



## King County

Department of Natural Resources and Parks

### Wastewater Treatment Division

King Street Center, KSC-NR-0505  
201 South Jackson Street  
Seattle, WA 98104-3855

November 22, 2021

sent via email: [lauren.anderson@mercerisland.gov](mailto:lauren.anderson@mercerisland.gov)  
OAP Ref No. 1857

Lauren Anderson  
City of Mercer Island, Community Planning & Development  
9611 SE 36<sup>th</sup> St  
Mercer Island, WA 98040

Dear Lauren Anderson:

The King County Wastewater Treatment Division (WTD) has received Notice of Application (NOA) for the Greg Arms / Milestone WCMILLC project (SUB21-006, CAR21-004, & SEP21-022) that proposes for Preliminary Short Plat approval for three (3) lots, and a Critical Areas Review 2 application with SEPA review.

**King County facilities, the 48-inch North Mercer Island Trunk and the North Mercer Pump Station, are adjacent to the project area (see enclosed record drawing showing the location of the facilities in the project vicinity).**

In order to protect this wastewater facility during construction, **WTD requests that City of Mercer Island, Community Planning & Development submit construction drawings for the project**, so that WTD can assess its potential impacts. Please send drawings to:

Local Public Agency Program  
King County WTD, Engineering and Technical Resources  
201 South Jackson Street, KSC-NR-0503  
Seattle, WA 98104-3855  
(206) 477-5414 / [lpa.team@kingcounty.gov](mailto:lpa.team@kingcounty.gov)

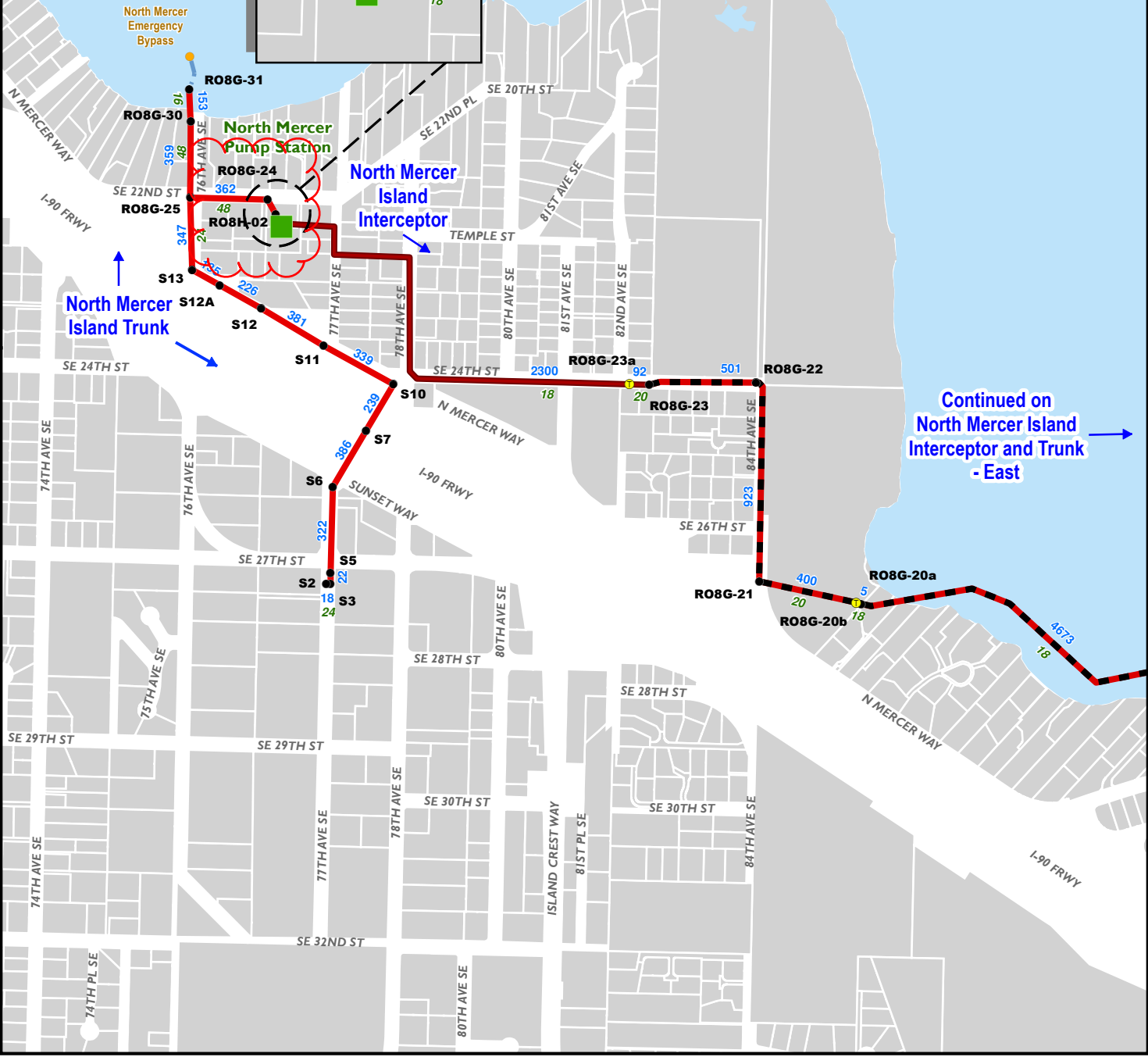
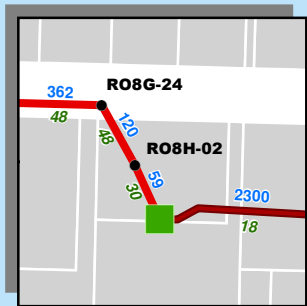
Thank you for the opportunity to review and comment on this proposal.

Sincerely,

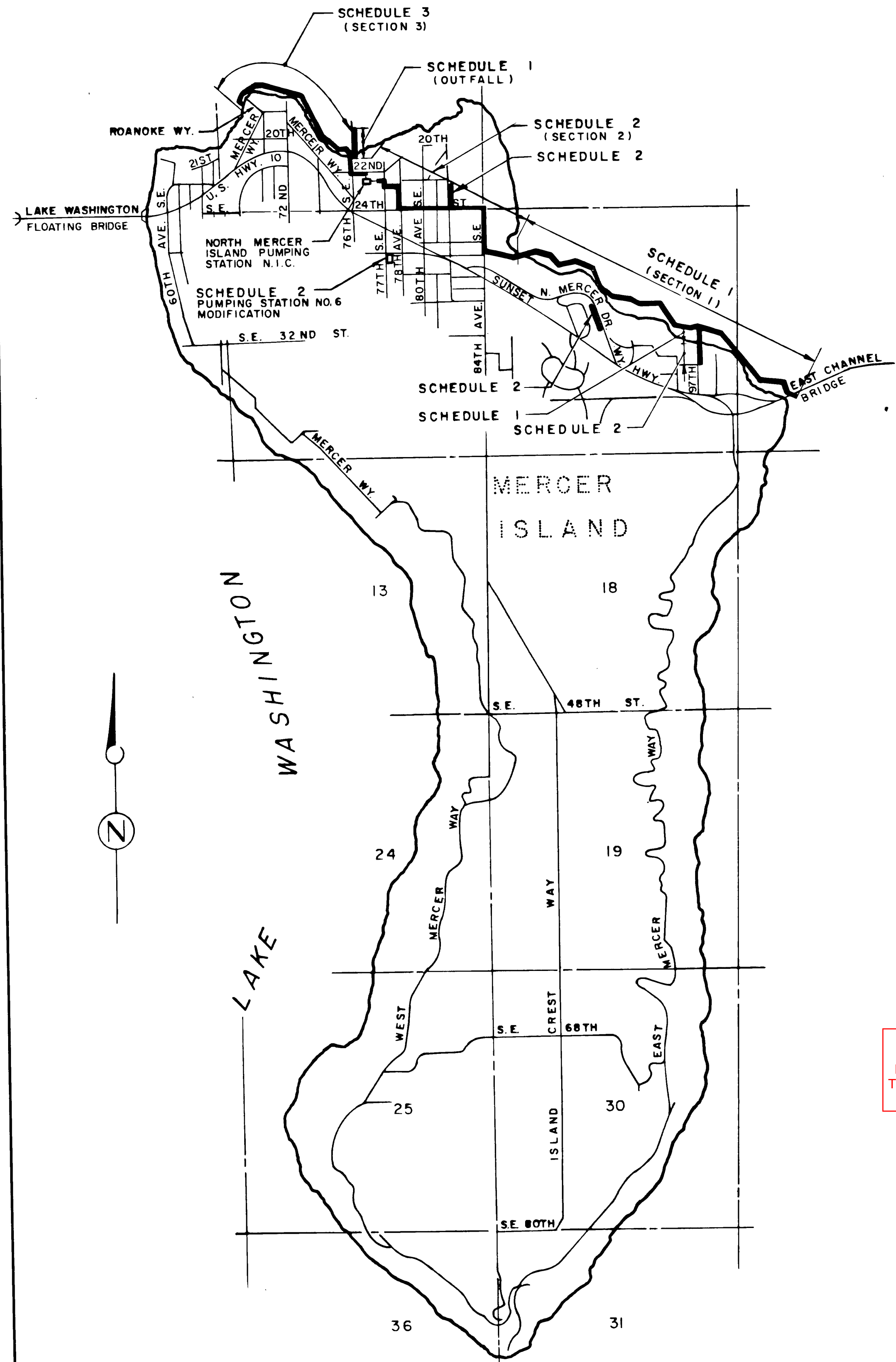
Bailey Pfeiffer  
Environmental Planning Administrator

Enclosure: Record drawing and sewer one-line map of the North Mercer Island Trunk and the North Mercer Pump Station in the vicinity of the proposed project.

Lake Washington



INDEX OF DRAWINGS



GENERAL

SHEET NO.	DRAWING NO.	TITLE
1	G1	INDEX OF DRAWINGS LOCATION AND VICINITY MAPS
2	G2	SYMBOLS, BENCH MARKS AND NOTES
3	G3	GENERAL STRUCTURAL NOTES DETAILS AND SPECIAL MANHOLES
4	G4	MANHOLE DETAILS
5	G5	STANDARD PRESSURE MANHOLE FRAMES AND COVERS
6	G6	EAST CHANNEL SIPHON CONNECTION AND TYPICAL THRUST BLOCKS
7	G7	INTAKE AND BYPASS STRUCTURE PLANS SECTIONS AND DETAILS
8	G8	TYPICAL TRENCH SECTIONS AND DETAILS

SCHEDULE 1

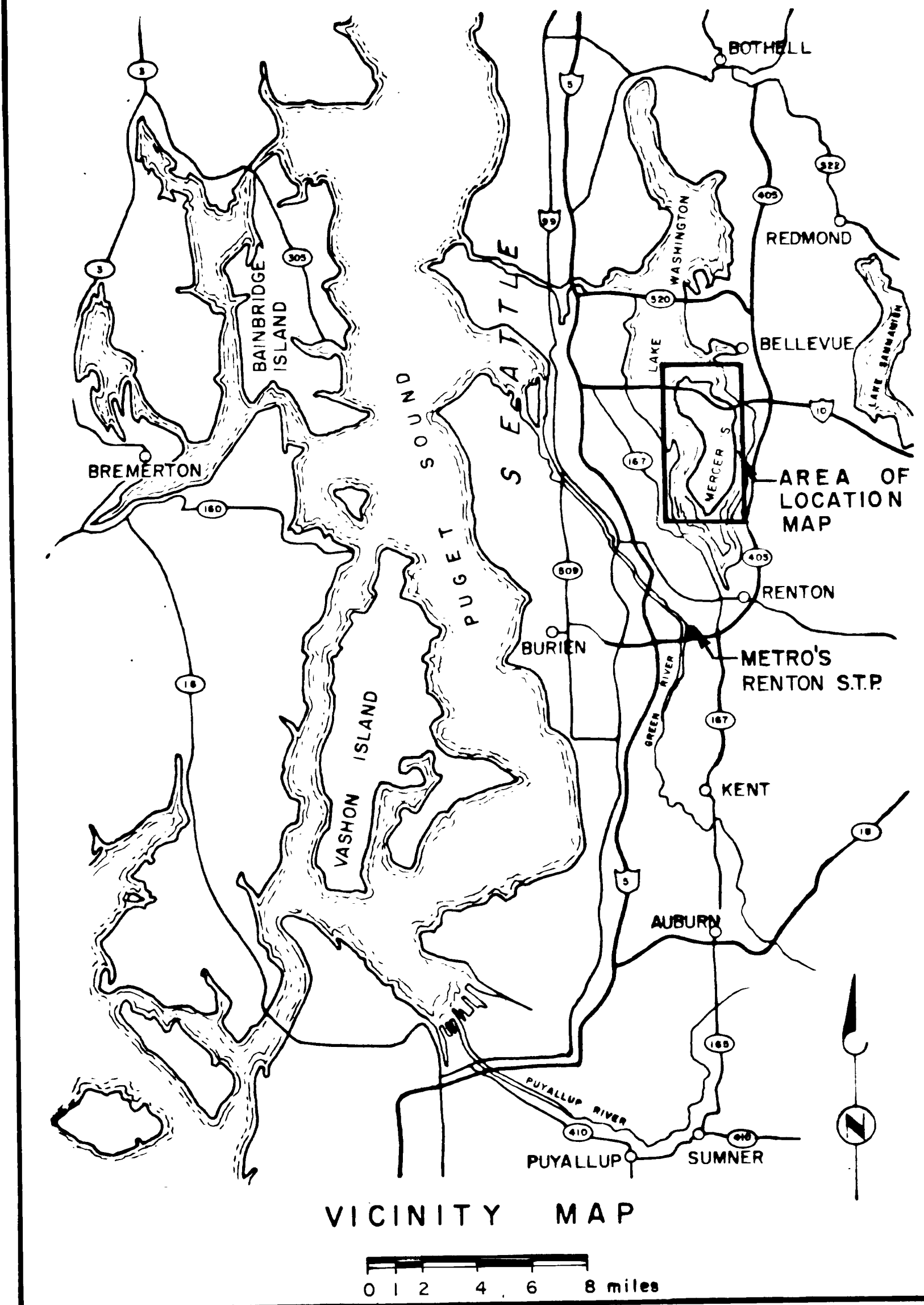
9	P101	STATION 0+00 TO STATION 13+50
10	P102	STATION 13+50 TO STATION 27+50
11	P103	STATION 27+50 TO STATION 41+50
12	P104	STATION 41+50 TO STATION 55+00
13	P105	STATION 55+00 TO STATION 68+50
14	P106	STATION 68+50 TO STATION 72+74.98(END) BYPASS AND CONNECTION
15	P107	SURVEY CONTROL DATA - PLANS STATION 0+00 TO STATION 29+50
16	P108	SURVEY CONTROL DATA - PLANS STATION 29+50 TO STATION 60+50
17	P109	SURVEY CONTROL DATA - PLANS STATION 60+50 TO STATION 72+74.98

SCHEDULE 2

SHEET NO.	DRAWING NO.	TITLE
18	P201	STATION 1+10 TO STATION 13+00
19	P202	STATION 13+00 TO STATION 25+50
20	P203	STATION 25+50 TO STATION 38+00
21	P204	CONNECTION DETAILS STATION 38+00 TO STATION 43+75.96(END)
22	P205	STATION 0+00 TO STATION 7+20.57 TUNNEL
23	P206	PLAN - 76TH AVE. SE CONNECTIONS
24	P207	97TH AVE. SE SEWER - PUMPING STATION NO. 6 MODIFICATION
25	P208	NORTH MERCER WAY SEWER
26	P209	SUBTERRANEAN VENT - LINE

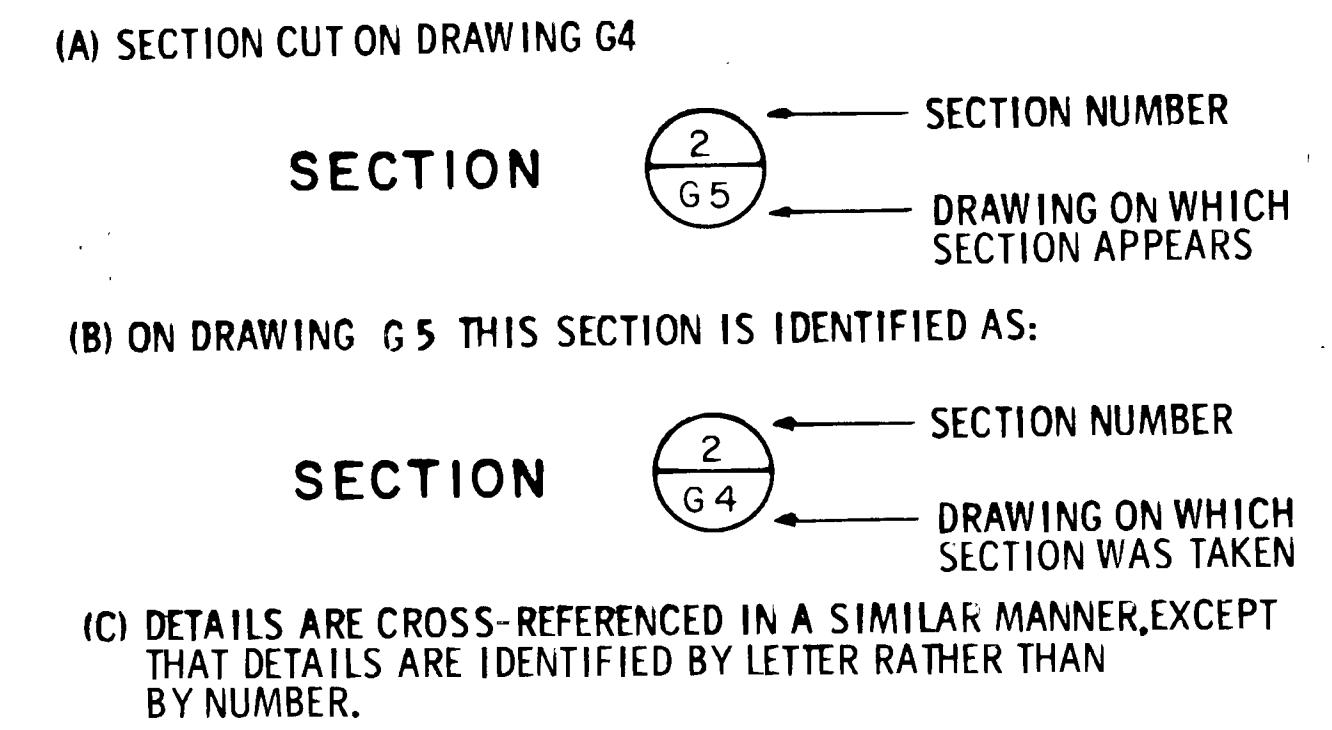
SCHEDULE 3

27	P301	STATION 1+21.14 TO STATION 13+00
28	P302	STATION 13+00 TO STATION 26+00
29	P303	STATION 26+00 TO STATION 30+06.13(END)
30	P304	SURVEY CONTROL DATA - PLANS STATION 1+21.14 TO STATION 30+06.126



"KING COUNTY DEPARTMENT OF NATURAL RESOURCES AND PARKS DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF THE DATA SHOWN HEREIN"

NOTE:  
THE DRAWINGS ARE CROSS-REFERENCED IN THE FOLLOWING MANNER:

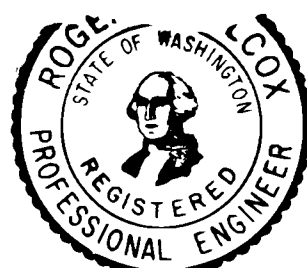


LOCATION MAP  
SCALE 1" = 1,600'

PROJECT ELEVATION 100.0 EQUALS MEAN SEA LEVEL DATUM USC & GS 1929 (1947 ADJUSTMENT)

	US ENGRS. MLLW	USC&GS M.S.L.	METRO
MEAN REGULATED LAKE LEVEL	2100'	14.07'	114.07'
MIN. REGULATED LAKE LEVEL	2000'	13.07'	113.07'

104412 AS CONSTRUCTED  
DATE SEPT. 1970

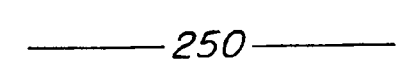
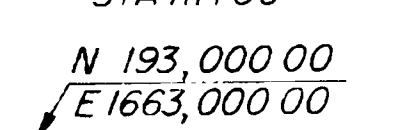
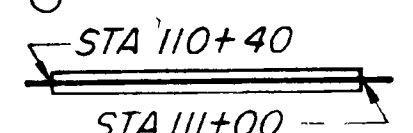
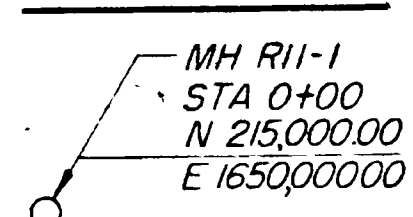




**SYMBOLS**

**WORK TO BE DONE**

**SEWER**



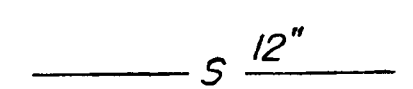
MANHOLE - NUMBER, STATION, & COORDINATE

CONCRETE ENGAGEMENT OR JACKED OR TUNNELED CROSSING

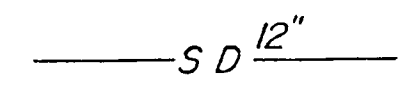
COORDINATE (COORDINATES & BEARINGS ARE BASED ON U.S. DEPT. OF COMMERCE, COAST & GEODETIC SURVEY, LAMBERT GRID, NORTH ZONE)

NEW DESIGN CONTOUR

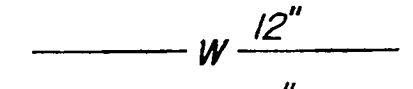
**EXISTING WORK**



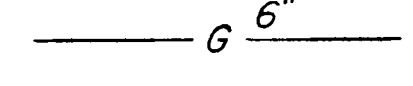
SANITARY SEWER & SIZE



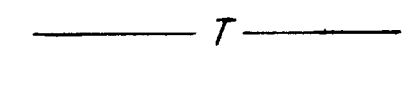
STORM DRAIN & SIZE



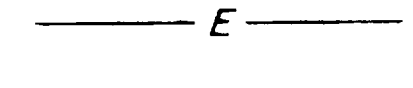
WATER LINE & SIZE



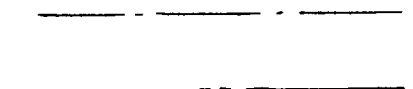
GAS LINE & SIZE



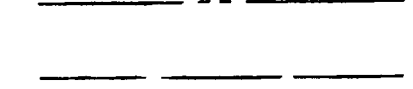
TELEPHONE CONDUIT



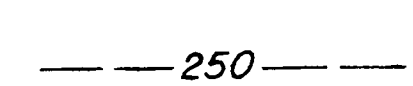
ELECTRICAL CONDUIT



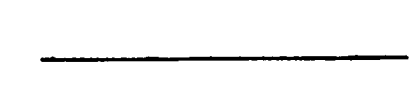
CENTERLINE OR SECTION LINE



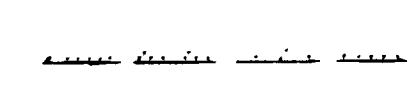
PROPERTY LINE OR R/W LINE



TEMPORARY EASEMENT LINE



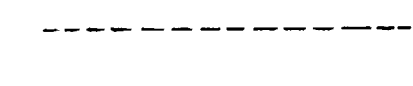
CONTOUR LINE



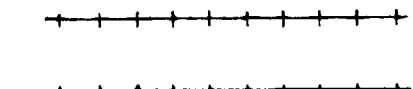
CURB & GUTTER



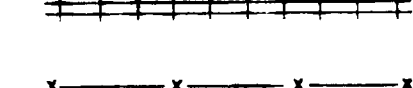
CONCRETE PAVEMENT (EDGE)



ASPHALTIC PAVEMENT (EDGE)



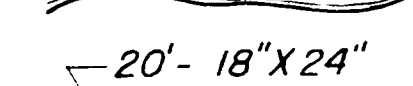
EDGE OF TRAVELED WAY (UNSURFACED)



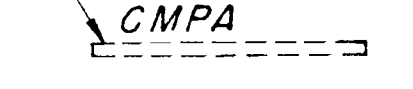
RAILROAD, SINGLE TRACK



RAILROAD, DOUBLE TRACK



FENCE



RIVER OR CREEK



CULVERT - LENGTH, SIZE, & MATERIAL (HEADWALLS, IF APPLICABLE)



OUTLINE OF EXISTING INSTALLATION



MANHOLE



INLET OR CATCH BASIN



FIRE HYDRANT



WATER METER BOX



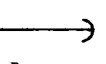
VALVE



UTILITY POLE



GUY WIRE



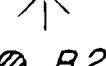
DECIDUOUS TREE



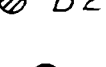
EVERGREEN TREE



SOIL BORING & DESIGNATION



SURVEY MONUMENT OR PERM BENCH MARK



ANGLE POINT OR HUB



SECTION CORNER



1/4 SECTION CORNER



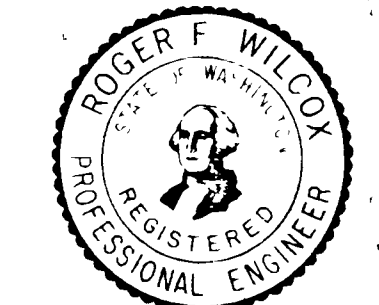
HAND AUGER PROBING & DESIGNATION

**BENCH MARKS**

BENCH MARK NUMBERS	DESCRIPTION	ELEVATIONS
ES-480	PK NAIL ON EAST SIDE OF NORTHERLY BRIDGE PIER ON WEST SIDE OF EAST CHANNEL LAKE WASHINGTON.	19.508
ES-481	TACK IN LEAD IN NORTHEAST CORNER OF CONCRETE BULKHEAD, 2ND DOCK 400' SOUTH OF EAST CHANNEL BRIDGE ON WEST SHORE OF LAKE WASHINGTON.	15.866
ES-844	TACK IN LEAD IN CONCRETE BULKHEAD ON SOUTH SIDE OF DOCK IN FRONT OF BRICK HOUSE NO. 10020.	16.869
ES-845	TACK IN LEAD IN BOTTOM LEDGE OF CONCRETE BULKHEAD ON FENCE LINE 40' ± NORTH OF DOCK FROM LARGE BOATHOUSE NO. 9772.	14.275
ES-846	TACK IN LEAD IN SOUTHEAST CORNER OF MANHOLE STRUCTURE AT END OF 97TH AVENUE SE 15' ± SOUTH OF LAKE LINE ON WEST SIDE OF DIRT ROAD.	19.673
ES-847	RAILROAD SPIKE IN SOUTHEAST SIDE OF 24" COTTONWOOD TREE IN LINE WITH STAIRS COMING DOWN FROM HOUSE NO. 7400 15' ± EAST OF DOCK.	17.867
ES-848	TACK IN LEAD IN NORTHEAST CORNER OF CONCRETE SIDEWALK LEADING TO MOORAGE DOCK FOR SHOREWOOD RESIDENTS AT WESTERLY END OF PRIVATE BEACH AREA.	16.280
ES-849	TACK IN LEAD ON NORTHEAST RIM OF 4' CIRCULAR CONCRETE WELL CASING 6' EAST OF 24" CEDAR 9' WEST OF STAIRS DOWN FROM HOUSE NO. 9010 OPPOSITE RAMP TO DOCK.	21.641
ES-850	RAILROAD SPIKE IN SOUTHEAST SIDE OF 16" COTTONWOOD TREE 105' ± WEST OF DOCK, PUMP AND STORAGE SHED ON WEST END OF CLEARING NEAR HOUSE NO. 8905	18.187
ES-851	TACK IN LEAD IN NORTHWEST CORNER OF CONCRETE RETAINING WALL APPROXIMATELY 1.2' WIDE ON WEST PROPERTY LINE OF HOUSE NO. 8618, 10' WEST OF CENTERLINE DOCK UNDER GROVE OF WEEPING WILLOWS.	16.752
ES-852	RAILROAD SPIKE IN NORTHEAST SIDE OF 24" POPLAR TREE APPROXIMATELY ON PROPERTY LINE EAST OF HOUSE WEST EDGE OF LARGE EXPANSE OF LAWN ENCLOSED BY LARGE POPLAR AND CEDAR TREES. SMALL WHITE COTTAGE SITS ON LOT.	16.931
ES-853	RAILROAD SPIKE IN BACKSIDE OF 9" TREE 100' ± SOUTHWEST OF LIFE GUARD STATION 5' WEST OF LAKE EDGE, LUTHER BURBANK BEACH AREA.	16.400
ES-855	TOP OF BOLT WITH "X" ON FIRE HYDRANT LOCATED ON NORTHWEST CORNER OF INTERSECTION OF SE 24TH STREET AND 84TH AVENUE SE.	87.987
ES-856	RAILROAD SPIKE IN SOUTH SIDE OF POWER POLE ON SOUTHWEST CORNER OF 82ND AVENUE SE AND 24TH STREET SE ON WEST EDGE OF DRIVEWAY TO HOUSE NO. 8205.	114.442
ES-857	RAILROAD SPIKE IN NORTHEAST SIDE OF POWER POLE ON SOUTHEAST CORNER OF 81ST AVENUE SE AND 24TH STREET SE.	97.655
ES-858	RAILROAD SPIKE IN SOUTH SIDE OF POWER POLE ON SOUTHEAST CORNER OF INTERSECTION OF 80TH AVENUE SE AND SE 24TH STREET.	81.035
ES-859	TOP OF BOLT WITH "X" ON NORTHEAST SIDE OF FIRE HYDRANT ON NORTHEAST CORNER OF 78TH AVENUE SE AND SE 24TH STREET.	92.644
ES-1078	RAILROAD SPIKE IN EAST FACE OF POWER POLE ON EAST SIDE OF 77TH AVENUE SW CORNER OF ROCK WALL HOUSE NO. 2244.	67.967
ES-1079	TOP OF BOLT WITH "X" ON SOUTHEAST SIDE OF FIRE HYDRANT ON NORTH SIDE OF SE 22ND STREET IN LINE WITH WEST EDGE OF 77TH AVENUE SE.	43.504
ES-1081	RAILROAD SPIKE ON SOUTHWEST FACE OF POWER POLE ON SOUTH SIDE OF SE 22ND STREET ACROSS FROM DRIVEWAY TO HOUSE NO. 7650.	29.307
ES-1080	MOST SOUTHERLY BOLT WITH "X" ON FIRE HYDRANT 20' ± WEST OF DRIVEWAY TO HOUSE NO. 7638 ON SE 22ND STREET.	34.027
ES-863	TOP OF BOLT WITH "X" ON WEST SIDE OF FIRE HYDRANT ON NORTHWEST CORNER OF 76TH AVENUE SE AND SE 22ND STREET.	48.799
ES-1062	RAILROAD SPIKE IN POWER POLE ON EAST SIDE OF 76TH AVENUE SE, 36' ± SOUTH OF DRIVEWAY TO HOUSE. LAST POWER POLE RUNNING NORTH.	29.349

BENCH MARK ELEVATIONS ARE MEAN SEA LEVEL DATUM USC & GS 1989-1997 ADJUSTMENT. ALL BENCH MARKS FROM "ELEVATIONS"

104413



**DESCRIPTION**

DESCRIPTION	ELEVATIONS
TACK IN LEAD IN NORTHWEST CORNER OF CONCRETE SLAB FOR PUMP WELL AT END OF 76TH AVENUE SE 35' ± SOUTH OF SHORELINE.	18.392
TACK IN LEAD IN TOP OF CONCRETE RETAINING WALL SUPPORTING DOCK 1.5' EAST OF EAST DOCK LINE 45' ± EAST OF WEEPING WILLOW TREE FRONT OF HOUSE NO. 7420.	15.263
TACK IN LEAD IN NORTHEAST CORNER OF FIRST STEP DOWN IN SET OF FOUR STEPS FROM RETAINING WALL 27' ± WEST OF DOCK IN FRONT OF HOUSE NO. 7230.	15.099
TACK IN LEAD IN SOUTHEAST CORNER OF SECOND CONCRETE STEP LEADING DOWN FROM LAWN TO WATER IN FRONT OF HOUSE NO. 1621.	18.212
RAILROAD SPIKE IN SOUTHEAST SIDE OF 28" WILLOW ON NORTHWEST CORNER OF LOT HOUSE NO. 1614 10' ± EAST OF OLD WHITE BOAT HOUSE AND PUMP SHED 30' ± EAST OF ROANOKE WAY 15' ± UP FROM LAKE EDGE.	19.148
TOP OF MOST SOUTHERLY BOLT WITH "X" ON FIRE HYDRANT ON NORTH SIDE OF MERCER WAY 35' ± EAST OF DRIVEWAY TO HOUSE NO. 9095 ON SIDE OF STREET (STATE 90-2).	90.680
TOP OF SOUTHERLY BOLT BETWEEN WORDS "NOOGA" AND TENN. NORTHWEST CORNER OF DRIVEWAY TO HOUSE NO. 9004 NORTH SIDE OF MERCER WAY APPROXIMATELY CENTER OF CURVE.	93.491
BOLT ON FIRE HYDRANT BETWEEN THE "L'S" IN MULLER ON THE EAST SIDE OF 97TH AVENUE SE 115' ± NORTH OF SE 34TH STREET.	41.631
EXISTING TACK IN LEAD IN TOP OF 12" x 12" BRICK FENCE POST ON THE NORTHEAST CORNER OF SE 34TH STREET AND 96TH AVENUE SE.	58.836

**SPECIAL CONSTRUCTION NOTES**

- SN1 THE CONTRACTORS SHALL IN NO WAY INTERFERE WITH THE PROPER OPERATION OF EXISTING SEWERS AND PUMPING STATIONS UNTIL THE DESIGNATED CONNECTIONS TO THESE SYSTEMS ARE MADE. NO CONNECTIONS TO THE NEW SYSTEM SHALL BE MADE UNTIL COMPLETION AND TESTING OF THE NORTH MERCER ISLAND PUMPING STATION (CONTRACT 68-3) AND SECTIONS 1 AND 2 OF THIS CONTRACT (68-6). THE CONTRACTORS SHALL ACQUAINT THEMSELVES WITH CONTRACT 68-3 CONSTRUCTION SCHEDULE AND SHALL COORDINATE THEIR WORK WITH THAT OF CONTRACT 68-3 AND WITH OTHER CONTRACTORS FOR THIS CONTRACT 68-6.
- SN2 THE SCHEDULE 1 CONTRACTOR SHALL MAKE THE CONNECTIONS TO THE SCHEDULE 2 PIPELINES AT 97TH AVENUE SE (STA. 1+74.31), AT THE END OF SECTION 1 (STA. 72+74.98), AND AT 76TH AVENUE SE (TWO CONNECTIONS). ALL POINTS OF CONNECTION ARE SHOWN ON DRAWING P106. THE SCHEDULE 2 PIPELINES WILL BE AVAILABLE FOR CONNECTION NO LATER THAN 180 DAYS AFTER NOTICE TO PROCEED IS GIVEN TO THE SCHEDULE 2 CONTRACTOR.
- SN3 THE SCHEDULE 2 CONTRACTOR SHALL CONSTRUCT PIPELINES AND CONNECTION PITS AT ALL POINTS OF CONNECTION TO SCHEDULE 1 PIPELINES NO LATER THAN 180 DAYS AFTER NOTICE TO PROCEED. ALL EXCAVATIONS SHALL BE SHORED AND BRACED WITH SUITABLE COVERS FOR PROTECTION OF THE GENERAL PUBLIC. SUBJECT TO APPROVAL OF THE SCHEDULE 1 CONTRACTOR, PIPELINES AND CONNECTION PITS MAY BE CONSTRUCTED LATER THAN SPECIFIED ABOVE.
- SN4 THE SCHEDULE 3 CONTRACTOR SHALL MAKE THE CONNECTION TO THE SCHEDULE 1 PIPELINE AT 76TH AVENUE SE (STA. 1+34.86 BK STA. 1+21.41 AHD).
- SN5 PRIOR TO DEMOLITION OF EXISTING PUMPING STATIONS, THE CONTRACTOR SHALL REMOVE AND DELIVER TO THE MAINTENANCE SHOP AT METRO'S RENTON TREATMENT PLANT THE FOLLOWING ITEMS:  
 HOUR METERS  
 SUMP PUMPS  
 EXHAUST FANS  
 INSTRUMENT AIR COMPRESSORS  
 CONTROLLERS  
 TELEMETRY TRANSMITTERS
- SN6 BEFORE WORK SHALL COMMENCE ON PUMPING STATION NO. 6 MODIFICATIONS, THE NORTH MERCER ISLAND PUMPING STATION (CONTRACT 68-3) SHALL BE COMPLETE AND OPERATIONAL INCLUDING ALL NECESSARY SEWER LINES (SCHEDULE 1 AND 2) IN THIS CONTRACT 68-6 TO PROVIDE CONVEYANCE OF SEWAGE TO THE EXISTING EAST CHANNEL SIPHON (CONTRACT NO. 67-1) WITHOUT BYPASSING OR OVERFLOWS. ALL FLOWS TRIBUTARY TO PUMPING STATION NO. 2 SHALL BE CONNECTED TO THE NEW SYSTEM PRIOR TO BEGINNING THIS WORK.
- SN7 AFTER MAKING THE FORCE MAIN CONNECTION AT PUMPING STATION NO. 6, THE CONNECTION TO THE EXISTING MANHOLE ON NORTH MERCER WAY AT 89TH PLACE SE SHALL BE MADE AND THE LOCAL SEWER ON NORTH MERCER WAY COMPLETED WITHIN 30 DAYS. SEE DRAWINGS P207 AND P208.

**AS CONSTRUCTED**  
DATE SEPT. 1970

"KING COUNTY DEPARTMENT OF NATURAL RESOURCES AND PARKS DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF THE DATA SHOWN HEREIN"



KING COUNTY DEPARTMENT OF  
 NATURAL RESOURCES AND PARKS  
 DOES NOT WARRANT OR GUARANTEE  
 THE ACCURACY OR COMPLETENESS OF  
 THE DATA SHOWN HEREIN

**GENERAL STRUCTURAL NOTES**

**GENERAL**

- G1 **SCOPE.** THE NOTES AND DETAILS ON THIS SHEET ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.
- G2 **APPLICABLE SPECIFICATIONS AND CODES.** CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE UNIFORM BUILDING CODE EXCEPT WHERE OTHER APPLICABLE CODES, THE FOLLOWING NOTES OR DRAWINGS ARE MORE RESTRICTIVE.
- G3 **ALTERNATIVE DESIGNS.** THE STRUCTURAL SYSTEMS AND DETAILS ON THESE PLANS ARE THE PRIORITY DESIGN; HOWEVER, ALTERNATIVE SYSTEMS AND DETAILS MAY BE USED IF THE CONTRACTOR SUBMITS PLANS WITH SUBSTANTIATING CALCULATIONS AND TEST DATA THAT ARE ACCEPTED BY THE ENGINEER.
- G4 **CONSTRUCTION LOADS.** STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURES; DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND BALANCING WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR.

**STEEL**

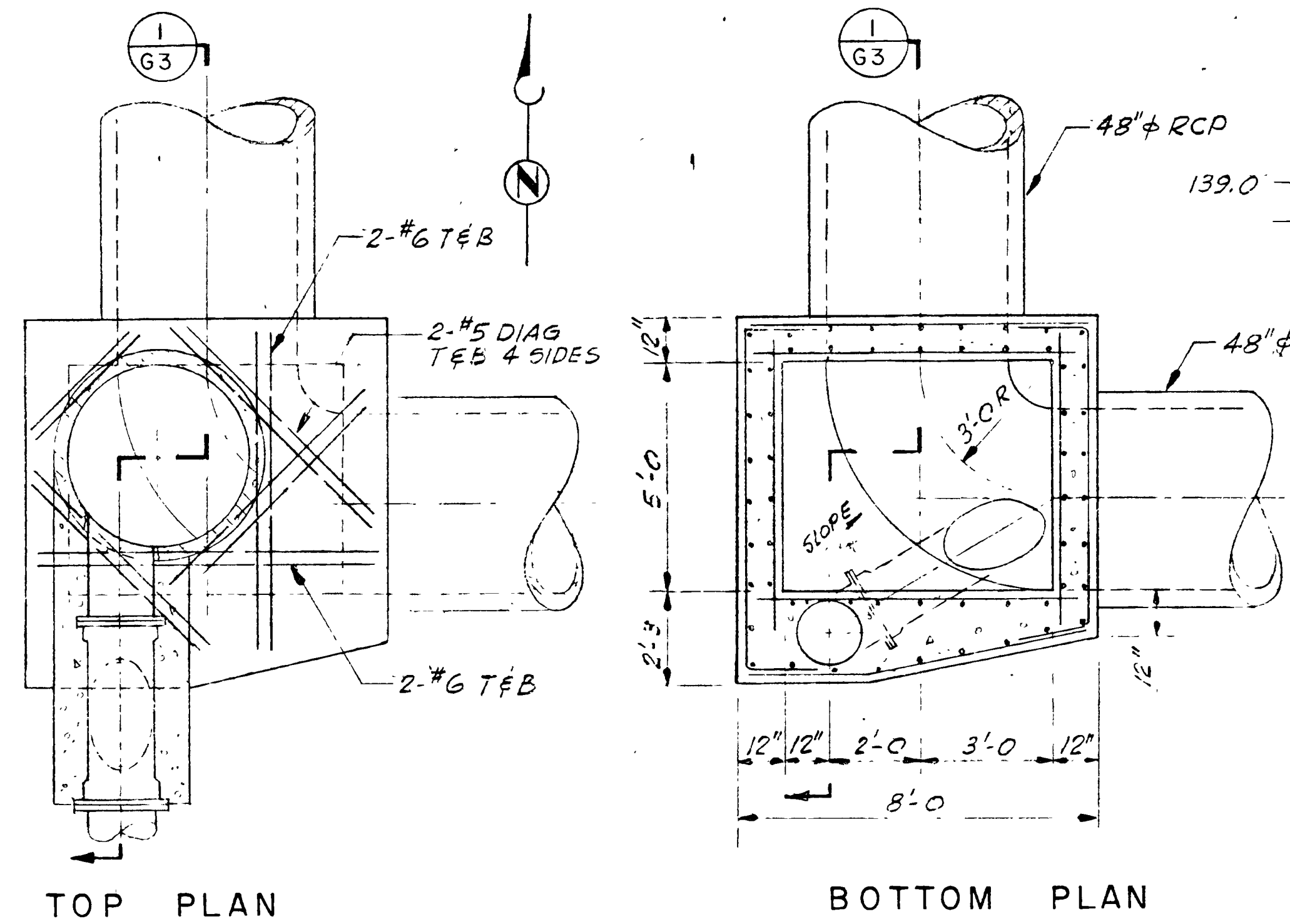
- ST1 **CODES AND SPECIFICATIONS.** STEEL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS AS CONTAINED IN THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.
- ST2 **MATERIAL.** ALL STRUCTURAL SHAPES, BARS, PLATES AND SHEETS INDICATED ON THE DRAWINGS SHALL BE STEEL MEETING ASTM A-7 SPECIFICATIONS.
- ST3 **WELDING.** ALL WELDING SHALL CONFORM TO A. W. S. CODE FOR ARC AND GAS WELDING IN BLDG. CONSTRUCTION. WELDERS SHALL BE CERTIFIED BY THE CITY OF SEATTLE BUILDING DEPARTMENT.
- ST4 **ENCASED STEEL.** STEEL COMPLETELY ENCASED IN CONCRETE SHALL NOT BE GALVANIZED OR PAINTED AND SHALL HAVE A CLEAN SURFACE FOR BONDING WITH CONCRETE WHEN IT IS CAST.

**ALUMINUM**

- A1 **SPECIFICATIONS AND CODES.** ALUMINUM CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASCE'S SPECIFICATIONS FOR STRUCTURES OF ALUMINUM ALLOW 6061-T6.

**CONCRETE**

- C1 **APPLICABLE CODE.** CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION ACI BUILDING CODE (ACI 318-63).
- C2 **RE-STL DETAILS.** ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH MAUNAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI-315 LATEST EDITION.
- C3 **DESIGN STRESSES**
  - A. PRECAST CONCRETE 5,000 PSI ULTIMATE COMPRESSIVE STRESS AT 28 DAYS, EXCEPT AS NOTED.
  - B. TREMIE CONCRETE SEE SPECIFICATIONS.
  - C. CAST-IN-PLACE CONCRETE - 3,000 PSI ULTIMATE COMPRESSIVE STRESS AT 28 DAYS.
  - D. REINFORCING STEEL TENSION DUE TO FLEXURE - INTERMEDIATE GRADE - 20,000 PSI.
- C4 **CONCRETE COVER.** CONCRETE COVER FOR REINFORCING BARS SHALL BE AS SPECIFIED ON THE DRAWINGS. COVER NOT SPECIFIED SHALL BE AS FOLLOWS WITH MINIMUM COVER OF ONE BAR DIAMETER:
  - A. CONCRETE CAST AGAINST GROUND - 3"
  - B. CONCRETE TO BE IN CONTACT WITH SEWAGE - 2-1/2"
  - C. CONCRETE ON EXTERIOR FACE OF EXTERIOR WALL - 2"
  - D. CONCRETE TO BE IN CONTACT WITH GROUND, WEATHER OR CLEAN WATER
    - (1) AT BARS GREATER THAN #5 - 2"
    - (2) AT BARS #5 OR LESS - 1-1/2"
- C5 **DOWELS.** REINFORCING BARS USED AS DOWELS SHALL BE THE SAME SIZE AND SPACING AS BARS WITH WHICH THEY ARE LAPPED.
- C6 **BAR SPLICES.** ALL BAR SPLICES SHALL BE LAPPED AT LEAST 24 BAR DIAMETERS. THE LENGTH OF LAP SPLICE OF BARS OF DIFFERENT DIAMETERS SHALL BE BASED ON THE LARGER DIAMETER. BAR SPLICES MAY ALSO BE MADE BY WELDING IN ACCORDANCE WITH THE SPECIFICATIONS.
- C7 **STANDARD HOOKS.** BARS ENDING IN RIGHT ANGLE BENDS OR HOOKS SHALL CONFORM TO THE REQUIREMENTS OF PAR. 801, ACI 318 63.
- C8 **CHAMFERS.** EXCEPT AS OTHERWISE REQUIRED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS. RE-ENTRANT CORNERS SHALL NOT HAVE FILLETS.
- C9 **CONSTRUCTION JOINTS.** LOCATION OF ALL CONSTRUCTION JOINTS SHALL HAVE THE APPROVAL OF THE ENGINEER. IN WATERTIGHT STRUCTURES, PVC WATERSTOPS SHALL BE PROVIDED IN THE CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL BE AS DETAILED ON THE DRAWINGS.

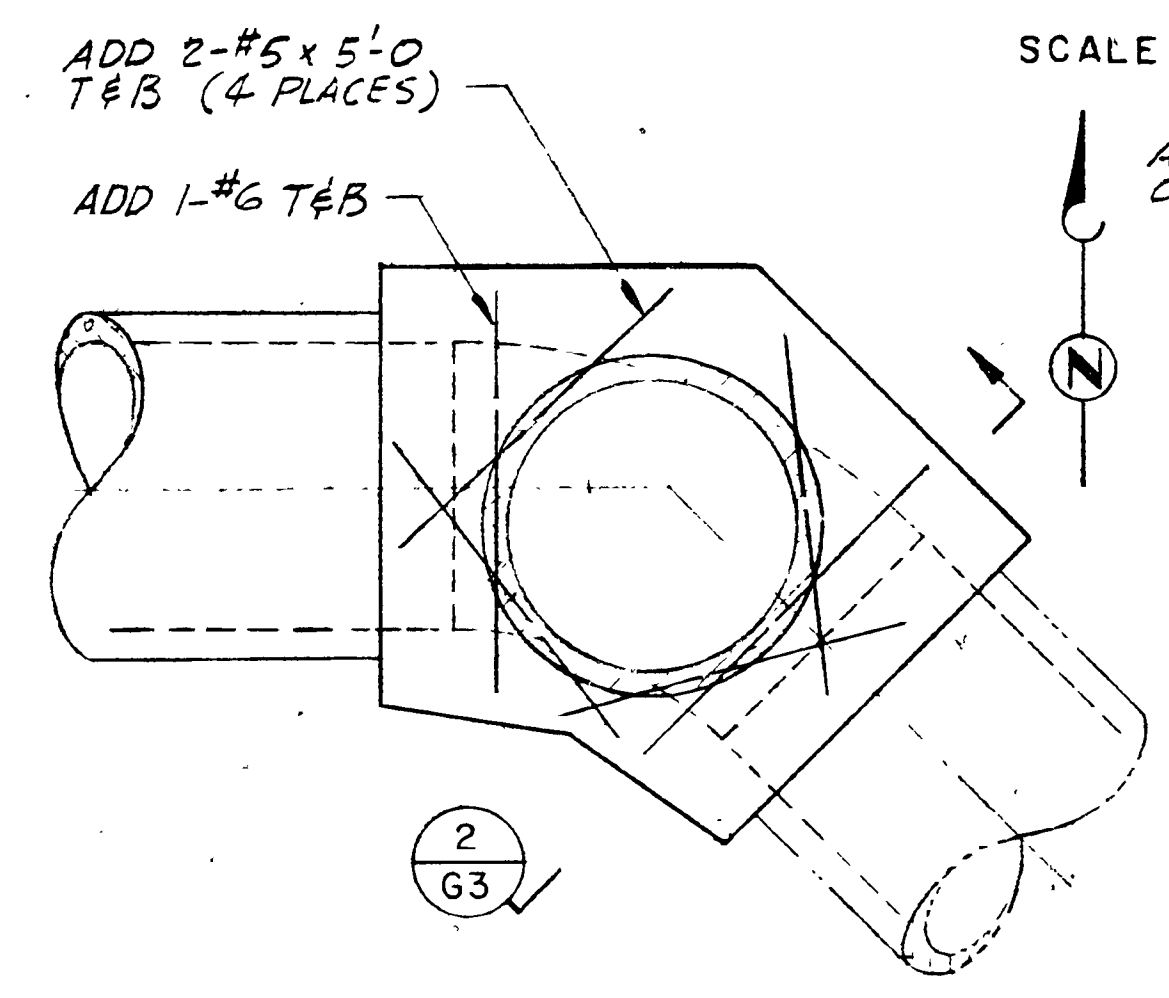


TOP PLAN

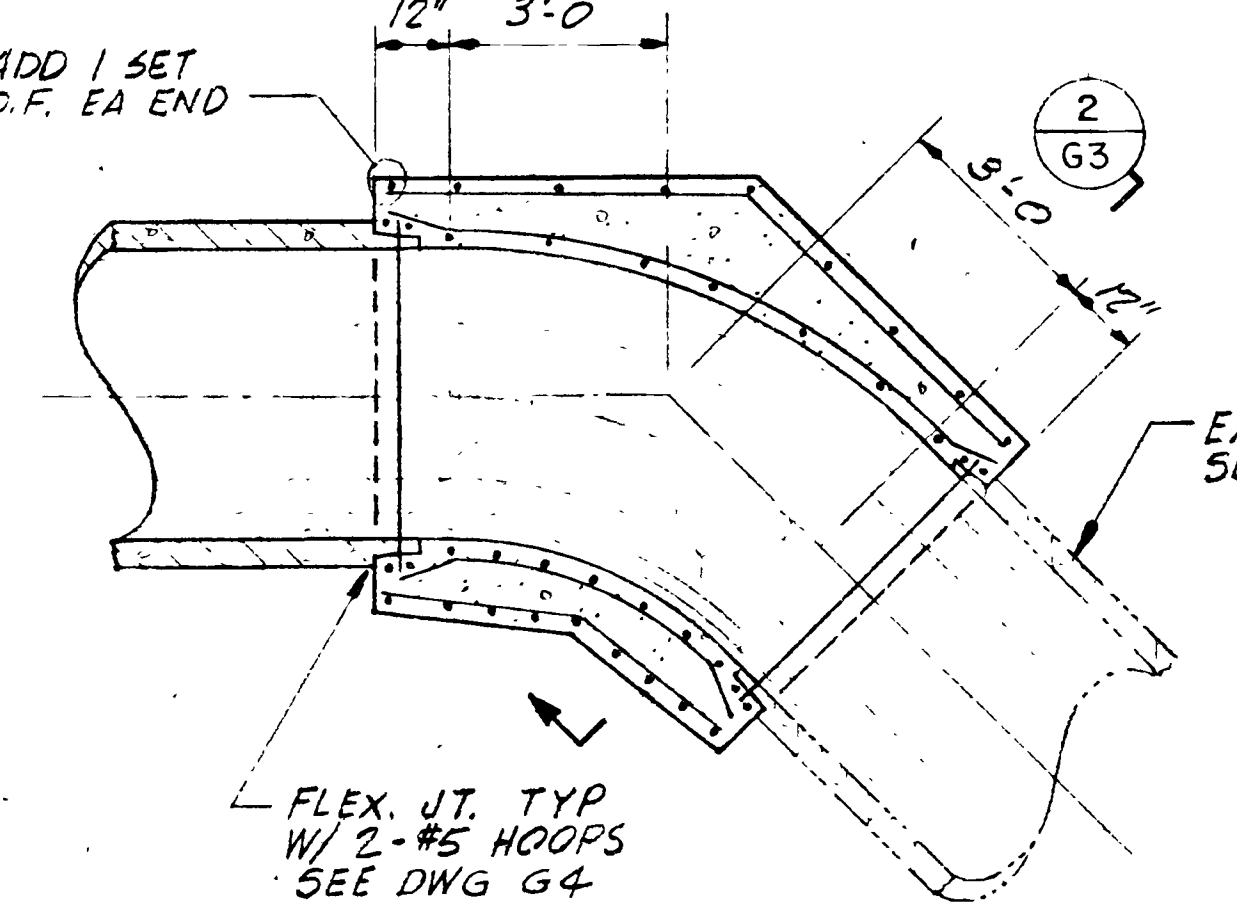
BOTTOM PLAN

MANHOLE R08G-25

SCALE: 3/8" = 1'-0"



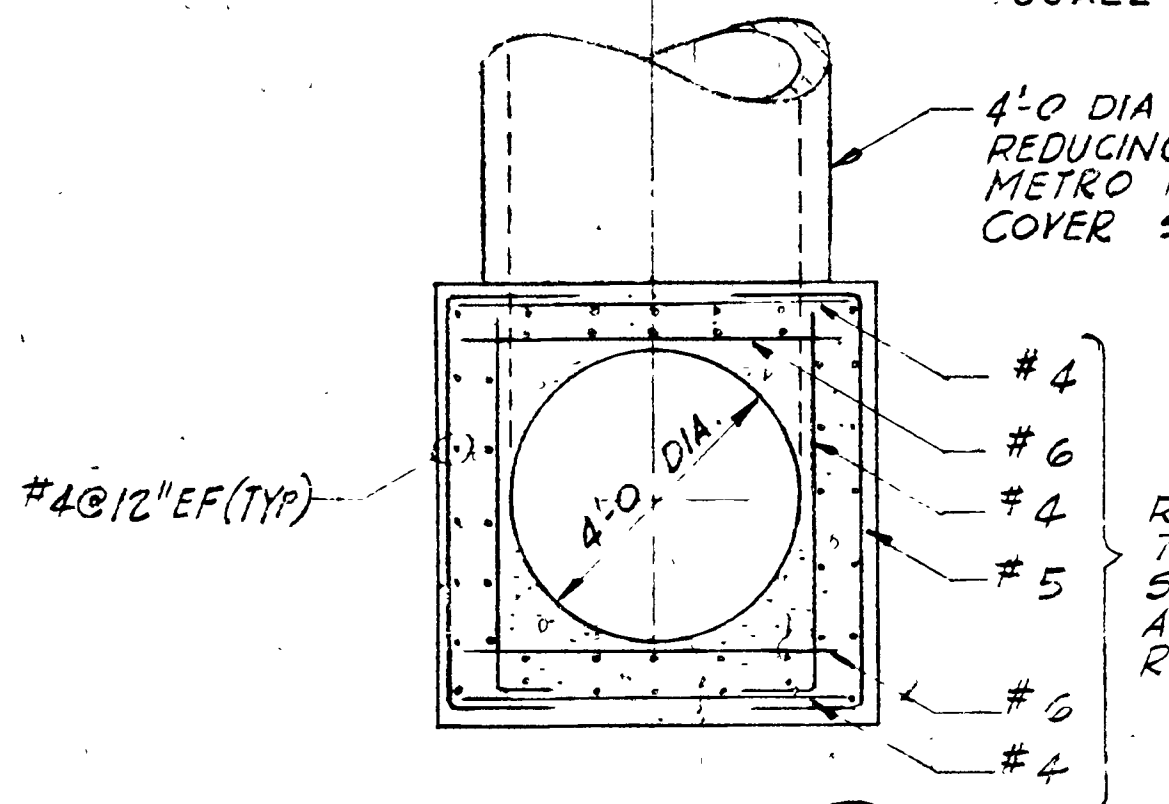
TOP PLAN



BOTTOM PLAN

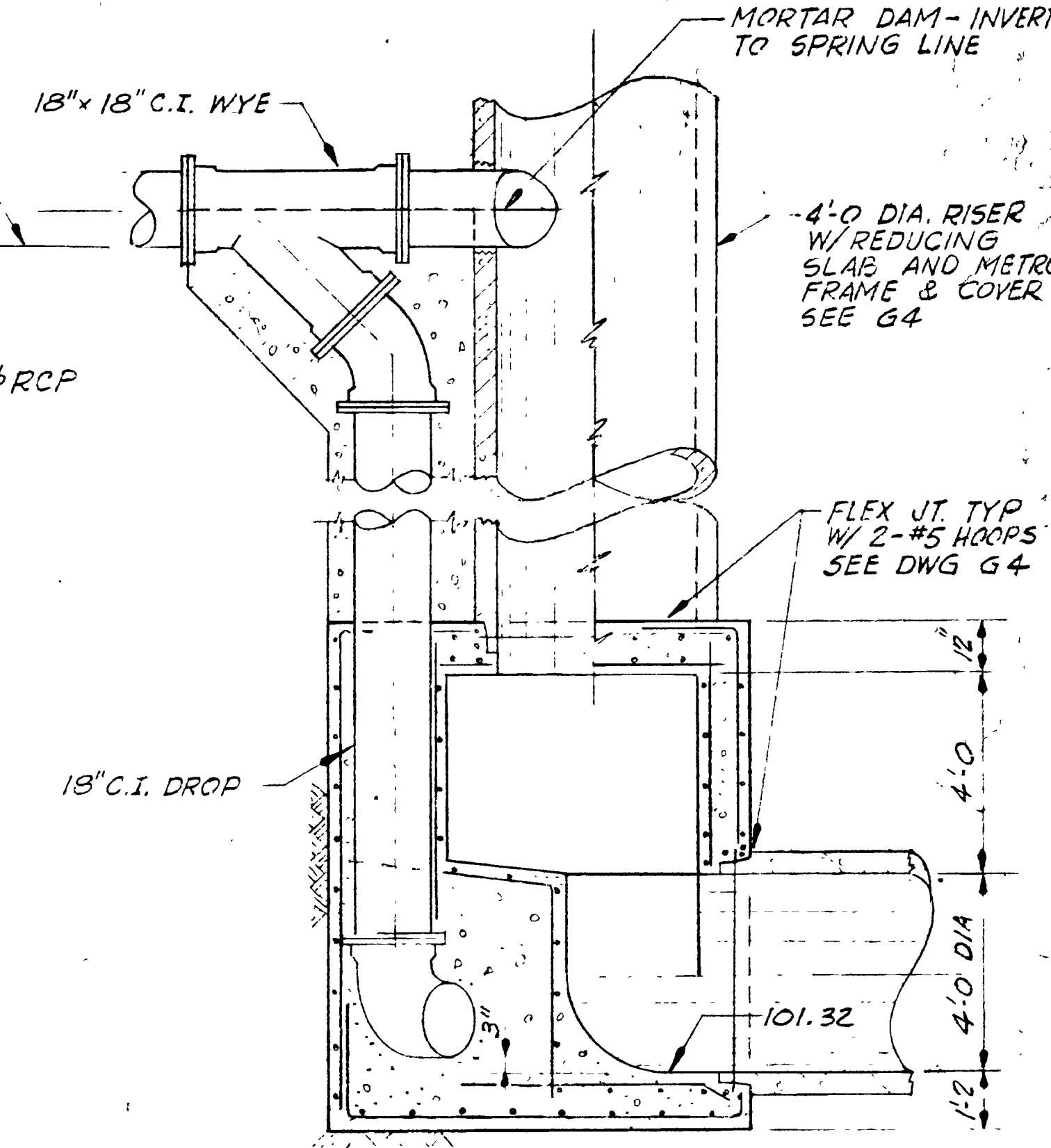
MANHOLE R08G-24

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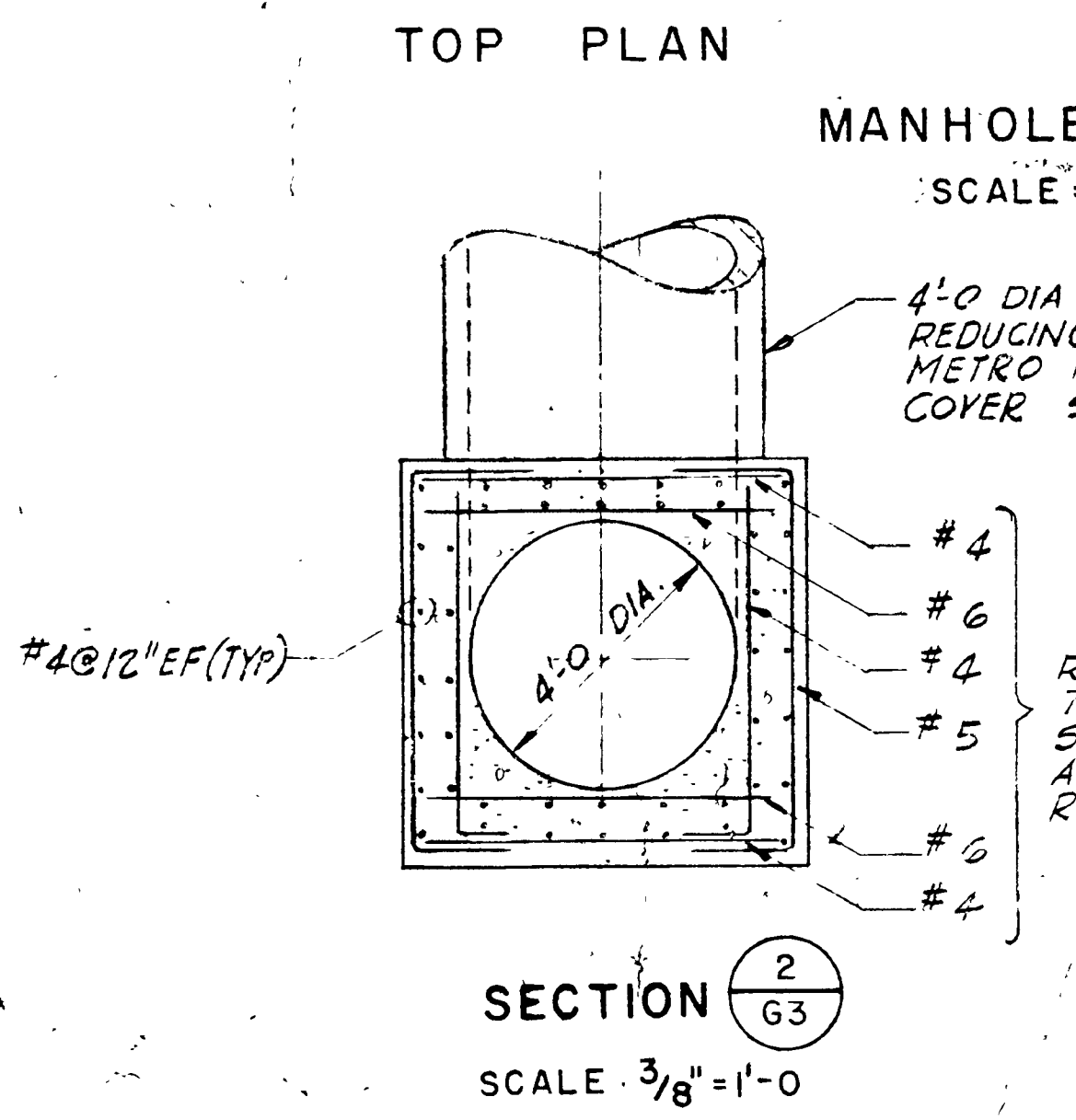
SECTION 2/G3

SCALE: 3/8" = 1'-0"

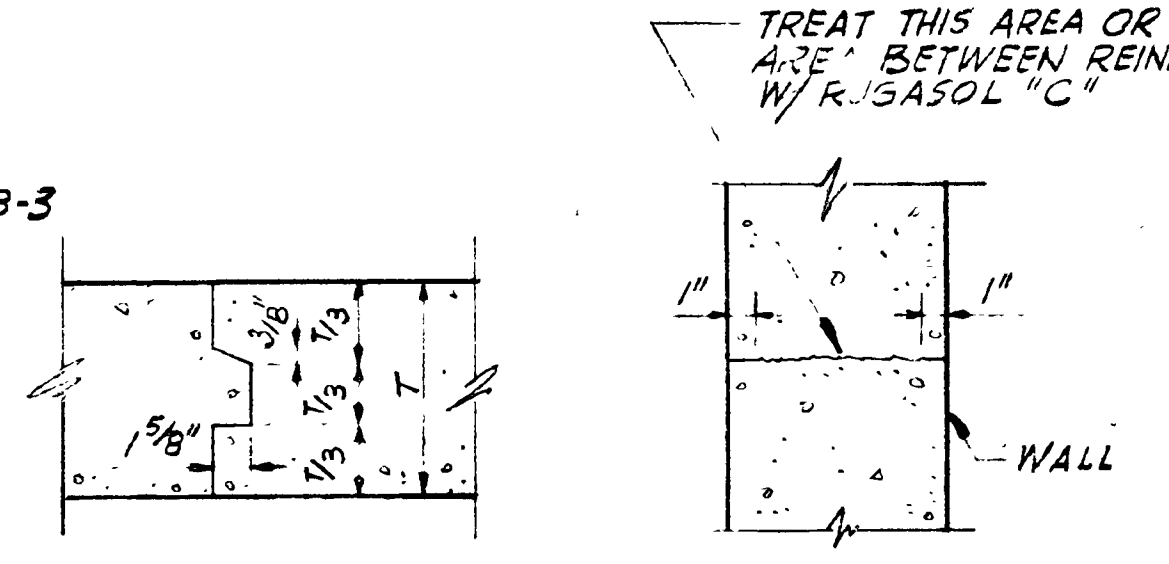


SECTION 1/G3

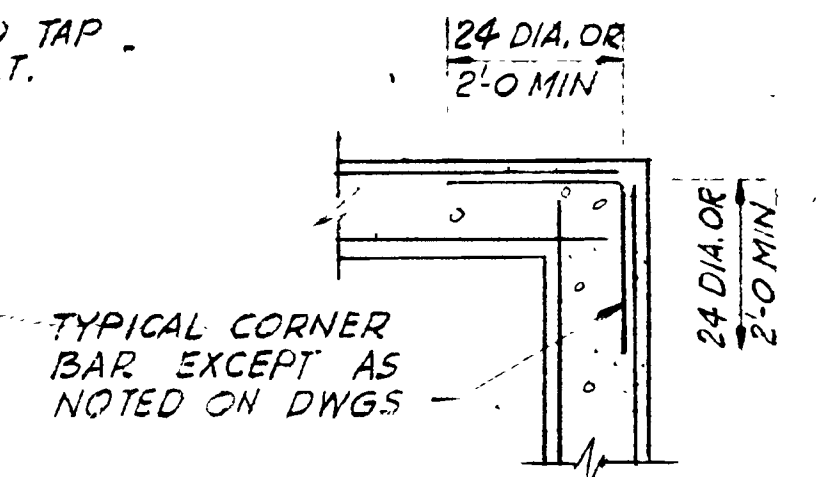
SCALE: 3/8" = 1'-0"



LIFT SLAB - DETAIL A/G7



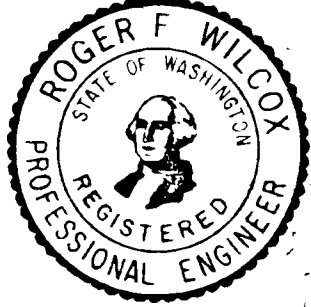
VERTICAL CONST. JOINT HORIZ. CONST. JOINT  
TYPICAL CONSTRUCTION JOINT



TYPICAL CORNER REINF.

104414

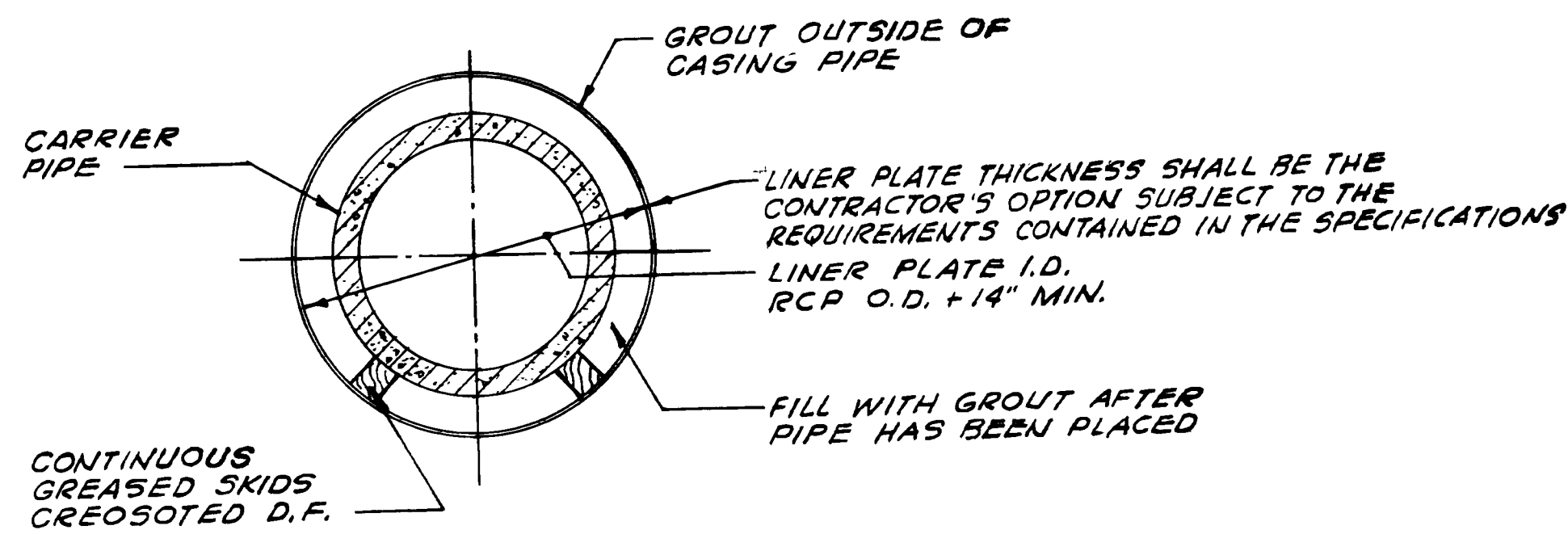
AS CONSTRUCTED  
DATE SEPT. 1970



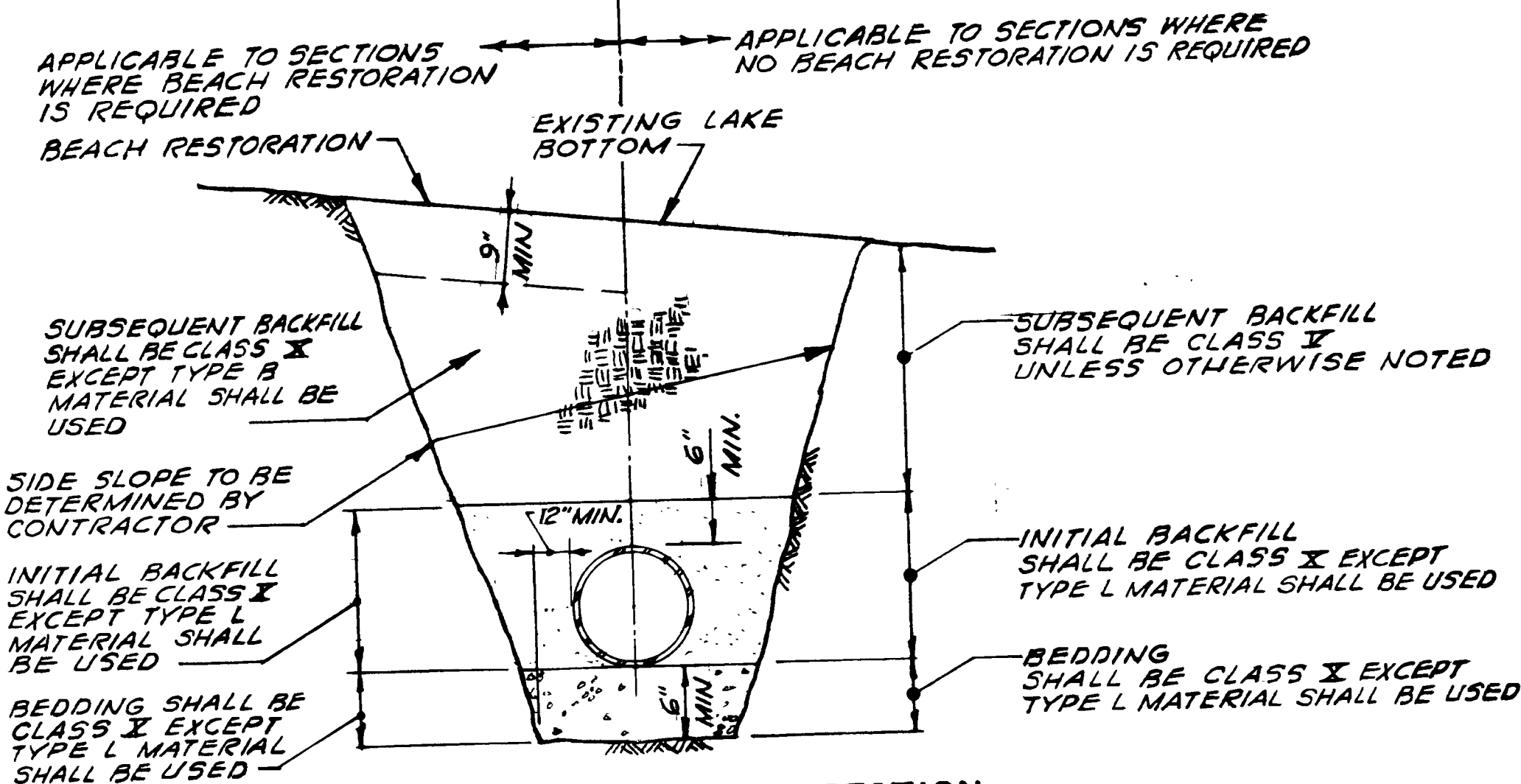
DRAWN BY MCD WG MCO	METROPOLITAN ENGINEERS BROWN AND CALDWELL HILL AND INGMAN	CARR AND KRAMER R.W. BECK AND ASSOCIATES	MUNICIPALITY OF METROPOLITAN SEATTLE	R 2086 NOV 1968	RENTON SYSTEM	NORTH MERCER ISLAND INTERCEPTOR GENERAL STRUCTURAL NOTES DETAILS, AND SPECIAL MANHOLES	SHEET NUMBER G3 OF 30
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"KING COUNTY DEPARTMENT OF NATURAL RESOURCES AND PARKS DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF THE DATA SHOWN HEREIN"

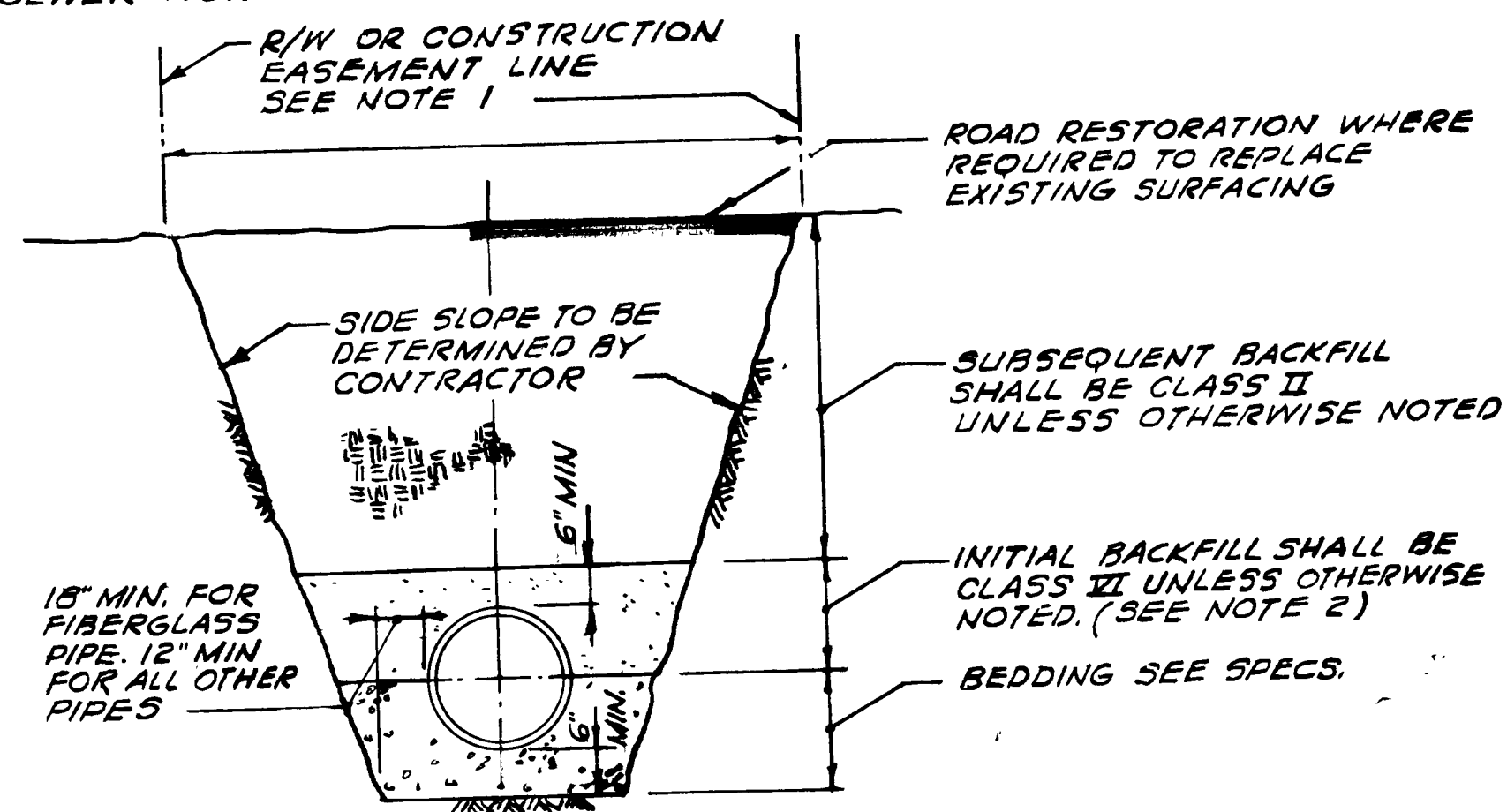


TUNNELED SECTION



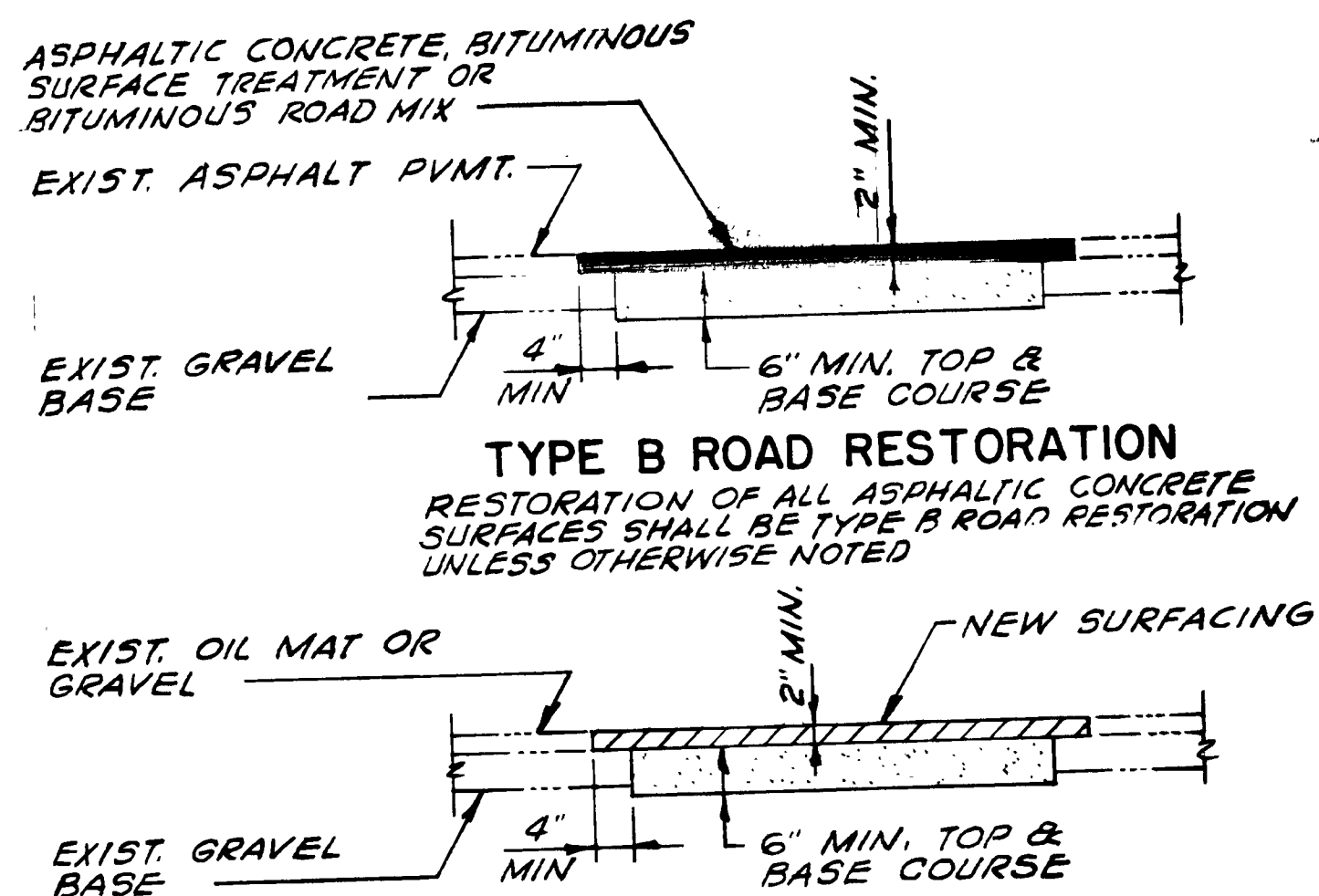
UNRESTRICTED TRENCH SECTION UNDERWATER

NOTE: UNLESS OTHERWISE NOTED ON THE DRAWINGS, THE CONTRACTOR MAY USE EITHER OF THE INDICATED TRENCH SECTIONS ON LAND FOR THE EXCAVATION OF ALL ON SHORE SEWER WORK



UNRESTRICTED TRENCH SECTION ON LAND

- NOTES:
1. THE MAXIMUM WIDTH AT THE TOP OF THE TRENCH SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT HIS CONSTRUCTION OPERATIONS, TRAFFIC FLOW AND PROTECTION OF ADJACENT PROPERTY ARE THE CONTRACTORS RESPONSIBILITY.
  2. INITIAL BACKFILL FOR FIBERGLASS, A.C. & PVC. PIPES SHALL BE CLASS I.
  3. FOR FIBERGLASS PIPES MINIMUM TRENCH WIDTH SHALL BE O.D. + 3'-0

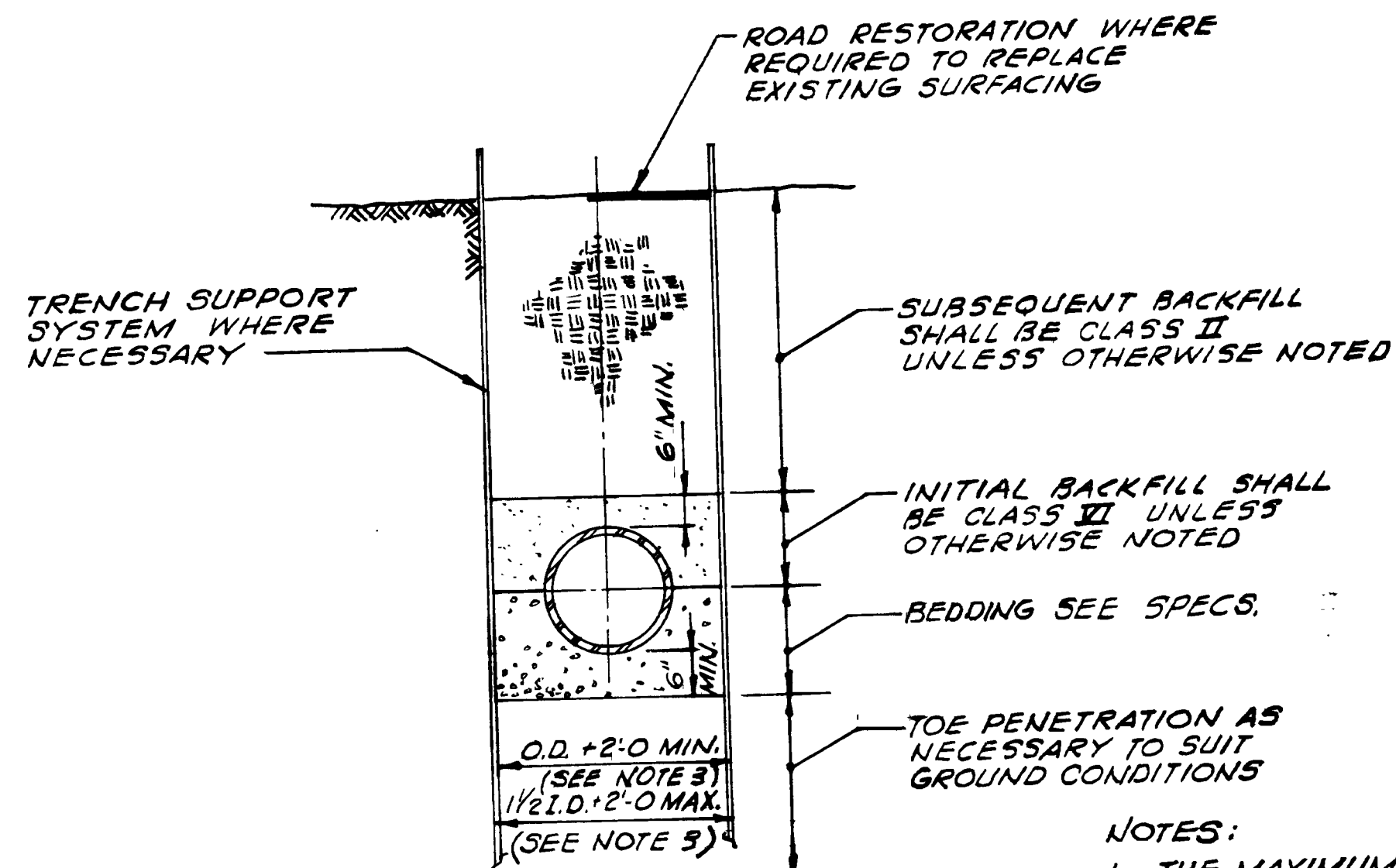


TYPE B ROAD RESTORATION

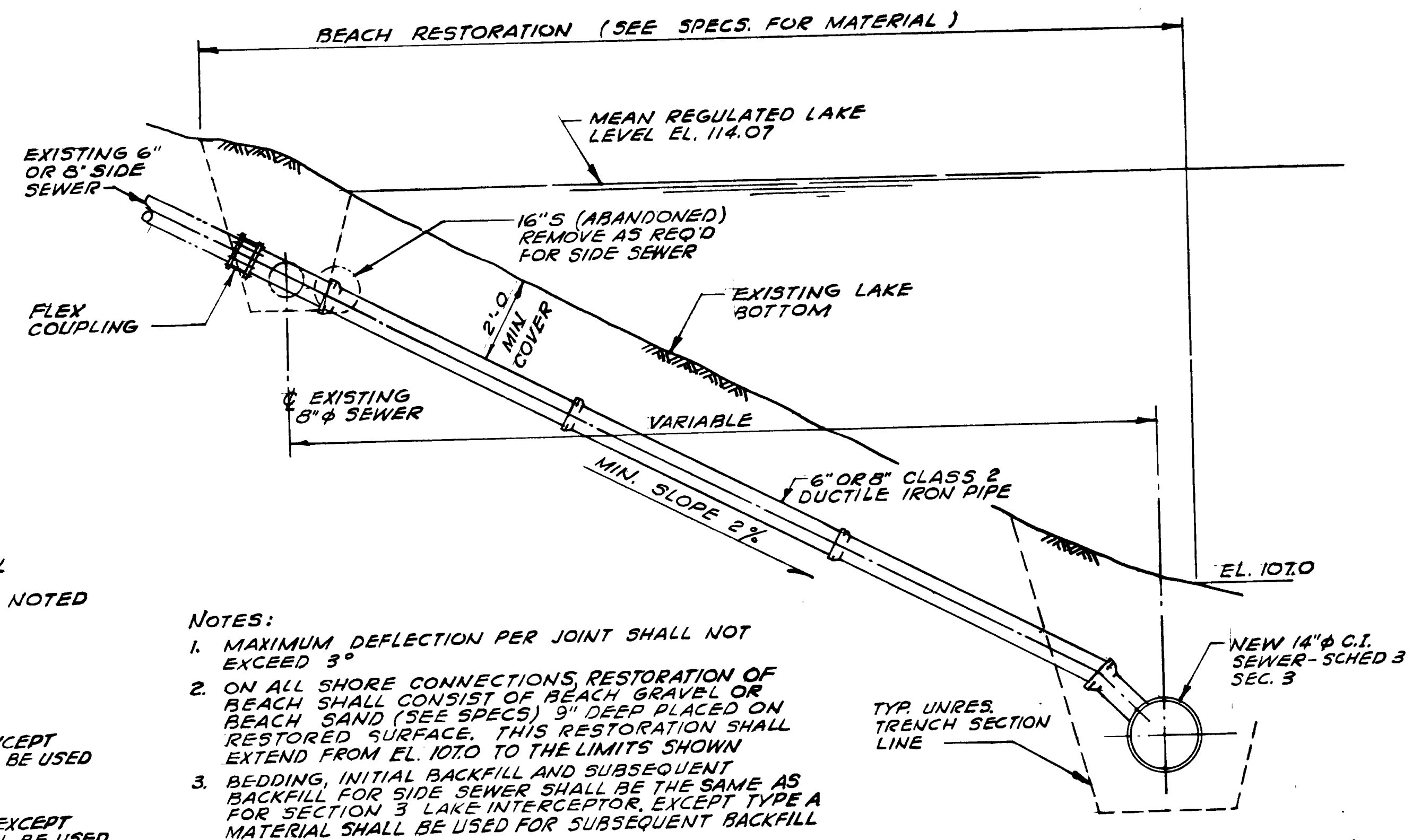
RESTORATION OF ALL ASPHALTIC CONCRETE SURFACES SHALL BE TYPE B ROAD RESTORATION UNLESS OTHERWISE NOTED

TYPE C OR D ROAD RESTORATION

RESTORATION OF ALL SURFACES WITHIN STREET RIGHT-OF-WAYS, EXCEPT ASPHALTIC CONCRETE, SHALL BE ROAD RESTORATION TYPE D UNLESS OTHERWISE NOTED



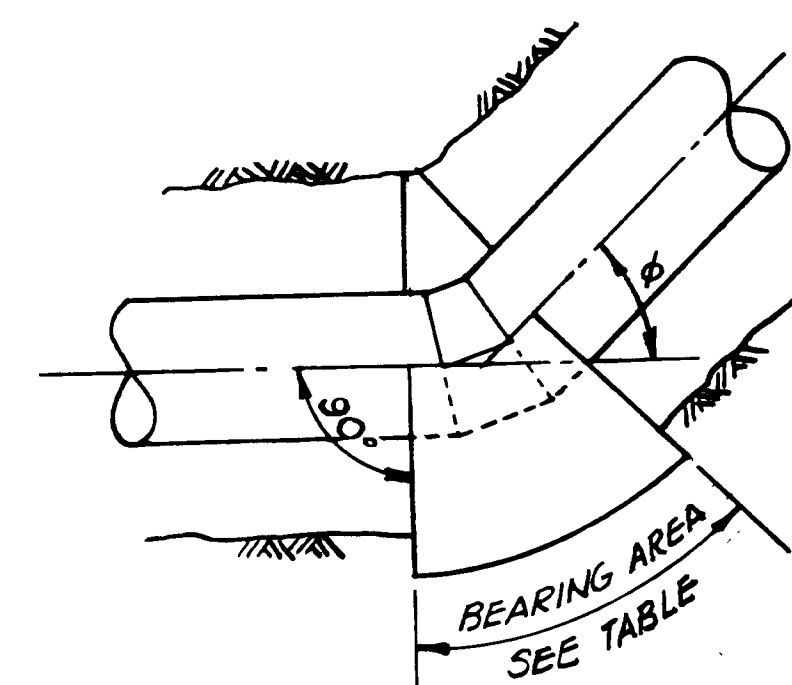
TYPICAL VERTICAL TRENCH SECTION ON LAND



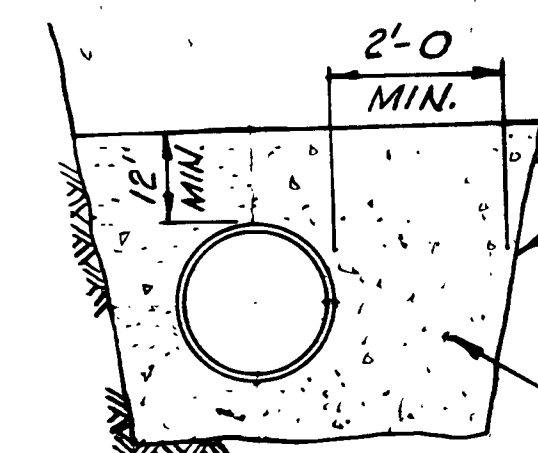
NOTES:

1. MAXIMUM DEFLECTION PER JOINT SHALL NOT EXCEED 3°
2. ON ALL SHORE CONNECTIONS, RESTORATION OF BEACH SHALL CONSIST OF BEACH GRAVEL OR BEACH SAND (SEE SPECS) 9" DEEP PLACED ON RESTORED SURFACE. THIS RESTORATION SHALL EXTEND FROM EL. 107.0 TO THE LIMITS SHOWN
3. BEDDING, INITIAL BACKFILL AND SUBSEQUENT BACKFILL FOR SIDE SEWER SHALL BE THE SAME AS FOR SECTION 3 LAKE INTERCEPTOR, EXCEPT TYPE A MATERIAL SHALL BE USED FOR SUBSEQUENT BACKFILL

TYPICAL SIDE SEWER CONNECTION (SCHEDULE 3 - SECTION 3)



PLAN

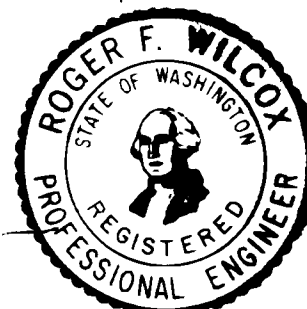


SECTION THRUST BLOCK DETAIL (SCHEDULE 2 - SECTION 2) AS CONSTRUCTED

PLACE CONCRETE AGAINST UNDISTURBED GROUND PROVIDE THRUST BLOCK AT EVERY CHANGE OF DIRECTION  
2000 P.S.I. CONCRETE

NOTE: FITTING AND PIPE JOINTS SHALL BE RESTRAINED AS SHOWN IN DETAIL B/66

STATION	BEARING AREA SQ. FT.
31+22.55	12
31+69.23	12
37+02.62	19
40+71.86	34
42+03.96	25
43+65.96	24



DESIGNED GSD, CW  
DRAWN HCC  
CHECKED GSD, CW  
METROPOLITAN ENGINEERS  
BROWN AND CALDWELL  
HILL AND INGMAN  
CAREY AND KRAMER  
R W BECK AND ASSOCIATES

SUBMITTED [Signature]  
Design Engineer - Metropolitan Engineers

RECOMMENDED [Signature]  
Project Engineer - Metropolitan Engineers

APPROVED [Signature]  
Chief Engineer - Metropolitan Engineers

APPROVED [Signature]  
For Metropolitan Engineers

APPROVED [Signature]  
For Municipality of Metropolitan Seattle

SCALE NO SCALE

FILE R208G  
DATE NOV 1968

RENTON SYSTEM

NORTH MERGER ISLAND INTERCEPTOR  
TYPICAL TRENCH SECTIONS  
AND DETAIL

DATE SEPT. 1970

104122

DRAWING NUMBER  
G 8  
SHEET NUMBER  
8 OF 30



AERIAL PHOTOGRAPHY PERFORMED FEBRUARY 1968. TOPOGRAPHY IS APPROXIMATE ONLY AND DOES NOT REFLECT CHANGES SINCE DATE OF PHOTOGRAPHY.

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