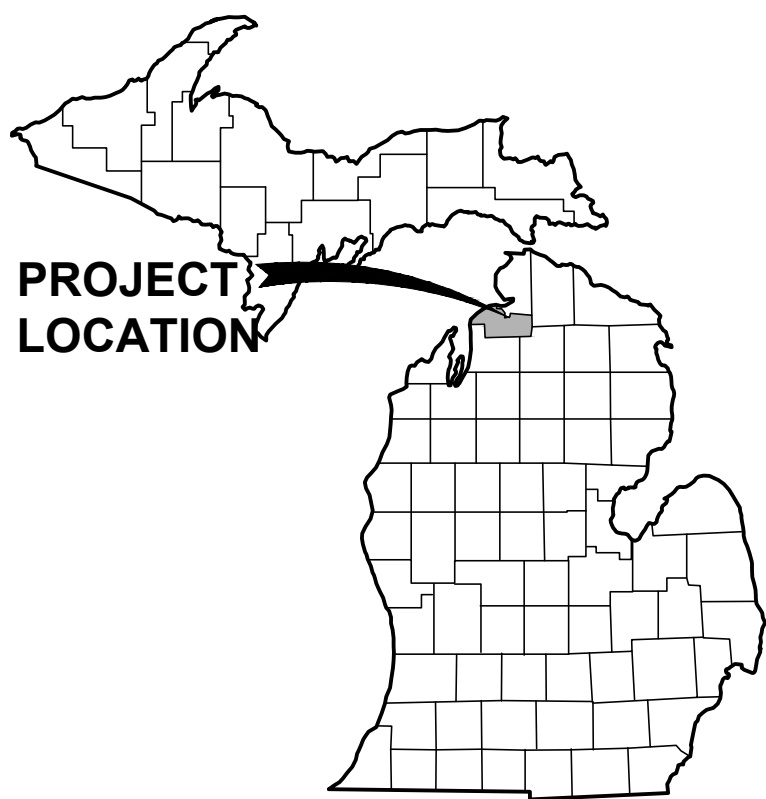


BOATING ACCESS SITE DEVELOPMENT

FOR

CITY OF EAST JORDAN

CHARLEVOIX COUNTY, MICHIGAN



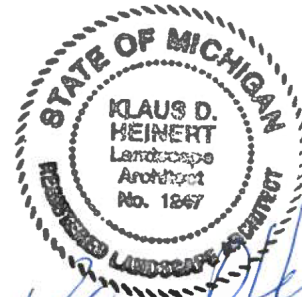
VICINITY MAP
NOT TO SCALE

OWNER

CITY OF EAST JORDAN
201 MAIN ST.
EAST JORDAN, MI 49727
TOM CANNON, CITY ADMINISTRATOR
CONTACT: 231-536-3381

ENGINEER

GOSLING CZUBAK ENGINEERING SCIENCES, INC.
1280 BUSINESS PARK DRIVE
TRAVERSE CITY, MICHIGAN, 49686-8607
231.946.9191 - 800.968.1062
www.goslingczubak.com info@goslingczubak.com



Klaus D. Heinert, P.E.
12/12/17

UTILITY CONTACTS

NAME OF OWNER	TYPE OF UTILITY
DTE ENERGY Mr. Matthew Logan 1250 Michcon Lane, SW P.O. Box 279 Kalkaska, MI 49646 231.492.7479	GAS
CONSUMER'S ENERGY Ms. Megan Cogswell 1125 W. Green St. Hastings, MI 49058 269-948-3503	ELECTRIC
CHARTER COMMUNICATIONS Mr. Steve Thinel 408 W. 4th St. Gaylord, MI 49735 231.932.8117	CABLE TV
AT&T Mr. Ron Ouellette 1151 US 31 N Petoskey, MI 49770 231.349.8013	TELEPHONE
CITY OF EAST JORDAN Mr. Troy Thomas 201 E. Main St. East Jordan, MI 49727 231.536.3381	SEWER & WATER

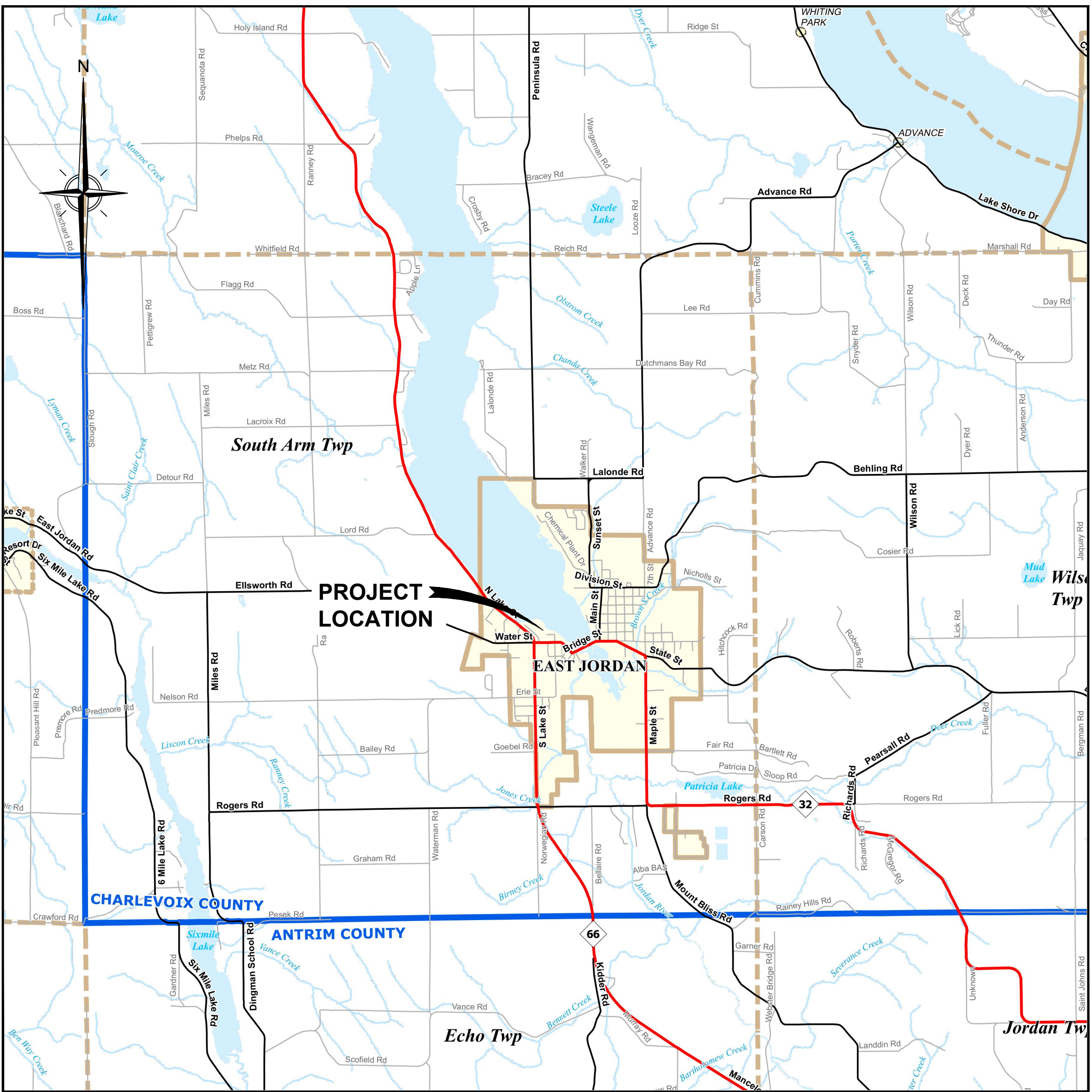
PERMITS

MDEQ/ACOE JOINT PERMIT - INDIVIDUAL
PERMIT SUBMISSION # HND-ZYQA-7BAN2
STATUS: PENDING FINAL APPROVAL

CHARLEVOIX CO. SOIL EROSION AND SEDIMENT CONTROL
PERMIT # T.B.D.
STATUS: APPLICATION YET TO BE SUBMITTED



Know what's below.
Call before you dig.



LOCATION MAP
NOT TO SCALE

SHEET INDEX

- S1 EXISTING CONDITIONS & REMOVALS PLAN
- S2 OVERALL PROPOSED LAYOUT
- S3 PARKING LOT GRADING & LAYOUT
- S4 DREDGE DISPOSAL DETAILS
- S5 BOAT LAUNCH AND DREDGE DETAILS
- S6 CONSTRUCTION DETAILS
- S7 CONSTRUCTION DETAILS
- S8 SKID PIER DETAILS
- L1 LANDSCAPE AND SIGNAGE PLAN
- L2 LANDSCAPE AND SIGNAGE DETAILS

EAST JORDAN BOAT LAUNCH IMPROVEMENTS

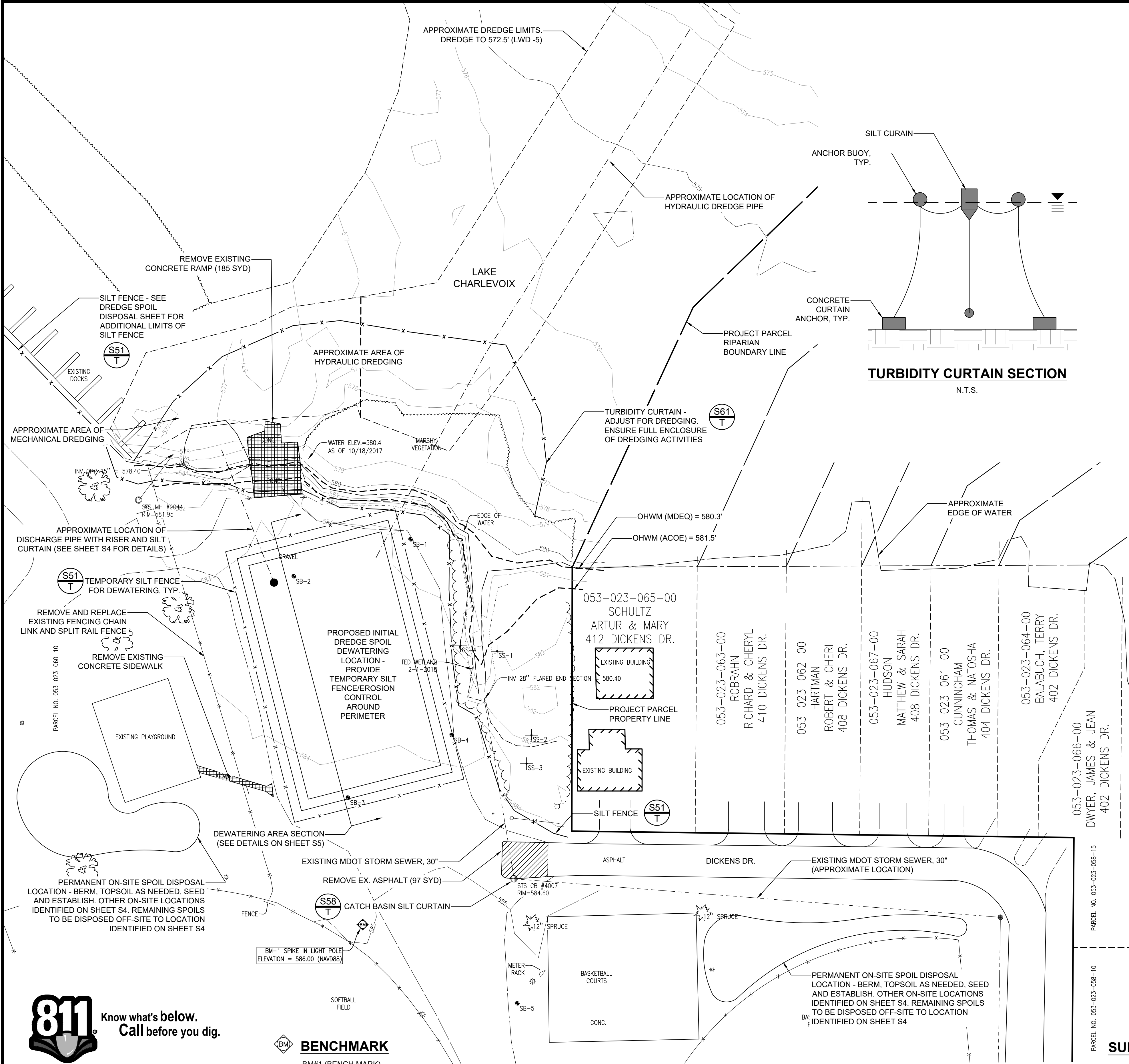
Issue Date
2-6-2019

Project No.
2017510001.01

Sheet
C1

Gosling Czubak
ENGINEERING SCIENCES, INC.
1280 BUSINESS PARK DRIVE
TRAVERSE CITY, MICHIGAN 49686-8607
www.goslingczubak.com info@goslingczubak.com





GENERAL LEGEND

- PROJECT LIMITS
- EDGE OF WATER
- DELINEATED WETLAND
- EX EDGE OF GRAVEL
- EX EDGE OF CONCRETE
- EX OVERHEAD ELECTRIC
- EX CONCRETE CURB
- EX WOOD BOLLARD
- EX CONIFEROUS TREE
- EX DECIDUOUS TREE
- EX VEGETATION / TREELINE
- SOIL BORING LOCATION
- WETLAND SAMPLING LOCATION

REMOVALS LEGEND

- REMOVE EX. ASPHALT
- REMOVE EX. CONCRETE
- WETLAND IMPACT AREA

TURBIDITY CURTAIN SECTION

N.T.S.

SEDIMENT CONTROL KEYING SYSTEM

- PERMANENT - TYP.
- TEMPORARY - TYP.

ALL DISTURBED AREAS

- E8
- E6

- NOTES:
- NOTATION REFERS TO MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET SESC KEYING SYSTEM.
 - PROVIDED FERTILIZER PER SPECIFICATIONS.
 - PROVIDE MULCH BLANKET ON SLOPES GREATER THAN 3:1.

* SEE SHEET L1 FOR ADDITIONAL SITE RESTORATION SESC MEASURES

SURVEY LEGEND

- BEARINGS ARE RELATED TO PREVIOUS SURVEYS.
- ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
- ELEVATIONS ARE BASED ON NAVD 1988.
- ELEVATION CONTOUR INTERVAL IS 1 FEET.
- INDICATES 1/2" RE-ROD FOUND, OR AS NOTED
- INDICATES CONCRETE MONUMENT FOUND, OR AS NOTED

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- NOTATION REFERS TO MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET SESC KEYING SYSTEM.
- SOIL EROSION AND SEDIMENTATION CONTROL SHALL PROTECT AGAINST LOSS OF SOIL BY THE ACTION OF WATER, ICE AND GRAVITY OF WIND.
- ALL EARTH CHANGES SHALL BE DESIGNED, CONSTRUCTED, AND MAINTAINED IN SUCH A MANNER AS TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISRUPTION.
- THE CONTRACTOR SHALL LOCATE STOCKPILES IN AREAS AS SHOWN ON THE PLANS OR WITHIN THE LIMITS OF THE DISTURBED AREA(S) AS WORK PROGRESSES.
- VEGETATIVE STABILIZATION OR OTHER SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DEVELOPMENT PROCESS.
- EARTH CHANGES ASSOCIATED WITH LARGE DEVELOPMENTS SHALL BE STAGED TO KEEP EXPOSED AREAS OF THE SOIL AS SMALL AS PRACTICABLE. CRITICAL AREAS EXPOSED DURING CONSTRUCTION SHALL BE PROTECTED WITH TEMPORARY VEGETATION, MULCHING, FILTER FENCES, OR OTHER METHODS OF STABILIZATION.
- STORMWATER RUNOFF CONTROL AND SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BEFORE GRADING, FILLING, OR REMOVAL OF VEGETATIVE COVER IS INITIATED.
- WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED.
- PERMANENT EROSION CONTROL MEASURE FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN FIFTEEN CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE ESTABLISHED.
- SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE EARTH CHANGE, INCLUDING THE LATER STAGES OF DEVELOPMENT. MAINTENANCE ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENT, STRUCTURAL REPAIRS, RE-SEEDING, REPLACEMENT OF VEGETATIVE COVER, AND LAWN MOWING.
- ALL TEMPORARY EROSION CONTROL FACILITIES SHOULD BE REMOVED BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION UNLESS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE. CARE SHOULD BE TAKEN DURING REMOVAL TO MINIMIZE SILTATION IN NEARBY DRAINAGE COURSES.
- PERIMETER SILT FENCE TO BE INSTALLED PRIOR TO DEMOLITION. INLET STORM STRUCTURE SEDIMENTATION CONTROL MEASURES TO BE INSTALLED AS STRUCTURES ARE INSTALLED.

REMOVALS NOTES

- REMOVE ALL TREES INCLUDING CUTTING STUMP AND GRINDING 12" MIN BELOW FINISHED GRADE AS INDICATED ON PLANS.
- PROTECT ALL TREES AND SHRUBS NOT SCHEDULED FOR REMOVAL AS INDICATED ON PLANS. DO NOT OPERATE EQUIPMENT, STORE STOCKPILE, OR PARK WITHIN DRIPLINE (DIAMETER OF CANOPY) OF TREES TO MINIMIZE SOIL COMPACTION AND PROTECT ROOT ZONE OF TREE. PROVIDE SILT FENCE BARRIER AROUND DRIP LINE OF TREE WHERE INDICATED ON PLANS. HOLD NECESSARY DISTURBANCE TO A MINIMUM.
- CONTRACTOR TO PROVIDE FINAL LOCATION OF STOCKPILE, MATERIAL AND MACHINERY STAGING AREAS AND GET APPROVAL FROM LANDSCAPE ARCHITECT AND OWNER PRIOR TO COMMENCING WORK ON-SITE. CONTRACTOR WILL ENSURE ADEQUATE EROSION CONTROL MEASURES NOT LIMITED TO SILT FENCE INSTALLATION.
- DO NOT OPERATE HEAVY MACHINERY BELOW SHORELINE UNLESS APPROVED BY THE PROFESSIONAL.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR DAMAGE TO ITEMS NOT SCHEDULED FOR REMOVAL.
- CONTRACTOR TO USE DISCRETION FOR RE-USE OF AGGREGATE BASE MATERIAL. IF CONTRACTOR DECIDES TO REUSE EXCAVATED BASE AGGREGATE IN PLACE OF NEW BASE MATERIAL, INSTALLATION WILL BE COMPLETED IN ACCORDANCE WITH PLANS, DETAILS, AND SPECIFICATIONS. BASE MATERIAL WILL MEET OR EXCEED ALL TESTING REQUIREMENTS AS INDICATED IN SECTION 01410 OF THE CONSTRUCTION SPECIFICATIONS.
- TOP SOIL AND RESEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. REFER TO PLANS FOR SPECIAL AREAS TO RECEIVE NATIVE SEED MIXES OR NO-MOW FESCUES.
- REMOVAL ITEMS SHOWN ARE BASED ON BEST AVAILABLE INFORMATION AND ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL WALK THE SITE PRIOR TO BID TO BECOME FAMILIAR WITH THE EXTENT OF REMOVAL ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REMOVALS NECESSARY TO COMPLETE CONSTRUCTION. QUESTIONS REGARDING ITEMS TO BE REMOVED SHALL BE DIRECTED TO THE LANDSCAPE ARCHITECT.
- PRIOR TO CONSTRUCTION, REMOVE AND SALVAGE ALL ITEMS AS INDICATED ON PLANS.
- STRIP AND STOCKPILE TOPSOIL IN A LOCATION APPROVED BY THE ENGINEER AND PROVIDE ALL NECESSARY S.E.S.C. MEASURES TO ELIMINATE EROSION. DO NOT STRIP TOPSOIL FROM AREAS TO BE RESTORED WITH NATIVE SEED EXCEPT IF DISTURBED BY EARTHWORK OR FOR NEW RETENTION AREAS AS INDICATED ON THE PLANS.
- COORDINATE ELECTRICAL SERVICE, DISTRIBUTION, REMOVALS WITH LOCAL UTILITY COMPANY



THE LOCATION OF THE EXISTING UTILITIES, AS SHOWN ON THIS PLAN, ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES. THE OWNER AND THE SURVEYOR SHALL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATION SHOWN. THE CONTRACTOR SHALL NOTIFY "MISS DIG" AT 1 (800) 482-7171 OR 811 THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

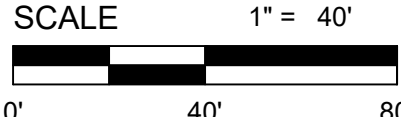
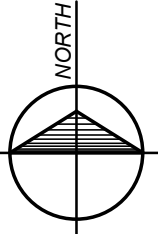
BENCHMARK

BM#1 (BENCH MARK)
SPIKE IN LIGHT POLE
EL=586.00 (NAVD 88)

PART OF SECTION 23
TOWN 32 NORTH, RANGE 4 WEST
SOUTH ARM TWP., CHARLEVOIX CO., MI.

EXISTING CONDITIONS/REMOVALS PLAN

SCALE: 1" = 40'



No.	Date	Revision	By

EXISTING CONDITIONS & REMOVALS PLAN
EAST JORDAN

Date Issued: 2-6-2019
Date Surveyed: 03-15-2018
Designed By: KSK
Drawn By: KSK
Checked By: KDH
Scale: AS NOTED

Original sheet size is 22x34
Location: PART OF SECTION 23
T23N-R7W
SOUTH ARM TWP.
CHARLEVOIX COUNTY, MI

Project Number:
2017510001.01













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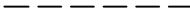








**CIVIL ENGINEERING
SURVEYING
ENVIRONMENTAL SERVICES
GEOTECHNICAL
CONSTRUCTION SERVICES
DRILLING
LANDSCAPE ARCHITECTURE**

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>
B1	N045°09'22.64"	W085°08'15.81"
B2	N045°09'23.23"	W085°08'15.28"
B3	N045°09'24.06"	W085°08'14.53"
B4	N045°09'24.89"	W085°08'13.78"
B5	N045°09'24.49"	W085°08'12.82"
B6	N045°09'23.64"	W085°08'13.58"
B7	N045°09'22.80"	W085°08'14.32"
B8	N045°09'22.08"	W085°08'14.98"

BUOY LOCATION LEGEND

	SOIL BORING LOCATION
	WETLAND SAMPLING LOCATION
	PROPOSED EDGE OF ASPHALT
	PROPOSED EDGE OF CONCRETE
	PROPOSED EDGE OF GRAVEL
	PROPOSED BOLLARD
	PROPOSED RAILING
	PROPOSED RIP-RAP / ROCK SPILLWAY
	PROPOSED LIGHT
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SLEEVE

GENERAL LEGEND

	PROJECT LIMITS
	EDGE OF WATER
	DELINEATED WETLAND
	EX EDGE OF GRAVEL
	EX EDGE OF CONCRETE
	EX OVERHEAD ELECTRIC
	EX CONCRETE CURB
	EX WOOD BOLLARD
	EX CONIFEROUS TREE
	EX DECIDUOUS TREE
	EX VEGETATION / TREELINE

SURFACING SYMBOL LEGEND

CONCRETE PAVING

ASPHALT PAVING

PAVEMENT MARKING LEGEND

4th PARKING STALL PAVEMENT MARKING
(COLOR: WHITE)

BARRIER-FREE SYMBOL AND PAVEMENT MARKING
(COLOR: BLUE)

DIRECTIONAL ARROW
(COLOR: WHITE)

SPECIAL EMPHASIS CROSSING MARKING
(SEE DETAIL SHT S8)
(COLOR: WHITE)

LAYOUT NOTES

1. APPROXIMATE DREDGE AND DISPOSAL QUANTITIES ARE IN-PLACE QUANTITIES OF REQUIRED MATERIAL TO BE DREDGED AND DOES NOT INCLUDE ALLOWABLE 6" OVERDREDGE. THESE QUANTITIES ARE MEANT TO ASSIST THE CONTRACTOR AND ESTABLISH THE GENERAL SCOPE OF THE PROJECT AS INFORMATION ONLY. CONTRACTOR REQUIRED TO ACHIEVE REQUIRED DEPTHS AS INDICATED.
2. THE CONTRACTOR WILL SUPPLY THE NECESSARY SIGNS, SIGNALS, LIGHTING DEVICES, MARKINGS, BARRICADES, CHANNELING, AND HAND SIGNAL DEVICES TO PROPERLY SIGN THE JOB PERMITTED. THE CONTRACTOR WILL PROVIDE DESIGN, APPLICATION, INSTALLATION, AND MAINTENANCE OF VARIOUS TRAFFIC CONTROL DEVICES REQUIRED FOR ROAD OR STREET CONSTRUCTION. TRAFFIC CONTROL PLAN SHALL BE SUBMITTED PRIOR TO COMMENCEMENT OF CONSTRUCTION FOR APPROVAL BY THE ENGINEER AND EORC.
3. CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR (SEE SPECIFICATION SECTION 01050)
4. DIMENSIONS ARE TO EDGE OF CONCRETE, ASPHALT, OR GRAVEL.
5. SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL SLEEVES NECESSARY FOR IRRIGATION AND SITE ELECTRICAL DISTRIBUTION - SLEEVES LOCATIONS ON THE PLANS ARE APPROXIMATE AND ARE THE MINIMUM REQUIRED.

**OVERALL PROPOSED LAYOUT
EAST JORDAN BOAT LAUNCH IMPROVEMENTS
EAST JORDAN**

Date Issued: 2-6-2019
Date Surveyed: 03-15-2018
Designed By: KSK
Drawn By: KSK
Checked By: KDH
Scale: AS NOTED

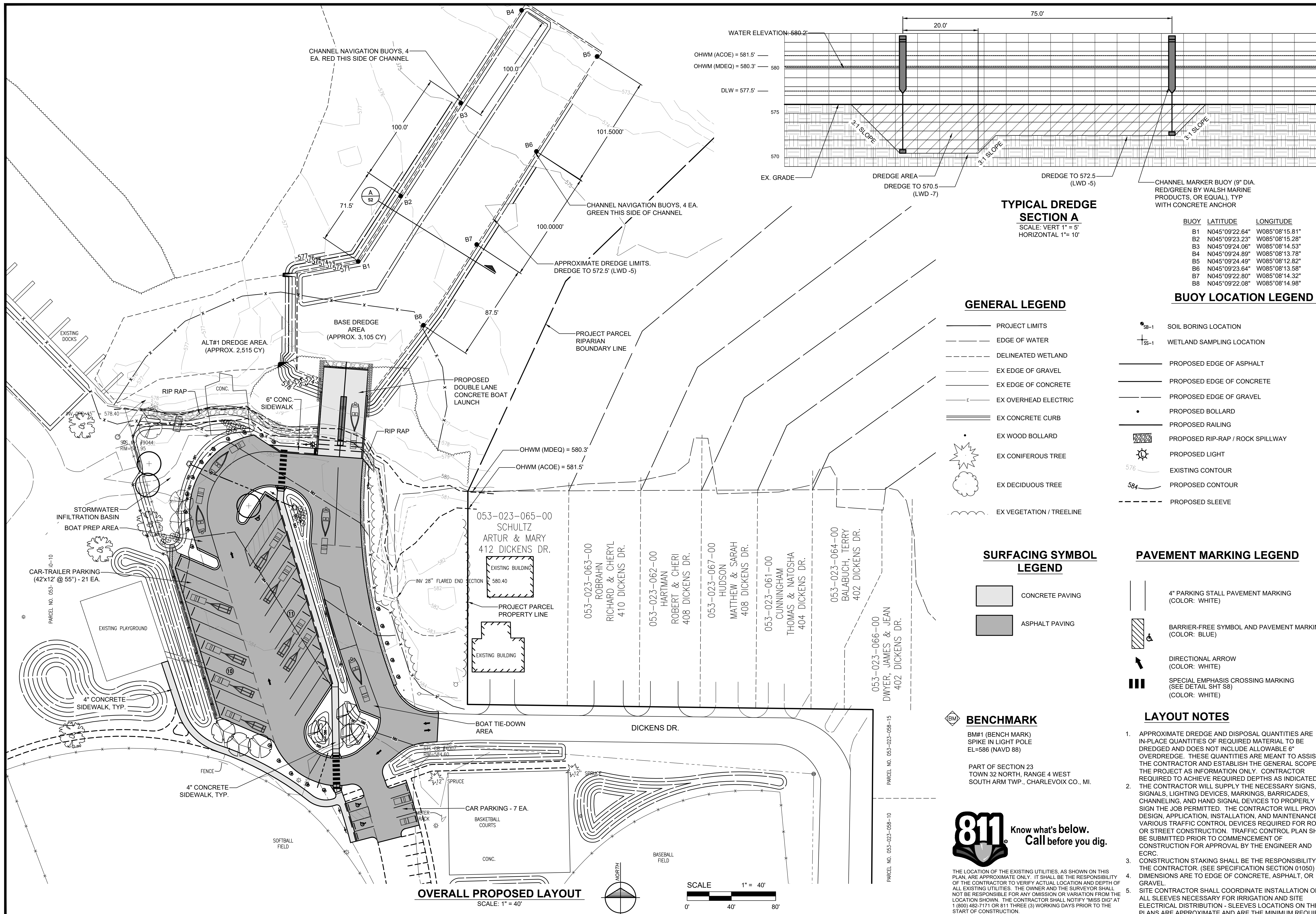
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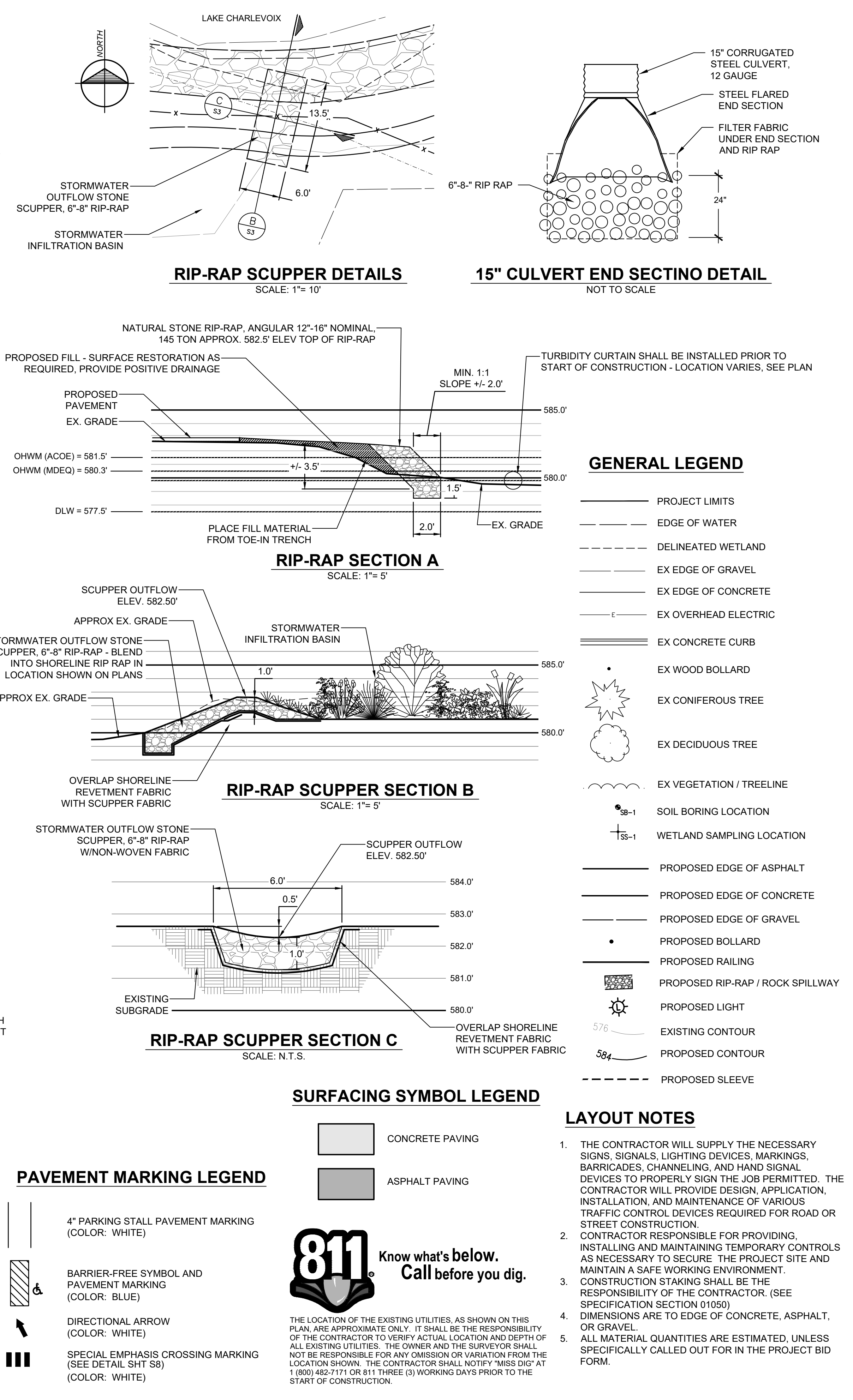
Location:
PART OF SECTION 23
T23N-R7W
SOUTH ARM TWP
CHARLEVOIX COUNTY, MI

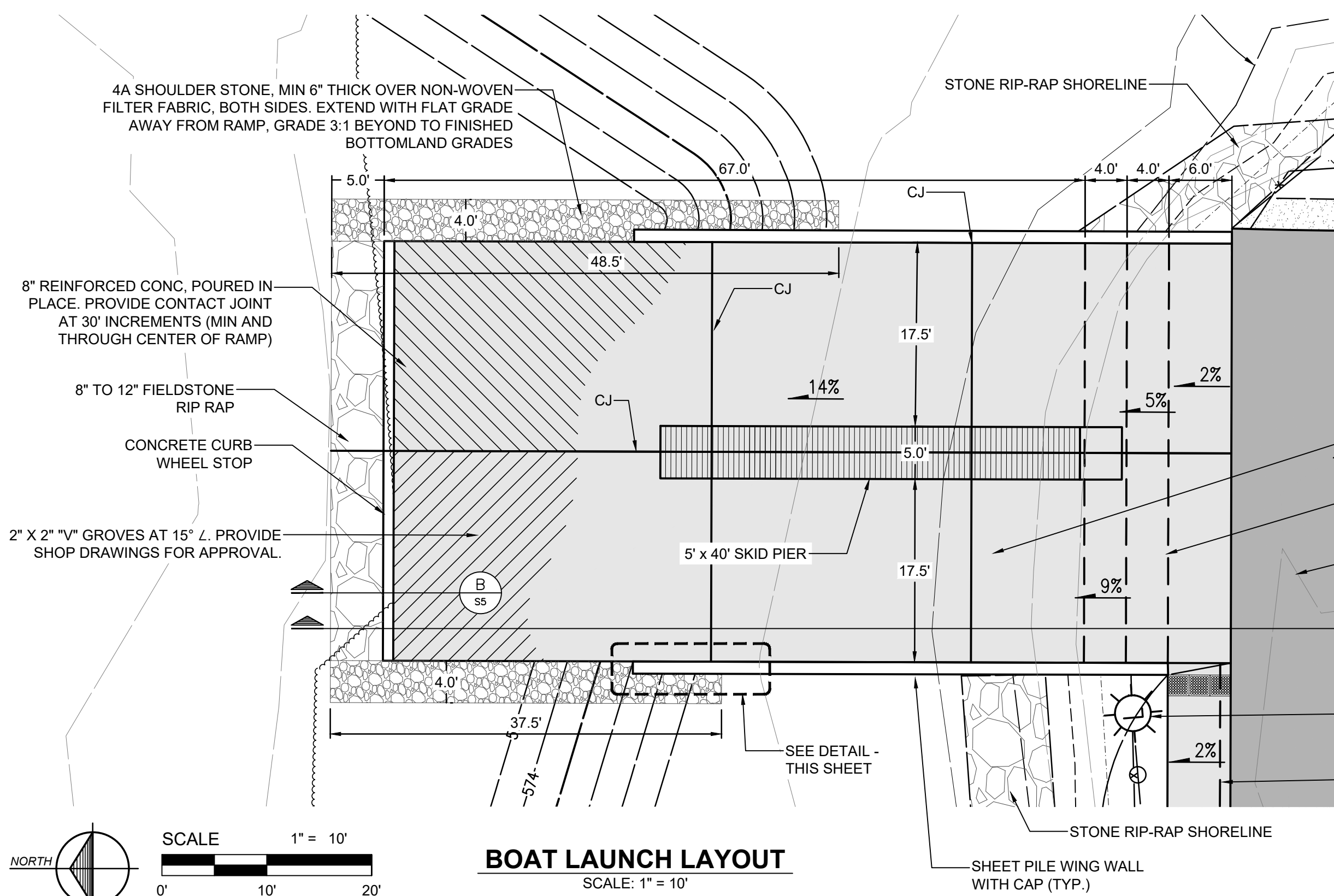
Project Number:
2017510001.01

Sheet:

S2

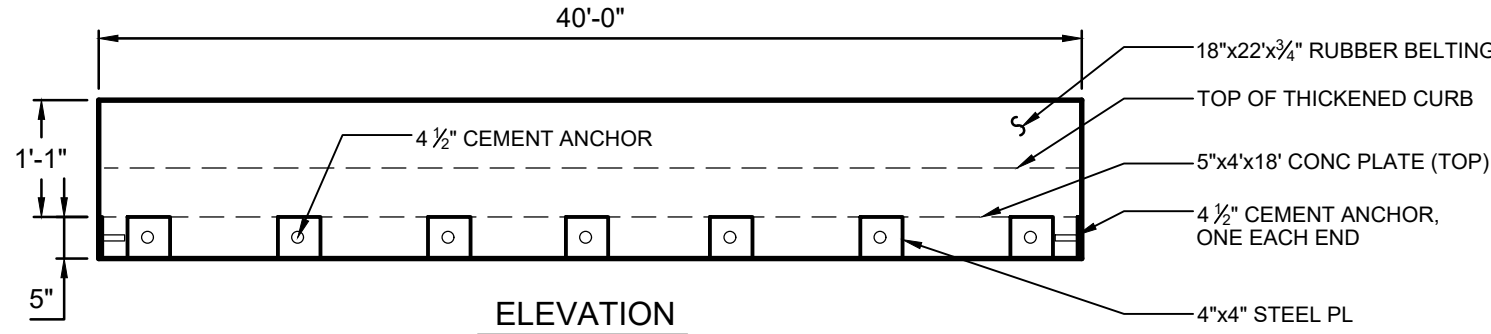






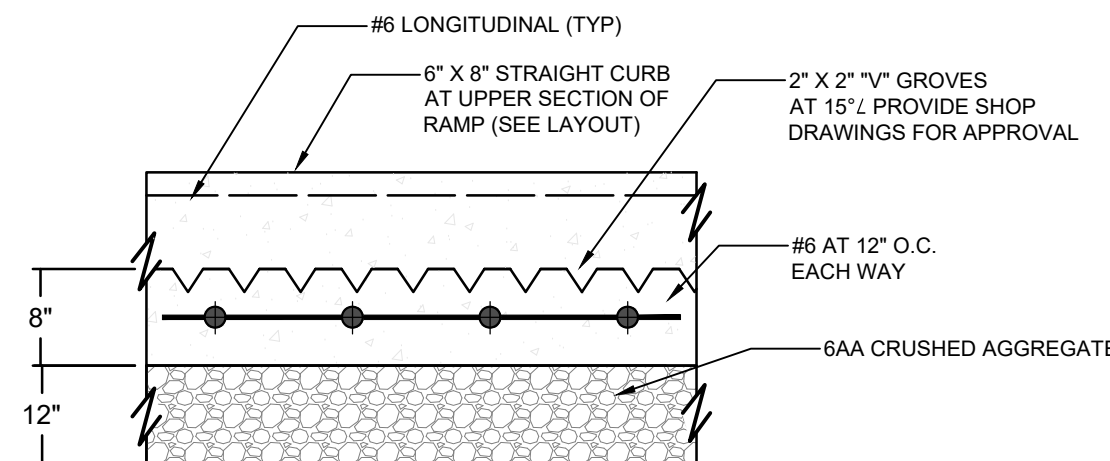
NOTES:

44" RUBBER CONVEYOR BELT PER 40' CONCRETE RAMP, 2' WRAP AROUND EACH SIDE OF CONCRETE PLANK, (9) 4"x4" STEEL PLATES (1/8" THICK), (7) PLATES ON FACE AND (1) ON EACH SIDE, DRILLED 3/8" HOLE ON CENTER FOR 4 1/2" CEMENT ANCHORS



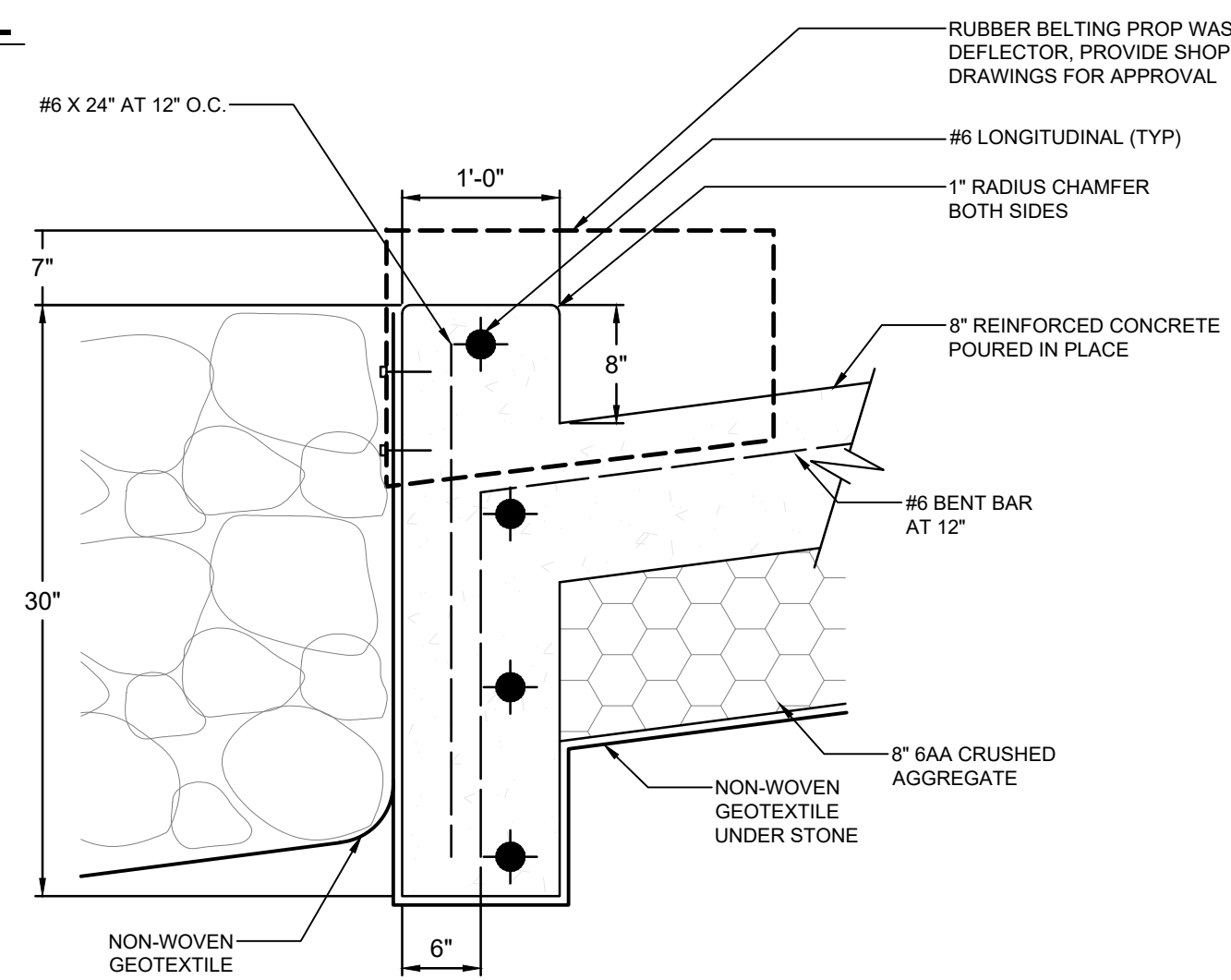
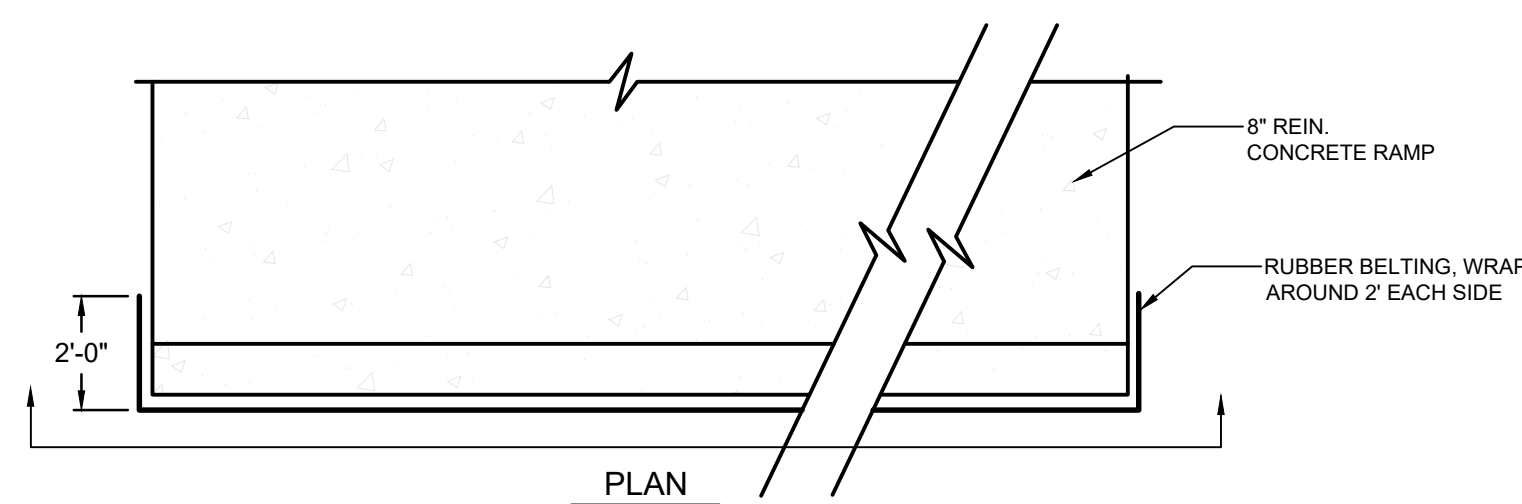
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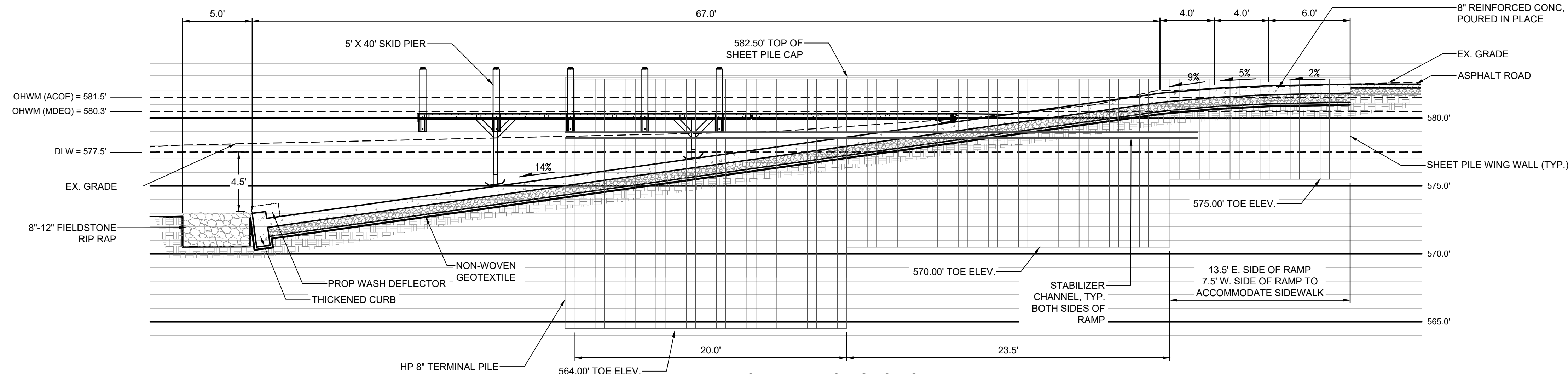
REINFORCED CONCRETE RAMP SECTION

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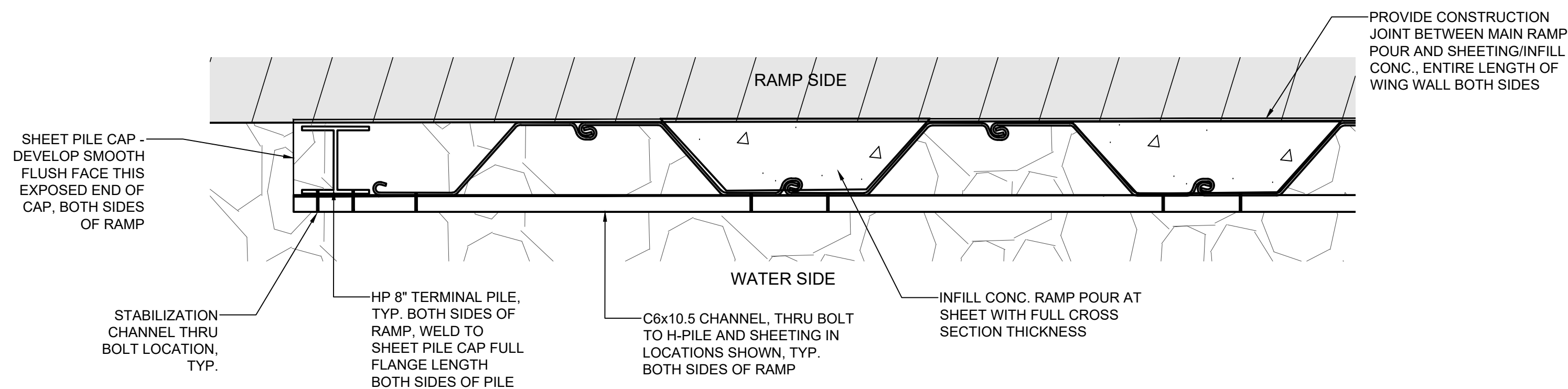


BOAT LAUNCH END - THICKENED CURB

NOT TO SCALE

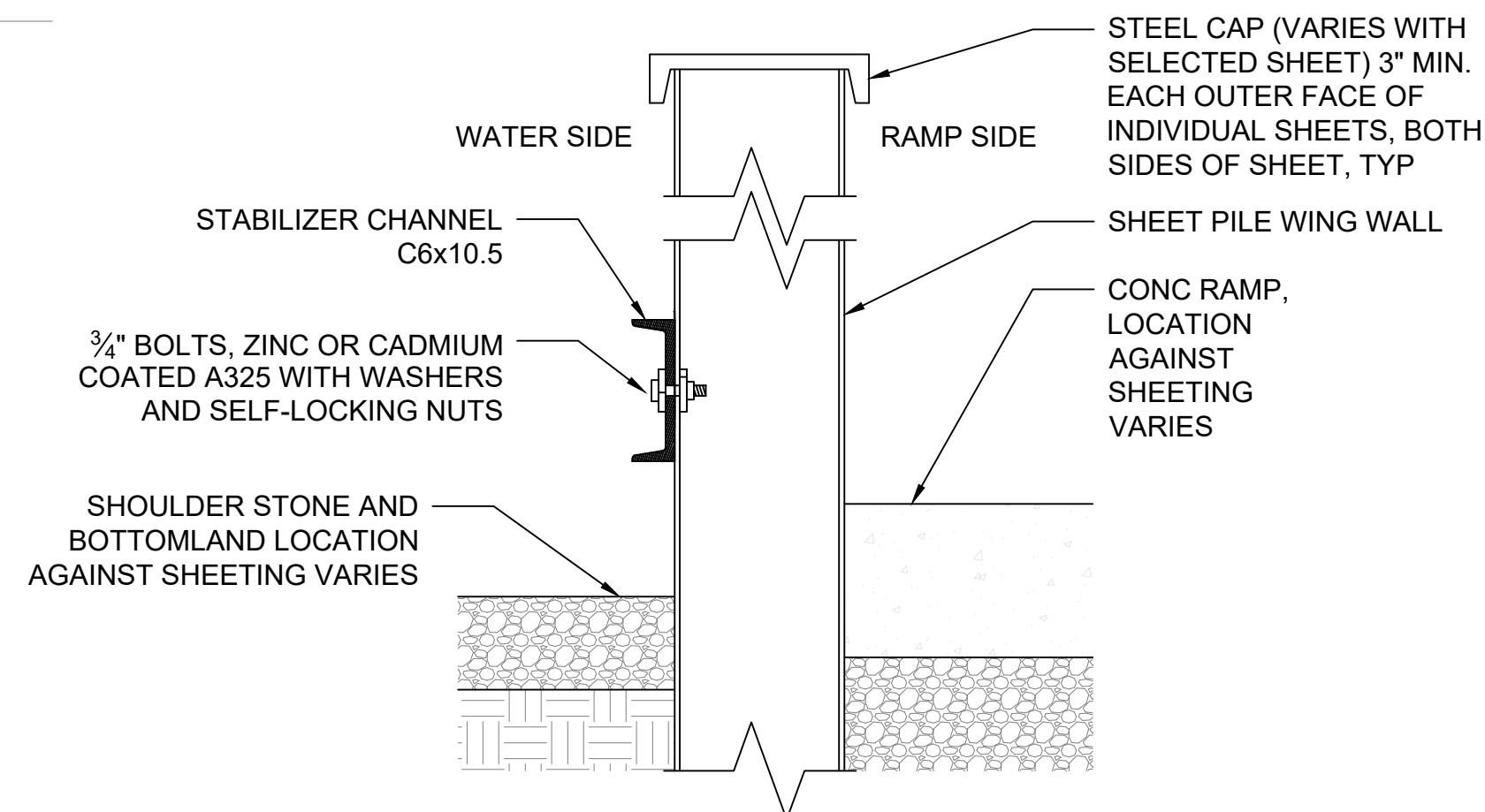


SCALE: 1" = 5'



SHEET PILE WING WALL DETAIL - PLAN VIEW

SCALE: 1" = 1'



SHEET CAP AND STABILIZER CHANNEL CONNECTION

N.T.S.

No.	Date	Revision	By

BOAT LAUNCH AND DREDGE DETAILS
EAST JORDAN BOAT LAUNCH IMPROVEMENTS
EAST JORDAN

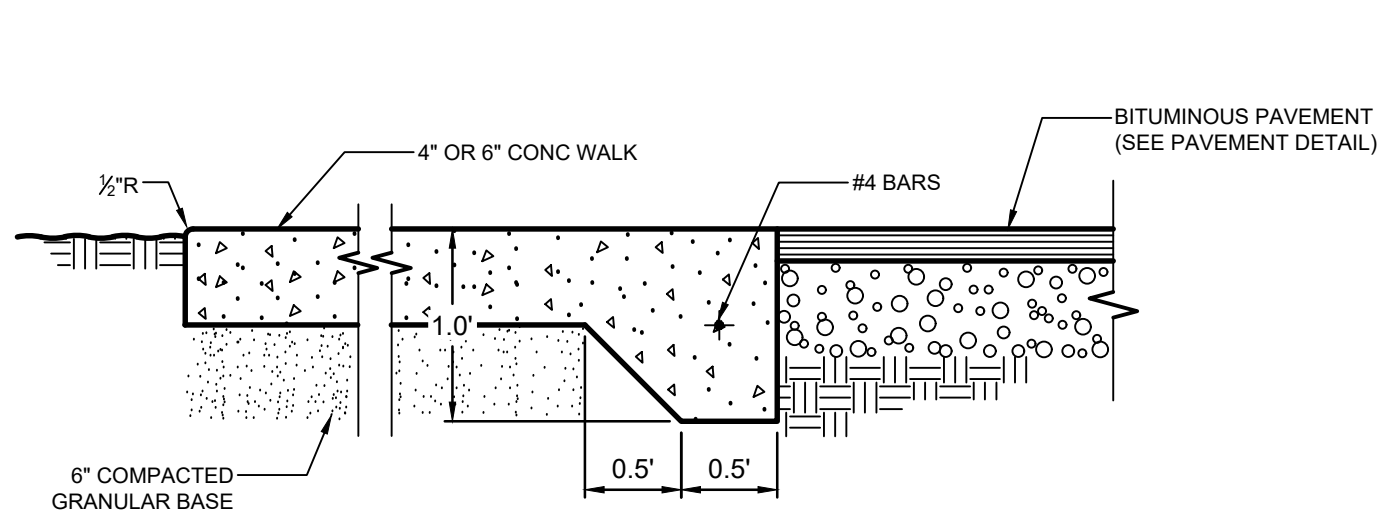
Date Issued: 2-6-2019
Date Surveyed: 03-15-2018
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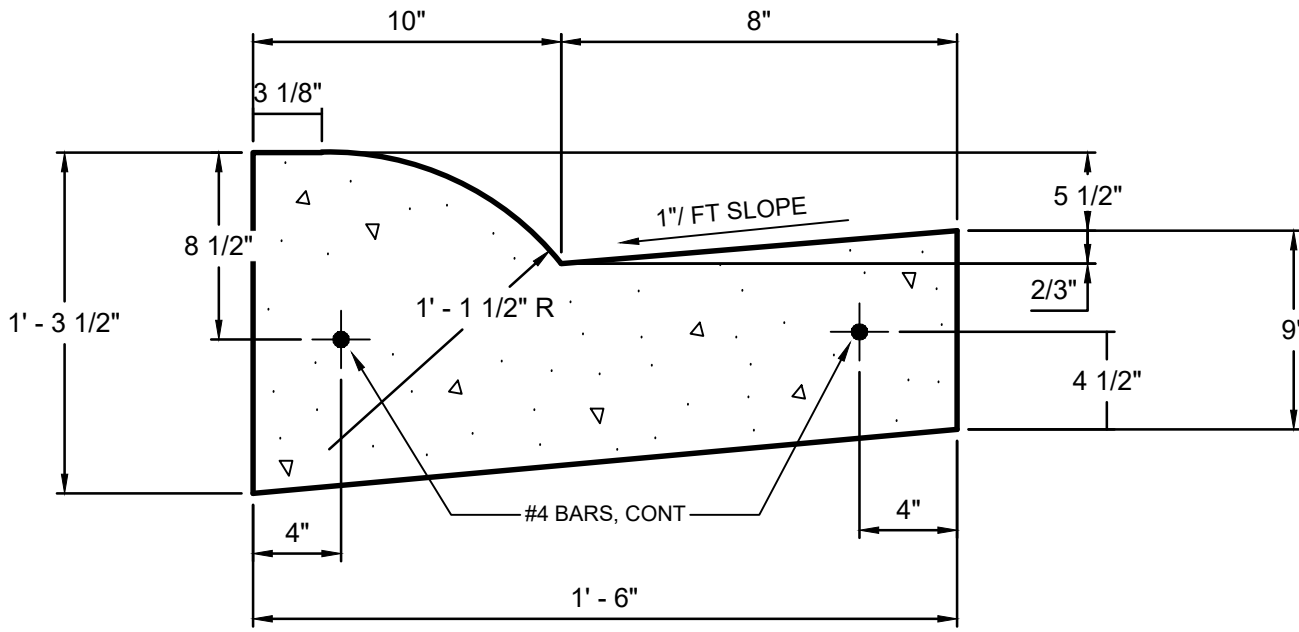
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T23N-R7W
SOUTH ARM TWP
CHARLEVOIX COUNTY, MI

Project Number: 2017510001.01

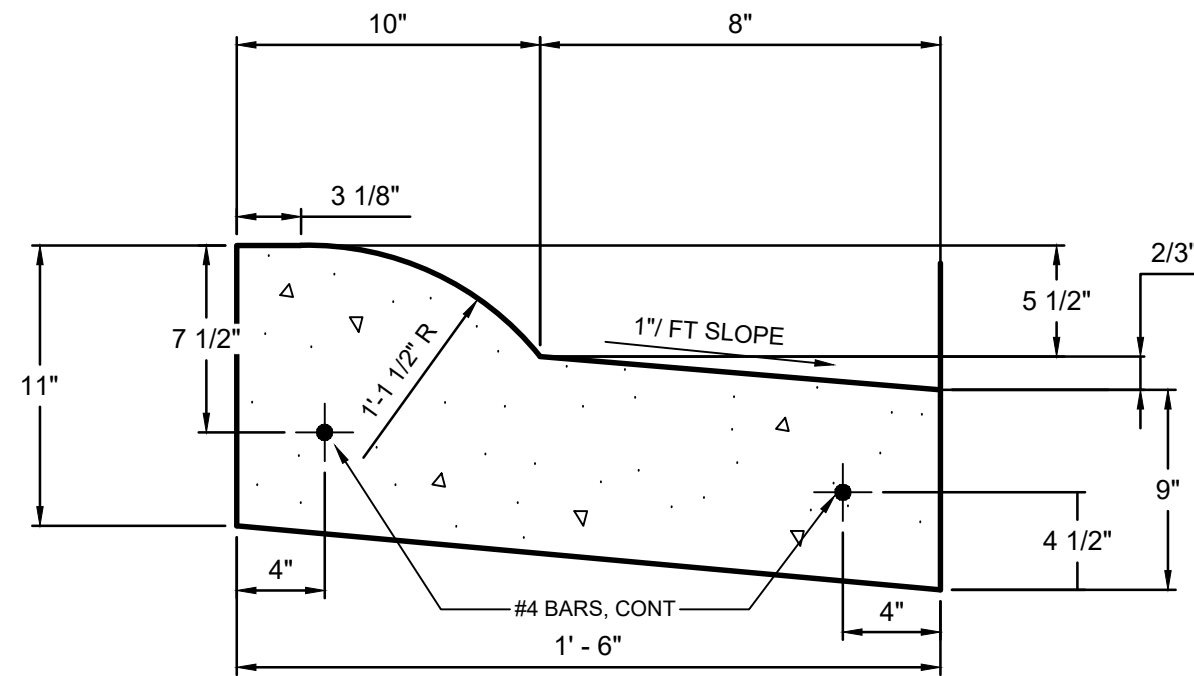
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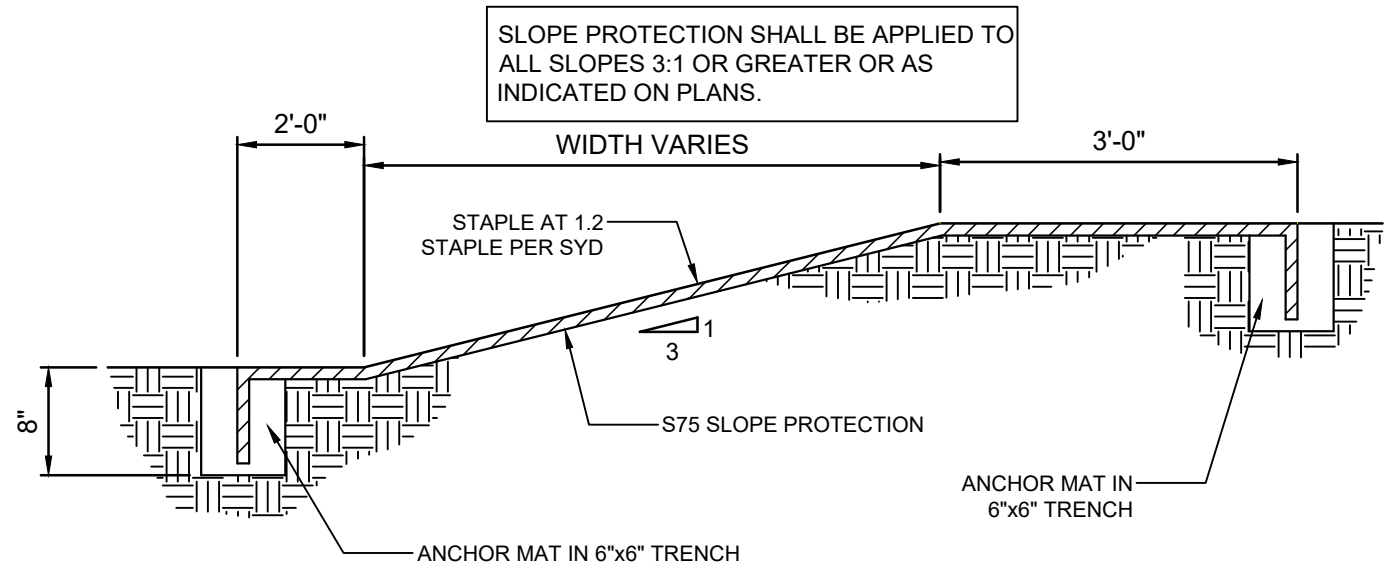
FLUSH THICKENED EDGE SIDEWALK DETAIL
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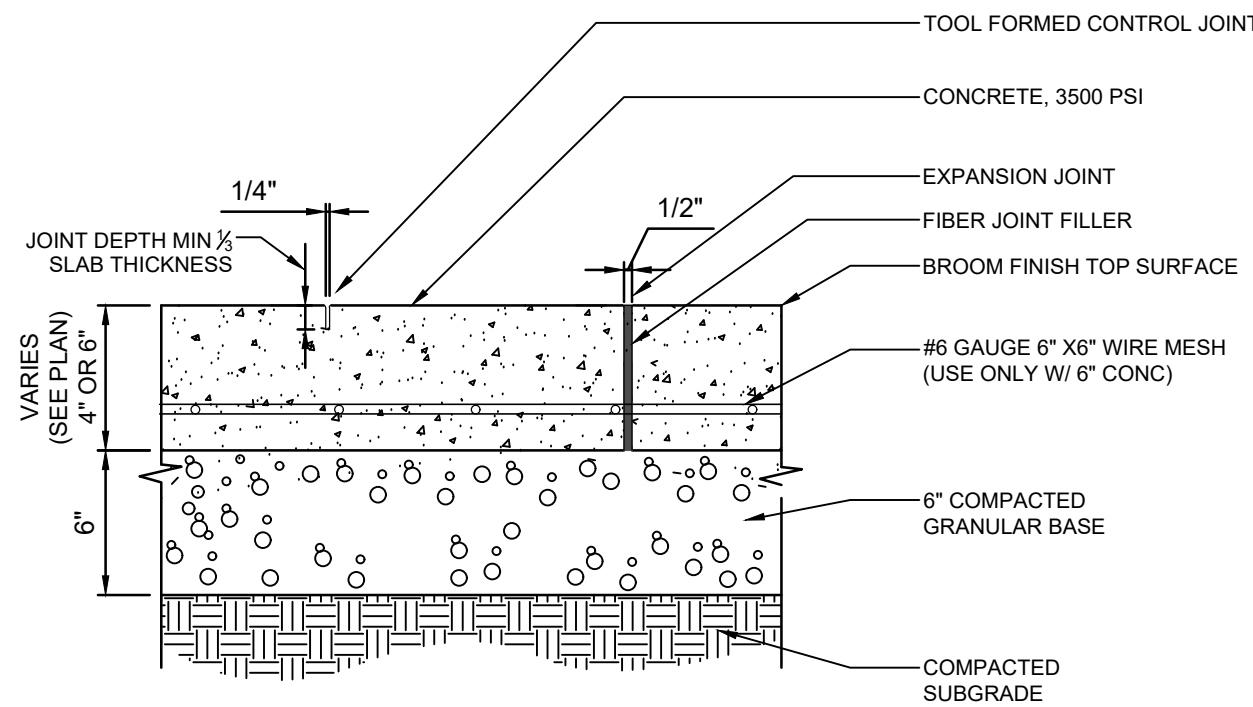
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CONCRETE CURB & GUTTER DETAIL**
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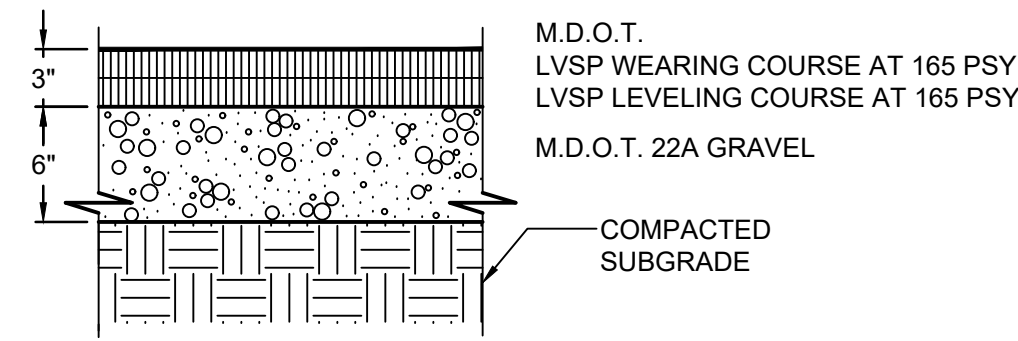
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CONCRETE CURB & GUTTER DETAIL**
NOT TO SCALE



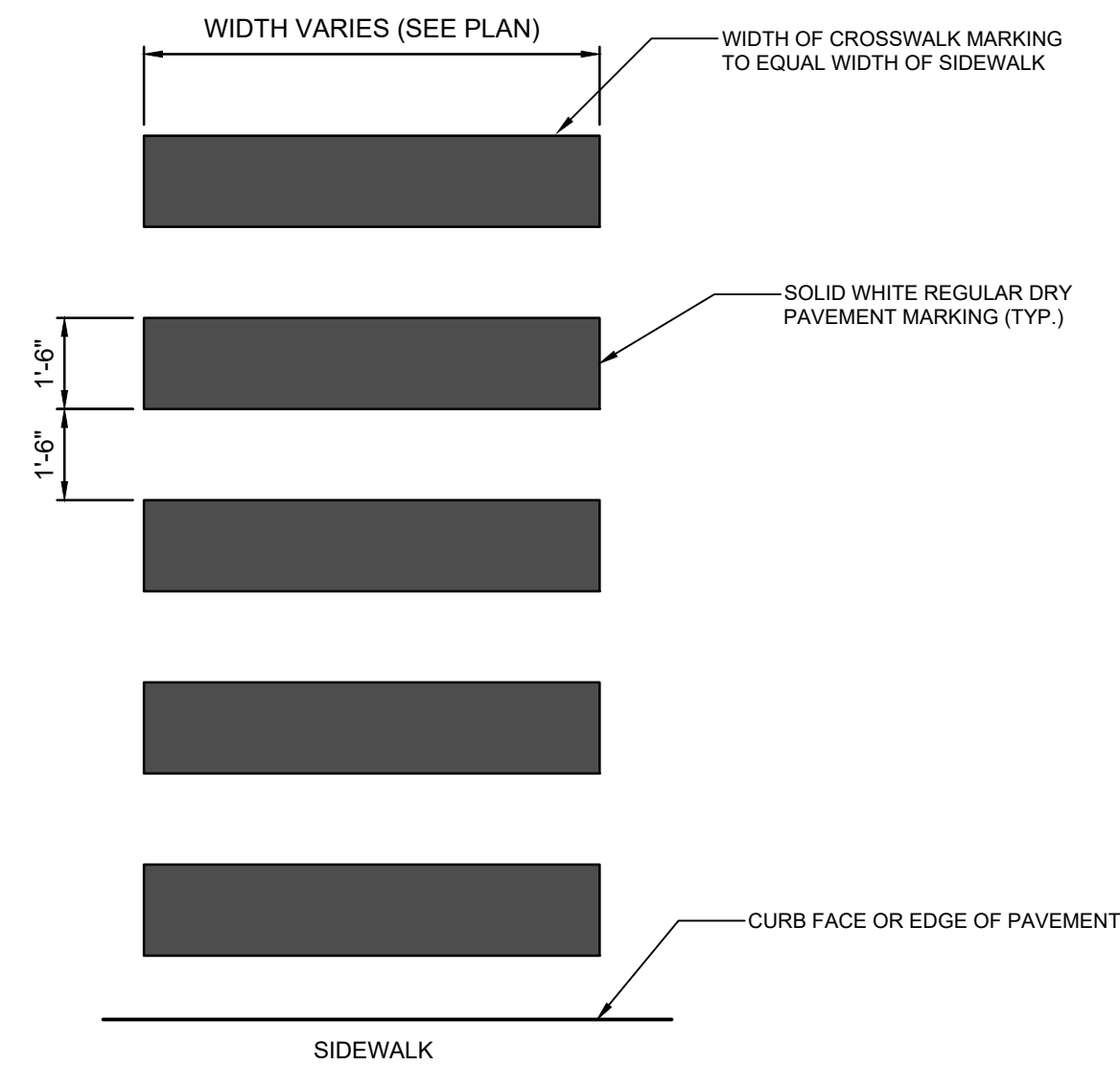
MULCH BLANKET DETAIL
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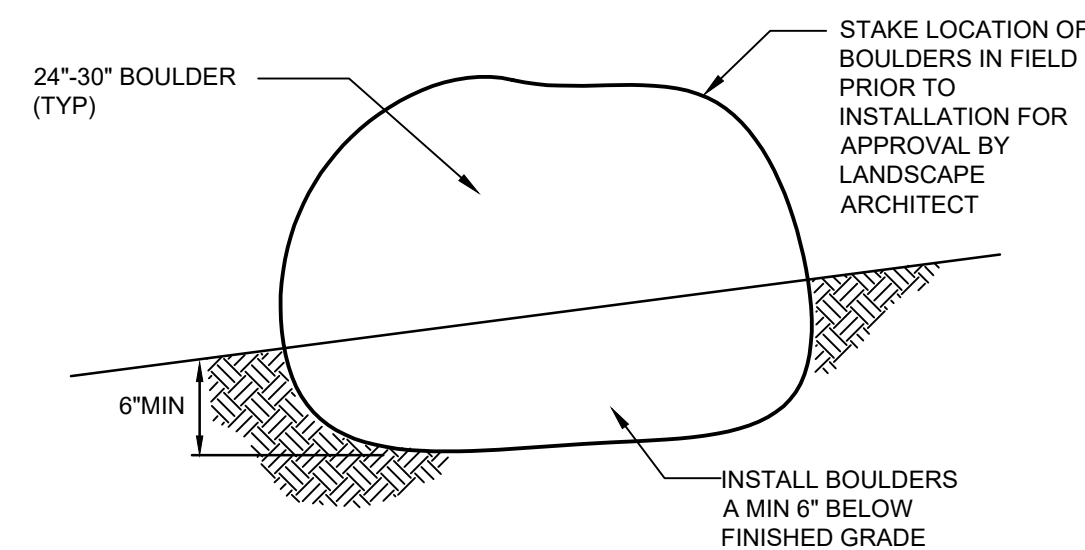
CONCRETE PAVING & WALK SECTION DETAIL
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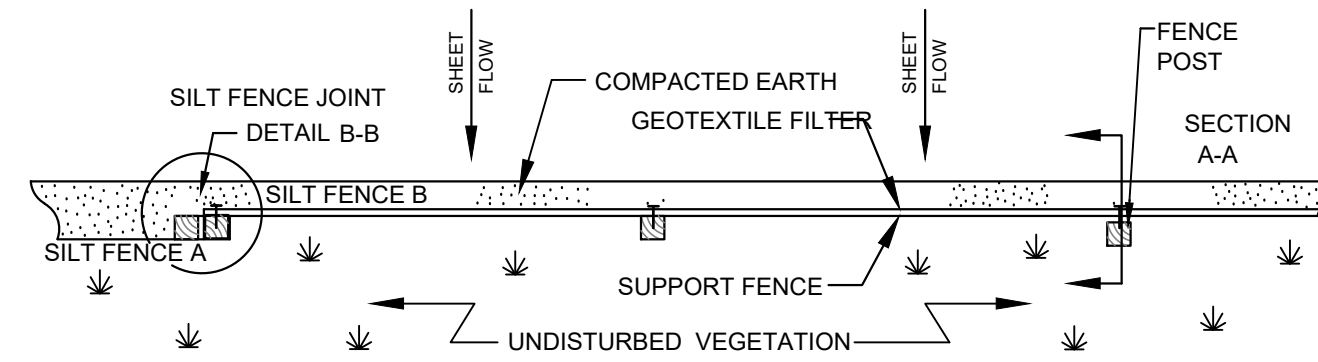
ASPHALT PAVING DETAIL
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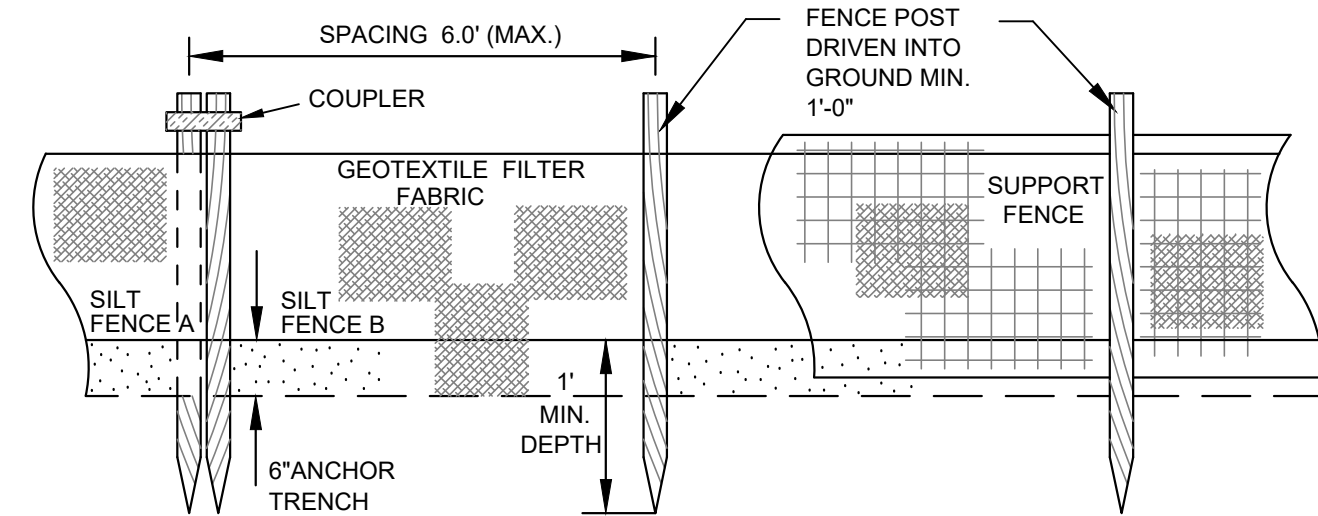
SPECIAL EMPHASIS CROSSWALK MARKING
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BOULDER INSTALLATION DETAIL
NOT TO SCALE



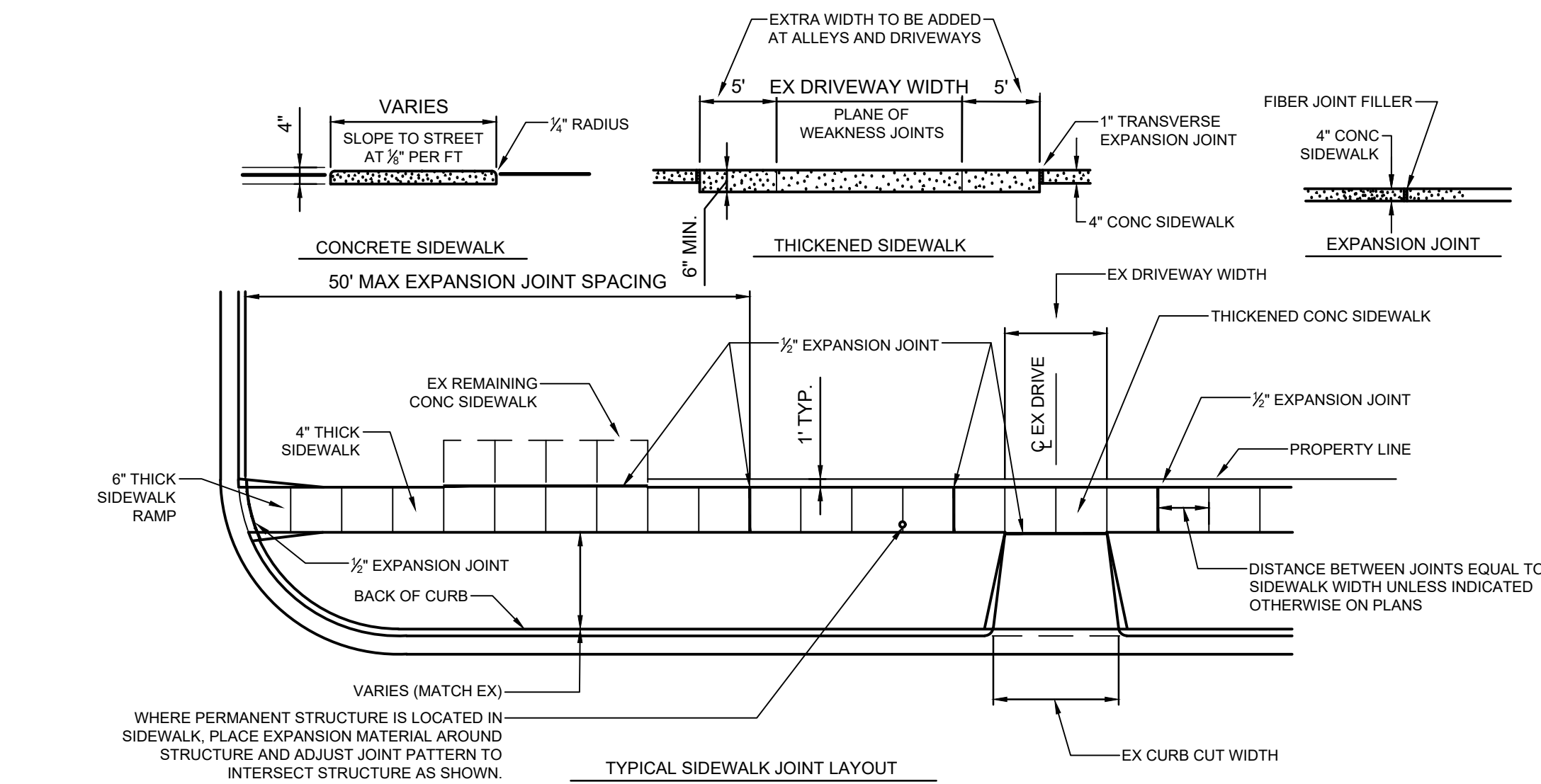
PLAN VIEW



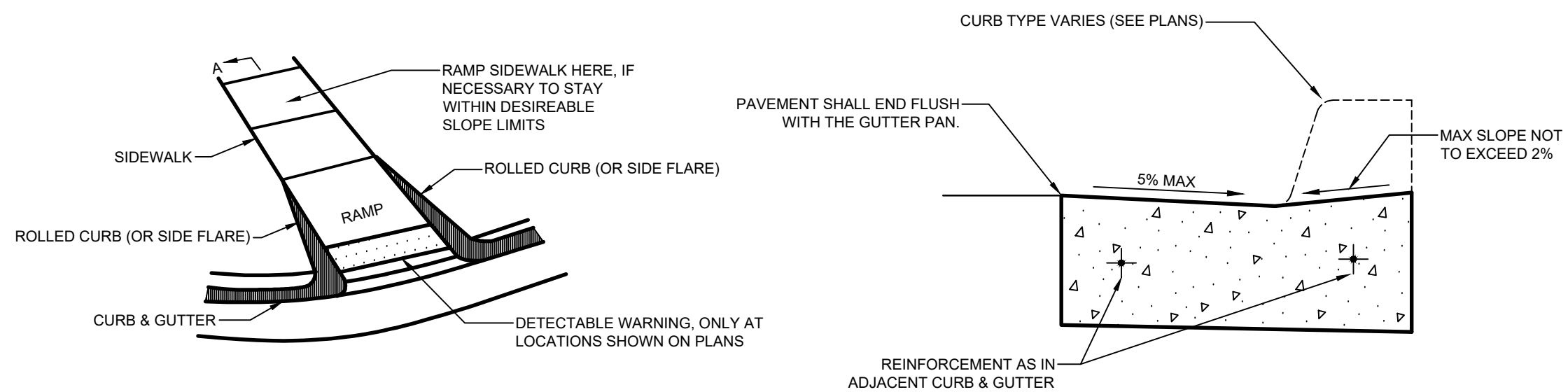
FRONT VIEW



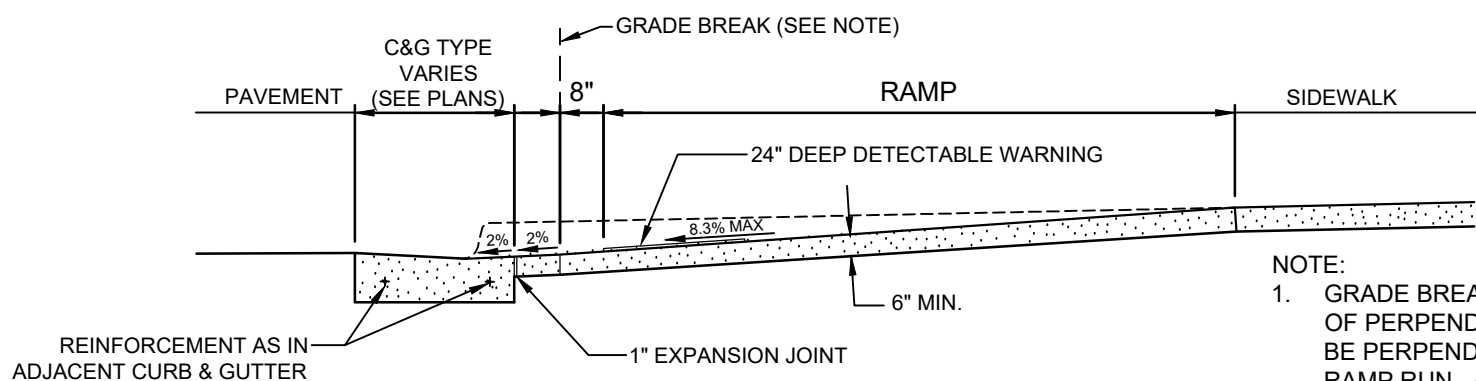
SILT FENCE DETAIL
NOT TO SCALE



TYPICAL CONCRETE SIDEWALK DETAILS
NOT TO SCALE



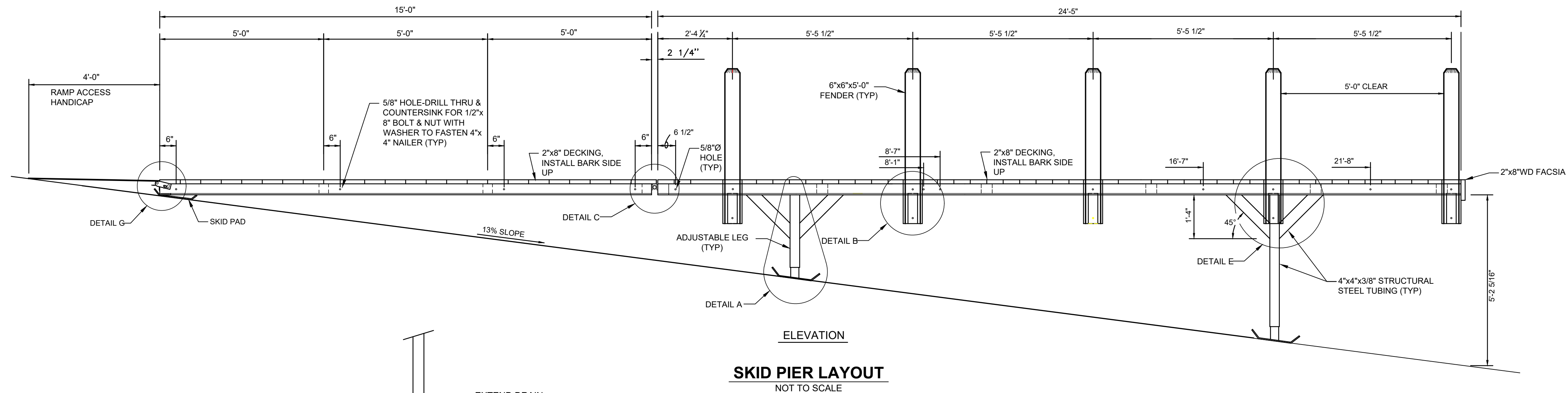
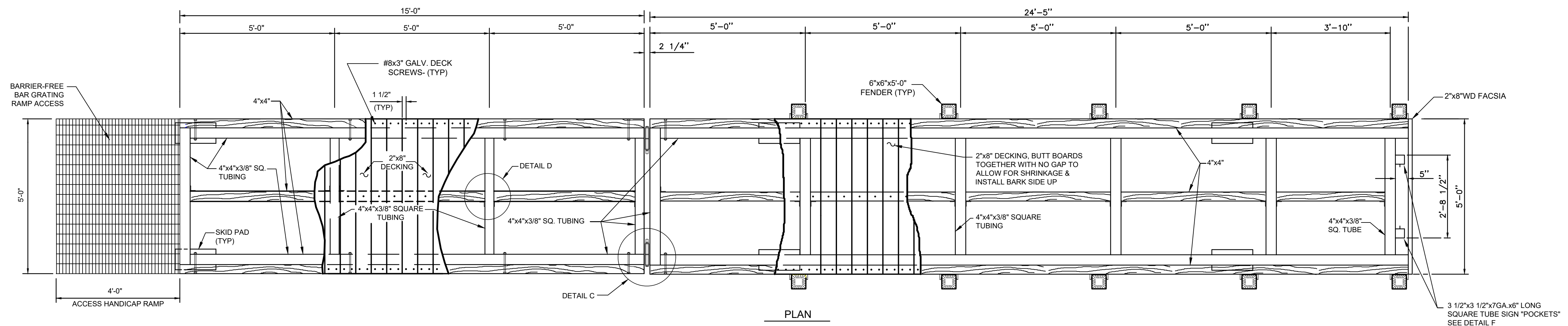
SIDEWALK RAMP



SECTION A-A

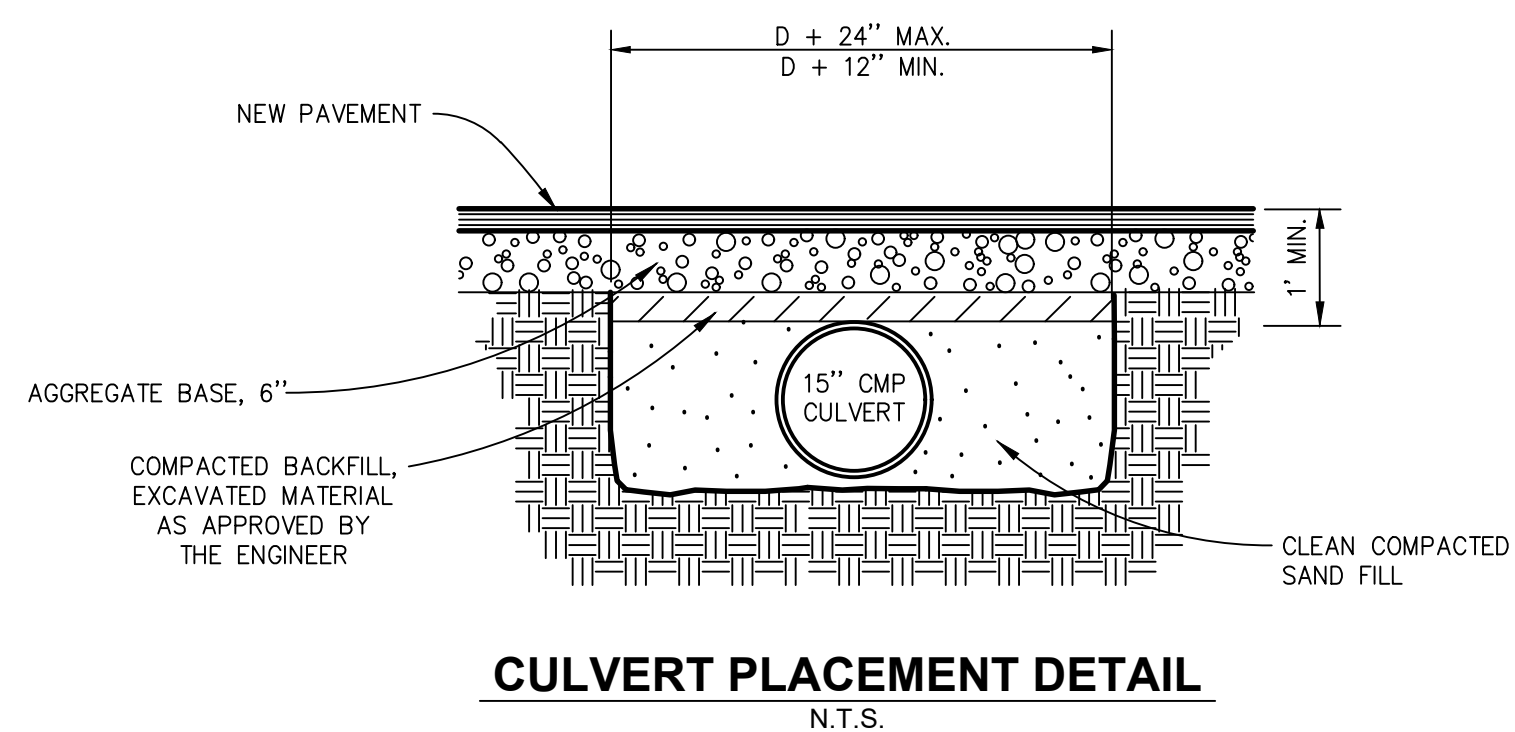
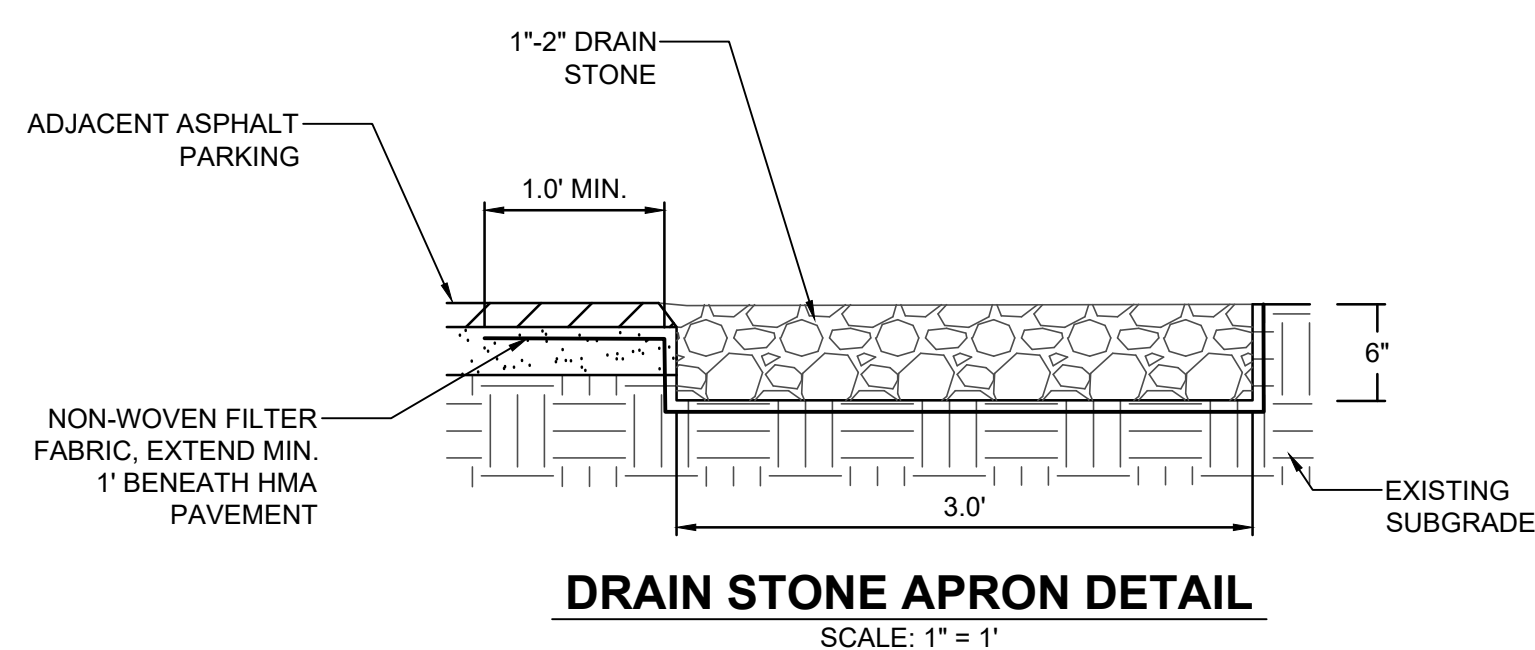
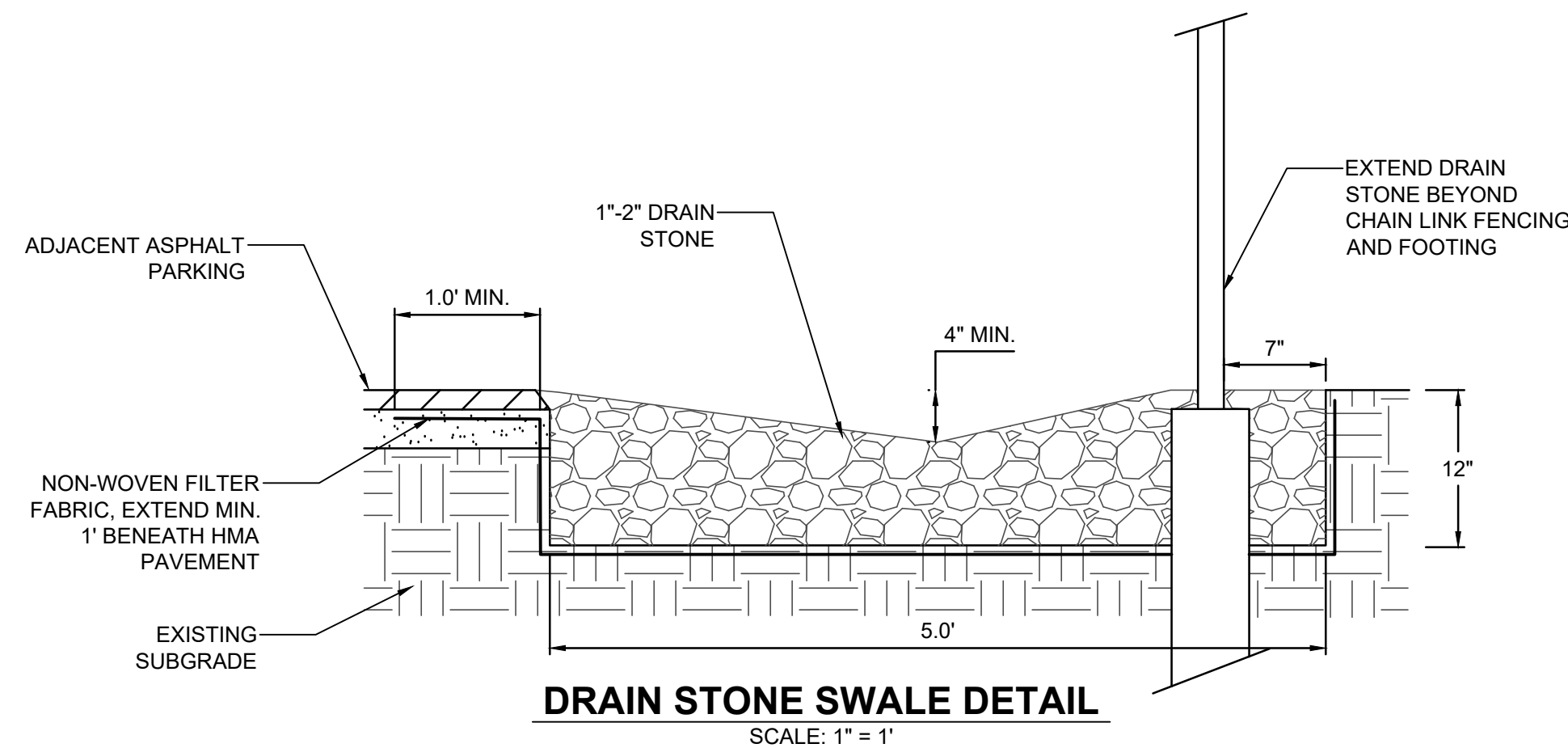
**CONCRETE SIDEWALK
RAMP DETAILS**
NOT TO SCALE

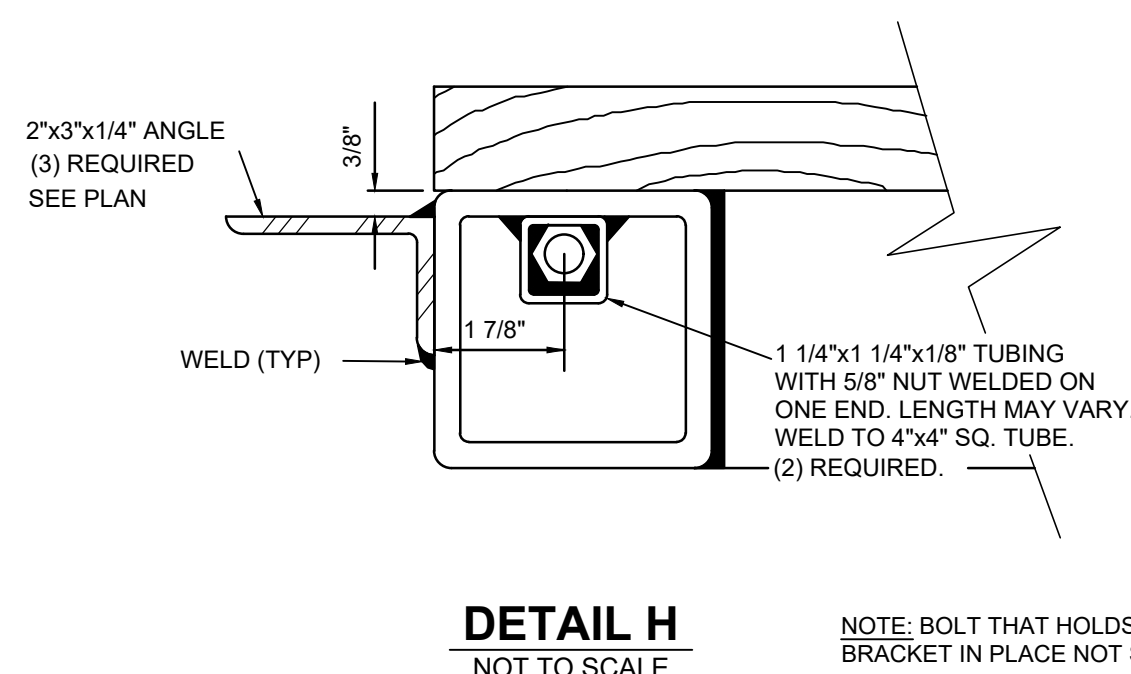
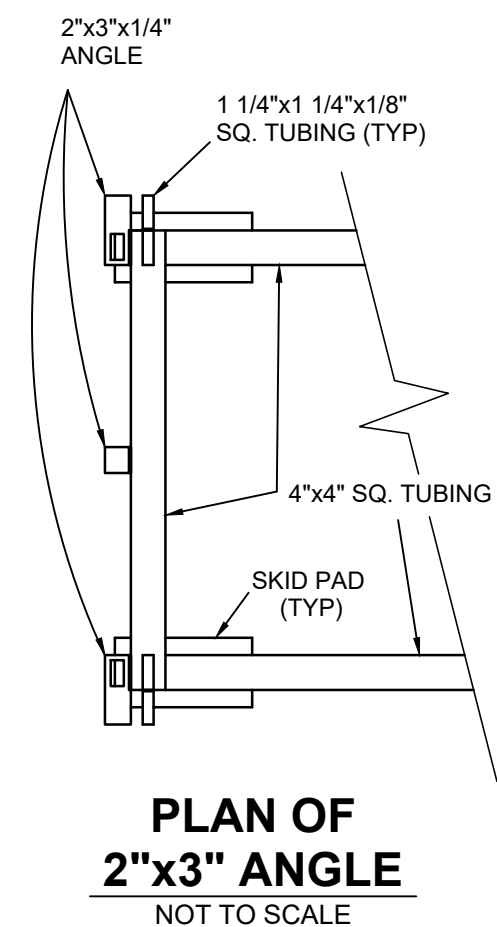
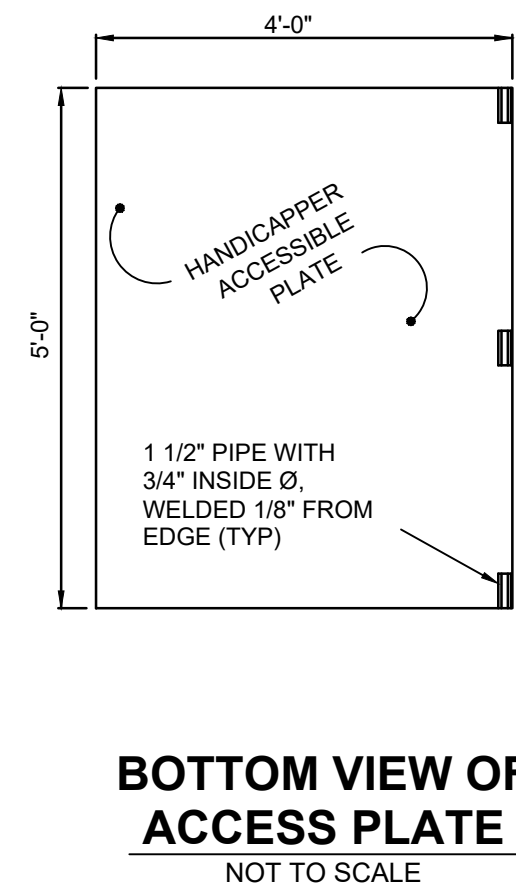
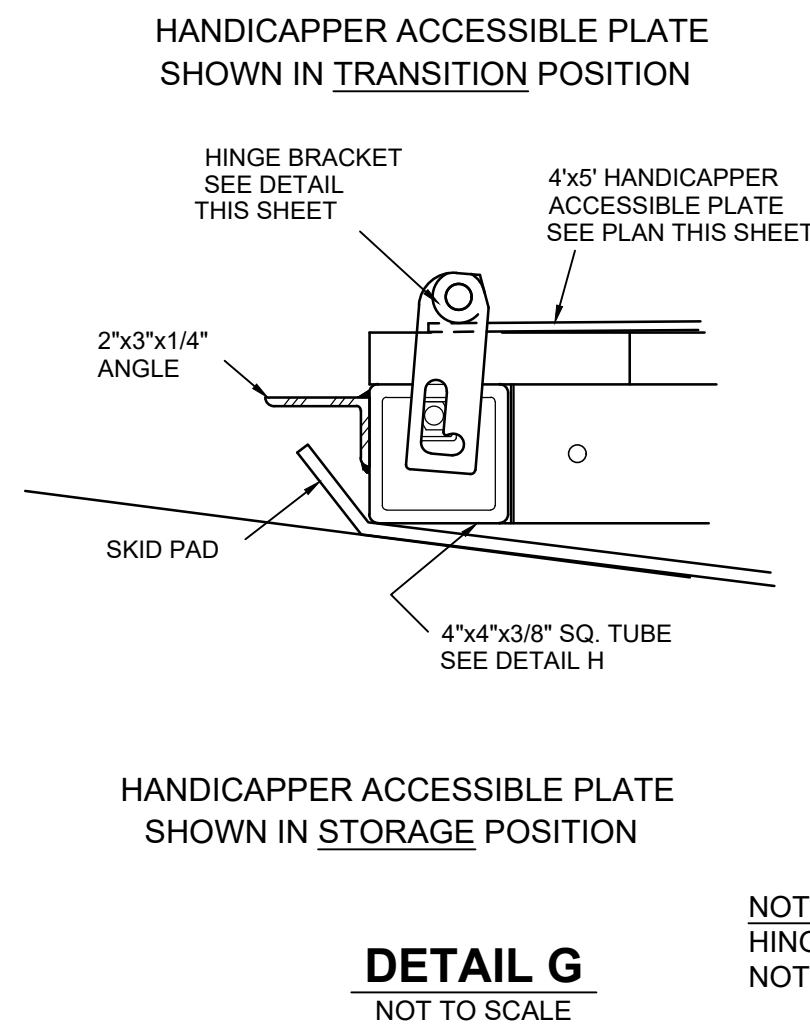
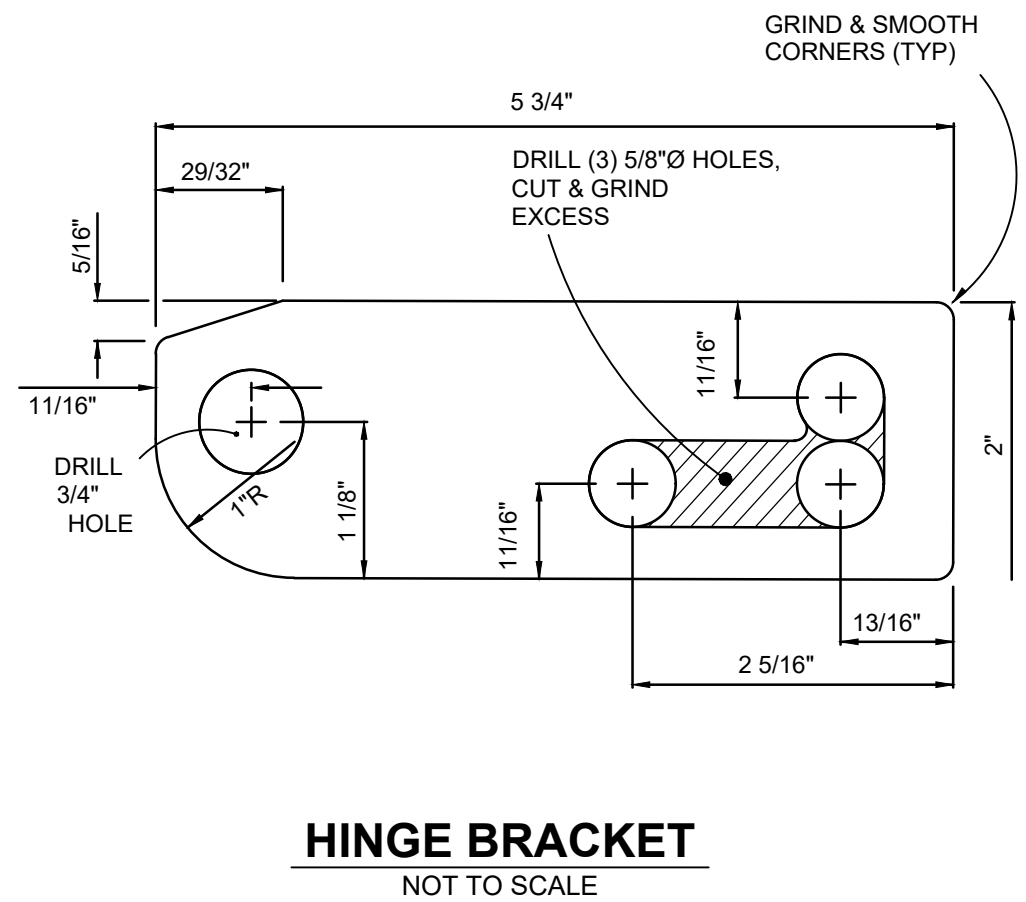
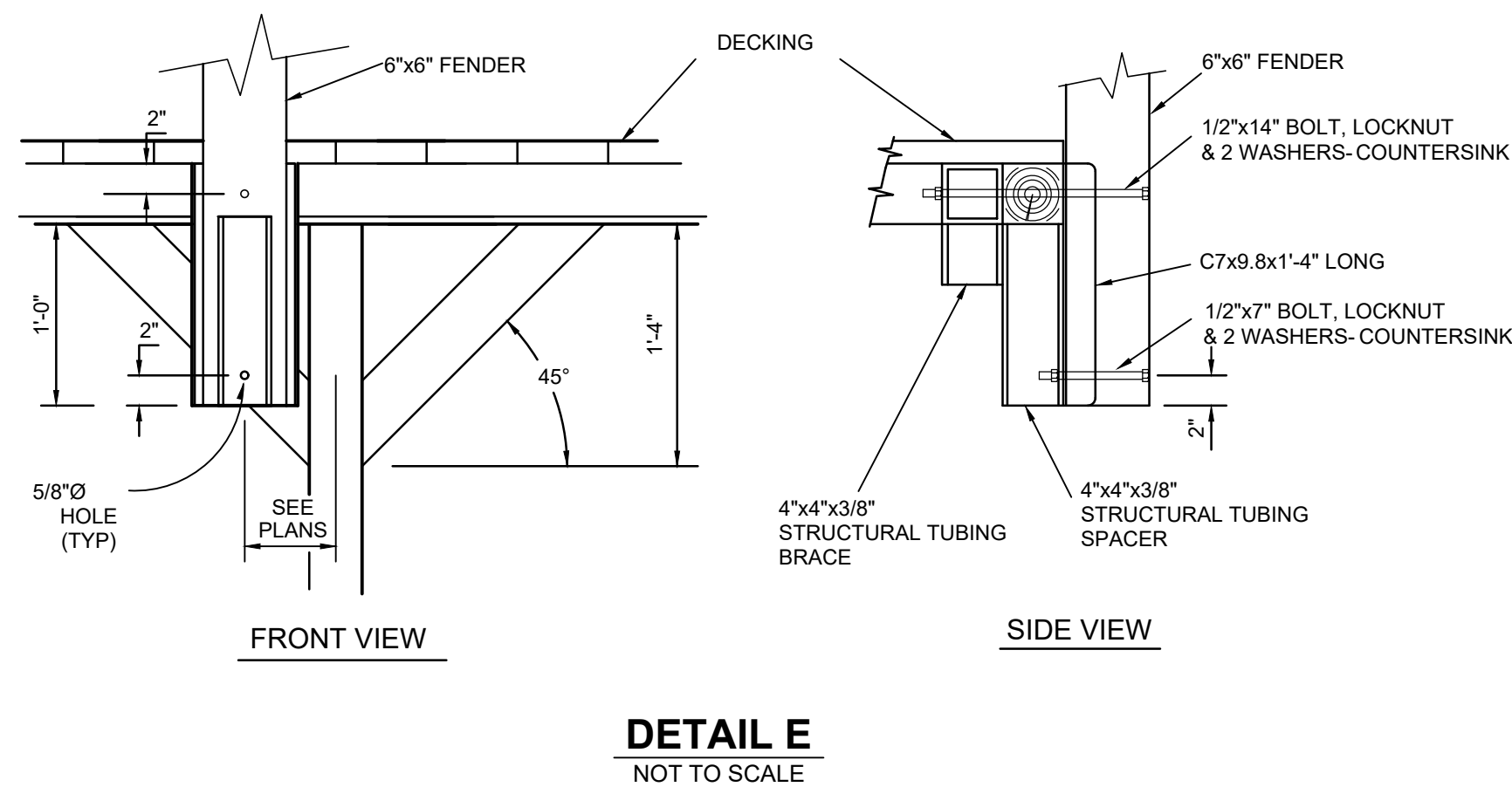
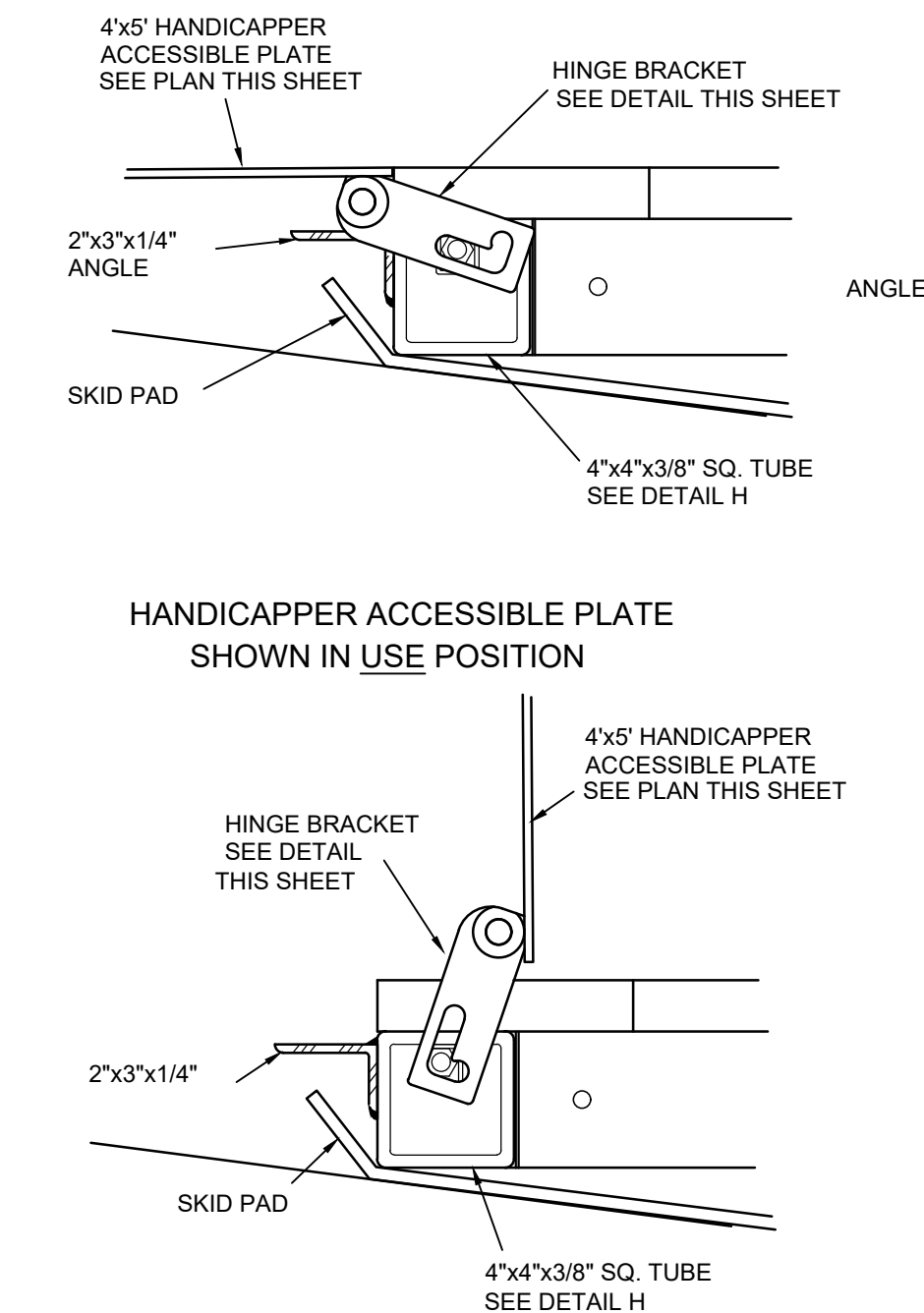
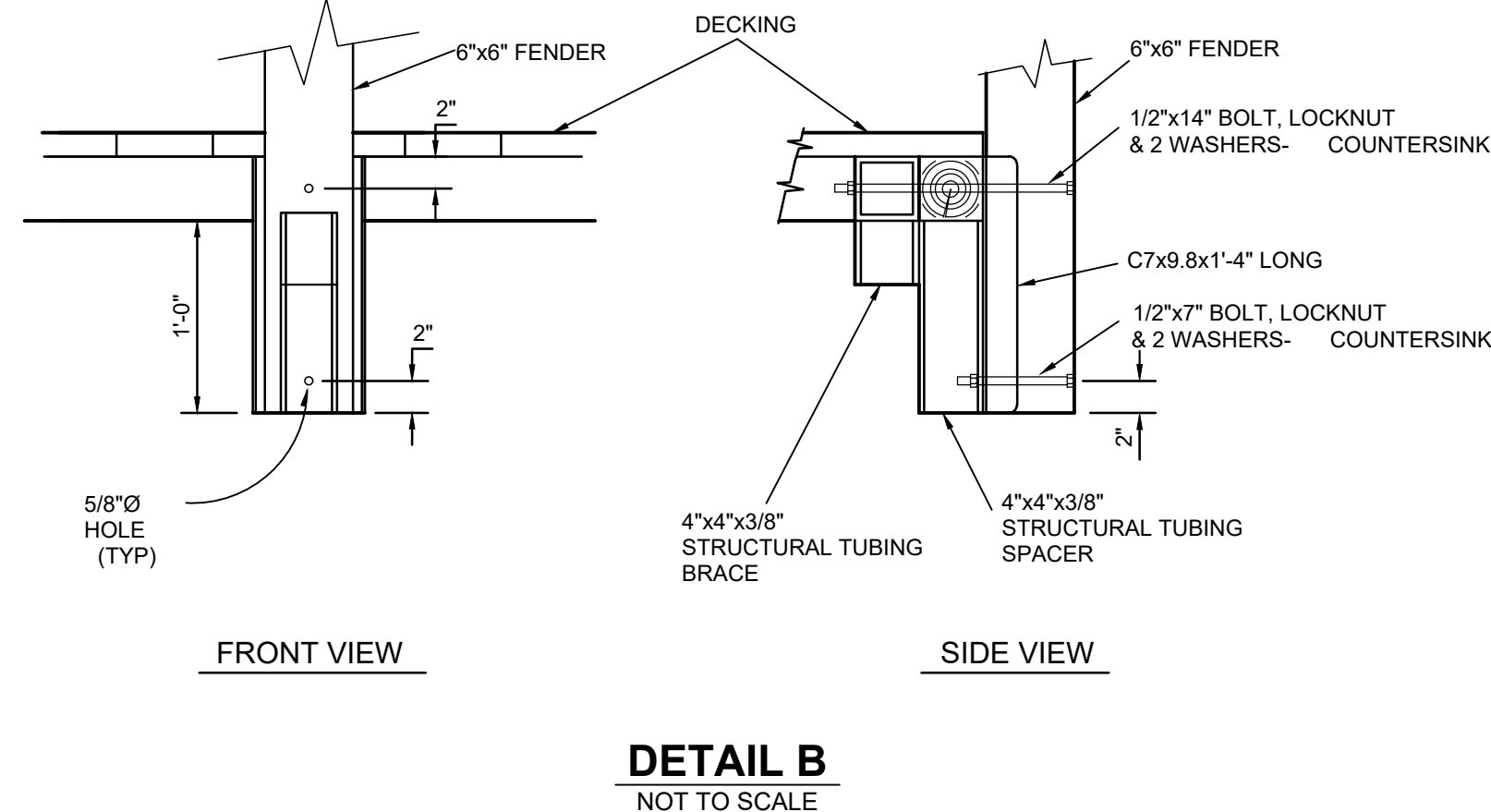
- NOTE:**
1. GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMP SHALL BE PERPENDICULAR TO THE DIRECTION OF RAMP RUN. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB.
 2. DETECTABLE WARNING ONLY AT LOCATIONS SHOWN ON PLANS.
 3. REFER TO MDOT STANDARD PLAN R-28-F FOR SIDEWALK RAMP & DETECTABLE WARNING DETAILS.









SKID PIER LAYOUT



NOT TO SCALE

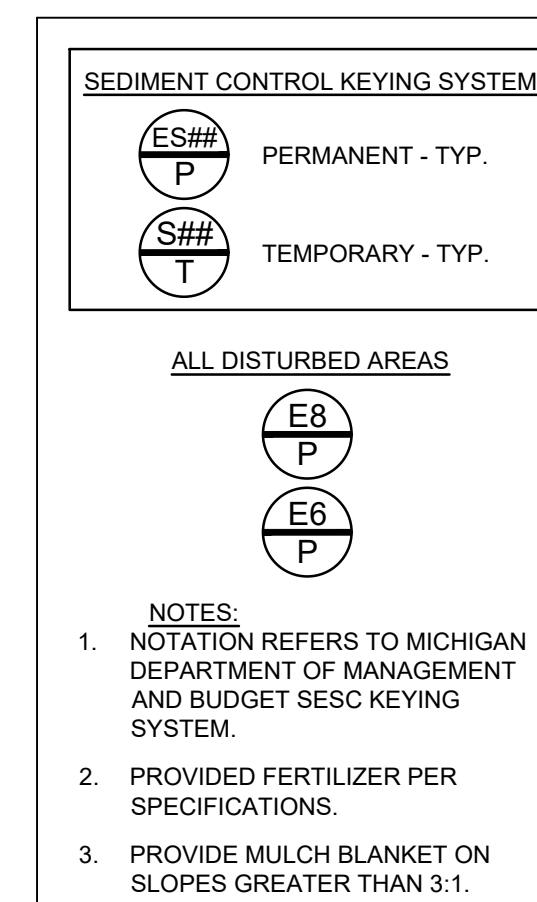
[illegible]






KEY	BOTANICAL NAME COMMON NAME	MIN. REQ'D SIZE	QTY.
	A.r. <u><i>Acer rubrum</i> 'Red Sunset'</u> Red Sunset' Red Maple	2.5 cal. B&B	3
	B.p. <u><i>Betula papyrifera</i></u> Paper or Canoe Birch	12' Ht. B&B Multi-Stem Clump (Min 3-Stem)	3
	A.c. <u><i>Amelanchier canadensis</i></u> Shadblow Serviceberry	10' Ht. B&B Multi-Stem	3
	G.t. <u><i>Gleditsia triacanthos</i> 'shademaster'</u> Shademaster Honeylocust	2.5 cal. B&B	3
	G.t. <u><i>Cornus sericea</i> 'Isanti'</u> Isanti Red Osier Dogwood	#5 Pot	21
	<u><i>JF NEW - SWALE SEED MIX</i></u>	Seed - Install at minimum 2.7	6,840 SF

SIGN	TYPE	NOTES	SIGN SIDE "A"	QUANTITY
1	C	SIGN TO BE DOUBLE SIDED	LAUNCH AREA NO POWER LOADING NO SWIMMING OR DIVING	1 (DOUBLE SIDED)
2	B	SIGN SHALL BE IN COMPLIANCE WITH MMUTCD	 VAN ACCESSIBLE RESERVED PARKING (R78VA)	3
3	A	SIGN SHALL BE IN COMPLIANCE WITH MMUTCD	BOAT PREP LANE NO PARKING (UTILIZE 18"x12" REGULATORY SIGN)	2
4	A	SIGN SHALL BE IN COMPLIANCE WITH MMUTCD	TIE-DOWN LANE NO PARKING (UTILIZE 18"x12" REGULATORY SIGN)	2
5	A	ROTATED	 ONE-WAY	1
6	B	RULES LANGUAGE TO BE PROVIDED BY OWNER	LAUNCH RULES SIGN	1
7	B	SIGN PROVIDED BY OWNER, INSTALLED BY CONTRACTOR	MDNR WATERWAYS SIGN	1



 **BENCHMARK**
BM#1 (BENCH MARK)
SPIKE IN LIGHT POLE
EL=586 (NAVD 88)

PART OF SECTION 23
TOWN 32 NORTH, RANGE 4 WEST
SOUTH ARM TWP., CHARLEVOIX CO., MI.



Know what's below.
Call before you dig.

THE LOCATION OF THE EXISTING UTILITIES, AS SHOWN ON THIS PLAN, ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES. THE OWNER AND THE SURVEYOR SHALL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATION SHOWN. THE CONTRACTOR SHALL NOTIFY "MISS DIG" AT 1 (800) 482-7171 OR 811 THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

1. REMOVE AND SALVAGE ALL EXISTING SIGNAGE WITHIN THE LIMITS IF CONSTRUCTION ACTIVITIES. SALVAGED SIGNAGE SHALL REMAIN PROPERTY OF THE OWNER.
2. PREVENT DAMAGE OF SIGNAGE TO BE RELOCATED AND REUSED. IF DAMAGE TO REUSABLE SIGNAGE OCCURS DURING REMOVAL, THE CONTRACTOR SHALL REPLACE SIGNAGE OR REIMBURSE THE OWNER.
3. SUBMIT SIGNAGE PACKAGE INFORMATION FOR REVIEW AND APPROVAL BY THE PROFESSIONAL PRIOR TO FABRICATION AND INSTALLATION.

1. CONTRACTOR SHALL ADEQUATELY DELINEATE PLANTING AREAS WITH MARKING PAINT OR OTHER APPROVED METHOD PRIOR TO INSTALLATION FOR APPROVAL BY LANDSCAPE ARCHITECT.
2. REFER TO SPECIFICATION 02950 FOR LANDSCAPING INSTALLATION INFORMATION.
3. IN CASE OF A DISCREPANCY, THE NUMBER OF TREE/SHRUB SYMBOLS SHOWN ON THE PLANS SHALL TAKE PRECEDENCE OVER QUANTITY ON NUMERICAL LABEL OR PLANT SCHEDULE.
4. PROVIDE A MINIMUM 3" DEPTH OF RED PINE LANDSCAPE MULCH (EQUAL TO RED PINE MULCH FROM TRAVERSE OUTDOOR, TRAVERSE CITY, MI) IN ALL PLANTING BEDS AS INDICATED ON PLANS. SUBMIT A SAMPLE OF THE MULCH TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. FINISHED GRADE OF MULCH SHALL BE FLUSH WITH GRADE OF ALL ADJACENT PAVING AND CURBS TO ALLOW FOR SETTLING.
5. THE LANDSCAPE CONTRACTOR SHALL PROVIDE PLANTING MIX FOR PLANTING MEDIUM FOR THE TREES AND SHRUBS. PROVIDE PLANTING MIX SAMPLE RATIO FOR APPROVAL BY LANDSCAPE ARCHITECT.
6. COORDINATE THE LANDSCAPE INSTALLATION WITH THE INSTALLATION WITH THE FINAL SITE PARKING AND PAVING PLAN. COORDINATE THE LANDSCAPE INSTALLATION TO INSURE VISIBILITY OF ALL TRAFFIC SIGNAGE. COORDINATE THE LANDSCAPE INSTALLATION WITH UTILITY LOCATIONS.
7. STAKE THE LOCATIONS OF ALL TREES AND MASS PLANTING AREAS AND OBTAIN APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. MAKE MINOR ADJUSTMENTS IN THE TREE LOCATIONS REQUIRED DUE TO UTILITY ITEMS.
8. TREES SHALL BE SELECTED WITH FORMS ADAPTABLE TO PLACEMENT ADJACENT TO SIDEWALKS AND VEHICULAR USE AREAS. TREES SHALL HAVE FORMS ADAPTABLE TO FUTURE PRUNING FOR PEDESTRIAN AND VEHICULAR CLEARANCE.
9. ALL CONTAINER GROWN MATERIAL SHALL BE THOROUGHLY HAND WATERED UPON ARRIVAL, WHILE IN THE CONTAINERS, BEFORE PLANTING. DO NOT BIND OR STRAP THE TRUNKS IN THE REMOVAL FROM THE TRUCKS. PROTECT THE TRUNKS AT ALL TIMES.
10. PROVIDE A MINIMUM 3'-0" DIAMETER TREE WELL WITH A 4" SAUCER FOR ALL TREES LOCATED IN TURF AREAS. PROVIDE 3" DEPTH OF MULCH INSIDE SAUCERS. REVIEW SUBSURFACE DRAINAGE CONDITIONS. INSTALL TREES "HIGH" IF NECESSARY, DUE TO SUBSURFACE CONDITIONS.
11. PRUNE ANY ADDITIONAL TREES AS REQUIRED BY THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR OR OWNER.
12. ALL MASS PLANTINGS SHALL BE EVENLY SPACED AS SHOWN ON PLANS TO ENSURE EVEN COVERAGE. SET PLANTS OFF CURBS AND WALKS TO PREVENT OVERGROWTH INTO UNWANTED AREAS.

[illegible]

LANDSCAPE AND SIGNAGE DETAILS

EAST JORDAN BOAT LAUNCH IMPROVEMENTS

EAST JORDAN

Date Issued: 2-6-2019
 Date Surveyed: 03-15-2018
 Assigned By: KSK
 Drawn By: KSK
 Checked By: KDH
 Scale: ----
 Original sheet size is 22x34

location:
PART OF SECTION 23
T23N-R7W
SOUTH ARM TWP
CHARLEVOIX COUNTY, MI

Project Number:
2017510001.01

Sheet: