

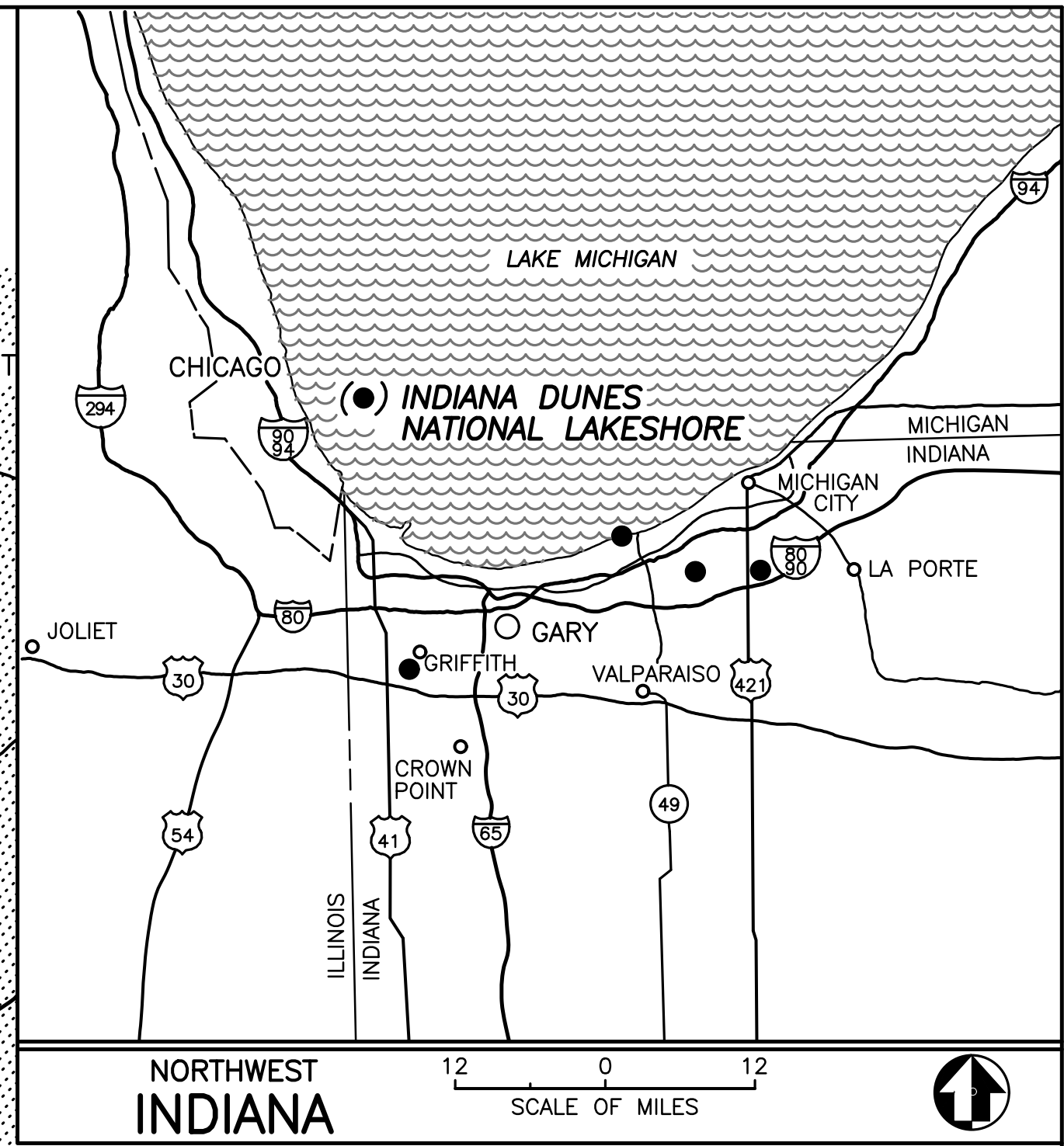
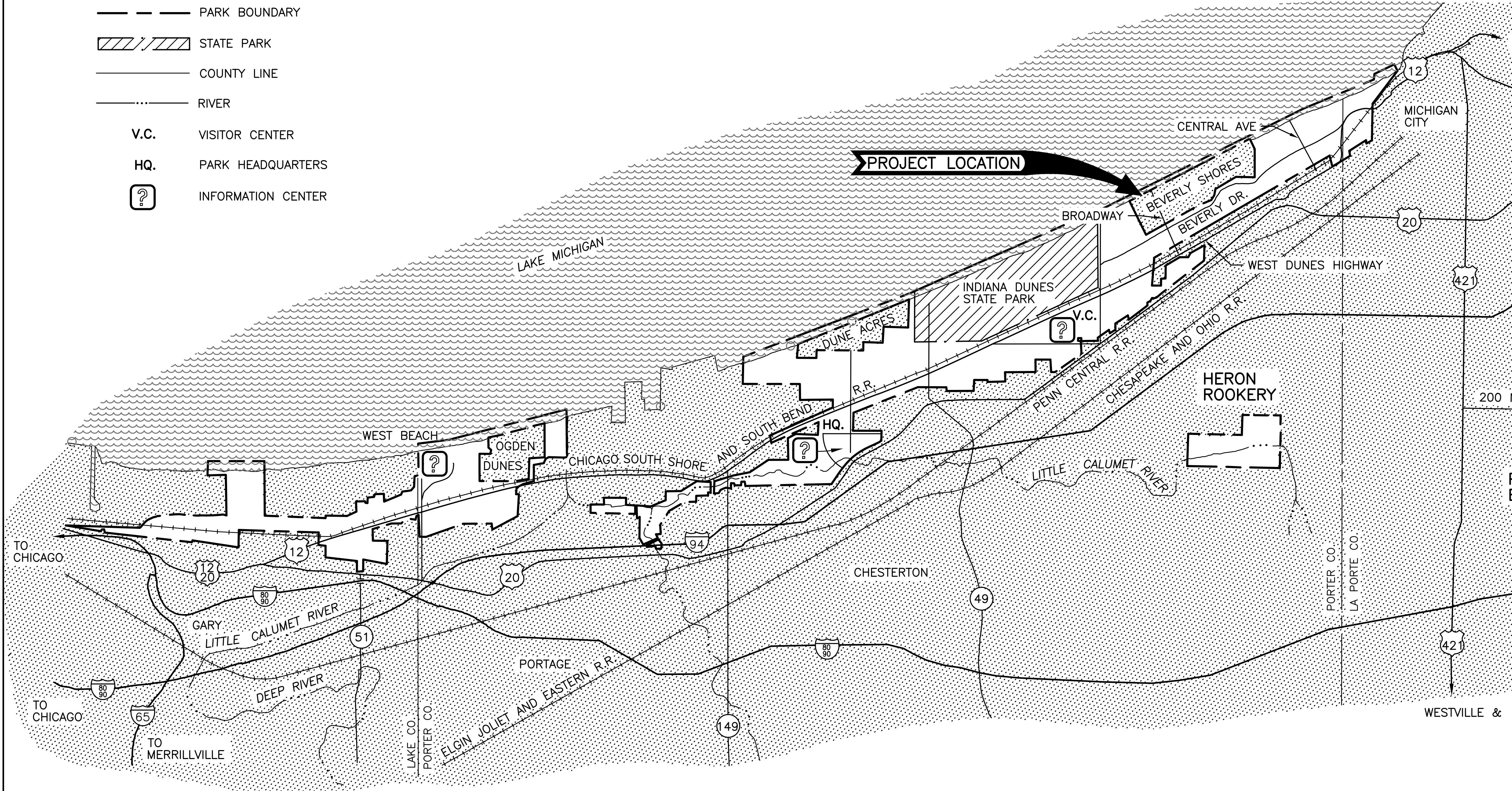


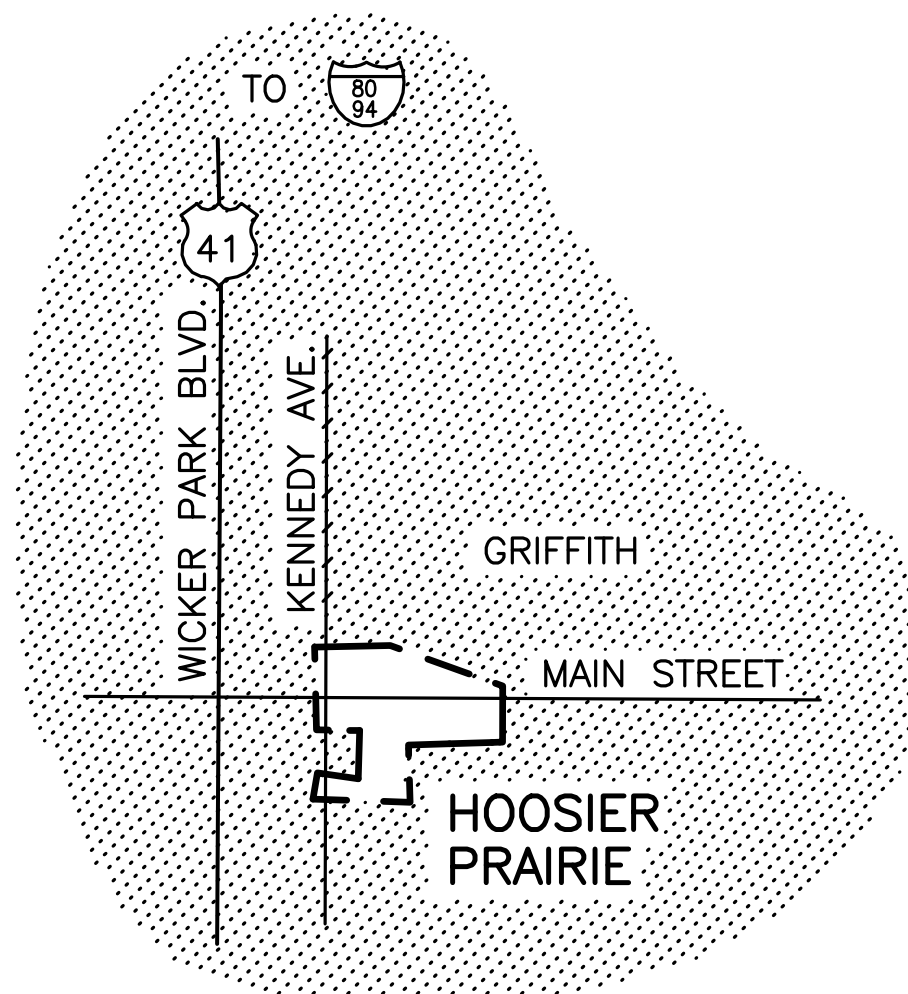
LEGEND

- PARK BOUNDARY
-  STATE PARK
- COUNTY LINE
- RIVER
- V.C. VISITOR CENTER
- HQ. PARK HEADQUARTERS
-  INFORMATION CENTER

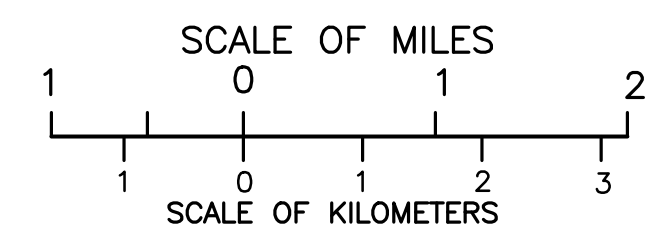


INDEX


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INDIANA DUNES NATIONAL PARK

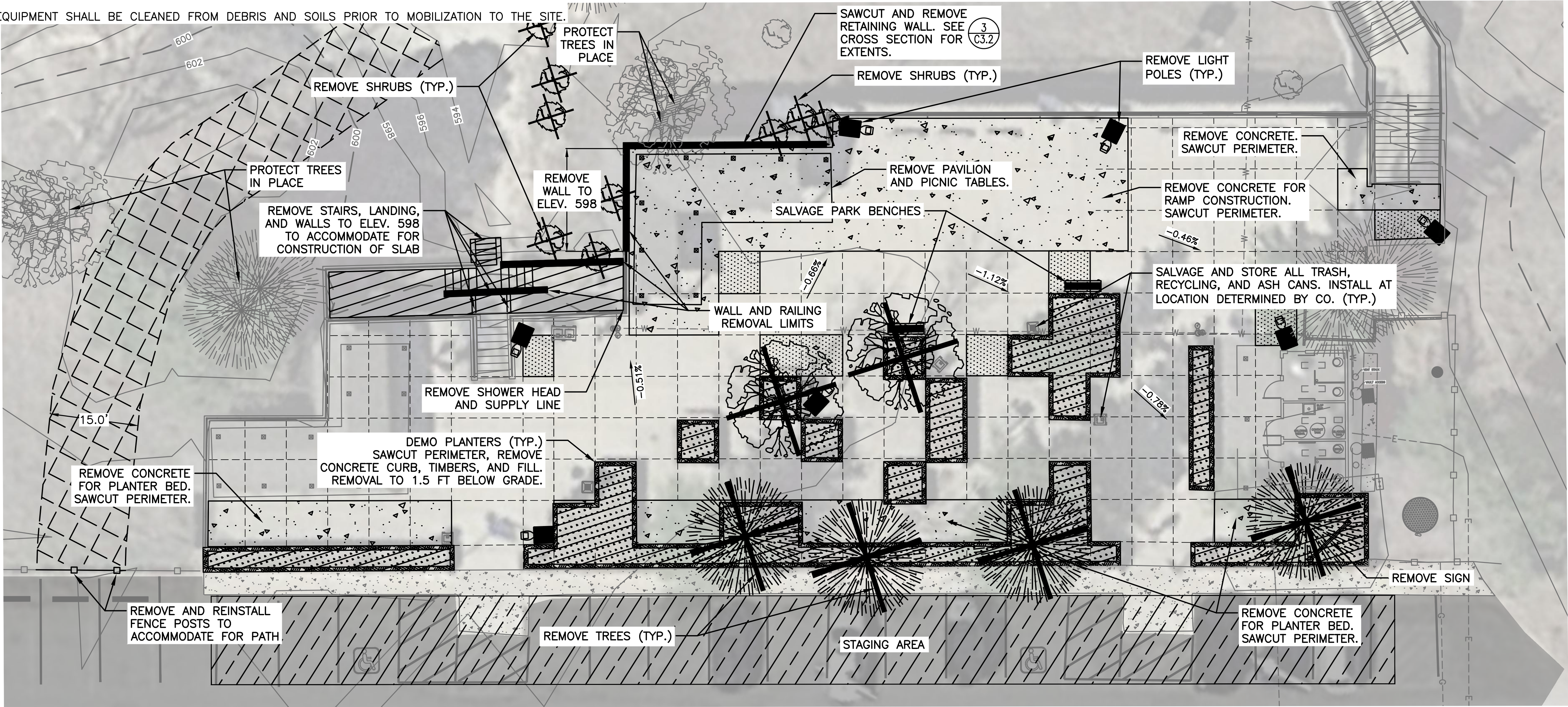


BASIC DATA: 626/91,014 12/80; REVISED & REDRAWN 11/95. UPDATED 11/98. SGS.

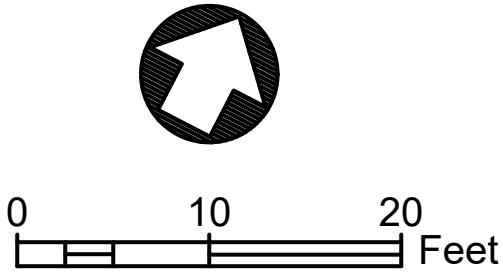
	100% COMPLETE CONSTRUCTION DOCUMENTS		TITLE OF DRAWING LAKE VIEW ACCESSIBILITY		DRAWING NO. 626 80054
	UNITED STATES DEPARTMENT OF THE INTERIOR		LOCATION WITHIN PARK LAKE VIEW FACILITY		
	NATIONAL PARK SERVICE DENVER SERVICE CENTER		NAME OF PARK INDIANA DUNES NATIONAL PARK		
	REGION MIDWEST	COUNTY PORTER	STATE INDIANA	PKG. NO. SHEET NO. 1 OF 16	

GENERAL SITE DEMOLITION AND CLEARING NOTES:

- CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES (STRUCTURES, CURBS, WALKS, PAVEMENTS, UTILITIES, SIGNS, FENCES, ETC.) WHICH ARE TO REMAIN. REPAIR OR REPLACE, TO OWNER’S SATISFACTION, ANY DAMAGE TO EXISTING PROPERTY OR SITE FEATURES WHICH ARE TO REMAIN, AT NO ADDITIONAL COST. CONCRETE REMOVALS SHALL EXTEND TO NEAREST CONCRETE JOINT OUTSIDE OF WORK LIMITS.
- COORDINATE DISRUPTION OF UTILITY SERVICES WITH THE CO AND UTILITY OWNER, PUBLIC OR PRIVATE. CONTRACTOR TO PROVIDE TEMPORARY UTILITIES AS NECESSARY TO MAINTAIN BUILDING SERVICES.
- THE OWNER, NPS, RESERVES THE RIGHT TO BE ALLOWED TO COORDINATE ACTIVITIES AT THIS SITE DURING CONSTRUCTION AND FOR OBSERVATION. THE CONTRACTOR CAN RESTRICT PUBLIC ACCESS DURING THE OFF SEASON (AS NOTED IN THE PERIOD OF PERFORMANCE) TO THIS SITE AND BEACH ACCESS WITHIN THE WORK AREA. PROVIDE FENCING (CONTRACTOR OPTION TO PROVIDE CONSTRUCTION OR CHAIN LINK) AT PERIMETER OF WORK AREA TO PROTECT VISITORS AND THE CONSTRUCTION SITE. COORDINATE PROTECTED EXTENTS WITH PARK AND CO.
- PRIOR TO START OF ANY WORK, ALL EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE IN PLACE. SEE EROSION CONTROL PLAN FOR DETAILS.
- CONTRACTOR SHALL PRESERVE ALL VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING PER CO APPROVAL AREAS DISTURBED BY CONSTRUCTION.
- CLEARLY IDENTIFY AND LABEL EACH TREE THAT IS TO REMAIN PRIOR TO STARTING SITE CLEARING. CONTACT CO FOR SITE INSPECTION AFTER ALL "TO REMAIN" TREES HAVE BEEN IDENTIFIED. TREES THAT ARE TO BE PROTECTED SHALL HAVE TEMPORARY FENCING PLACED AT THE DRIP LINE AROUND EACH TREE. TREES THAT ARE TO BE PROTECTED SHALL HAVE WORK LIMITED UNDER CANOPY AND USE MATS WHEN DOING SO.
- ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF–SITE AND IN A LEGAL MANNER.
- MATERIAL TO BE SALVAGED FOR REUSE BY OWNER SHALL BE REMOVED UNDAMAGED IN USABLE CONDITION. COORDINATE AND TURN OVER TO OWNER AT DETERMINED LOCATION. TEMPORARY PROTECTED STORAGE ON–SITE MAY BE REQUIRED.
- ON–SITE BROKERAGE OF MATERIALS SALVAGED BY CONTRACTOR FROM MATERIALS TO BE REMOVED IS NOT PERMITTED WITHOUT PRIOR APPROVAL.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET (OR AVOIDED) SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE CO ANY DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES, CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- EQUIPMENT STAGING AREA SHALL BE MARKED WITH SIGNAGE 7–DAYS IN ADVANCE OF CONSTRUCTION START. STAGING AREA SHALL BE KEPT ORDERLY AND CLEAN. SWEEPING SHALL BE COMPLETED NO LESS THAN WEEKLY AND AS REQUIRED BY CO. CONTRACTOR SHALL COORDINATE WITH CITY OF BEVERLY SHORES FOR STAGING AND DELIVERY ROUTE.
- EQUIPMENT ACCESS PATH IS TO BE USED TO ACCESS SITE BENEATH PLAZA AREA. FOLLOWING CONSTRUCTION, REGRADE AND ESTABLISH VEGETATION. CONTRACTOR SHALL USE EQUIPMENT ACCESS MATS TO PREVENT SETTLEMENT, SOIL COMPACTION AND VEGETATION DISTURBANCE. MATS SHALL BE REMOVED WHEN NOT IN USE FOR 24 CONSECUTIVE HOURS. USE IS DEFINED AS EQUIPMENT TRAVEL TO PERFORM WORK ASSOCIATED WITH THE PROJECT FOR MORE THAN 2 HOURS.
- EQUIPMENT SHALL BE CLEANED FROM DEBRIS AND SOILS PRIOR TO MOBILIZATION TO THE SITE.

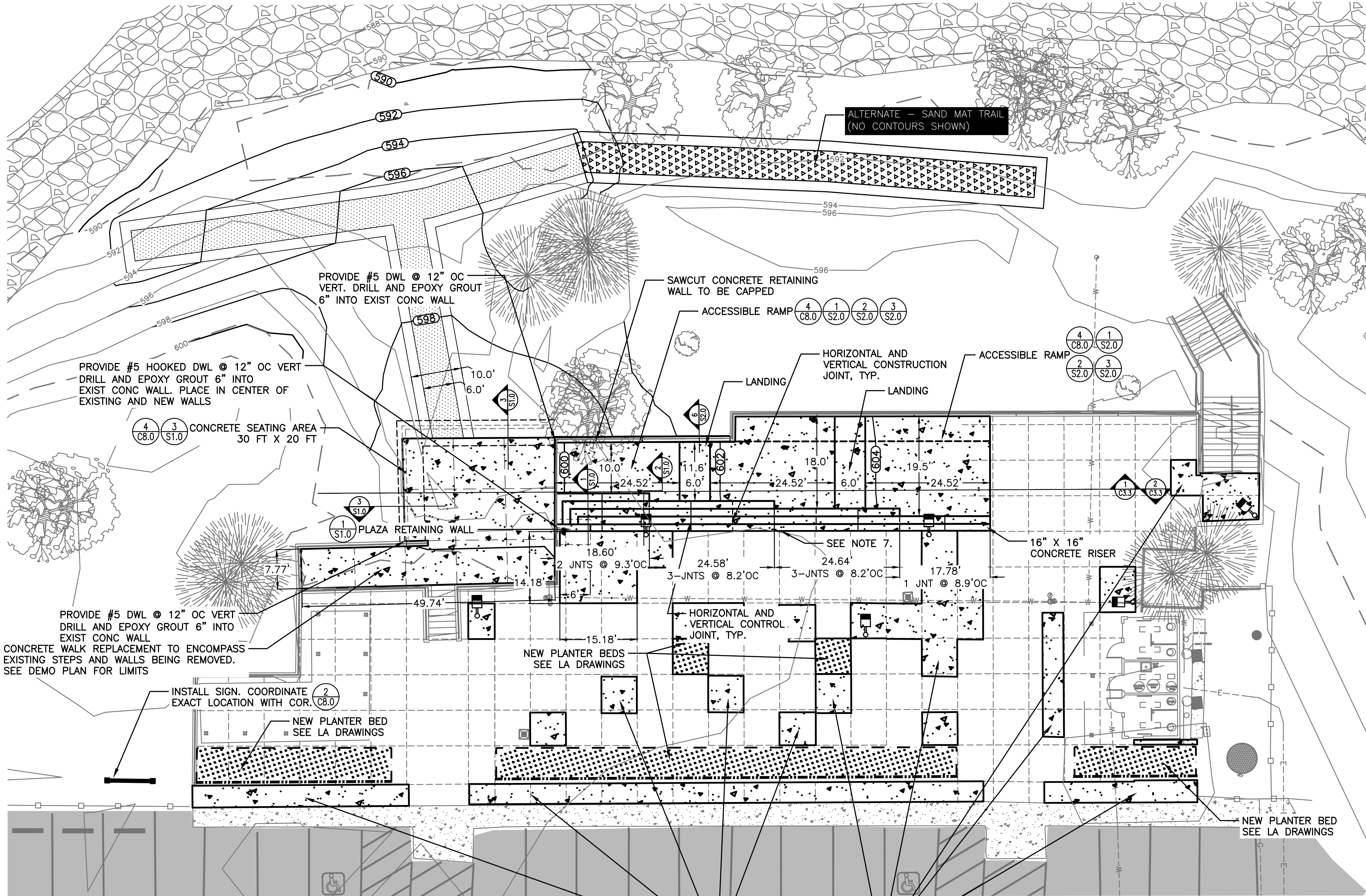


- LEGEND**
- CONCRETE REMOVAL (EXTEND TO NEAREST JOINT OUTSIDE CONSTRUCTION LIMITS)
 - CONCRETE REMOVAL FOR LIGHT FOUNDATION INSTALLATION
 - PLANTER REMOVAL
 - TREE/SHRUB REMOVAL
 - LIGHT POLE REMOVAL (SALVAGE ALL POLES AND DELIVER TO LOCATION DETERMINED BY CO. CUT BOLTS OFF TO GROUND SURFACE WHERE CONCRETE ISN'T BEING REPLACED.)
 - SLOPE AND FLOW ARROWS
 - EQUIPMENT STAGING AREA
 - EQUIPMENT ACCESS PATH
 - EXISTING CONCRETE JOINTS



100% COMPLETE CONSTRUCTION DOCUMENTS			PMIS 216552/243348/216546		
A/E FIRM	DESIGNED:	SUB SHEET NO	TITLE OF SHEET DEMOLITION PLAN LAKE VIEW FACILITY BEACH ACCESS INDIANA DUNES NATIONAL PARK		DRAWING NO. 626 80054
PRIME:	MHO	C1.0			PMIS/PKG NO. SEE PMIS NOTE
SCHEMMER OMAHA, NE	BDH				SHEET
SUB:	TECH. REVIEW:				2 OF 16
AMI SUPERIOR, WI	NPCT				
DATE:					
3/03/2023					

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GENERAL SITE PLAN NOTES:

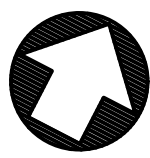
1. SITE DIMENSIONS SHOWN ON THIS PLAN SHALL BE USED FOR ALL LAYOUT WORK. CHECK ALL PLAN AND DETAIL DIMENSIONS. BUILDING AND SITE IMPROVEMENTS SHALL BE LAID OUT ON SITE BY A REGISTERED LAND SURVEYOR, OR A LICENSED ENGINEER.
2. MEET REQUIREMENTS OF LOCAL GOVERNING AUTHORITY FOR WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING TEMPORARY TRAFFIC CONTROL. A TRAFFIC CONTROL PLAN SHALL BE PROVIDED AND APPROVED BY THE CITY PRIOR TO BEGINNING WORK IN THE RIGHT OF WAY.
3. MATCH NEW AND EXISTING PAVEMENT SURFACES, SIDEWALKS AND CURBS AT SAWCUT LINES AND TO NEAREST JOINT, ALLOWING NO PONDING OF WATER AT JOINTS. PROVIDE SMOOTH GRADE TRANSITION ACROSS NEW AND EXISTING JOINTS.

CONCRETE NOTES:

1. SLAB ON GRADE SHALL BE 6" CONCRETE REINF W/#4 @ 18" OC EA WAY, 3" CLEAR BOT OF SLAB.
2. TOP OF SLAB, RAMP, AND STEP ELEVATIONS - SEE CIVIL DRAWINGS.
3. PROVIDE EXPANSION JOINT MATERIAL AND SEALANT AT PERIMETER OF NEW CONCRETE SLAB AND ALSO ADJACENT TO EXISTING MASONRY WALL/STEPS.
4. SEE SHEET S3.0 FOR TYPICAL DETAILS.
5. PROVIDE CONSTRUCTION JOINTS ON STEPS AT EA CHANGE IN NUMBERS OF STEPS. PROVIDE CONTROL JOINTS IN STEPS, EQUALLY SPACED BETWEEN CONSTRUCTION JOINTS, AT 3'-0" OC MAXIMUM. SEE PLAN. PROVIDE JOINT SHOP DRAWING LAYOUT FOR REVIEW/APPROVAL.
6. SLAB CONTROL JOINTS SHALL BE 10'-0" OC MAX.
7. PLAZA SIDE FACE OF FULL LENGTH OF 16"x16" CONCRETE RISER ONLY. APPLY JOINTS AT MAX SPACING OF 3'-0" OC. SPACE JOINTS TO BE EQUALLY SPACED AND ALIGNED WITH STEPS CONTROL AND CONSTRUCTION JOINTS AS LAID OUT ON THIS PAGE.

LEGEND

- NEW CONCRETE WALK/RAMP
- 72" WIDE SAND MAT
- SAND MAT TRAIL (ALTERNATE)
- NEW PLANTER BED SEE LA PLANS
- EXISTING CONCRETE JOINTS
- CONCRETE CURB SEE 8/LA1.1
- SPADE CUT EDGING SEE 6/LA1.1
- CONSTRUCTION JOINT
- CONTROL JOINT
- LIGHT AND FOUNDATION SEE 3/C8.0



0 10 20 Feet

6" CONCRETE WALK ON 12" AGGREGATE BASE



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A/E FIRM
PRIME:
SCHEMMER
OMAHA, NE
SUB:
AMI
SUPERIOR, WI

DESIGNED:
MHO
BDH
TECH. REVIEW:
NPCT
DATE:
3/03/2023

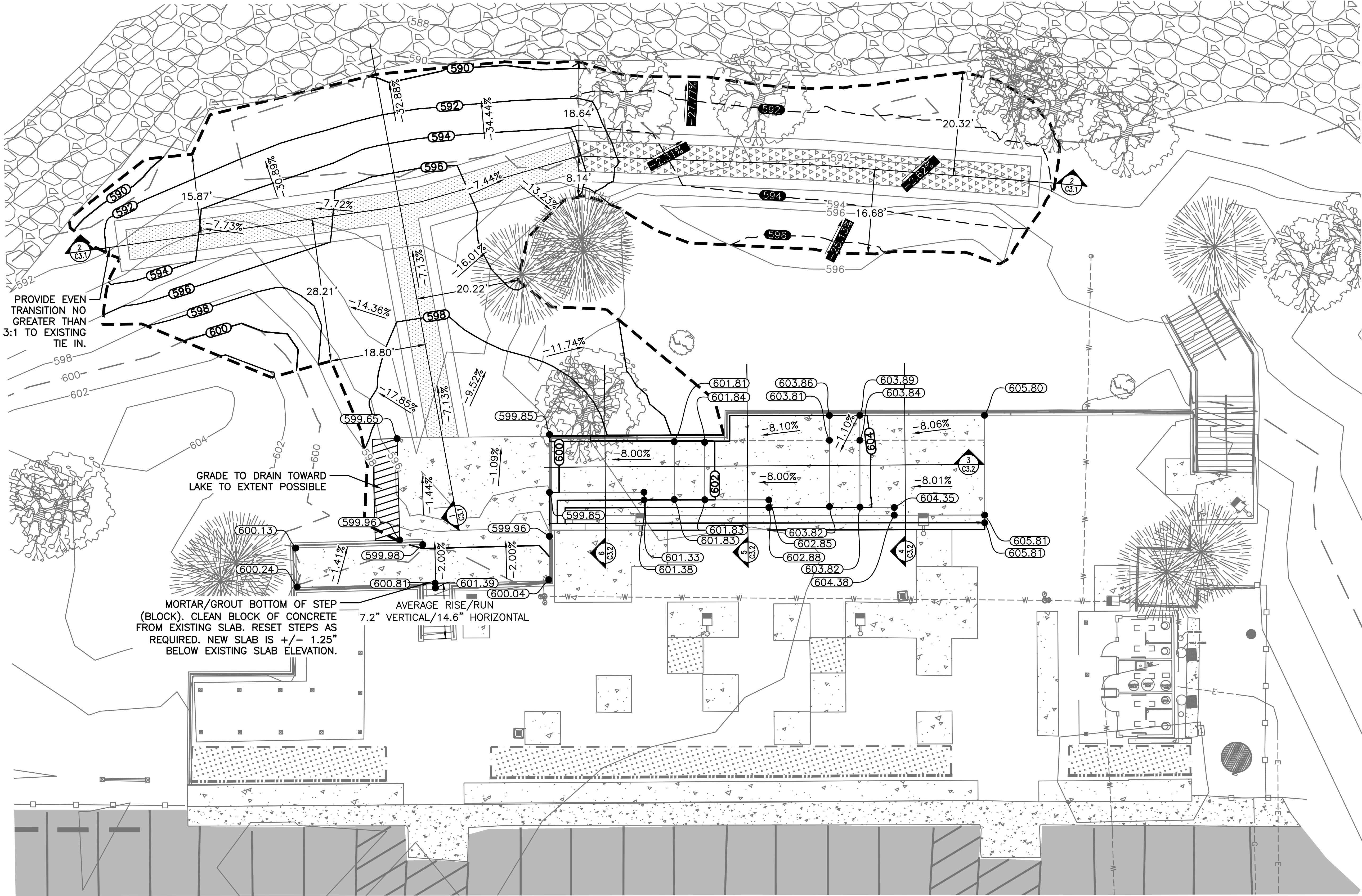
SUB SHEET NO

C2.0

TITLE OF SHEET
SITE PLAN
LAKE VIEW FACILITY
BEACH ACCESS
INDIANA DUNES NATIONAL PARK

DRAWING NO.
626
80054
PMIS/PKG NO.
SEE PMIS NOTE
SHEET
3 OF 16

3/3/2023 2:41 PM Z:\2022\221073 NPS INDU Shoreline\Civil\3_CAD and Point Files\NPS PROJECT CAD HERE\PMIS NUMBER\DISCIPLINE - CIVIL\C3.0 GRADING PLAN.dwg



GENERAL GRADING AND DRAINAGE NOTES:

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. SUBMIT RECORD SURVEY OF FINAL GRADE WITH SURVEYOR CERTIFICATION AT COMPLETION OF GRADING. CO SHALL BE PROVIDED THE OPPORTUNITY TO VERIFY FINAL GRADES AND ELEVATIONS. MAINTAIN MAXIMUM GRADES IDENTIFIED IN PLANS AND PER ABAS REQUIREMENTS.
3. CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL UNLESS OTHERWISE DIRECTED.
4. REFER TO LANDSCAPE PLAN FOR PERMANENT RESTORATION AND PLANTING INFORMATION.
5. MAINTAIN TEMPORARY PROTECTION MEASURES DURING CONSTRUCTION ACTIVITIES. SEE SITE REMOVALS PLAN FOR ADDITIONAL INFORMATION. PROVIDE ADDITIONAL PROTECTION AS NECESSARY AS WORK PROGRESSES.
6. SEE CIVIL SITE PLAN FOR SITE LAYOUT.
7. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
8. SPOT ELEVATIONS SHOWN ADJACENT TO CURB REFER TO GUTTER/FLOW LINE. SPOT ELEVATION SHOWN FOR TOP OF CURB ARE LABELED WITH TC (TOP OF CURB). SPOT LABELED ME REFERS TO MATCH EXISTING GRADE, EOF REFERS TO EMERGENCY OVERFLOW ELEVATION, TW REFERS TO TOP OF WALL AND BW REFERS TO BOTTOM OF WALL.
9. PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT ALL TIMES.
10. NO GRADED SLOPES SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL) UNLESS OTHERWISE NOTED.
11. UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
12. LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE AND CONDUCT GRADING OPERATIONS IN A MANNER TO MINIMIZE THE POTENTIAL FOR EROSION.

LEGEND

- 600 — EXISTING MAJOR CONTOUR
- 596 — EXISTING MINOR CONTOUR
- (596) — PROPOSED BASE SURFACE CONTOUR
- (596) — PROPOSED ALTERNATE SURFACE CONTOUR
- 0.0% SLOPE AND FLOW ARROWS
- (605.85) SPOT ELEVATIONS
- GRADING EXTENTS



0 10 20 FEET

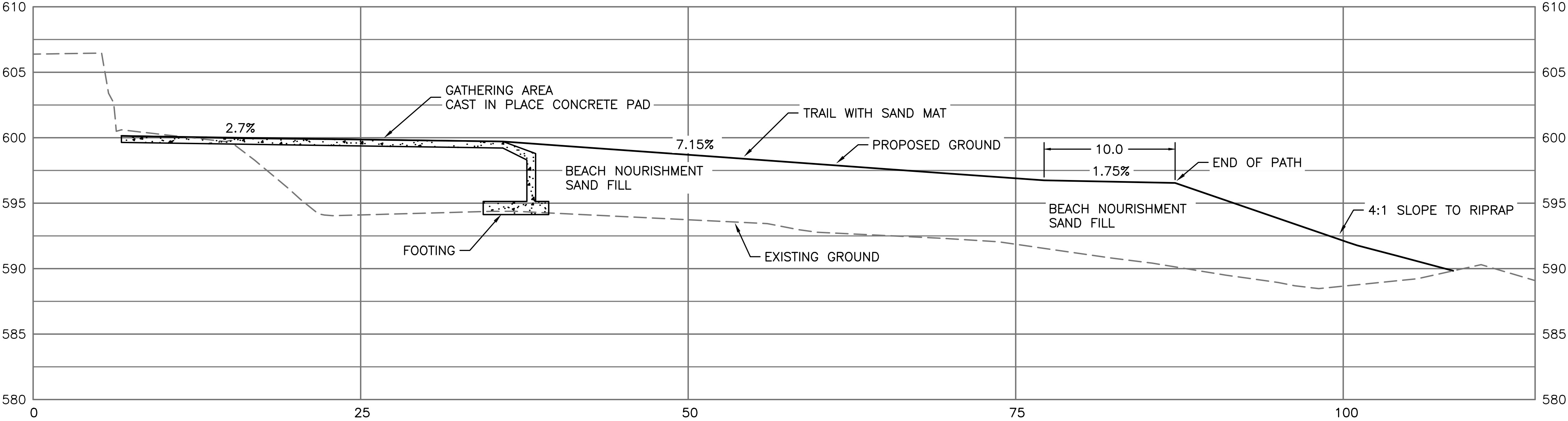


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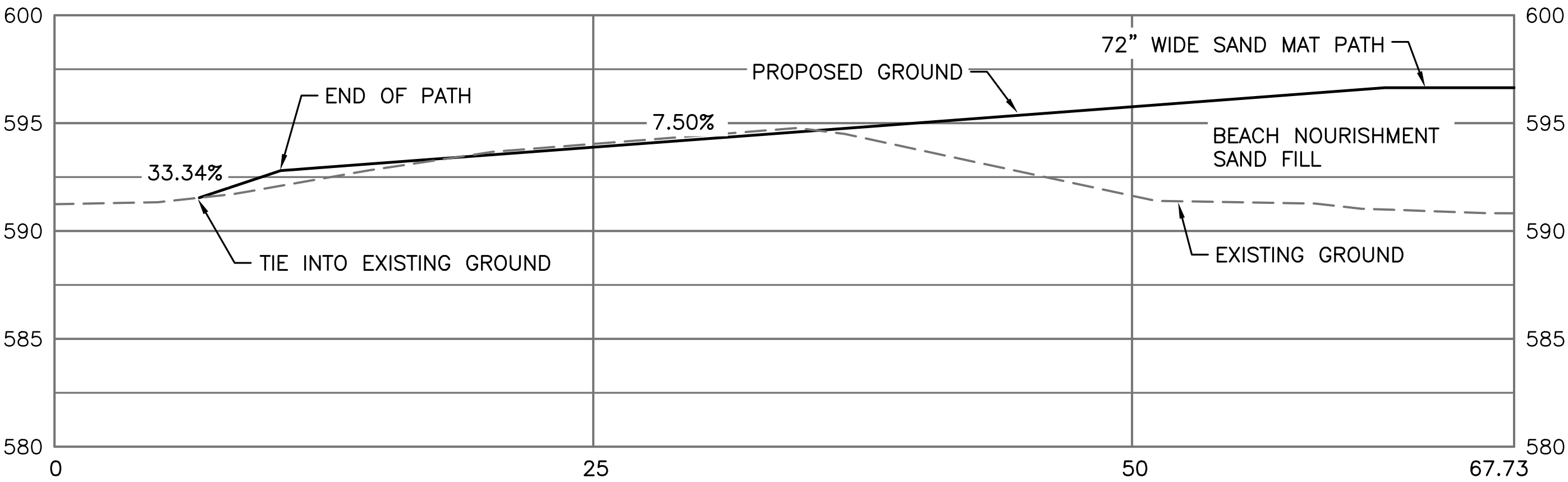
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1 PROFILE VIEW OF 72" WIDE SAND MAT PATH
C3.1




2 PROFILE VIEW OF LAKE PATH WEST LEG (1 OF 2)
C3.1

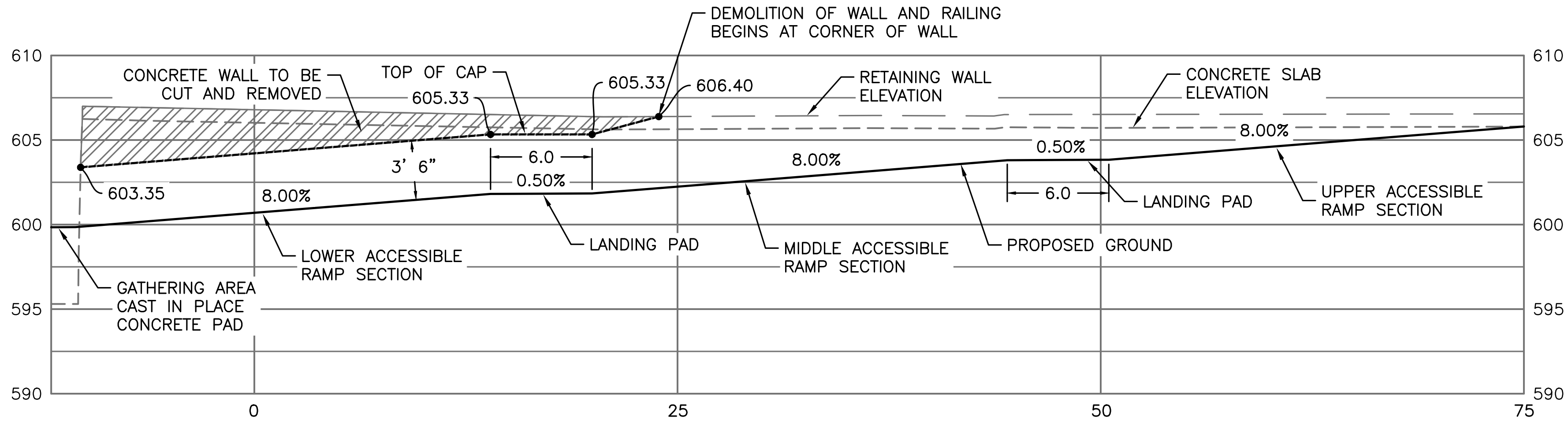


2 PROFILE VIEW OF LAKE PATH EAST LEG (2 OF 2)
C3.1

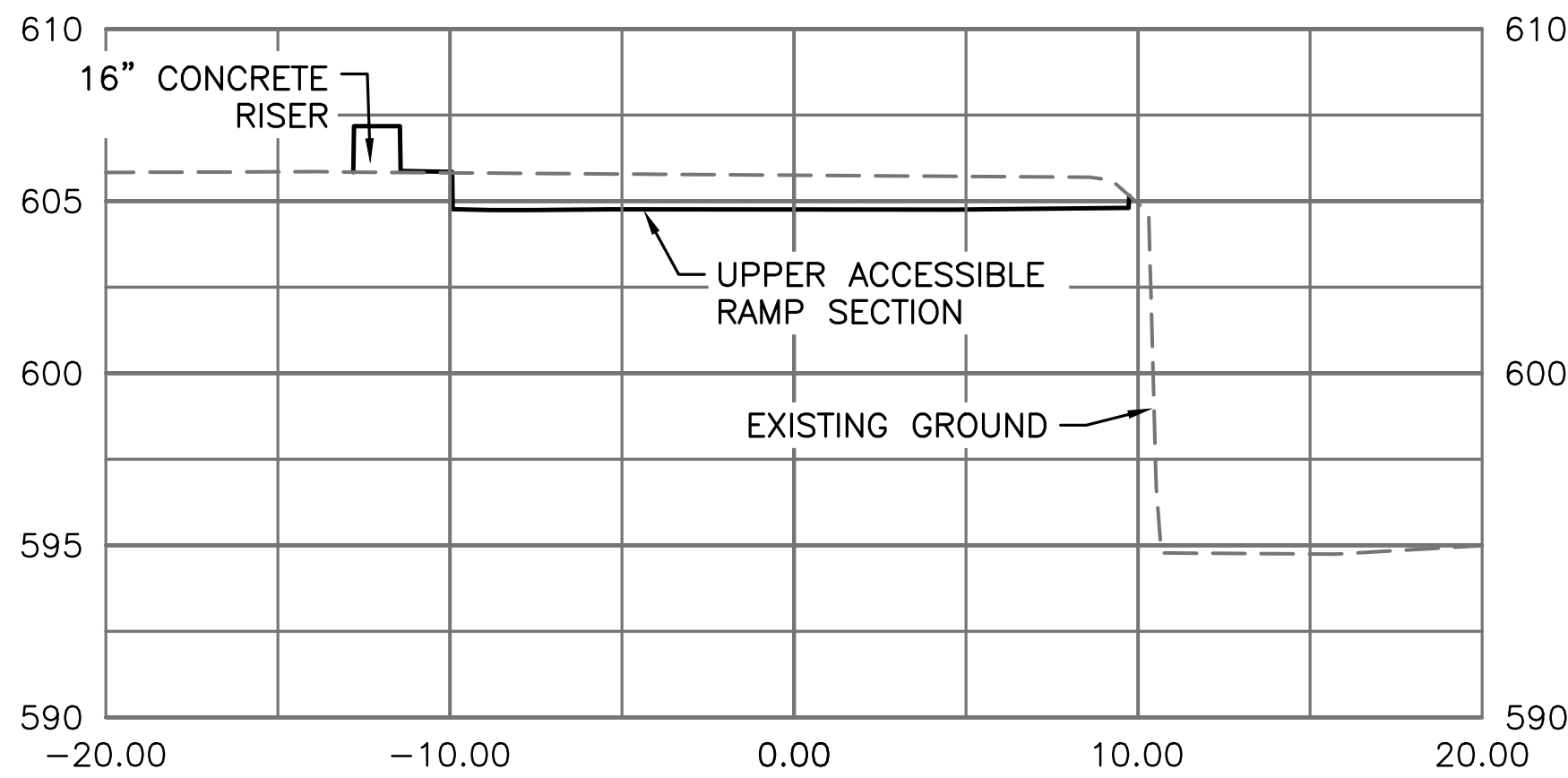


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	MHO			626
				80054
	BDH			PMIS/PKG NO.
	TECH. REVIEW:			SEE PMIS NOTE
	NPCT			SHEET
DATE:				5 OF 16
3/03/2023				

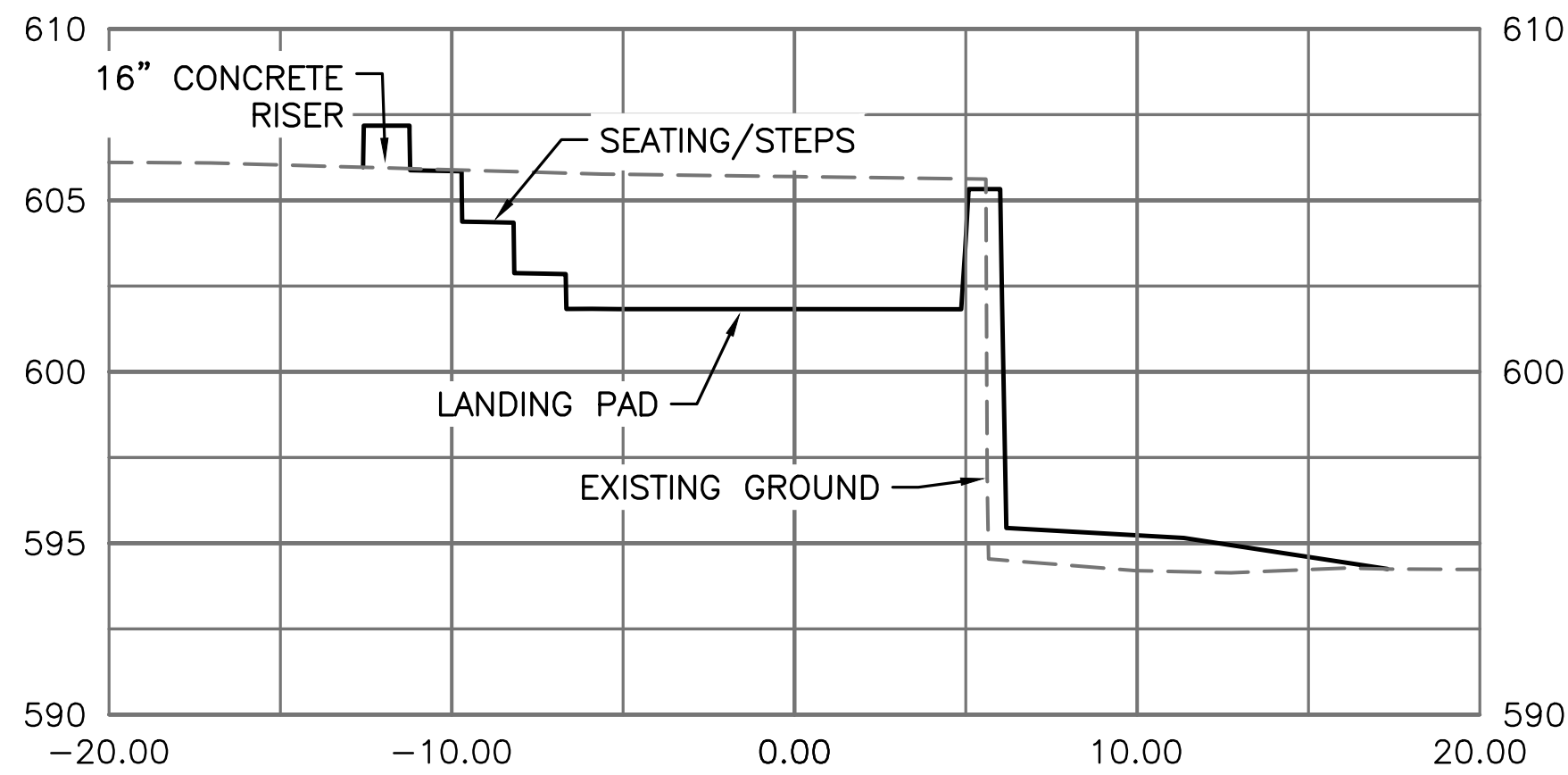
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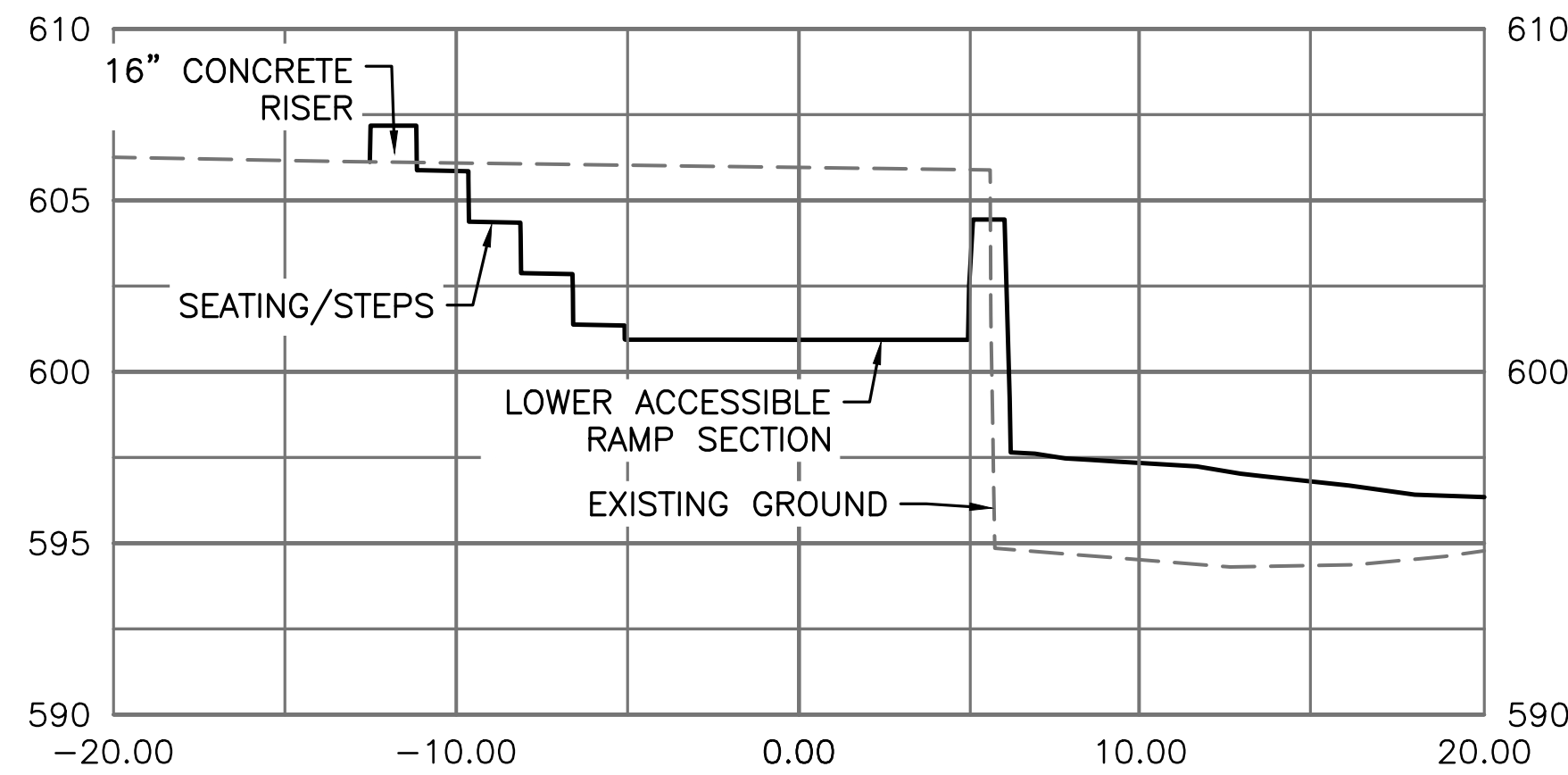
3 PROFILE VIEW OF ACCESSIBLE RAMP
C3.2



4 UPPER ACCESSIBLE RAMP CROSS SECTION
C3.2



5 LANDING PAD CROSS SECTION
C3.2



6 LOWER ACCESSIBLE RAMP CROSS SECTION
C3.2

ACCESSIBLE RAMP CROSS SECTIONS



3/3/2023

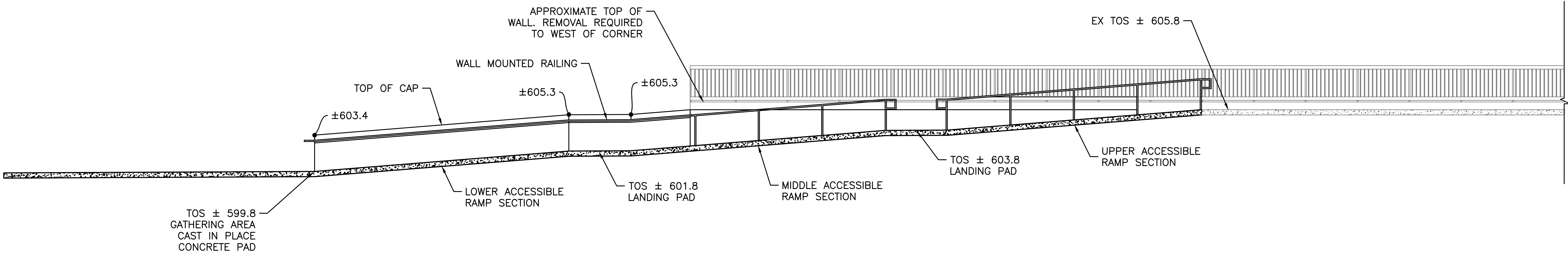
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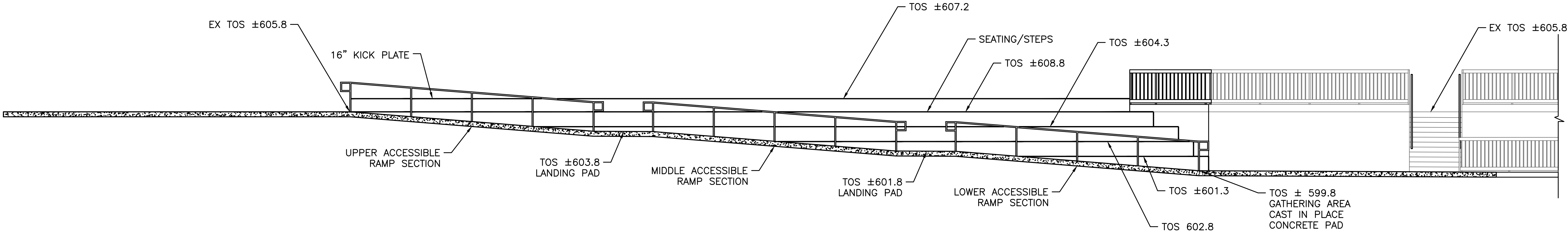
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NOTES:
1. ELEVATIONS AND DIMENSIONS PROVIDED ON THIS DRAWING SHALL NOT BE USED FOR LAYOUT AND CONTROL



1 ELEVATION VIEW OF ACCESSIBLE RAMP FACING NORTH WEST
C3.3

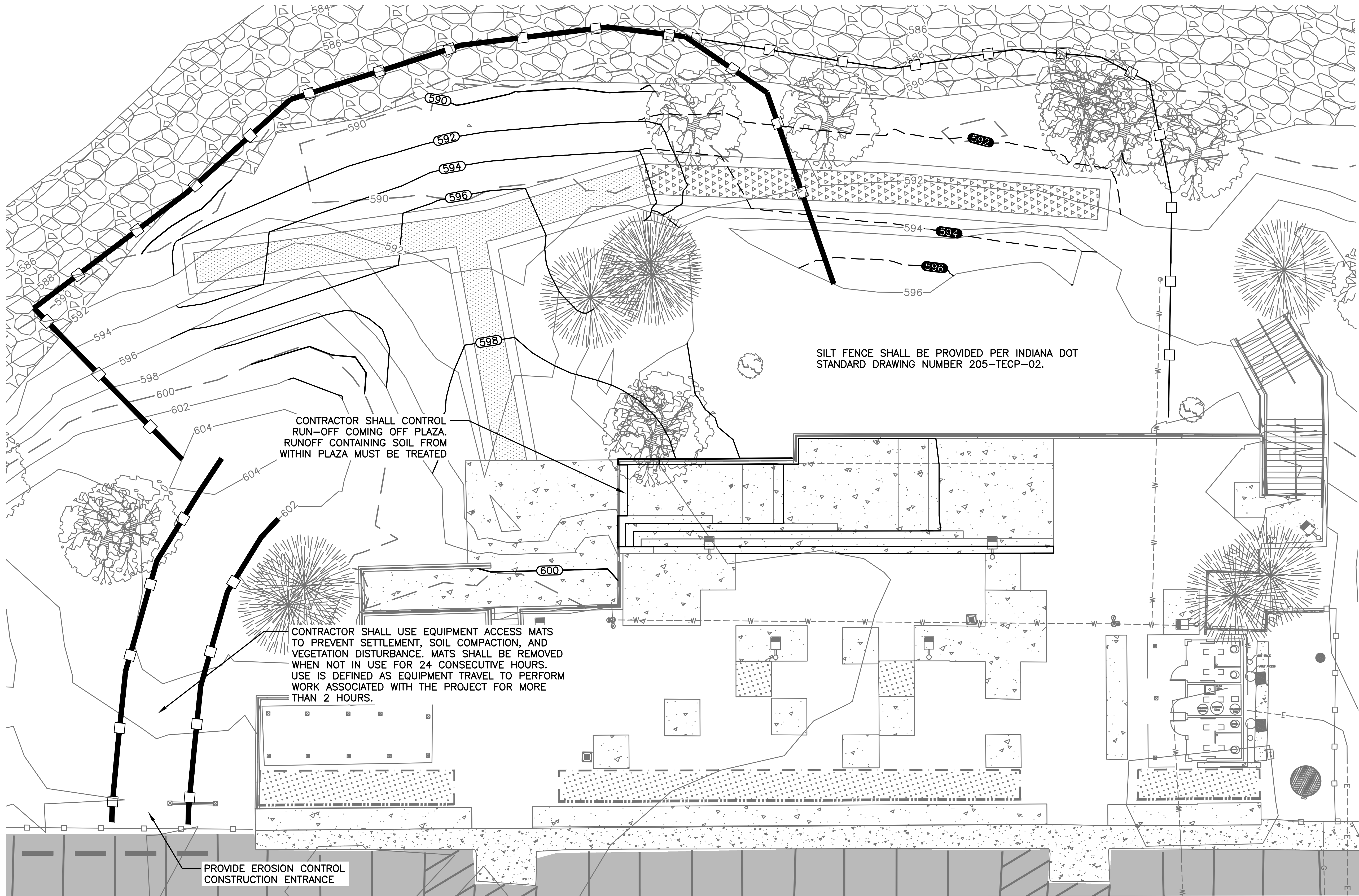


2 ELEVATION VIEW OF ACCESSIBLE RAMP FACING SOUTH EAST
C3.3



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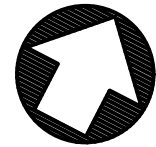


GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. INSTALL TEMPORARY EROSION CONTROL DEVICES AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.
2. MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A WEEKLY BASIS AND DURING RAINFALL EVENTS. REMOVE ACCUMULATED SEDIMENT DEPOSITS FROM EROSION AND SEDIMENT CONTROL DEVICES AND DOWNSTREAM DRAINAGE SYSTEMS AS NEEDED. DO NOT ALLOW SEDIMENT TO ACCUMULATE TO A DEPTH OF MORE THAN ONE-THIRD OF THE CAPACITY OF THE DEVICE. REPLACE DETERIORATED OR DAMAGED EROSION CONTROL DEVICES WITHIN 24 HOURS.
3. PROVIDE ADDITIONAL EROSION CONTROL, WHICH MAY NOT BE SHOWN ON THE DRAWINGS, CONSISTENT WITH THE MEANS, METHODS AND SEQUENCE OF CONSTRUCTION IN ACCORDANCE WITH PERMIT REQUIREMENTS AND AUTHORITIES HAVING JURISDICTION.
4. REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS THROUGHOUT THE DURATION OF THE CONSTRUCTION.
5. STABILIZE ALL AREAS WHICH HAVE BEEN FINISH-GRADED, AND ALL DISTURBED AREAS IN WHICH GRADING OR CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY, AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 14 DAYS. REPAIR ERODED AREAS IMMEDIATELY.
6. LOCATE SOIL OR DIRT STOCKPILES CONTAINING MORE THAN 10 CUBIC YARDS OF MATERIAL WITH A DOWNSLOPE DRAINAGE LENGTH OF NO LESS THAN 25 FEET FROM THE TOE OF THE PILE TO A ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT FENCE BARRIERS AROUND THE PILES.
7. PERFORM ALL EROSION CONTROL PRACTICES AND SEQUENCE CONSTRUCTION IN ACCORDANCE WITH THE METHODS OUTLINED IN THE BEST MANAGEMENT PRACTICES.

LEGEND

- 600 — EXISTING MAJOR CONTOUR
- 596 — EXISTING MINOR CONTOUR
- 596 — PROPOSED BASE SURFACE CONTOUR
- 596 — PROPOSED ALTERNATE SURFACE CONTOUR
- [Symbol] — SILT FENCE (BASE BID)
- [Symbol] — SILT FENCE (ALTERNATE)



0 10 20 Feet



100% COMPLETE CONSTRUCTION DOCUMENTS

PMIS 216552/243348/216546

A/E FIRM
PRIME:
SCHEMMER
OMAHA, NE
SUB:
AMI
SUPERIOR, WI

DESIGNED:
MHO
BDH
TECH. REVIEW:
NPCT
DATE:
3/03/2023

SUB SHEET NO
C4.0

TITLE OF SHEET
EROSION CONTROL PLAN
LAKE VIEW FACILITY
BEACH ACCESS
INDIANA DUNES NATIONAL PARK

DRAWING NO.
626
80054
PMIS/PKG NO.
SEE PMIS NOTE
SHEET
8 OF 16

BUSHED CONDUIT EXTENDED 6" INTO POLE CAVITY
 GROUT MUST BE PACKED UNDER POLE TO ENSURE FULL CONTACT WITH FOOTING. PROVIDE CHANNEL THROUGH GROUT FOR POLE INTERIOR DRAINAGE
 ANCHOR BOLTS PROVIDED BY POLE MANUFACTURER. VERIFY BOLT CIRCLE AND BOLTS AND USE BOLT SETTING TEMPLATE PROVIDED BY POLE MANUFACTURER.
 SEE SECTION 26 56 70 FOR LIGHT POLE, FIXTURE AND APPURTENANCES
 PROVIDE GROUND LUG BURNDY NO. GB4C
 VERIFY ANCHOR BOLTS PROJECTION ABOVE TOP OF BASE WITH POLE MANUFACTURER. INSTALL DOUBLE NUTS FOR LEVELING UNIT (ONE ABOVE AND ONE BELOW BASE FLANGE). GROUT VOID BETWEEN BASE FLANGE AND TOP OF CONCRETE AND HAND FINISH.
 3/4" CHAMFER
 GRADE LINE
 4"
 2'-6"
 7'-6"
 REINFORCED CONCRETE BASE BY ELECTRICAL CONTRACTOR
 1/2" RIGID CONDUIT FOR GROUND WIRE
 NO. 6 THWN-2 GREEN GROUND WIRE
 EXOTHERMIC WELD BURNDY NO. B-8422
 EMPTY CONDUIT EXTENDED 2' FROM EDGE OF FOUNDATION
 (6) #5 REBAR
 NO. 3 TIE RODS @ 18" O.C. (2 @ 3" @ TOP OF PIER)
 5/8" x 8' GROUND ROD
 18" DIA SONOTUBE

CONCRETE:
 3000 PSI F'C @ 28 DAYS
 CEMENT - PORTLAND TYPE I
 AGGREGATES - REGULAR K/T
 HARDROCK TYPE ASTM C33
REINFORCING STEEL:
 ASTM A615, GRADE 60

2 NPS SIGN
C8.0

Diagram illustrating the cross-section of a pavement structure with the following layers and details:

- 6" REINFORCED CONCRETE SLAB #4 @ 18" OC EW
- 12" AGGREGATE BASE
- SCARIFY AND COMPACT TOP 12" OF EXISTING SOIL
- SEE STRUCTURAL FOR JOINT DETAILS

4
C8.0

TYP SLAB-ON-GRADE

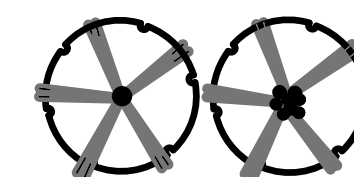


A/E FIRM PRIME: SCHEMMER OMAHA, NE SUB: AMI SUPERIOR, WI	DESIGNED:	SUB SHEET NO C8.0	TITLE OF SHEET DETAILS LAKE VIEW FACILITY BEACH ACCESS INDIANA DUNES NATIONAL PARK	DRAWING NO.
	MHO			626
	CADD			80054
	BDH			PMIS/PKG NO.
TECH. REVIEW:	NPCT	SEE PMIS NOTE	SHEET	
DATE:	3/03/2023		9 OF 16	

Key	Quantity	Botanical Name	Common Name	Size	Root	Notes
		TREES				
PI BA	1	PINUS BANKSIANA	JACK PINE	6'	B&B	
PL BG	2	PLATANUS OCCIDENTALIS	SYCAMORE	2-1/2"	B&B	
BE PA	6	BETULA PAPYRIFERA	PAPER BIRCH	1 1/2"	B&B	CLUMP
		SHRUBS				
JU CO	47	JUNIPERUS COMMUNIS	COMMON JUNIPER	#1	CONT.	
SP AL	6	SPIRAEA ALBA	MEADOWSWEET	24"	B&B	
PO FR	90	POTENTILLA FRUTICOSA	SHRUBBY CINQUEFOIL	#1	CONT.	
CE AM	22	CEANOTHUS AMERICANUS	NEW JERSEY TEA	#1	CONT.	
PO NB	9	PHYSOCARPUS OPULIFOLIUS	NINEBARB	#3	CONT.	
BP BB	10	BETULA PUMILA	BOG BIRCH	#1	CONT.	
		PERENNIAL				
AM BR	110	AMMOPHILA BREVILIGULATA	MARRAM GRASS	4"	CONT.	
BO CU	24	BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA	4"	CONT.	
AR CA	17	ARTEMISIA CAUDATA	BEACH WORMWOOD	4"	CONT.	
AS LA	25	ASTER LAEVIS	SMOOTH BLUE ASTER	4"	CONT.	
IR VI	14	IRIS VIRGINICA	BLUE FLAG IRIS	4"	CONT.	
LU PE	35	LUPINUS PERENNIS	WILD LUPINE	4"	CONT.	
PE HI	27	PENSTEMON HIRSUTUS	HAIRY BEARD TONGUE	4"	CONT.	
SC SC	56	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	4"	CONT.	

*A COMPLETE LIST OF PLANTS, INCLUDING QUANTITIES, SIZES, AND OTHER REQUIREMENTS IS INCLUDED ABOVE. IN THE EVENT THAT DISCREPANCIES OCCUR BETWEEN QUANTITIES OF PLANTS INDICATED IN THE PLANT LIST AND ON THE PLAN, THE QUANTITIES INDICATED ON THE PLAN SHALL GOVERN.

LEGEND:

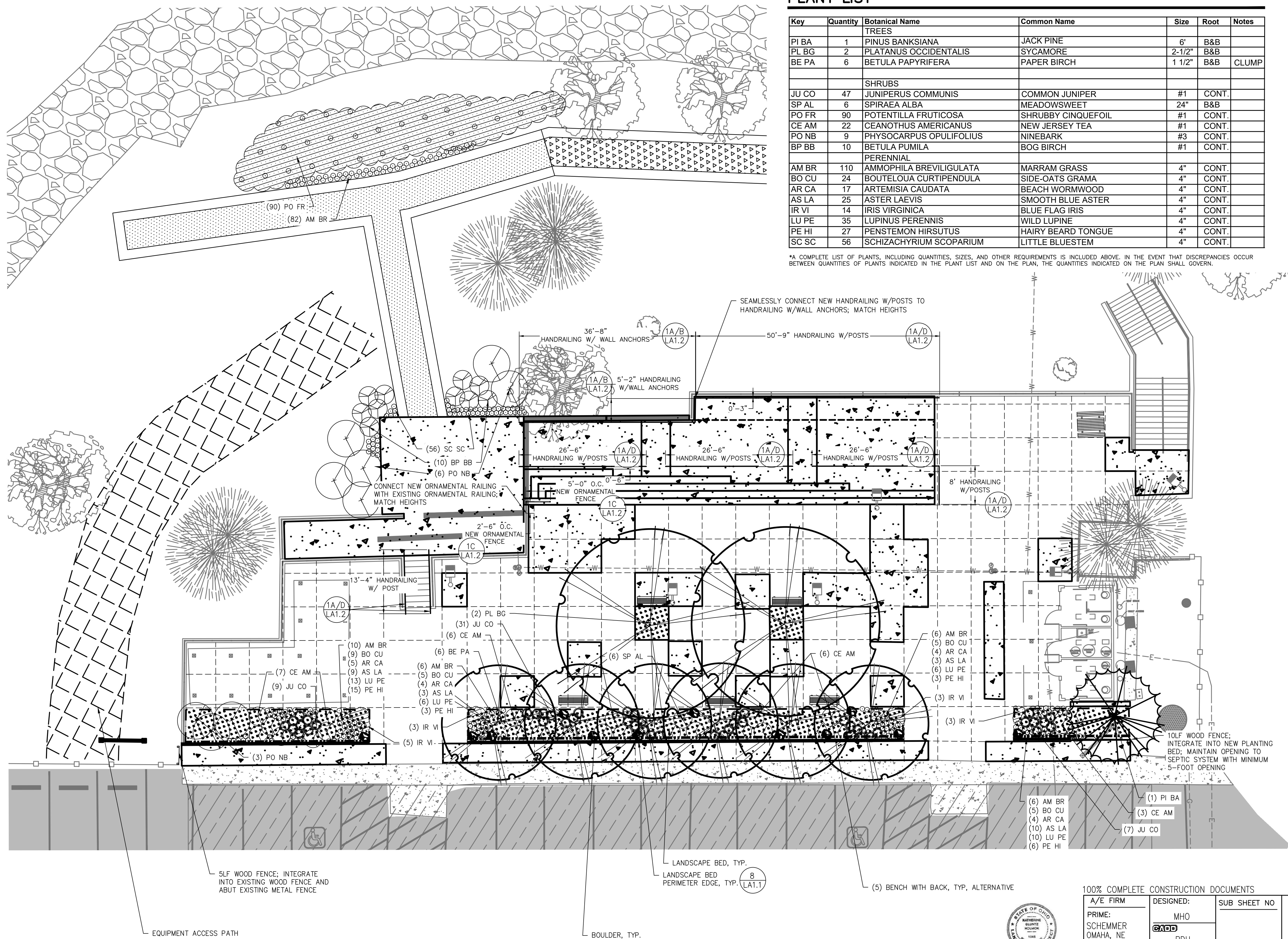


TREES

SHRUBS/PERENNIALS/ORNAMENTAL
GRASSES

PLAN NOTES:

1. THIS SHEET FOR PLANTING REFERENCES ONLY. SEE DETAILS FOR PLANTING INSTALLATION.
2. EQUIPMENT ACCESS:
 - a. CONTRACTOR SHALL FIELD MARK EQUIPMENT ACCESS ROUTE LIMITS FOR COR REVIEW PRIOR TO UTILIZATION.
 - b. COR SHALL NOTIFY NPS STAFF BOTANIST(S) FOR THEIR REVIEW/IDENTIFICATION OF EXISTING REE/DIFFICULT REPLACEMENT PLANT MATERIAL IN ACCESS ROUTE LIMITS.
 - c. NPS STAFF BOTANIST(S) SHALL REMOVE AND STORE REE/DIFFICULT TO REPLACE PLANTS IDENTIFIED AND CONTRACTOR SHALL RE-PLANT PLANTS AS DIRECTED BY COR WITH OTHER LANDSCAPING.
 - d. CONTRACTOR SHALL INSTALL TEMPORARY MATTING ON VEGETATION WITHIN ACCESS ROUTE LIMITS.
 - e. ALL EQUIPMENT SHALL TREAD LIGHTLY AND INFREQUENTLY WITHIN ACCESS ROUTE TO REDUCE DISTURBANCE TO PLANTS AND PATHS.
 - f. CONTRACTOR SHALL RESTORE EQUIPMENT ACCESS PATH WITH SIMILAR PLANT MATERIAL AND QUANTITY AS EXISTING.
3. MINIMUM POT SIZE SHALL BE 2" CONTAINER, EXCEPT PLUGS. PLUGS SHALL HAVE A MINIMUM SIZE OF 2" CONTAINER.
4. CONTRACTOR SHALL RESTORE ALL DISTURBED AREA THAT ARE NOT DESIGNATED WITH OTHER MATERIAL, WITH NATIVE PLUGS AS PER SPECIFICATIONS AND JUTTING MATING. PLANT PLUGS 2-FOOT D.I.C.
5. LANDSCAPING PERFORMER CURB SHALL BE SHOWN AS THAT LINE ON THIS PLAN AND DETAILED ON PAGE LA1.1, DETAIL #8. DETAIL IS TYPICAL ALONG SOUTHERN EDGE OF NEW PLANTING BED ADJACENT TO NEW CONCRETE SIDEWALK. DETAIL LA1.1 #6 SHALL BE STANDARD FOR PLANTING BEDS. EXCEPT WHERE LANDSCAPING PERFORMER CURB DETAIL IS INSTALLED.



10 0 10 20 1" = 10



PMIS 216552/243348/216546

TITLE OF SHEET
LANDSCAPE PLAN
LAKE VIEW FACILITY
BEACH ACCESS
INDIANA DUNES NATIONAL PARK

DRAWING NO.	626
	80054
PMIS/PKG NO.	
SEE PMIS NOTE	
SHEET	
9	OF 16

100% COMPLETE CONSTRUCTION DOCUMENTS

A/E FIRM
PRIME:
SCHEMMER
OMAHA, NE

SUB:
AMI
SUPERIOR, WI

DESIGNED: MHO
CADD BDH
TECH. REV NPCT
DATE: 3/03/2

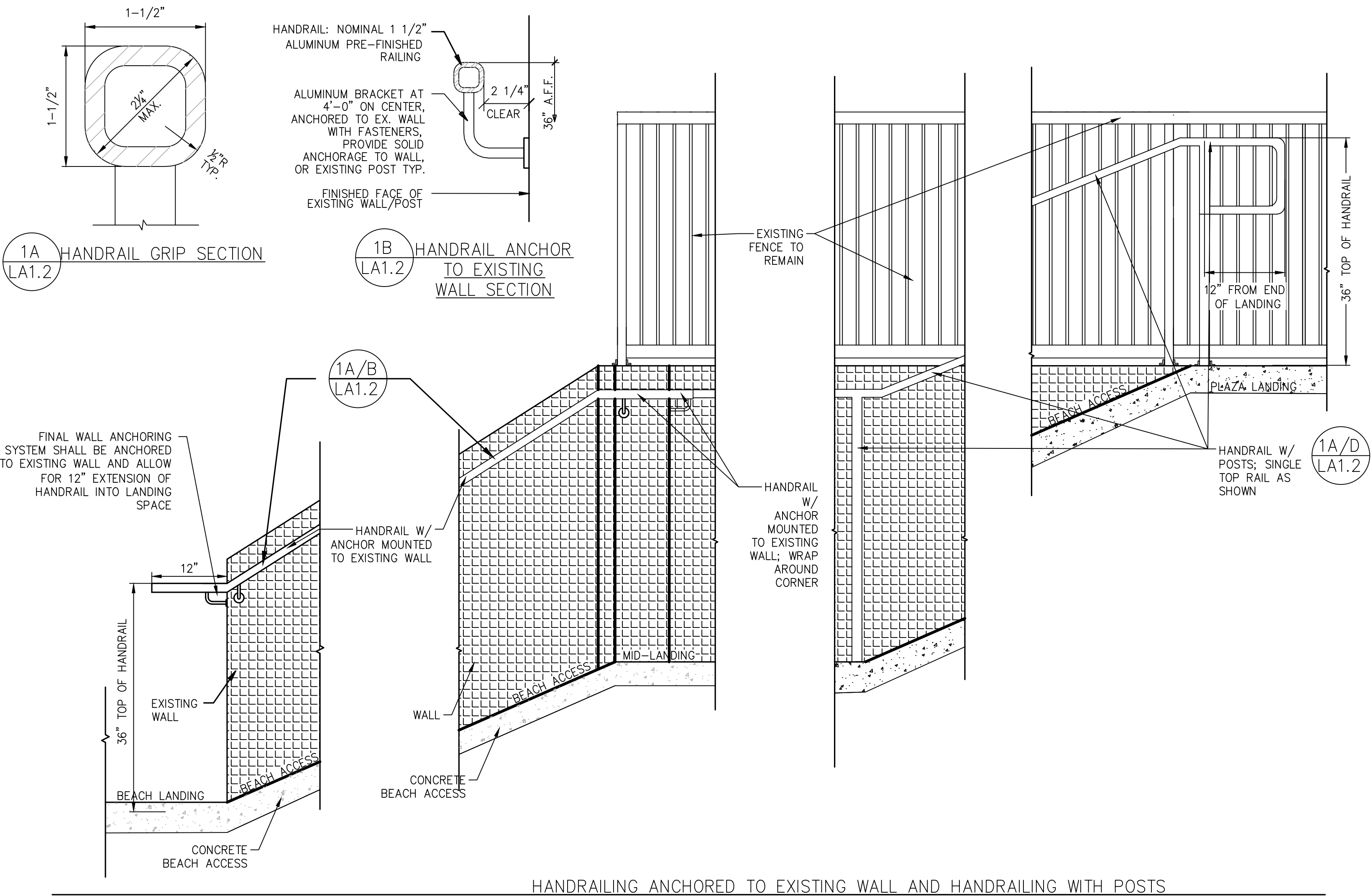
SUB SHEET NO

LA1.C

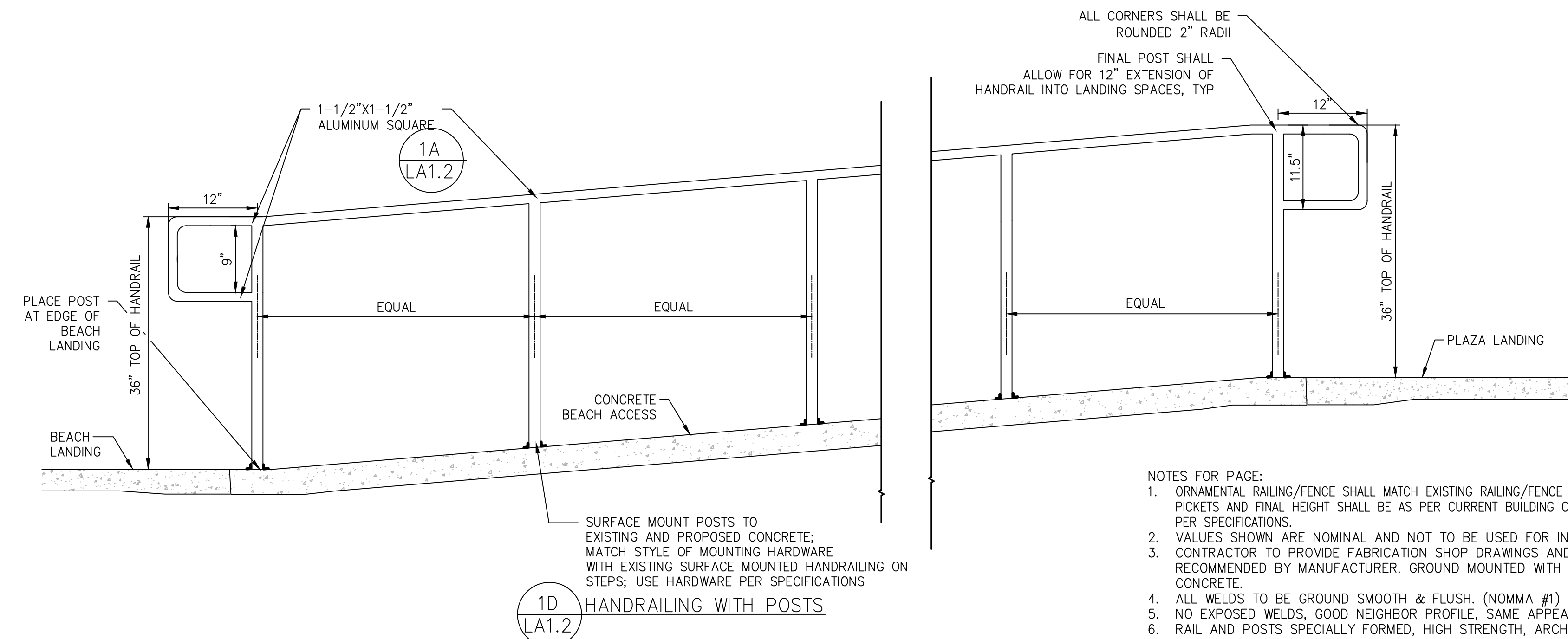


Katherine Ely Holmbeck
Indiana Landscape Architecture License pending
03/03/2023

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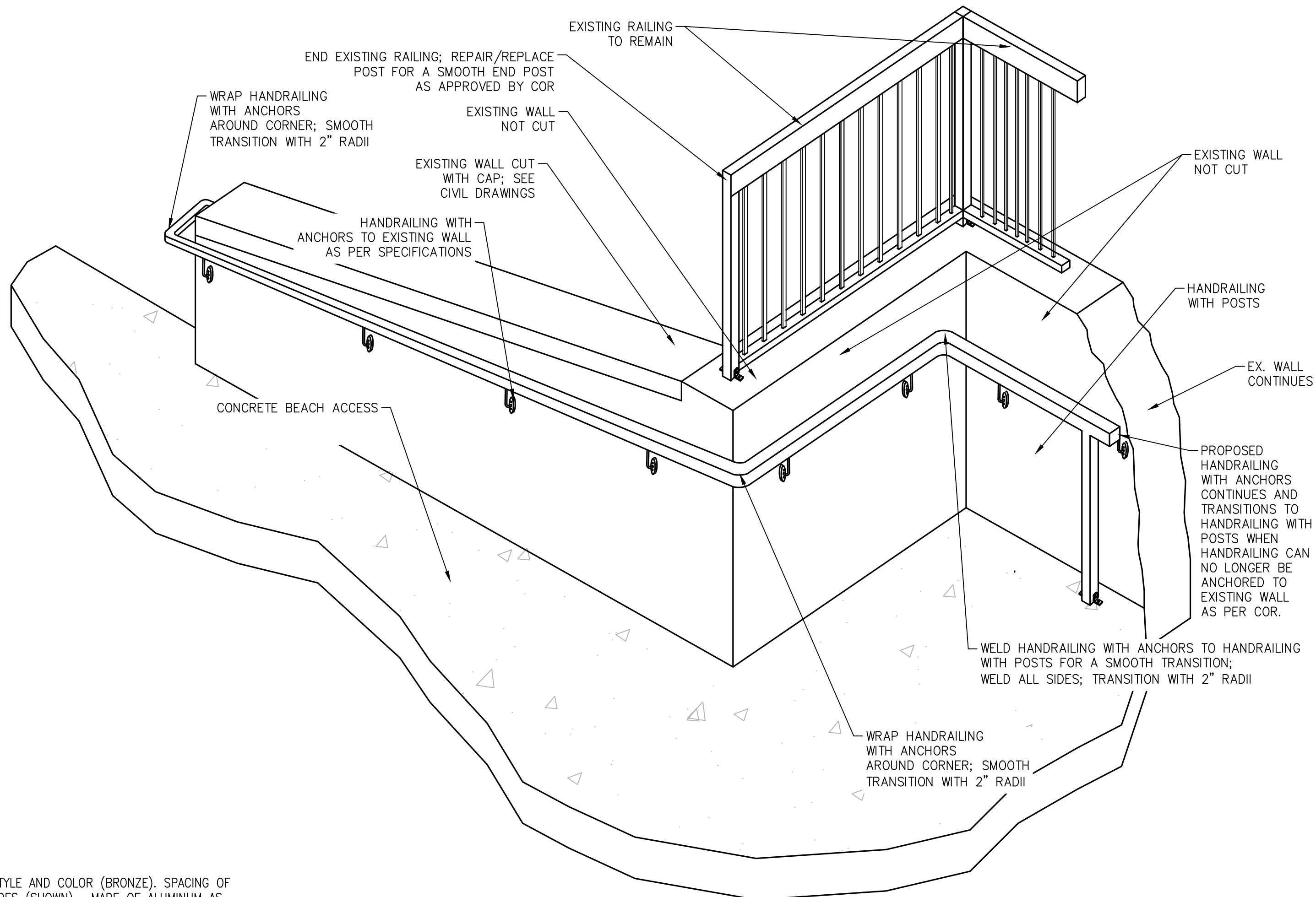
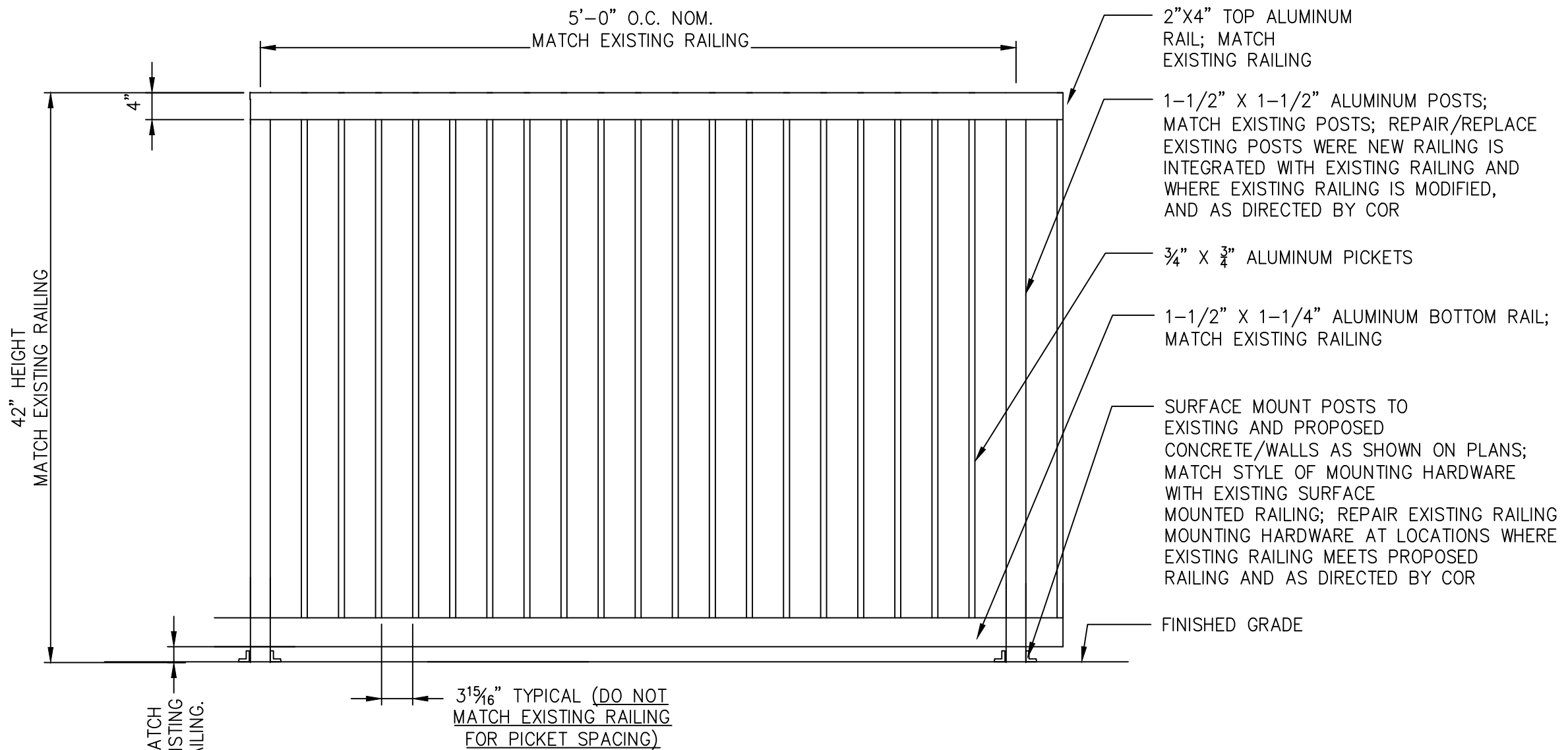


HANDRAILING ANCHORED TO EXISTING WALL AND HANDRAILING WITH POSTS



NOTES FOR PAGE:

1. ORNAMENTAL RAILING/FENCE SHALL MATCH EXISTING RAILING/FENCE STYLE AND COLOR (BRONZE). SPACING OF PICKETS AND FINAL HEIGHT SHALL BE AS PER CURRENT BUILDING CODES (SHOWN). MADE OF ALUMINUM AS PER SPECIFICATIONS.
2. VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES. CONTRACTOR TO PROVIDE FABRICATION SHOP DRAWINGS AND MOUNTING DETAILS AS RECOMMENDED BY MANUFACTURER. GROUND MOUNTED WITH MINIMUM 4-INCH BOLTS INTO CONCRETE.
3. ALL WELDS TO BE GROUND SMOOTH & FLUSH. (NOMMA #1)
4. NO EXPOSED WELDS, GOOD NEIGHBOR PROFILE, SAME APPEARANCE ON BOTH SIDES.
5. RAIL AND POSTS SPECIALLY FORMED, HIGH STRENGTH, ARCHITECTURAL SHAPE.
6. ALL SCREWS SHALL BE HIDDEN SIMILAR TO EXISTING FENCE/RAILING.
7. ALL HANDRAIL COMPONENTS TO BE ALUMINUM WITH BRONZE FINISH TO MATCH EXISTING HANDRAILING.



HANDRAILING WITH ANCHORS & HANDRAILING WITH POSTS CORNER - ILLUSTRATIVE SKETCH

1 LA1.2 HANDRAILING W/ POSTS, HANDRAILING W/ WALL ANCHORS AND ORNAMENTAL FENCE
LA1.2 NOT TO SCALE



100% COMPLETE CONSTRUCTION DOCUMENTS

A/E FIRM
PRIME: SCHEMMER OMAHA, NE
SUB: AMI SUPERIOR, WI

DESIGNED: MHO
TECH. REVIEW: NPCT
DATE: 3/03/2023

SUB SHEET NO.
LA1.2

TITLE OF SHEET
LANDSCAPE DETAILS
LAKE VIEW FACILITY
BEACH ACCESS
INDIANA DUNES NATIONAL PARK

DRAWING NO.
626
80054
PMIS/PKG NO.
SEE PMIS NOTE
SHEET
11 OF 16

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GENERAL STRUCTURAL NOTES

GENERAL

- ALL PLAN DIMENSIONS ON THE DRAWINGS ARE MEASURED IN A TRUE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
- ALL MATERIALS AND INSTALLATION MUST MEET THE STANDARD SPECIFICATIONS LISTED IN THE DESIGN CRITERIA SECTION OF THE STRUCTURAL NOTES AND THE PROJECT SPECIFICATIONS.
- THE STRUCTURAL DRAWINGS ARE TO BE WORKED TOGETHER WITH CIVIL DRAWINGS AND SPECIFICATIONS FOR ALL INTER-DISCIPLINE INTERFACE WORK WHICH MAY NOT BE INCLUSIVE ON THE STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND SHALL REPORT ANY DISCREPANCY TO THE CONTRACTING OFFICER PRIOR TO COMMENCING THE WORK.
- OPENINGS AND PENETRATIONS NOT SHOWN IN THE CONTRACT DOCUMENTS THROUGH ANY STRUCTURAL ELEMENTS OR ITEMS EMBEDDED IN THE STRUCTURAL ELEMENTS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTING THE WORK.
- PLANS, SECTIONS, AND DETAILS SHALL NOT BE SCALED FOR DETERMINATION OF SIZE, QUANTITIES, LENGTHS, ETC.
- ALL MEMBERS ARE DESIGNED TO RESIST THE DESIGN LOADS WITHIN THE COMPLETED SYSTEM. CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SHORING, BRACING, ETC DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ANY AND ALL STREETS, UTILITIES, EXISTING STRUCTURES, EQUIPMENT, ETC.
- CONTRACTOR IS RESPONSIBLE TO FOLLOW ALL LOCAL, STATE, & FEDERAL PERMIT REQUIREMENTS AT ALL TIMES.
- EXISTING CONDITIONS, RELATED DIMENSIONS, ELEVATIONS INDICATED IN THE CONTRACT DOCUMENTS SHALL BE FIELD VERIFIED AS SITE CONDITIONS MAY HAVE CHANGED SINCE LAST INSPECTION BY ENGINEER. ANY VERIFIED CONDITIONS THAT DIFFER FROM THAT INDICATED IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO PRODUCTION OF SHOP DRAWINGS & FABRICATION.
- THE ACCURACY OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES ARE NOT GUARANTEED AND NOT INCLUSIVE. FIELD CONDITIONS SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
- THE GENERAL STRUCTURAL NOTES GIVEN IN THE CONSTRUCTION DOCUMENTS MAY NOT BE INCLUSIVE TO THE ENTIRE PROJECT. SEE FULL PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.

DESIGN CRITERIA

- CODES AND SPECIFICATIONS
 - ALL DESIGN, UNLESS OTHERWISE NOTED, ARE IN ACCORDANCE WITH THE FOLLOWING:
 - I. 2021 INTERNATIONAL BUILDING CODE (IBC)
 - II. ASCE STANDARD 7-16
- DESIGN LOADS
 - A. SLAB LIVE LOAD: 250 PSF
 - B. ALLOWABLE SOIL BEARING: 3,000 PSF

FOUNDATION

- PREPARE ALL SOILS BENEATH SLABS AND FOOTINGS IN ACCORDANCE WITH DRAWINGS AND DESIGN CRITERIA.
- SOIL BENEATH FOOTINGS AND SLABS SHALL BE OF ADEQUATE STRENGTH AND DENSITY TO ACHIEVE THE PRESUMED SOIL BEARING STRENGTH AS INDICATED IN THE DESIGN CRITERIA SECTION OF THE STRUCTURAL NOTES.
- CONTRACTOR SHALL REMOVE ALL ORGANIC AND UNCOMPACTED SOILS AND REPLACE WITH ENGINEERED FILL
- CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE BEGINNING FOUNDATION EXCAVATIONS.
- CONCRETE SHALL NOT BE PLACED INTO OR AGAINST SOIL CONTAINING FREE WATER, FROST OR ICE. SHOULD WATER ENTER OR ICE FORM IN A STRUCTURAL EXCAVATION AFTER BEING APPROVED, THE SOIL SHALL BE RE-INSPECTED AFTER REMOVAL OF WATER OR ICE AND RECOMPACTED.

TESTING NOTES

- CONTRACTOR SHALL PERFORM ALL QUALITY CONTROL TESTING PER THE SPECIFICATIONS AND SUBMIT REPORTS TO CO WEEKLY.
- CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE NPS CO'S TESTING AGENCY TO ALLOW FOR PERFORMANCE & QUALITY TESTING OF ALL MATERIALS.
- THE CONTRACTOR SHALL ENGAGE A QUALIFIED TESTING AND INSPECTING AGENCY TO PERFORM TESTS AND INSPECTIONS AND TO SUBMIT REPORTS TO THE NPS' CO FOR THE INDEPENDENT TESTING AND INSPECTIONS OF THE FOLLOWING ITEMS (REFERENCE SPECIFICATION SECTION 03 30 00 FOR ADDITIONAL INFORMATION):
 - STEEL REINFORCEMENT AND EMBEDS.
 - CONCRETE MIX DESIGN, PLACEMENT PROCEDURES, CURING PROCEDURES, VERIFICATION OF STRENGTH BEFORE REMOVAL OF FORMS.
 - CONCRETE PROPERTIES - ONE SET OF FIVE STANDARD CYLINDERS PER 50 CY OR LESS OF CONCRETE PLACED DAILY (ADDITIONAL TESTING WILL BE REQUIRED FOR DIFFERING MIX DESIGNS). CONCRETE PROPERTIES TO BE TESTING INCLUDED SLUMP, AIR CONTENT, CONCRETE TEMPERATURE, AND COMPRESSIVE STRENGTH.
 - CONCRETE SLAB FLATNESS AND LEVELNESS.


CONCRETE

- ALL CONCRETE MATERIALS TO BE DESIGNED, MIXED AND PLACED IN ACCORDANCE WITH THE LATEST ACI-301 SPECIFICATIONS FOR STRUCTURAL CONCRETE.
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.
- CONCRETE SLUMP SHALL BE 4" ± 1" WITH ALLOWANCE TO USE SUPERPLASTICIZING ADMIXTURE TO INCREASE UP TO 8" IF DESIRED.
- ENTRAINED AIR SHALL BE 6% ± 1.5% (MEASURED AT TRUCK DISCHARGE).
- MAXIMUM COARSE-AGGREGATE SIZE OF SHALL BE ¾".
- CONCRETE SHALL BE DESIGNED TO A MINIMUM WATER-CEMENTITIOUS MATERIAL RATIO TO LIMIT SHRINKAGE AND PRODUCE MAXIMUM DURABILITY. MAXIMUM WATER-CEMENTITIOUS RATIO SHALL BE 0.40.
- CEMENT USED SHALL BE PORTLAND CEMENT MEETING THE REQUIREMENTS OF ASTM C150, TYPE II.
- ALL AGGREGATES SHALL CONFORM TO ASTM C33.
- ALL FLY ASH INCLUDED IN THE CONCRETE SHALL BE TYPE F MEETING THE REQUIREMENTS OF ASTM C618.
- ALL SLAG CEMENT INCLUDED IN THE CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C989.
- ALL SILICA FUME INCLUDED IN THE CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C1240.
- ALL HORIZONTAL REINFORCING BARS SHALL BE CONTINUOUS AROUND CORNERS.
- WATER USED TO BE POTABLE AND FREE OF DEBRIS, OIL, AND OTHER DELETERIOUS SUBSTANCES AND MEET THE REQUIREMENTS OF ASTM C1602.
- CONCRETE PLACED SHALL BE THOROUGHLY CONSOLIDATED DURING PLACEMENT BY VIBRATING.
- FOLLOW ACI 305.1 AND ACI 306.1 FOR HOT AND COLD WEATHER CONSTRUCTION WHEN APPLICABLE.
- ALL FORMING SHALL BE TRUE AND STRAIGHT IN ACCORDANCE WITH ACI STANDARDS.
- ALL HORIZONTAL CONCRETE SURFACES SHALL HAVE A BROOM FINISH. ALL OTHER EXPOSED, OR THAT COULD POTENTIALLY BECOME EXPOSED, SURFACES SHALL GROUND SMOOTH AND HAVE A SACK RUB FINISH APPROVED BY THE CO. ALL NON-EXPOSED SURFACES SHALL HAVE SMOOTH FORM FINISH APPROVED BY THE CO; THIS FINISH SHALL NOT HAVE HONEYCOMBING, BUG HOLES OVER ¼", AND SHALL COMPLY WITH ACI SMOOTH FORM FINISH GUIDELINES.
- SUFFICIENT CURING SHALL BE PROVIDED FOR CONCRETE. WET CURE WITH BURLAP AND WATER IMMEDIATELY AFTER FINISHING AND FOR A MINIMUM OF 7 DAYS. ALTERNATELY USE CURING COMPOUND ON FORMED SIDES, ONLY AFTER REMOVAL OF FORMS. CURE AS PER ACI STANDARDS.
- ALL EMBEDDED ITEMS AND OPENINGS REQUIRED FOR UTILITY, ELECTRICAL, AND MECHANICAL SERVICES SHALL BE INCORPORATED INTO THE STRUCTURES WHETHER OR NOT THEY ARE DETAILED OR INDICATED ON THE STRUCTURAL DRAWINGS. ALL OPENING DIMENSIONS SHOWN ON THE DRAWINGS FOR MECHANICAL EQUIPMENT SHALL BE COORDINATED WITH THE ACTUAL EQUIPMENT TO BE USED, AND THE DIMENSIONS ADJUSTED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. REFER TO THE OTHER DISCIPLINE DRAWINGS FOR FLOOR FINISHES, SLOPES, DRAINS, DEPRESSIONS, EQUIPMENT PADS, ETC.
- ALL ITEMS EMBEDDED INTO CONCRETE SHALL BE CLEANED TO REMOVE ALL LOOSE SCALE, RUST, AND ORGANIC MATERIAL. REFER TO THE RESPECTIVE DRAWINGS FOR THE DETAILS OF EMBEDDED ITEMS AND OPENINGS.
- ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED ¾" BY ¾" UNLESS SHOWN OTHERWISE.

REINFORCING STEEL

- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60, WITH A MINIMUM YIELD POINT OF 60,000 PSI. REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH ASTM A775 IF NOTED ON PLANS.
- ALL REINFORCING BAR DIMENSIONS SHOWN ON THE DRAWINGS ARE TO CENTERLINE OF BARS UNLESS NOTED OTHERWISE.
- DETAIL REINFORCING STEEL IN ACCORDANCE WITH "ACI DETAILING MANUAL" ACI MNL66 AND "CRSI: MANUAL OF STANDARD PRACTICE" AND "CRSI: PLACING REINFORCING BARS", EXCEPT WHERE SHOWN OTHERWISE.
- DEVELOPMENT LENGTH AND LAP SPLICE LENGTH OF REINFORCING BARS SHALL BE AS SHOWN ON THE PLANS. ALL REINFORCING BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES, UNLESS NOTED OTHERWISE.
- WELDED WIRE REINFORCING SHALL CONFORM TO ASTM A1064.
- REINFORCING MEETING ASTM A615 SHALL NOT BE WELDED WITHOUT PRIOR APPROVAL FROM ENGINEER.
- WELDED WIRE FABRIC SHALL BE LAPPED TWO FULL MESH PANELS AND TIED SECURELY.



100% DRAFT CONSTRUCTION DOCUMENTS			PMIS 216552/243348/216546		
A/E FIRM	DESIGNED:	SUB SHEET NO	GENERAL STRUCTURAL NOTES LAKE VIEW FACILITY BEACH ACCESS INDIANA DUNES NATIONAL PARK		DRAWING NO.
PRIME:	DMC	SO.0			626
SCHEMMER					80054
OMAHA, NE	DLB				PMIS/PKG NO.
SUB:	TECH. REVIEW:				SEE PMIS NOTE
AMI	PJJ				SHEET
SUPERIOR, WI	DATE:				13 of 16
	3/03/2023				

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STRUCTURAL ABBREVIATIONS					
ADDL	ADDITIONAL	K	KIP (1000 POUNDS)	UNO	UNLESS NOTED OTHERWISE
ALT	ALTERNATE	KO	KNOCK OUT		
ANCH	ANCHOR (ANCHORAGE)			VERT	VERTICAL
AB	ANCHOR BOLT	L	ANGLE		
ARCH	ARCHITECT, ARCHITECTURAL	LB	POUND	WND	WINDOW
		LG	LENGTH, LONG	WT	WEIGHT
BSMT	BASEMENT	LT WT	LIGHTWEIGHT	WWF	WELDED WIRE FABRIC
BM	BEAM	LL	LIVE LOAD	W	WIDTH
BRG	BEARING	LOC	LOCATION	W/O	WITHOUT
BTWN	BETWEEN	LONG	LONGITUDINAL	WP	WORK POINT
BLK	BLOCK	LLH	LONG LEG HORIZONTAL		
BB	BOND BEAM	LLV	LONG LEG VERTICAL		
BOT	BOTTOM	LLBB	LONG LEG BACK TO BACK		
BFE	BOTTOM OF FOOTING ELEVATION	LW	LONG WAY		
BLDG	BUILDING	LGS	LIGHT GAUGE STEEL		
CANT	CANTILEVER	MFR	MANUFACTURER		
CIP	CAST IN PLACE	MAS	MASONRY		
CLG	CEILING	MCJ	MASONRY CONTROL JOINT		
CTR	CENTER	MO	MASONRY OPENING		
CL OR C	CENTERLINE	MAX	MAXIMUM		
CLR	CLEAR	MECH	MECHANICAL		
COL	COLUMN	MEMB	MEMBRANE		
COMP	COMPOSITE	MTL	METAL		
CONC	CONCRETE	MEZZ	MEZZANINE		
CMU	CONCRETE MASONRY UNIT	MIN	MINIMUM		
CONN	CONNECTION	MISC	MISCELLANEOUS		
CONSTR	CONSTRUCTION	MONO	MONOLITHIC		
CONSTR JT	CONSTRUCTION JOINT				
CONT	CONTINUOUS	NS	NEAR SIDE		
CONTR	CONTRACTOR	NIC	NOT IN CONTRACT		
CJT	CONTROL JOINT	NTS	NOT TO SCALE		
		NO	NUMBER		
		NFS	NON FROST SUSCEPTIBLE		
DL	DEAD LOAD				
D	DEPTH				
DBA	DEFORMED BAR ANCHOR	OC	ON CENTER		
DET	DETAIL	OPNG	OPENING		
DIAG	DIAGONAL	OPP	OPPOSITE		
DIA	DIAMETER	OD	OUTSIDE DIAMETER		
DIM	DIMENSION	OF	OUTSIDE FACE		
DWLS	DOWELS	OH	OVERHEAD		
DN	DOWN				
DWG	DRAWING	PERP	PERPENDICULAR		
		PL	PLATE		
EA	EACH	PT	POINT		
EA END	EACH END	PVC	POLYVINYL CHLORIDE		
EF	EACH FACE	PT	POST-TENSIONED		
EW	EACH WAY	PSF	POUNDS PER SQUARE FOOT		
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH		
EL	ELEVATION	PC	PRECAST		
ELEV	ELEVATOR	PROJ	PROJECTION		
EQ	EQUAL				
EQ SP	EQUALLY SPACED	R	RADIUS, REACTION		
EQUIP	EQUIPMENT	REF	REFERENCE		
ERECT	ERECTION	REINF	REINFORCE, REINFORCING		
EXIST	EXISTING	REQD	REQUIRED		
EXP	EXPANSION	REV	REVERSE OR REVISION		
EXP ANCH	EXPANSION ANCHOR	RD	ROOF DRAIN		
EXP BOLT	EXPANSION BOLT	RO	ROUGH OPENING		
EXP JT	EXPANSION JOINT	RTU	ROOF TOP UNIT		
EXT	EXTERIOR	R/W	REINFORCED WITH		
FF	FAR FACE	SC	SLIP CRITICAL		
FS	FAR SIDE	SCHED	SCHEDULE		
FIN	FINISH	SECT	SECTION		
FLR	FLOOR	SHT	SHEET		
FT	FOOT (FEET)	SIM	SIMILAR		
FTG	FOOTING	SLBB	SHORT LEG BACK TO BACK		
FDN	FOUNDATION	SOG	SLAB ON GRADE		
FRMG	FRAMING	SP C	SPACED AT		
		SPA	SPACES		
GALV	GALVANIZED	SPEC	SPECIFICATIONS		
GA	GAUGE	SQ	SQUARE		
GC	GENERAL CONTRACTOR	SF	SQUARE FOOT/FEET		
GB	GRADE BEAM	STD	STANDARD		
GL	GLULAM	STL	STEEL		
GR	GRADE	STL JST	STEEL JOIST		
		STIFF	STIFFENER		
HDR	HEADER	STIR	STIRRUPS		
HK	HOOK	STRUCT	STRUCTURAL		
HS	HIGH STRENGTH	SW	SHORT WAY		
HSS	HOLLOW STRUCTURAL SECTION	SYM	SYMMETRICAL		
HT	HEIGHT				
HORIZ	HORIZONTAL	TEMP STL	TEMPERATURE STEEL		
		T & B	TOP AND BOTTOM		
IN	INCH/INCHES	TO OR T/	TOP OF		
ID	INSIDE DIAMETER	TFE	TOP OF FOOTING ELEVATION		
IF	INSIDE FACE	TSE	TOP OF STEEL ELEVATION		
INT	INTERIOR	TL	TOTAL LOAD		
		TRANS	TRANSVERSE		
JT	JOINT	TOS	TOP OF SLAB ELEVATION		
JST	JOIST	TYP	TYPICAL		
JBE	JOIST BEARING ELEVATION				
JH	JOIST HEADER				

CONCRETE REINFORCEMENT PROTECTION			
EXPOSURE	STRUCTURAL ELEMENTS	BAR SIZE	CLEAR COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	ALL	ALL	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	ALL	NO. 6 THRU NO. 18 BARS NO. 5 BAR, W31 OR D31 WIRE AND SMALLER	2" 1 1/2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, WALLS, JOISTS BEAMS, COLUMNS	NO. 14 AND NO. 18 BARS NO. 11 BAR AND SMALLER PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1 1/2" 3/4" 1 1/2"

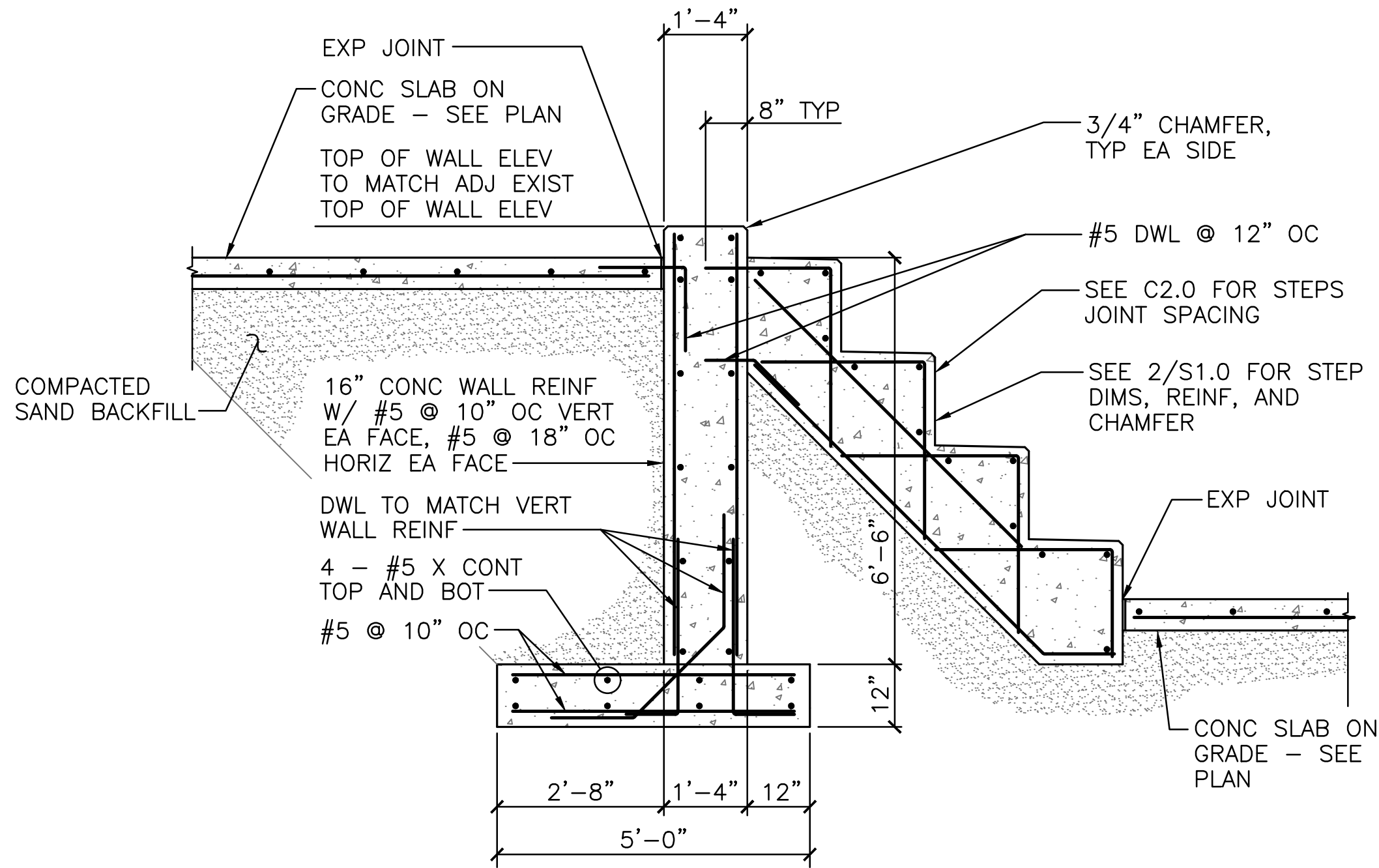
CONCRETE REINFORCEMENT TENSION DEVELOPMENT AND LAP SPlice LENGTHS									
BAR SIZE	LAP SPlice CLASS	CONCRETE COVER = 0.75"		CONCRETE COVER = 1.00"		CONCRETE COVER = 1.50"		CONCRETE COVER ≥ 2.00"	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	A	12	12	12	12	12	12	12	12
	B	16	16	16	16	16	16	16	16
#4	A	19	15	15	12	15	12	15	12
	B	24	19	20	16	20	16	20	16
#5	A	28	21	22	17	19	15	19	15
	B	36	28	29	22	24	19	24	19
#6	A	37	29	31	24	22	17	22	17
	B	48	37	40	31	29	22	29	22
#7	A	60	46	50	38	37	28	33	25
	B	78	60	64	50	48	37	42	33
#8	A	74	57	62	48	47	36	37	29
	B	96	74	80	62	60	47	48	37
#9	A	90	69	76	58	57	44	46	36
	B	117	90	98	76	74	57	60	46
#10	A	108	83	92	70	70	54	57	44
	B	140	108	119	92	91	70	74	57
#11	A	127	98	108	83	84	64	68	53
	B	165	127	141	108	109	84	89	68

- NOTES:
- TABULATED VALUES ARE BASED ON GRADE 60 UNCOATED REINFORCING BARS AND 4000 PSI NORMAL WEIGHT CONCRETE. LENGTHS ARE IN INCHES.
 - TENSION DEVELOPMENT LENGTH AND LAP SPlice LENGTHS ARE CALCULATED PER ACI 318-11, SECTIONS 12.2.3 AND 12.15.
 - TENSION DEVELOPMENT LENGTH = 1.0 x CLASS A LAP SPlice
 - FOR 3000 PSI AND 5000 PSI CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.16 AND 0.90 RESPECTIVELY.
 - BAR c. - c. SPACING WAS ASSUMED TO BE GREATER THAN TWICE THE CONCRETE COVER PLUS ONE BAR DIAMETER.
 - TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
 - FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
 - FOR EPOXY COATED REBAR, MULTIPLY THE TABULATED VALUES BY 1.2.
 - FOR LAP SPlice LENGTHS IN MASONRY SEE MASONRY NOTES.
 - COVER IS CLEAR DISTANCE FROM THE CONCRETE SURFACE TO OUTERMOST SURFACE OF REINFORCING.

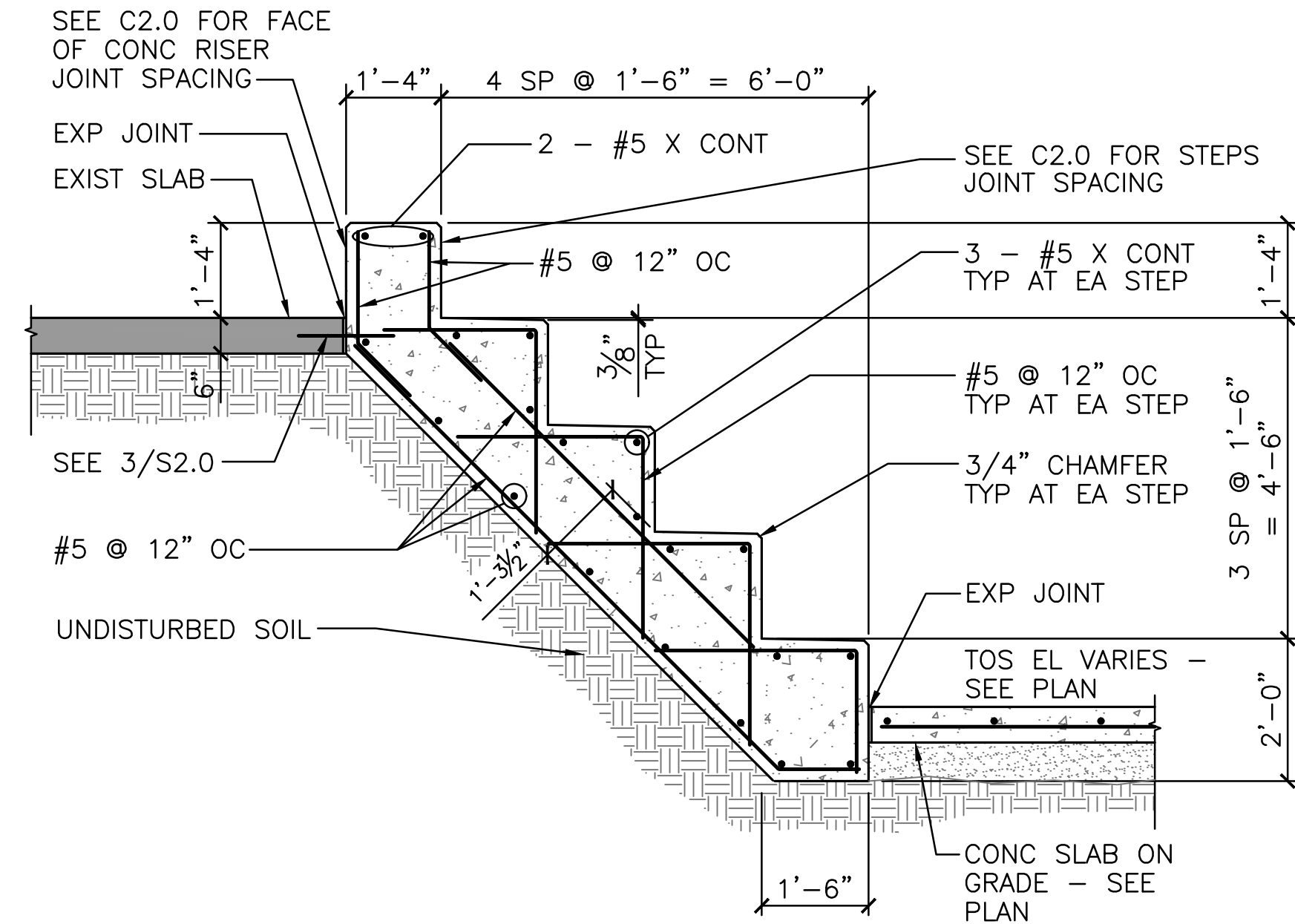


100% DRAFT CONSTRUCTION DOCUMENTS			PMIS 216552/243348/216546		
A/E FIRM PRIME: SCHEMMER OMAHA, NE SUB: AMI SUPERIOR, WI	DESIGNED:	SUB SHEET NO	TITLE OF SHEET STRUCTURAL ABBREVIATIONS AND SCHEDULES LAKE VIEW FACILITY BEACH ACCESS INDIANA DUNES NATIONAL PARK		DRAWING NO.
	DMC	SO.1			626
					80054
	DLB				PMIS/PKG NO.
	TECH. REVIEW:				SEE PMIS NOTE
	PJJ				SHEET
DATE:			14 OF 16		
	3/03/2023				

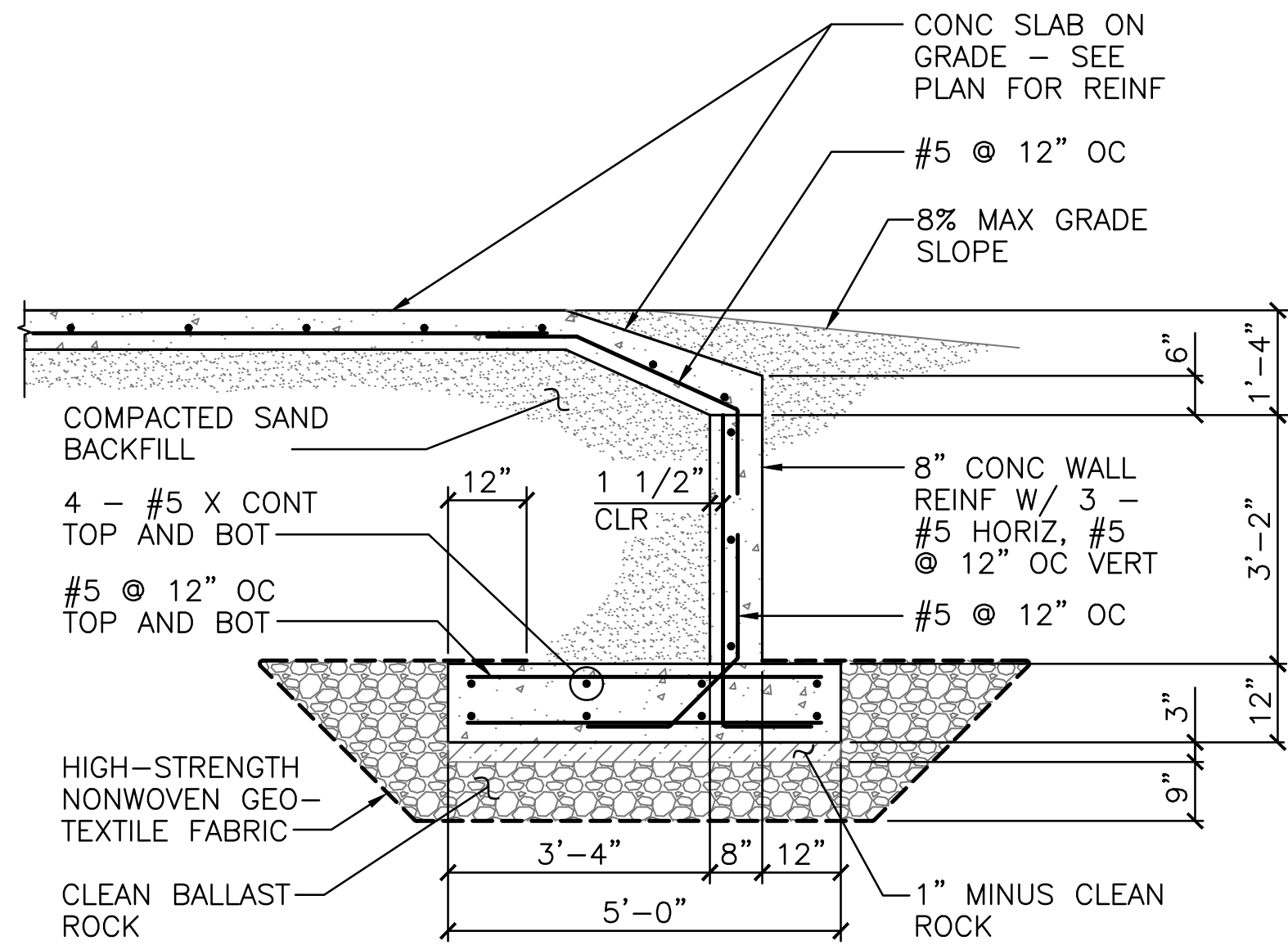
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1 PLAZA RETAINING WALL SECTION
S1.0 1/2" = 1'-0"



2 PLAZA SEATING STEP SECTION
S1.0 1/2" = 1'-0"



3 SEATING AREA RETAINING WALL
S1.0 1/2" = 1'-0"

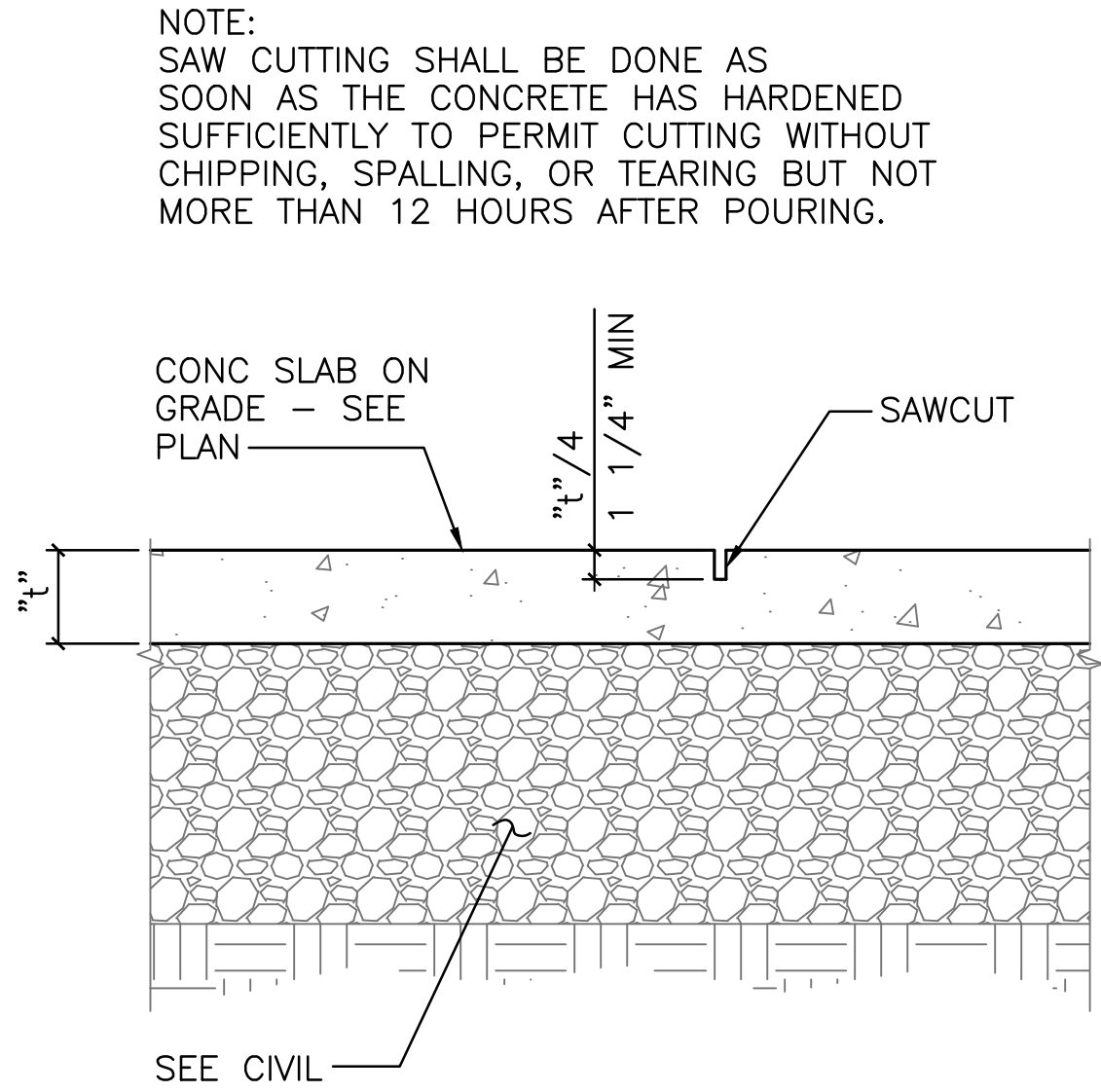


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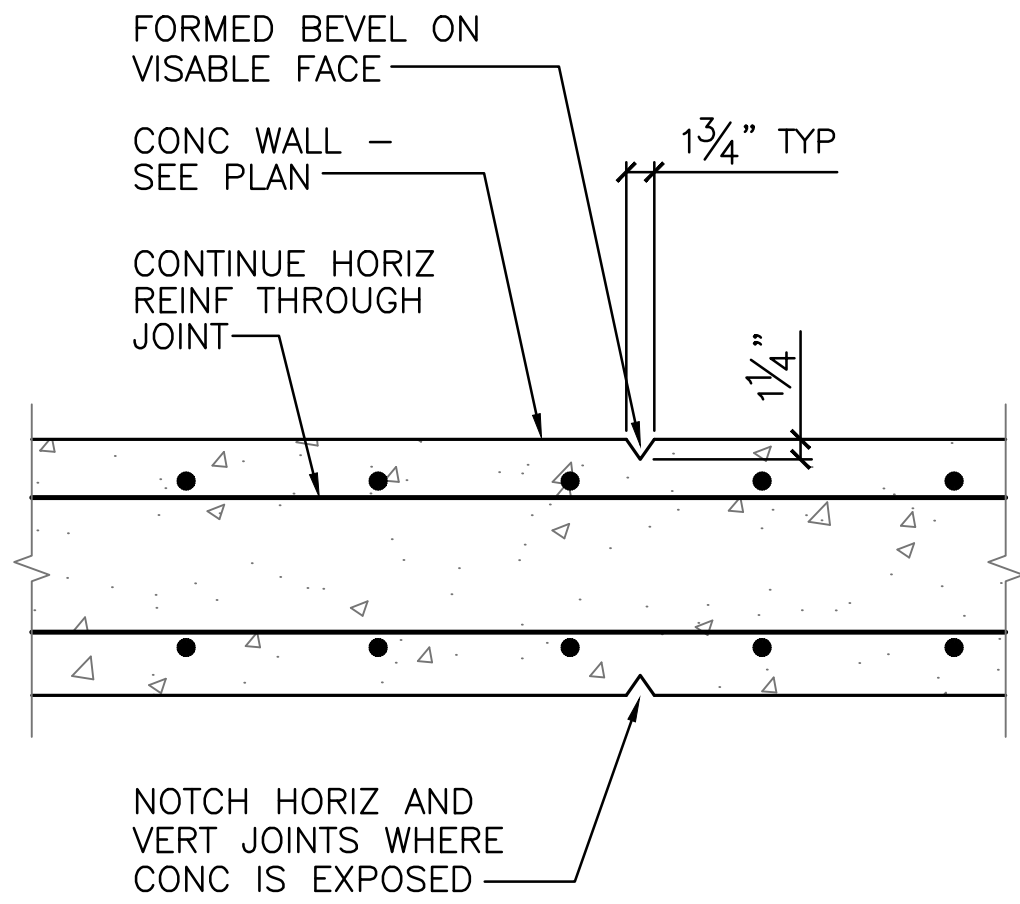
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A/E FIRM	DESIGNED:	SUB SHEET NO	TITLE OF SHEET	DRAWING NO.
PRIME: SCHEMMER OMAHA, NE	DMC		FOUNDATION DETAILS	626
SUB: AMI SUPERIOR, WI	DLB		LAKE VIEW FACILITY	80054
DATE: 3/03/2023	TECH. REVIEW: PJJ		BEACH ACCESS	PMIS/PKG NO. SEE PMIS NOTE
			INDIANA DUNES NATIONAL PARK	SHEET
				15 OF 16

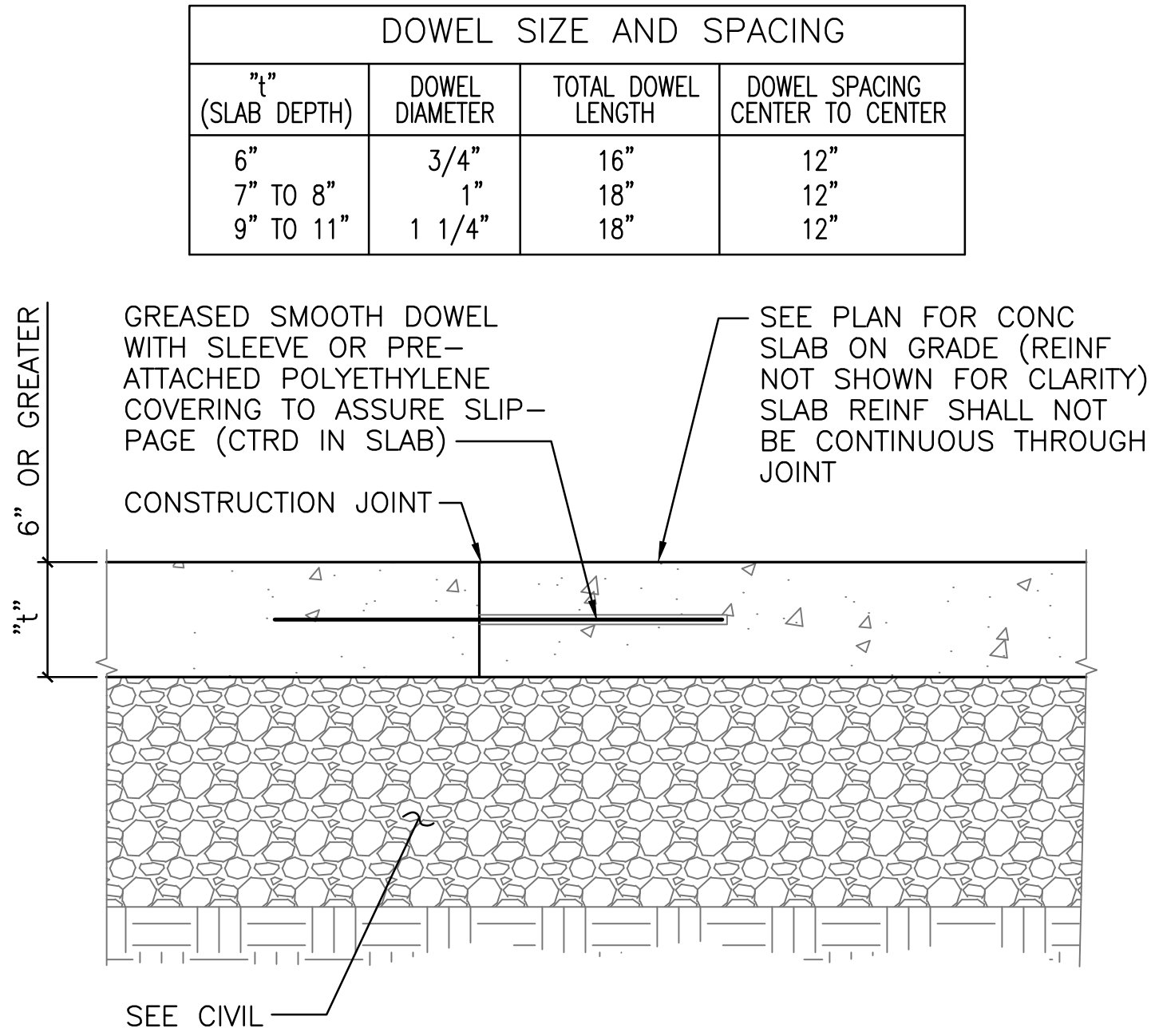
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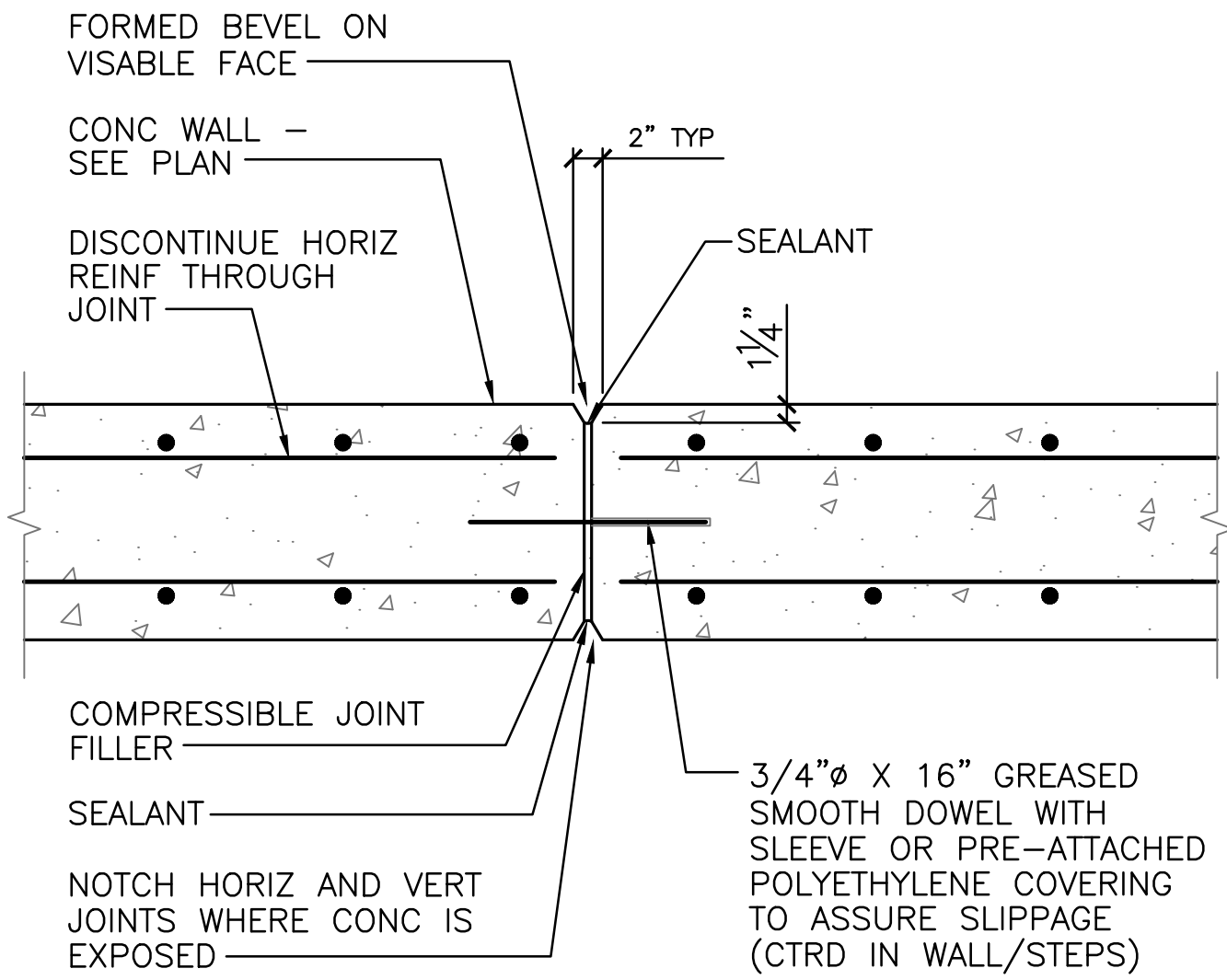
1 TYP SLAB-ON-GRADE CONTROL JOINT
S2.0 1 1/2" = 1'-0"



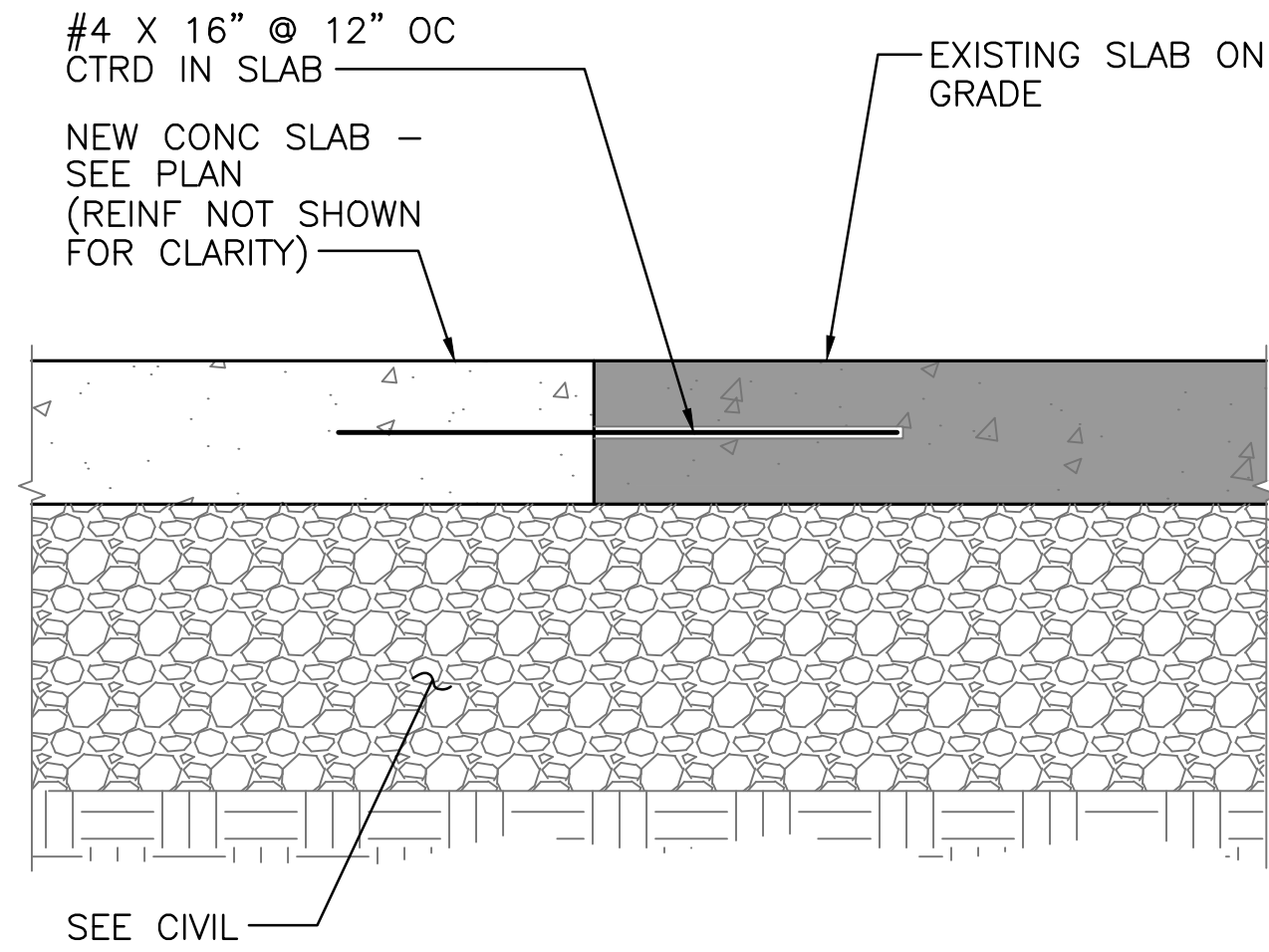
4 CONTROL JOINT SECTION AT
RETAINING WALL / STEPS
S2.0 1 1/2" = 1'-0"



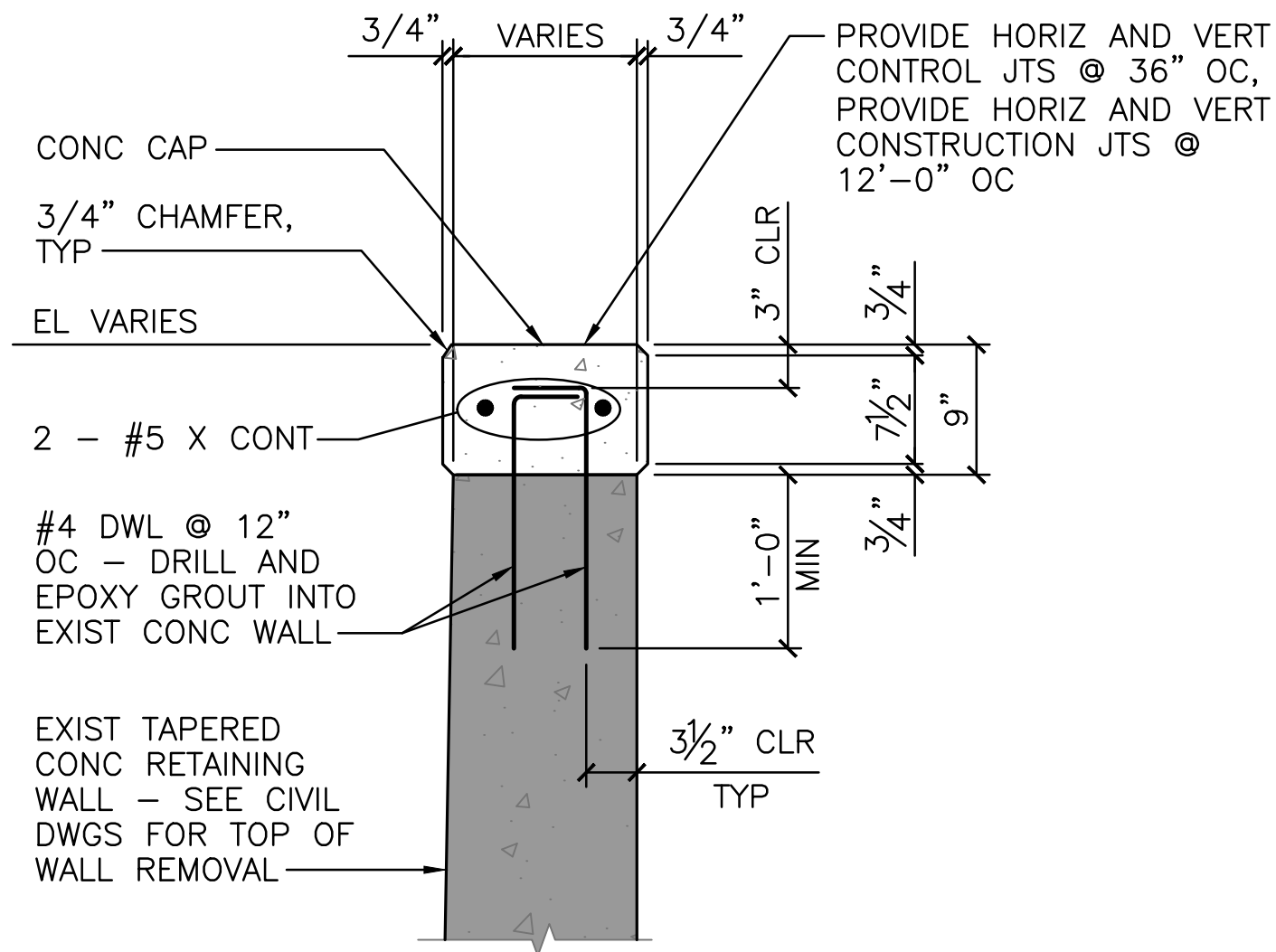
2 TYP SLAB-ON-GRADE CONSTRUCTION JOINT
S2.0 1 1/2" = 1'-0"



5 CONSTRUCTION JOINT SECTION AT
RETAINING WALL / STEPS
S2.0 1 1/2" = 1'-0"



3 NEW SLAB TO EXIST SLAB SECTION
S2.0 1 1/2" = 1'-0"



6 CONC CAP SECTION
S2.0 1 1/2" = 1'-0"



100% DRAFT CONSTRUCTION DOCUMENTS			PMIS 216552/243348/216546		
A/E FIRM	DESIGNED:	SUB SHEET NO	TITLE OF SHEET		DRAWING NO.
PRIME: SCHEMMER OMAHA, NE	DMC		TYPICAL FOUNDATION DETAILS		626
SUB: AMI SUPERIOR, WI	DLB		LAKE VIEW FACILITY		80054
	TECH. REVIEW: PJJ		BEACH ACCESS		PMIS/PKG NO. SEE PMIS NOTE
	DATE: 3/03/2023		INDIANA DUNES NATIONAL PARK		SHEET
					16 OF 16