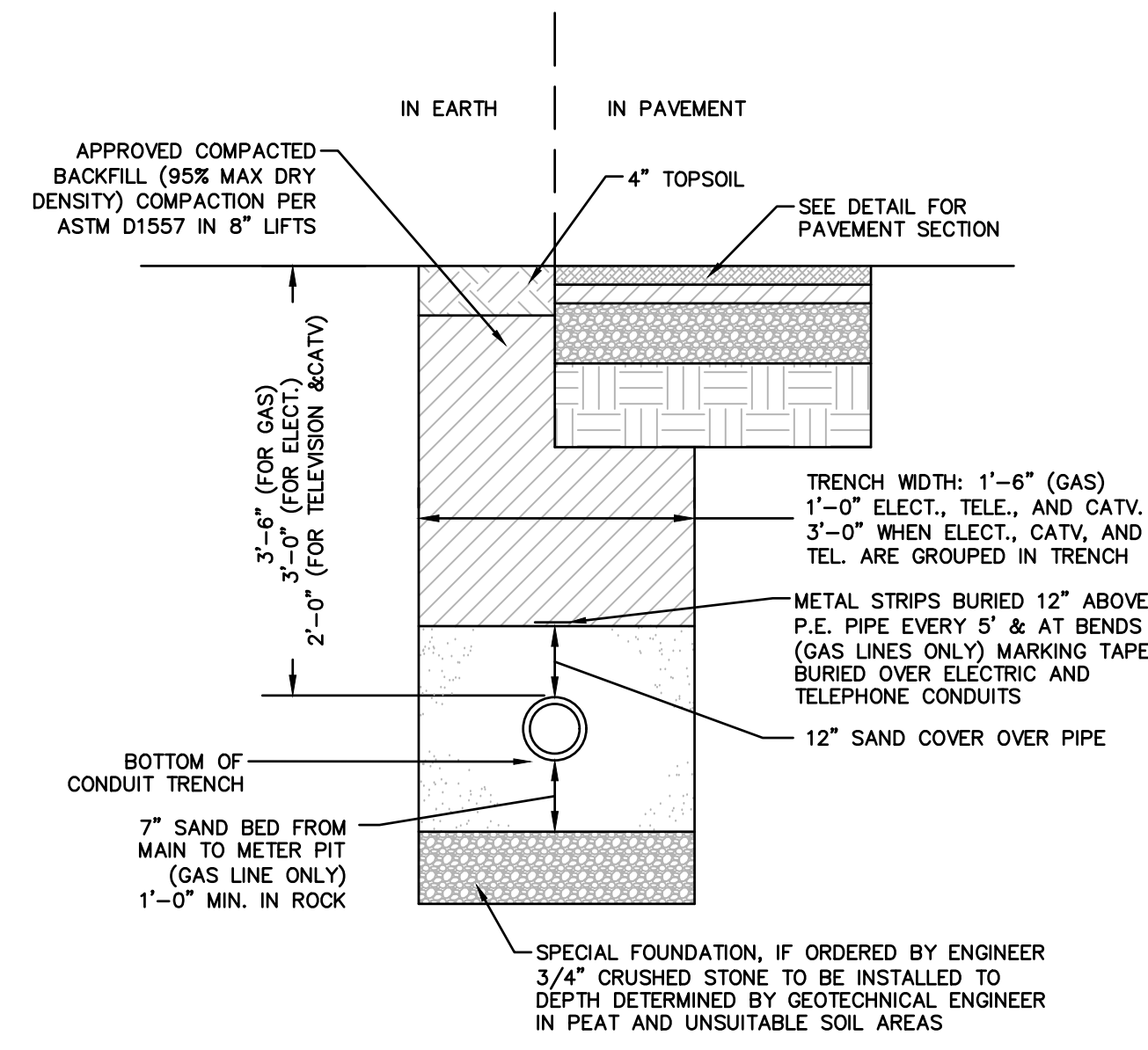
- NOTES:  
 1. THE 24" ENHANCED SOIL LAYER SHALL BE A MIX OF 75% TOPSOIL/ 25% MULCH  
 \* TOPSOIL: THE TOPSOIL SHALL BE A LOAM CAPABLE OF SUPPORTING A HEALTHY VEGETATIVE COVER THAT IS FREE OF SUBSOIL, CLAY LUMPS, BRUSH, ROOTS, WEEDS, AND ANY OTHER FOREIGN MATTER. THE SOIL LAYER SHALL ALSO HAVE A CLAY CONTENT OF LESS THAN 10%.  
 \* MULCH: THE MULCH SHALL BE TRIPLE SHREDDED.  
 2. MAINTAIN A MINIMUM DEPTH TO BEDROCK OF 2 FEET, WHERE POSSIBLE. DURING SITE CONSTRUCTION, VIRGIN SOIL SHALL BE PROTECTED FROM COMPACTION DUE TO HEAVY EQUIPMENT OPERATION OR STORAGE OF FILL OR CONSTRUCTION MATERIAL. INFILTRATION AREAS SHALL BE PROTECTED FROM SEDIMENTATION. AREAS THAT ARE ACCIDENTALLY COMPACTED OR GRADED SHALL BE REMEDIATED TO RESTORE SOIL COMPOSITION AND POROSITY. ALL AREAS DESIGNATED FOR INFILTRATION SHALL NOT RECEIVE RUNOFF UNTIL THE CONTRIBUTORY DRAINAGE AREA HAS ACHIEVED FINAL STABILIZATION.  
 3. WHERE 2 FEET OF EXISTING VIRGIN SOIL CANNOT BE MAINTAINED, UTILIZE THE ENGINEERED FILL MATERIAL SECTION.

**BIORETENTION BASIN CROSS SECTION**  
 N.T.S.



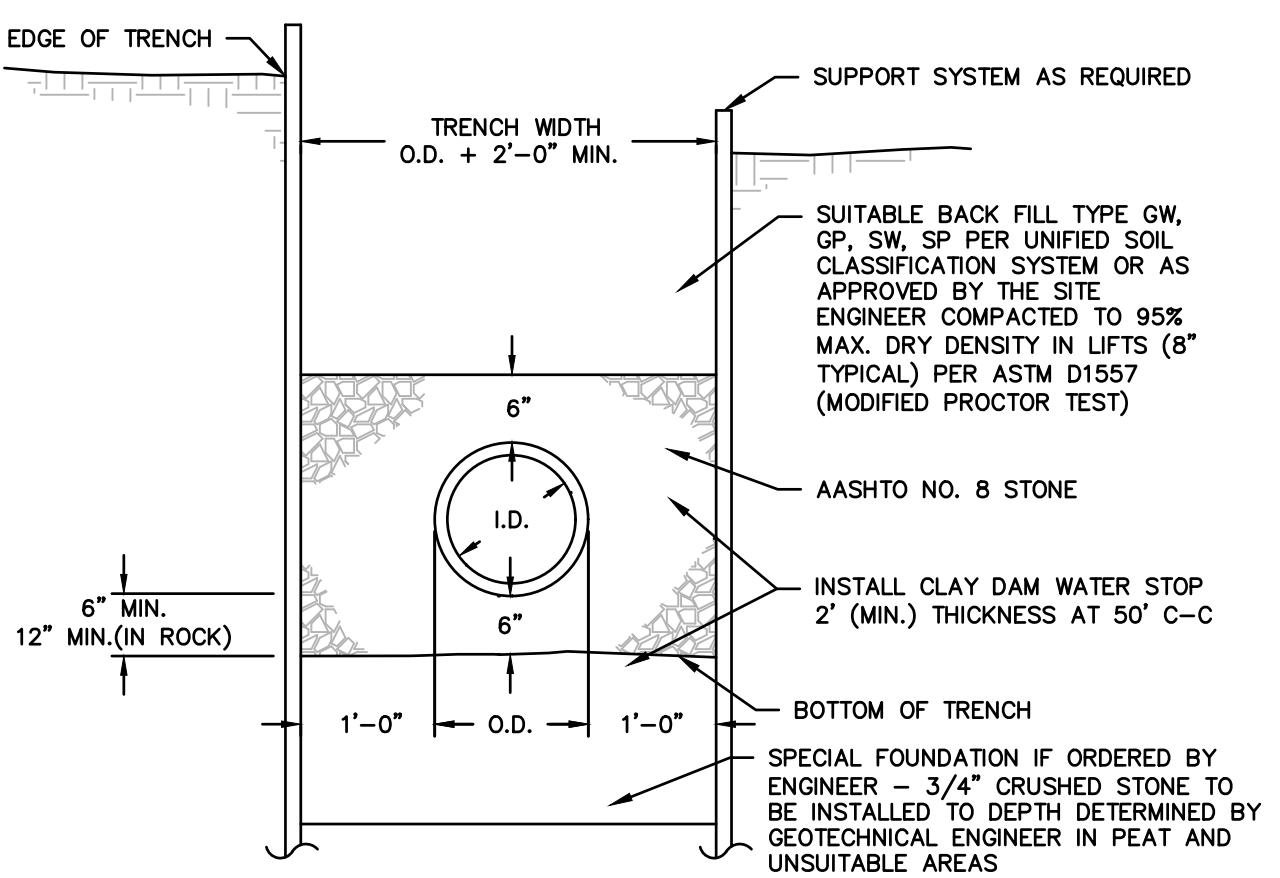
**SANITARY SEWER MANHOLE**

N.T.S



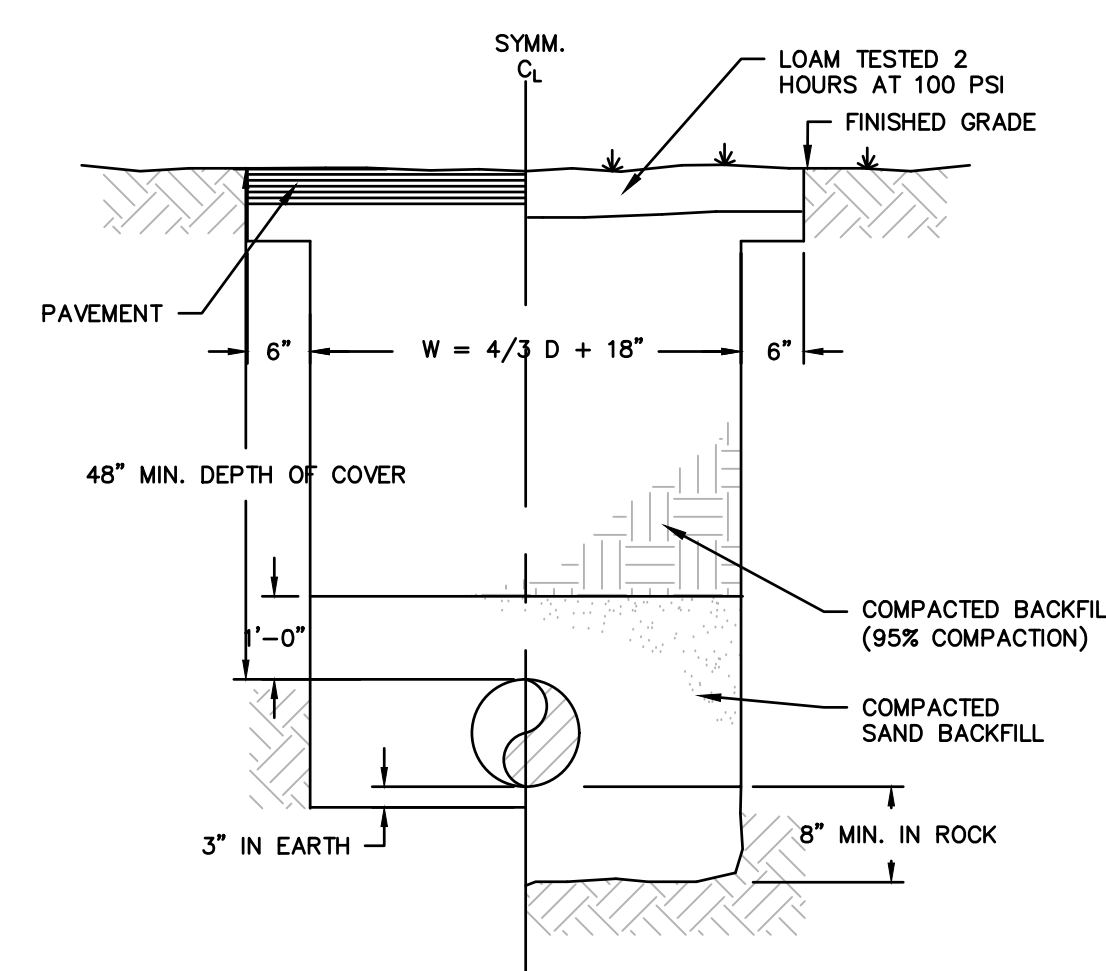
**ELECTRICAL, TELEPHONE, COMMUNICATIONS, CATV, AND GAS TRENCH DETAIL**

N.T.S



**TYPICAL SANITARY SEWER TRENCH SECTION**

N.T.S



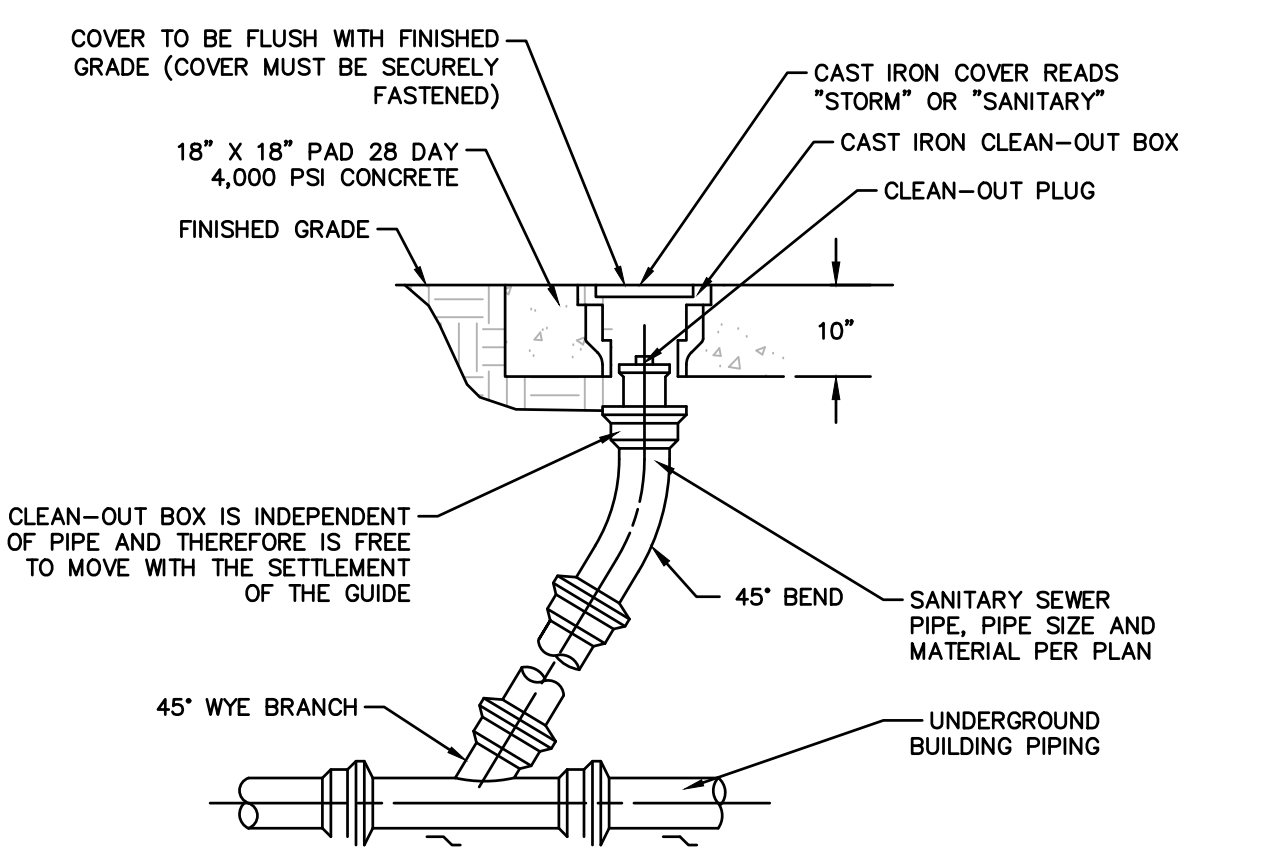
**TYPICAL WATER MAIN AND SERVICE TRENCH DETAIL**

N.T.S

**NOTES:**

1. FIRE LINE PIPING > 3" I.D. TO BE CLASS 52 DUCTILE IRON WITH RESTRAINED JOINTS 40 FT. EACH SIDE OF ALL FITTINGS, ELBOWS AND APPURTENANCES. DOMESTIC PIPING > 3" I.D. TO BE PVC IN CONFORMANCE WITH AWWA C900. DOMESTIC PIPING < 3" I.D. TO BE TYPE K COPPER PER ASTM B 88.

2. PIPING TO BE HYDROSTATIC PRESSURE AFTER INSTALLATION.



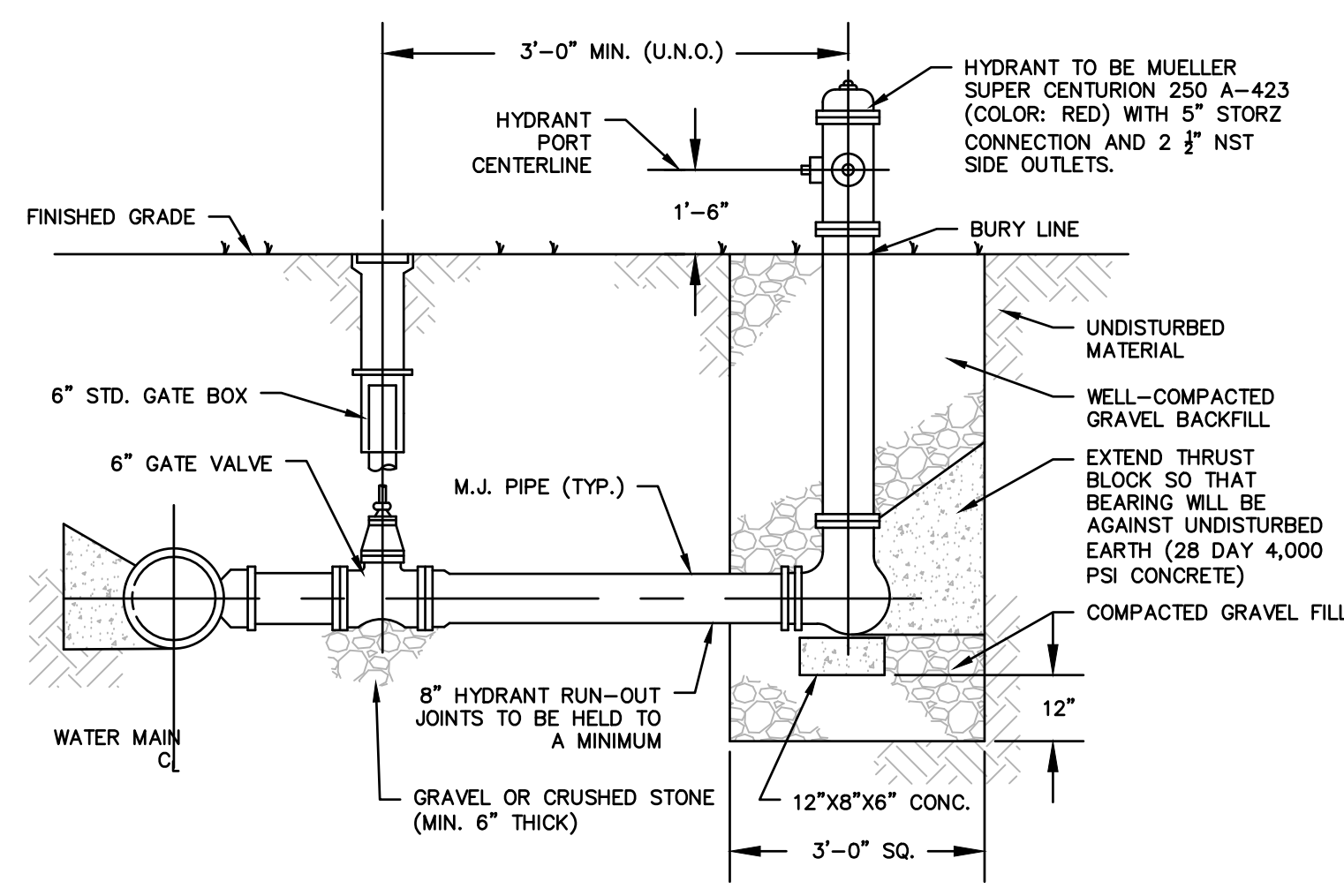
**CLEANOUT DETAIL**

N.T.S

**NOTES:**

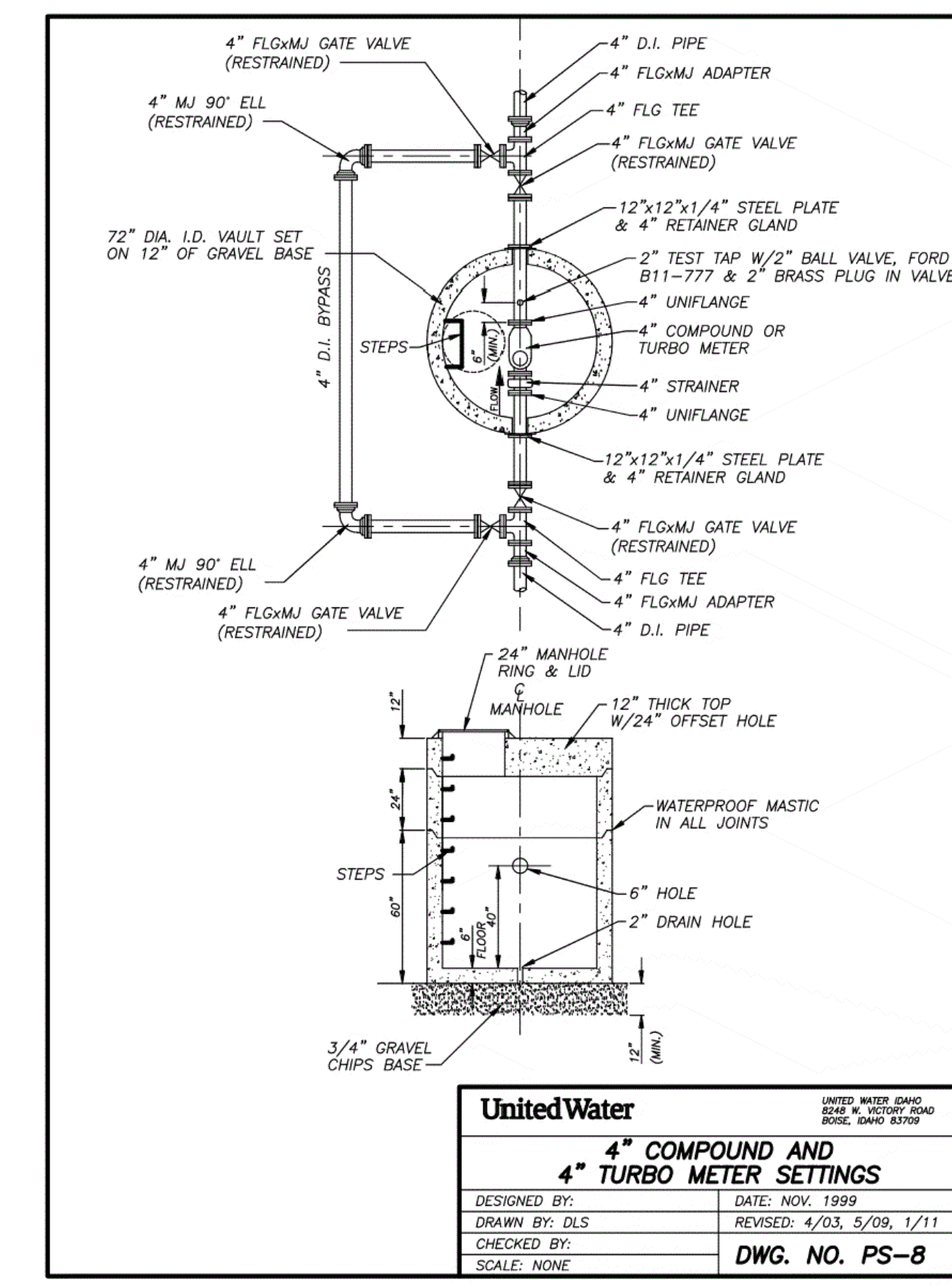
1. USE NON-SHEAR COUPLING TO MAKE CONNECTIONS TO DISSIMILAR MATERIALS. MANUFACTURER NEENAH FOUNDRY R-1970-78 HEAVY DUTY OR APPROVED EQUAL. CONTACT 1-800-558-5075.

2. SUBMIT SHOP DRAWINGS PRIOR TO CONSTRUCTION.



**HYDRANT DETAIL WITH GATE BOX**

N.T.S



DATE: 08/06/2021  
PROJECT NO: 2101256  
DRAWN BY: JRJ  
CHECKED BY: AJB  
REVISIONS:  
1 PER TWP COMMENTS 2021-09-13

**TOMMY CAR WASH SYSTEM**  
3523 UNION DEPOSIT RD  
HARRISBURG, PA

**P2825**

Architecture  
Engineering  
Environmental  
Land Surveying

2601 Market Place  
Suite 350  
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(717) 943-1665  
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Project No. 2101256

**CHRISTIANSON**  
COMPANIES

PH. (701) 281-9500  
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4609 33RD AVE. S.  
SUITE 400  
FARGO, ND 58104

**RG**  
DESIG. N.T.S.

PH. (701) 499-0212  
FAX (701) 281-9501

**SHEET DESCRIPTION:**  
DETAIL SHEET

Sheet  
**DN-6**  
No. 14 of 14