MORAN VIEW ESTATES

IN THE SOUTH 1/2, OF THE SOUTHWEST 1/4 OF SECTION 2,
TOWNSHIP 24 NORTH, RANGE 43 EAST W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING

VICINITY MAP
NTS

OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILT"
CERTIFICATE OF CONSTRUCTION
PUBLIC WORKS
PLANNING DIVISION

LEGEND

EXISTING FEATURES

- ASPHALT PAVEMENT
- GRAVEL
- CURB
- SIDEWALK
- FOUND POINT AS NOTED
- DRYWELL
- DRY WELL
- POWER POLE
- TELEPHONE ENCLOSURE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- WELL
- SANITARY SEWER MANHOLE
- WATER LINE
- SANITARY SEWER LINE
- STORM DRAIN LINE / CULVERT
- POWER LINE (OHP OR UGP)
- TELEPHONE LINE (OHP OR UGP)
- GAS LINE – UNDERGROUND
- CONTOURS
- FENCE
- FIBER OPTIC LINE
- TREE – CONIFER

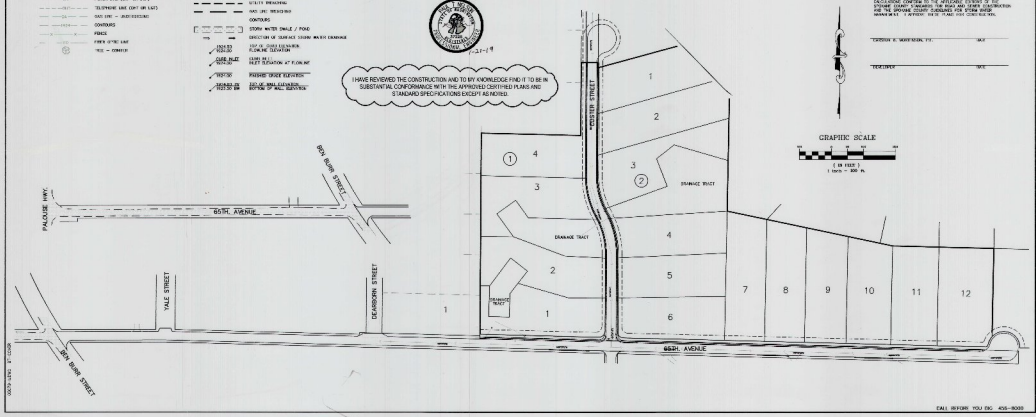
PROPOSED IMPROVEMENTS

- ASPHALT OVERLAYING
- GRAVEL
- CURB
- SIDEWALK
- DRYWELL
- STORM MANHOLE
- CONCRETE INLET
- POWER POLE
- WATER VALVE
- FIRE HYDRANT
- BRICK GUARDS / WATER VALVE
- SANITARY SEWER MANHOLE
- CLEANOUT (CO)
- WATER LINE (NO SIZED)
- SLEEVE FOR WATER / SEWER CROSSING
- SANITARY SEWER LINE (NO SIZED)
- STORM DRAIN LINE / CULVERT
- SLOPE BREAKLINE
- GAS LINE (NO SIZED)
- CONTOURS
- STORM WATER SWALE / POND
- DIRECTION OF SURFACE STORM WATER DRAINAGE
- 2543.25 FLOW LINE ELEVATION
- 2538.25 FLOW ELEVATION
- 2537.25 FLOW ELEVATION AT FLOW ARROW
- 2537.50 FINISHED GRADE ELEVATION
- 2543.50 / 2537.50 TOP OF WALL ELEVATION / BOTTOM OF WALL ELEVATION

SHEET INDEX

SHEET 1	COVER / INDEX SHEET ROAD AND STORM DRAINAGE
SHEET 2	EROSION / SEDIMENT CONTROL PLAN
SHEET 3	EROSION / SEDIMENT CONTROL DETAILS
SHEET 4	65TH AVENUE PLAN AND PROFILE, STA. 40+07 TO STA. 49+30
SHEET 5	65TH AVENUE PLAN AND PROFILE, STA. 49+30 TO STA. 52+80
SHEET 6	65TH AVENUE PLAN AND PROFILE, STA. 0+00 TO STA. 11+00
SHEET 7	65TH AVENUE PLAN AND PROFILE, STA. 13+80 TO STA. 28+70.64
SHEET 8	CUSTER STREET PLAN AND PROFILE, STA. 0+00 TO STA. 11+15
SHEET 9	DRAINAGE POND'S
SHEET 10	DETAIL SHEET
SHEET 11	RETAINING WALL PLAN AND PROFILE
SHEET 11A	AS CONSTRUCTED STORM DRAINAGE

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.



CERTIFICATION

THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS ARE IN COMPLIANCE WITH THE SPOKANE COUNTY STORM WATER STORAGE COUNTY ESTIMATES THE REQUIRED WATER CONSTRUCTION FOR THE SPOKANE COUNTY GUIDELINES FOR STORM WATER MANAGEMENT. (APPROVED WATER TRUCK FOR CONSTRUCTION).

CERTIFIED BY: _____ DATE _____

REVIEWED BY: _____ DATE _____

GRAPHIC SCALE

1" = 100'
1 inch = 100 ft.

No.	DESC. / DATE	BY
1		
2		
3		
4		
5		

PROJECT TITLE: MORAN VIEW ESTATES
SPOKANE COUNTY, WA

SHEET TITLE: COVER / INDEX SHEET
ROAD AND STORM DRAINAGE

DATE	05/15/06
DRAWN	KSB/PWH
CHECKED	CDM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	1 of 11

COVER

CALL BEFORE YOU DIG 456-8000

RECORD DRAWING

CONTACT PERSON
PROPERTY OWNER
PERMIT APPLICANT

LEO CAMPBELL
2905 NORTH MONROE AVENUE
SPOKANE, WA 99212
(509) 536-1815

PROJECT / SITE DESCRIPTION

THE PROPOSED PROJECT INCLUDES THE DEVELOPMENT OF PUBLIC ROADS AND A STORM DRAIN COLLECTION SYSTEM TO SERVE MORAN'S VIEW ACRE MAPS LOCATED IN MORAN VIEW ESTATES. THE SITE HAS SOME SPECIFICS ON 65TH AVENUE THE REMAINDER IS CURRENTLY VACANT AND SLOPES TO THE SOUTHWEST.

SOIL TYPE

THE SOILS IN THIS REGION OF THE PROJECT SITE WERE DESCRIBED AS SILOXICO, SCABBYLAKE AND SHALE SURFACE, WHICH ARE TYPE "D" SOILS, AND BRIDGEON AND SPOKANE, WHICH ARE TYPE "B" SOILS.

ESC MEASURES

SILTAB FENCE SHALL BE USED TO ACT AS CONTAINING ANY SEDIMENT ON THE SITE DURING CONSTRUCTION. SEDIMENT TRAPS SHALL BE CONSTRUCTED AS NECESSARY AT POINTS OF INGRESS AND EGRESS FOR CONSTRUCTION VEHICLES. CONCRETE TRUCK TRANSPORTATION SHALL BE USED AT ALL STORMWATER INLETS ON CONTOUR SURFACE. ROTOTILLING SHALL BE DONE AT CLOSEST POINTS THAN 5' VERTICAL DEPTH TO PLAN VIEW ON THIS SHEET FOR APPROXIMATE LOCATION OF THE ABOVE ITEMS.

CERTIFICATION

THE PROPOSED AND SUBMITTED EROSION PLAN MEETS THE REQUIREMENTS AS LISTED IN CHAPTER 4.0 OF THE GUIDELINES FOR STORMWATER MANAGEMENT. THIS CSC PLAN WILL BE FOLLOWED AS NOTE AND I AM RESPONSIBLE TO INSURE THAT CONTRACTOR IS RESPONSIBLE TO FOLLOW ALL SPOKANE COUNTY CSC CHECKS FOR EROSION AND SEDIMENT CONTROL.

CARSON WARREGAL P.E. DATE

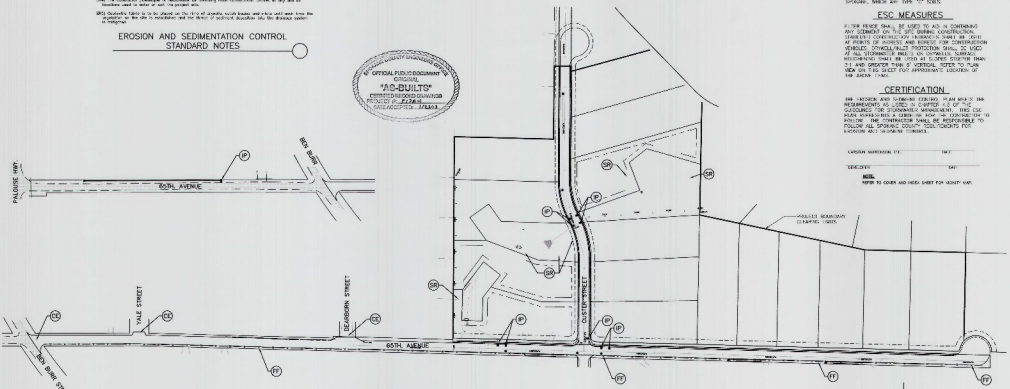
DEVELOPER DATE

NOTE:
REFER TO COVER AND INDEX SHEET FOR VICINITY MAP.

EROSION AND SEDIMENTATION CONTROL STANDARD NOTES

1. ESC Inspector/Construction Control $150 fee is required for this project. Implementation of the ESC plan, and construction, maintenance, and upgrading of the ESC facilities are the responsibility of the contractor. Contractor shall have a qualified person on site at all times. Failure to be regulated or maintained throughout the duration of the project will be cause for stop work order.
2. Approval of the ESC plan does not constitute approval of any of the proposed road, lot, drainage, grading or utility design elements shown on the CSC plan.
3. The Erosion/Sedimentation control measures shown are the minimum requirements for the anticipated site conditions. The Contractor shall inspect and maintain these ESC measures daily, plus, shall install and upgrade these measures as necessary to prevent sediment laden water from leaving the site, or from being in the flow of traffic, down drainage facilities, onto adjacent properties, streets, or other waters.
4. The Contractor/Developer is responsible for controlling dust/construction trackout on any road off boundary used to enter or exit the project site.
5. Geotechnic Fabric is to be placed on the floor of stormdrain inlet boxes and a thick unit wear from the inlet/outlet of the pipe to minimize and the effect of scour/soil disruption into the drainage system or wetlands.

OFFICIAL PUBLIC DOCUMENT
SPOKANE COUNTY ENGINEERS
ORIGINAL
"AS-BUILTS"
CERTIFICATE OF GOOD CONVERSION
PROJECT NO. 2-1-19
DATE ACCEPTED: 2/1/19



1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFICATION AND AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

BENCHMARK
DRAIN IN 4th PAGE OF PLANED PAGE 3
SEE 6 BOTH SIDEWALK ADJACENT BY
ELEVATION = 2300.00
ELEVATION = 2300.00 NAVD 88

CALL BEFORE YOU DIG 456-6000

No.	DESC. / DATE	BY
1		
2		
3		
4		

EROSION / SEDIMENT CONTROL PLAN

MORAN VIEW ESTATES
SPOKANE COUNTY, WA

SEAL

DATE	06/19/06
DRAWN	KSR/DMR
CHECKED	CBM
SCALE	AS SHOWN
PROJECT NUMBER	03-07/8
DRAWING NO.	2 OF 11

EROSION

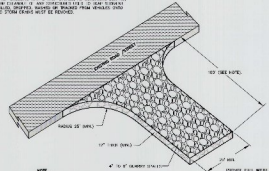
RECORD DRAWING

DEFINITION: A TEMPORARY STONE STABILIZED PAD LOCATED AT PAVED OF VEHICULAR ENTRIES AND EXITS ON A CONSTRUCTION SITE.

PURPOSE: TO REDUCE THE AMOUNT OF MUD, DIRT, ROCK, ETC. TRANSPORTED ON THE TIRES OF VEHICLES TO BEYOND STABILIZED AT EXIT(S) TO CONSTRUCTION ZONE & REDUCE THE AMOUNT OF SEDIMENT TRANSPORTED TO CONSTRUCTION AREA AND MAINTAIN OF TRACK DURING EXTREMES.

CONDITIONS WHERE PRACTICE APPLIES: WHERE MUD TRACKED ONTO PAVED ROADWAY FROM A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD OR OTHER PAVED AREA.

MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT SEDIMENT OR TRACK OUT. WHEN WHEEL CLEANING IS REQUIRED, THE WASH WILL REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONES, AS CONDITIONS DEMAND, IN ADDITION TO PERIODIC PLACEMENT OF ADDITIONAL STONE AS THE EXISTING PAD AND WASHING SHALL BE REPAIRED IMMEDIATELY. ANY MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED.



NOTE:
100 REQUIRED NOT MINIMUM LENGTH MAY BE REDUCED TO 50' MINIMUM WHEN ACCESS IS FROM ALLEY OR PARCEL OF LESS THAN 100' WIDE

STABILIZED CONSTRUCTION ENTRANCE/ TIRE WASH STD. CE

DEFINITION: A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC FENCE DESIGNED TO INTERCEPT SEDIMENT FROM SHEET FLOW. THIS FENCE IS ONLY TO BE INSTALLED IN CONSTRUCTED OR STAKED AND CHANNELED, IN WHICH FABRIC WITH A WIRE AND POSTS BACKING WARRE NECESSARY FOR SUPPORT.

PURPOSE: TO TEMPORARILY DETAIN SEDIMENT LADEN WATER UNDER SHEET FLOW CONDITIONS UNTIL SEDIMENT CAN SETTLE OUT. THE FILTER FABRIC SHALL BE SUPPORTED BY STAKES TO PREVENT SEDIMENT FROM CARRYING OVER THE FENCE.

1. SEE DETAIL AND THE DIAGRAM OF SHEET FOLLOWS.

CONDITIONS WHERE PRACTICE APPLIES: FILTER FENCES MAY BE PROVIDED AFTER SUPERVISOR OF THE DIRECTOR OF ENGINEERING OF TRANSPORTATION IS TO BE BEFORE THE FILTER BECOMES CONSIDERABLE. THEY MAY ALSO BE REQUIRED:

1. BELOW DISTURBED AREAS WHERE SHEET FLOW MAY EXISTS IN THE FORM OF SHEET AND RILL ERODING, EMERGENCY RUNOFF AREA, AND TEMPORARY SOIL DEPOSITS.

2. ALONGSIDE TO PROPER SIDES OF SLOPE LINES FROM CONTRIBUTING DRAINAGE AREAS UP TO ONE ACRE IN SIZE.

3. IMPORTANT SOIL CONSIDERATE WITH OPTIMUM PROPERTIES FOR MOISTURE PLACEMENT LOCATIONS.

STANDARD NOTES:

1. FILTER FABRIC (WOVEN) SHALL BE PURCHASED IN A CONTINUOUS ROLL, CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, OVERLAP FILTER CLOTH AND SECURELY FASTEN BOTH ENDS TO THE POST.

2. POSTS SHALL BE SPACED A MINIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 16 INCHES (WHEN PRACTICABLE).

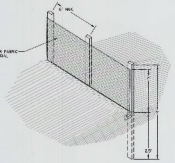
3. A WIRE SHALL BE REQUIRED APPROXIMATE 4 FEET WITH AND 12 INCHES FROM THE BOTTOM. THE TRENCH SHALL BE CONSTRUCTED TO FOLLOW THE CONTOUR.

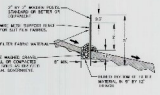
4. WIRE SHALL FAIR BELOW FABRIC TO SHED, A CONE WHEN CONTOUR FORCE WHEN THE FILTER FABRIC FENCE IS ALONG A CONTOUR. THE FABRIC SHALL BE FASTENED TO THE WIRE WITH TIES SPACED 24 INCHES AT THE TOP AND MIDDLE. THE TOP WILL EXTEND PAST THE BREACH A MINIMUM OF 6 INCHES AND SHALL NOT EXCEED MORE THAN 18 INCHES. THE FABRIC SHALL BE FASTENED TO THE WIRE.

5. SUPPORTED FILTER FABRIC SHALL BE ANCHORED IN THE GROUND, AND 30 INCHES OF THE FABRIC WILL EXTEND WITH THE TRENCH. THE TRENCH SHALL NOT EXTEND BEYOND THE FABRIC. THE TRENCH SHALL BE BACKFILLED WITH COMPACTED SOIL. THE SOIL SHALL BE TAMPED TO ENSURE PROPER SEAL. SHARP TYPE OF FABRIC MAY BE STAPLED TO THE WIRE.

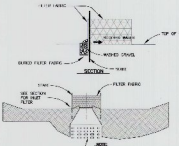
6. WHEN SUPPORTED STRENGTH OR MONOFILAMENT FABRIC AND CLOSER POST SPACING ARE USED, OR WHEN HIGHER FENCE WILL BE ALLOWED, IN SUCH CASES, THE FABRIC SHALL BE FASTENED TO THE POST. THE FABRIC SHALL BE FASTENED PROPERLY BY FLANGED POST TO AVOID WIRE. SUPPORTED FABRIC SHALL BE USED WHEN ARRANGING OVER WATERWAYS OR IN CONSTRUCTED AREAS.

7. FILTER FABRICS SHALL BE PROPERLY BACKFILLED AND PROPERLY COMPACTED WITH SOIL TO ENSURE PROPER SEAL. THE FABRIC SHALL BE PLACED IN A TRENCH AS REQUIRED THE SOIL FORMS A MORE CONTINUOUS CONTACT WITH THE TRENCH BELOW.



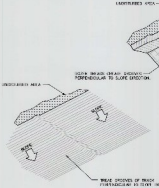


FILTER FENCE (FF)



NOTE:
1. ALL DRAINAGE INLETS, CATCH BASIN AND DRAIN STRUCTURES SHALL BE PROTECTED WITH GRAVEL BASIN SHALL BE PROTECTED.
2. EXPOSURE SHALL REMAIN IN PLACE UNTIL STABILIZATION IS ACCOMPLISHED.

TEMPORARY INLET PROTECTION STD. IP



DEFINITION: ROUGHENING OF A SURFACE THAT WILL INCORPORATE DEPRESSIONS CREATED BY DRAWING A TRACK OR OTHER SUITABLE EQUIPMENT ON THE SURFACE ON BY LEAVING SURFACE IN A ROUGHED CONDITION IN LAST FALL PLOWING STYLE.

PURPOSE: TO ADD AN ENHANCEMENT TO THE SURFACE THAT WILL REDUCE RUNOFF VELOCITY, INCREASE INFILTRATION, AND TRAPPING FOR SEDIMENT RETENTION.

CONDITIONS WHERE PRACTICE APPLIES: ALL SLOPES STEEPER THAN 3:1, AND ANY SLOPE WHERE THE PURPOSE IS TO REDUCE RUNOFF VELOCITY, AND ENHANCE SEDIMENT RETENTION, OR ENCOURAGE THE SLOPE TO BE STABILIZED WITH VEGETATION.

SURFACE ROUGHENING STD. SR

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

CONTRACTOR DATE

CALL BEFORE YOU DIG 456-6000

No.	DESC. / DATE	BY
1		
2		
3		
4		

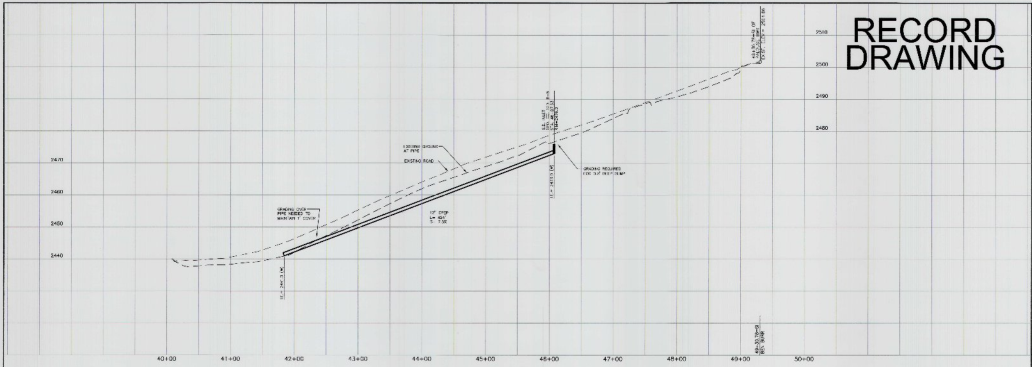
EROSION / SEDIMENT CONTROL DETAILS

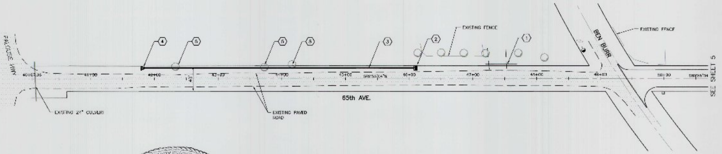
PROJECT TITLE: MORAN VIEW ESTATES SPOKANE COUNTY, WA

DATE	05/15/06
DRAWN	KJN/RWH
CHECKED	CBM
SCALE	AS SHOWN
PROJECT NUMBER	05 079
DRAWING NO.	3 of 11

DETAIL

RECORD DRAWING





TABLE

1. EXISTING 15" CMP. TRANSITION DITCH FLOWLINE TO MATCH PIPE INVERTS.
2. INLET TYPE 1 SPOKANE COUNTY STD. B-5 W/ TYPE 4 FRAME & GRATE. STA. 46+07.53, 17.0' LT. RIM= 2476.00 I.E. OUT= 2473.0
3. 12" CPEP L= 424' S= 7.5% MAINTAIN 1' MIN. COVER OVER PIPE
4. 12" CPEP OUTLET WITH RIPRAP ROCK STA. 41+84.27, 17.0' LT. I.E.= 2441.0
5. EXISTING TREE TO BE REMOVED.

LIMITS OF NEW ASPHALT (65th AVE.)

LIMITS OF EXISTING ASPHALT TO BE REMOVED AND REPAVED (65th AVE.)

NOTES

1. SEE CONSTRUCTION SPECIFICATIONS SHOWN ON DETAIL SHEET.
2. ALL CURB RETURNS ARE 20' RADIUS AT BACK OF CURB UNLESS OTHERWISE SHOWN.
3. ALL CURB AND OFFSET DATA IS REFERENCED TO BACK OF CURB, UNLESS OTHERWISE NOTED.
4. THE UNDERGROUND UTILITY LINES AND OFF-SITE UTILITIES LOCATION HAS BEEN EXTRACTED FROM RECORD UTILITY DRAWINGS AND FOUND SURFACE FEATURES. FIELD VERIFY EXACT LOCATIONS.
5. EXISTING OVERHEAD POWER, TELEPHONE AND OTHER UTILITIES WITHIN THE PROPOSED ROADWAYS SHALL BE RELOCATED AS NEEDED PRIOR TO CONSTRUCTION.
6. 1.0' (MIN.) OF COVER SHALL BE MAINTAINED OVER ALL STORM DRAIN PIPES.
7. THE WSDOT TYPE 1 INLET SHALL BE PLACED SO THAT THE LONGER SIDE OF THE STRUCTURE IS PERPENDICULAR TO THE CURB. THE SHORTER SIDE SHALL ABUT THE FACE OF THE CURB.
8. CURB INLETS HAVE BEEN DESIGNED AT 1" LOWER THAN THE FLOW LINE OF THE CURB. RIM ELEVATIONS GIVEN REFLECT THE 1" DEPRESSION. SEE SPOKANE COUNTY STD. B-1B. ASPHALT AND CURB TO HAVE SMOOTH TAPER INTO CURB INLETS.
9. CONTRACTOR TO VERIFY SANITARY SEWER SERVICE AND WATER SERVICE ELEVATIONS AT ALL CROSSINGS PRIOR TO INSTALLATIONS.

GRAPHIC SCALE

(IN FEET)
HORZ: 1 inch = 50 ft.
VERT: 1 inch = 10 ft.

BENCHMARK

SPIKE IN NW FACE OF POWER POLE S. 30' OF 65TH AVENUE ADJACENT TO DEARBORN STREET. ELEVATION = 2558.96, NAVD 88

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1784
DATE ACCEPTED: 1/23/19

PAUL T NELSON
STATE OF WASHINGTON
37228
REGISTERED PROFESSIONAL ENGINEER

1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

DEVELOPER DATE

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: 65TH. AVENUE STA. 40+07 TO STA. 49+30

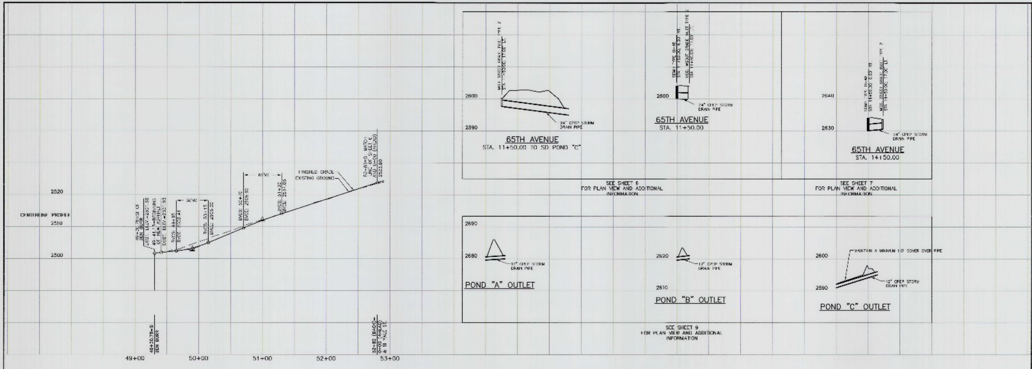
PROJECT TITLE: MORAN VIEW ESTATES SPOKANE COUNTY, WA

SEAL

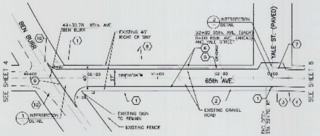
DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CBM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	4 OF 11

STREET

05079-b.DWG 65TH



RECORD DRAWING



SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1784
DATE ACCEPTED: 1/23/19

TABLE

1. EXISTING SIGN TO BE RELOCATED OUTSIDE OF PROPOSED DITCH. (TYPICAL ALL LOCATIONS)
2. EXISTING MAILBOX TO BE RELOCATED OUTSIDE OF PROPOSED DITCH. (TYPICAL ALL LOCATIONS)
3. EXISTING POWER POLE.
4. EXISTING TELEPHONE RISER.
5. EXIST. 15" CMP TRANSITION DITCH FLOWLINE TO MATCH INVERTS ALIGN IN NEW DITCH.
6. EXISTING DITCH LINES. RELOCATE AS NECESSARY.
7. EXIST. 15" CMP TRANSITION DITCH FLOWLINE TO MATCH INVERTS. RELOCATE NORTH TO ALIGN IN NEW DITCH.
8. EXISTING TREES.
9. SAWCUT 20'± STRIP OF EXISTING ASPHALT. TACKCOAT NEW ASPHALT TO EXISTING & MATCH GRADE.
10. EXIST. 15" CMP. EXTEND PAST PROPOSED APPROACH AS NECESSARY.

LIMITS OF NEW ASPHALT (65th AVE.)

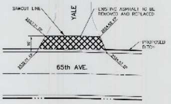
LIMITS OF EXISTING ASPHALT TO BE REMOVED AND REPAVED

NOTES

1. SEE CONSTRUCTION SPECIFICATIONS SHOWN ON DETAIL SHEET.
2. ALL CURB RETURNS ARE 30' RADIUS AT BACK OF CURB UNLESS OTHERWISE SHOWN.
3. ALL CURB AND OFFSET DATA IS REFERENCED TO BACK OF CURB UNLESS OTHERWISE NOTED.
4. THE UNDERGROUND UTILITY LINES AND OFF-SITE UTILITIES LOCATION HAS BEEN EXTRACTED FROM RECORD UTILITY DRAWINGS AND FOUND SURFACE FEATURES. FIELD VERIFY EXACT LOCATIONS.
5. EXISTING OVERHEAD POWER, TELEPHONE AND OTHER UTILITIES WITHIN THE PROPOSED ROADWAYS SHALL BE RELOCATED AS NEEDED PRIOR TO CONSTRUCTION.
6. 1.0' (MIN) OF COVER SHALL BE MAINTAINED OVER ALL STORM DRAIN PIPES.
7. THE W.S.D.O.T. TYPE 1 INLET SHALL BE PLACED SO THAT THE LONGER SIDE OF THE STRUCTURE IS PERPENDICULAR TO THE CURB. THE SHORTER SIDE SHALL ABUT THE FACE OF THE CURB.
8. CURB INLETS HAVE BEEN DESIGNED AT 1" LOWER THAN THE THE FLOW LINE OF THE CURB. RIM ELEVATIONS GIVEN REFLECT THE 1" DEPRESSION. SEE SPOKANE COUNTY STD. B-18. ASPHALT AND CURB TO HAVE SMOOTH TAPER INTO CURB INLETS.
9. CONTRACTOR TO VERIFY SANITARY SEWER SERVICE AND WATER SERVICE ELEVATIONS AT ALL CROSSINGS PRIOR TO INSTALLATIONS.

DEVELOPER DATE

INTERSECTION DETAIL 1
SCALE: 1"=20'



INTERSECTION DETAIL 2
SCALE: 1"=20'

BENCHMARK
SPIKE IN NW FACE OF POWER POLE S. SIDE OF 65TH. AVENUE ADJACENT TO BEN BURR STREET
ELEVATION = 2508.05, NAVD 88

PAUL T. NELSON, STATE OF WASHINGTON, 37226, REGISTERED PROFESSIONAL ENGINEER
1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

GRAPHIC SCALE
(IN FEET)
HORZ. 1 inch = 50 ft.
VERT. 1 inch = 10 ft.

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: 65TH. AVENUE STA. 49+30 TO STA. 52+80

PROJECT TITLE: MORAN VIEW ESTATES SPOKANE COUNTY, WA

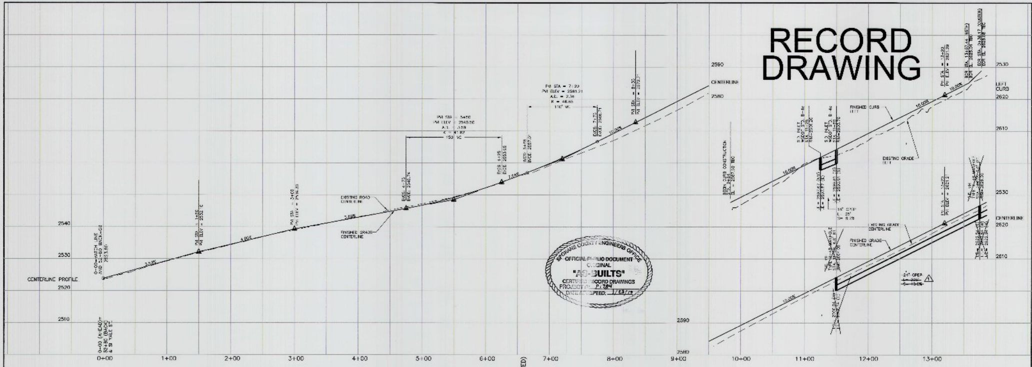
SEAL

DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CBM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	5 OF 11

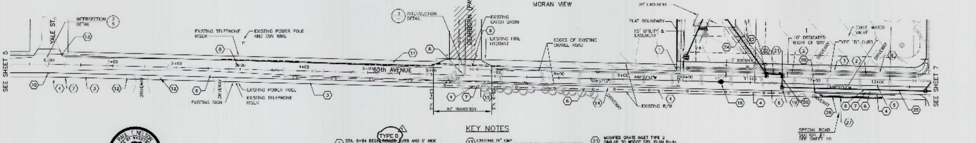
STREET

05079-5.DWG 65TH-1

RECORD DRAWING



SPOKANE COUNTY ENGINEER'S OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT#: P1784
DATE ACCEPTED: 1/23/19



PAUL C. NELSON
STATE OF WASHINGTON
37220
REGISTERED PROFESSIONAL ENGINEER
1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

INTERSECTION DETAIL
1"=50'

BENCHMARK
SPIKE IN NW FACE OF POWER POLE S. SIDE OF 65th AVENUE ADJACENT TO DEARBORN STREET.
ELEVATION = 2559.96, NAVD 88

KEY NOTES

1. STA. 9+84 BEGIN ~~ROLLED~~ TYPE B CURB AND 5' WIDE SIDEWALK CONSTRUCTION.
2. 12" CMP TO BE REMOVED.
3. EXISTING FENCE TO BE RELOCATED TO DEDICATED RIGHT OF WAY LINE. (TYPICAL ALL LOCATIONS)
4. EXISTING POWER AND/OR UTILITY POLE TO BE RELOCATED, AS NECESSARY.
5. STA. 12+89 BEGIN REMOVAL OF EXIST. ASPHALT.
6. EXISTING MAILBOX TO BE RELOCATED. (TYPICAL ALL LOCATIONS)
7. EXISTING TELEPHONE RISER TO BE RELOCATED. (TYPICAL ALL LOCATIONS)
8. ADJUST EXISTING SEWER MANHOLE RIM TO FINISHED GRADE. (TYPICAL ALL LOCATIONS)
9. ADJUST EXISTING WATER VALVE RIM TO FINISHED GRADE.
10. EXISTING SIGN TO BE RELOCATED. (TYPICAL ALL LOCATIONS)
11. EXISTING DITCH RECENTLY RECONSTRUCTED BY SPOKANE COUNTY. RELOCATE AS NECESSARY.
12. EXISTING TREE(S) TO BE REMOVED. (TYPICAL OF 7)
13. EXISTING 15" CMP TRANSITION DITCH FLOWLINE TO MATCH PIPE INVERTS.
14. EXISTING CMP
15. EXISTING WATER MANHOLE TO REMAIN IN PLACE.
16. CURB NOSE-DOWN, SEE DETAIL SHEET 10
17. NOT USED
18. NOT USED
19. ~~TYPE II 48 MANHOLE, SPOKANE CO. STD. SHEET U-5, WITH TYPE 4 FRAME AND SOLID COVER. STA. 11+50.00, 8.00' RT. COVER EL. = 2604.80 I.E. = 2596.14 (E) I.E. = 2596.04 (N)~~ SEE SHEET 11A
20. ~~24" CPEP L= 23' S= 1.0%~~ SEE SHEET 11A
21. MODIFIED GRATE INLET TYPE 2 SIMILAR TO WSDOT STD. PLAN B-4c WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d. STA. 11+50.00, 17.00' LT. SEE NOTE 7. GRATE EL. = 2603.70 I.E. = 2599.91 (S) I.E. = 2599.81 (W)
22. 24" CPEP L= 25' S= 8.2%
23. MODIFIED GRATE INLET TYPE 2 SIMILAR TO WSDOT STD. PLAN B-4c WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d. STA. 11+25.00, 17.00' LT. SEE NOTE 7 GRATE EL. = 2601.20 I.E. = 2597.77 (E) I.E. = 2597.67 (NW)
24. ~~24" CPEP L= 105' S= 1.6% I.E. = 2596.00 (OUT)~~ SEE SHEET 11A
25. ~~24" CPEP L= 225' S= 10.0%~~ SEE SHEET 11A
26. 4' HIGH CHAIN LINK FENCE OFFSET 1' FROM RETAINING WALL.
27. REDI-ROCK RETAINING WALL DESIGNED BY CUMMINGS GEOTECHNOLOGY, INC. 0' TO 7.5' HEIGHT AND CONSTRUCTED WITHIN THE RIGHT-OF-WAY. WALL SHALL BE CONSTRUCTED IN ACCORDANCE TO: "THIRD ADDENDUM TO REPORT OF RESULTS OF LIMITED GEOTECHNICAL ENGINEERING STUDY, PROPOSED STORMWATER DISPOSAL SYSTEM, MORAN VIEW ESTATES SUBDIVISION, SPOKANE, WA" BY CUMMINGS GEOTECHNOLOGY, INC.
28. CURB NOSE-DOWN TYPICAL EACH END. SEE DETAIL SHEET 10

Legend	
(open box)	LIMITS OF NEW ASPHALT
(hatched box)	LIMITS OF EXISTING ASPHALT
(cross-hatched box)	LIMITS OF EXISTING ASPHALT TO BE REMOVED AND REPAVED

NOTES

1. SEE CONSTRUCTION SPECIFICATIONS SHOWN ON DETAIL SHEET.
2. ALL CURB RETURNS ARE 30' RADIUS AT BACK OF CURB UNLESS OTHERWISE SHOWN.
3. ALL CURB AND OFFSET DATA IS REFERENCED TO BACK OF CURB, UNLESS OTHERWISE NOTED.
4. THE UNDERGROUND UTILITY LINES AND OFF-SITE UTILITIES LOCATION HAS BEEN EXTRACTED FROM RECORD UTILITY DRAWINGS AND FOUND SURFACE FEATURES. FIELD VERIFY EXACT LOCATIONS.
5. EXISTING OVERHEAD POWER, TELEPHONE AND OTHER UTILITIES WITHIN THE PROPOSED ROADWAYS SHALL BE RELOCATED AS NEEDED PRIOR TO CONSTRUCTION.
6. 1.0' (MIN.) OF COVER SHALL BE MAINTAINED OVER ALL STORM DRAIN PIPES.
7. THE W.S.D.O.T. TYPE 1 INLET SHALL BE PLACED SO THAT THE LONGER SIDE OF THE STRUCTURE IS PERPENDICULAR TO THE CURB. THE SHORTER SIDE SHALL ABUT THE FACE OF THE CURB.
8. CURB INLETS HAVE BEEN DESIGNED AT 1" LOWER THAN THE FLOW LINE OF THE CURB. RIM ELEVATIONS GIVEN REFLECT THE 1" DEPRESSION. SEE SPOKANE COUNTY STD. B-18. ASPHALT AND CURB TO HAVE SMOOTH TAPER INTO CURB INLETS.
9. CONTRACTOR TO VERIFY SANITARY SEWER SERVICE AND WATER SERVICE ELEVATIONS AT ALL CROSSINGS PRIOR TO INSTALLATIONS.

DEVELOPER ____ DATE ____

GRAPHIC SCALE
(IN FEET)
HORZ. 1 inch = 50 ft.
VERT. 1 inch = 10 ft.

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: 65TH. AVENUE STA. 0+00 TO STA. 13+80

PROJECT TITLE: MORAN VIEW ESTATES SPOKANE COUNTY, WA

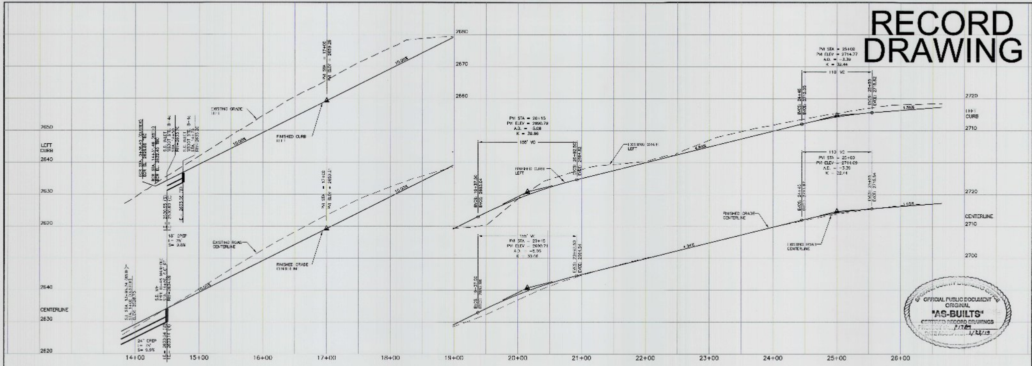
SEAL

DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CBM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	6 OF 11

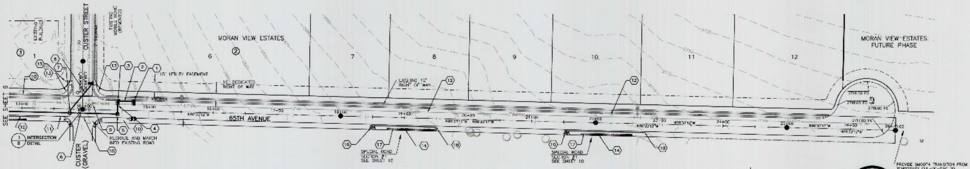
SHEET

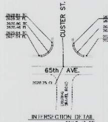
05079-63WS 65th-2

RECORD DRAWING



SPOKANE COUNTY ENGINEER'S OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT NO. P1784
DATE ACCEPTED 1/23/19





INTERSECTION DETAIL
SCALE 1"=20'

BENCHMARK

SPIKE IN NW FACE OF POWER POLE S. SIDE OF 65TH. AVENUE ADJACENT TO DEARBORN STREET.
ELEVATION = 2555.56, NAVD 88

TABLE

(1) MODIFIED GRATE INLET TYPE 2 SIMILAR TO WSDOT STD. PLAN B-4c WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d.
STA. 14+75.00, 17.00' LT. SEE NOTE 7.
GRATE EL.= 2636.20
I.E.= 2633.05 (W)

(2) 18" CPEP
L= 25'
S= 9.8%

(3) MODIFIED GRATE INLET TYPE 2 SIMILAR TO WSDOT STD. PLAN B-4c WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d.
STA. 14+50.00, 14.08' LT. SEE NOTE 7.
GRATE EL.= 2633.70
I.E.= 2630.60 (E)
I.E.= 2630.55 (S)

(4) ~~24" CPEP~~
~~L= 20'~~
~~S= 1.8%~~

(5) ~~TYPE II-48 MANHOLE, SPOKANE CO. STD. SHEET U-5, WITH TYPE 4 FRAME AND SOLID COVER.~~
~~STA. 14+50.00, 6.00' RT.~~
~~COVER EL.= 2634.09~~
~~I.E.= 2630.14 (N)~~
~~I.E.= 2630.04 (W)~~ SEE SHEET 11A

(6) ~~24" CPEP~~
~~L= 36'~~
~~S= 0.0%~~

(7) TYPE II-48 MANHOLE, ~~SPOKANE CO. STD. SHEET U-5, WITH TYPE 4 FRAME AND SOLID COVER.~~
~~STA. 13+75.00, 6.00' RT.~~
~~COVER EL.= 2626.59~~
~~I.E.= 2622.54 (E)~~
~~I.E.= 2622.04 (N)~~
~~I.E.= 2622.54 (W)~~ SEE SHEET 11A

(8) ~~12" CPEP~~
~~L= 54'~~
~~S= 2.0%~~

(9) 12" CMP TO BE REMOVED.

(10) EXISTING POWER AND/OR UTILITY POLE TO BE RELOCATED. (TYPICAL ALL LOCATIONS)

(11) PROPOSED EDGE OF PAVEMENT.

(12) EXISTING 12" CMP TO BE REMOVED.

(13) CURB RAMP SPOKANE COUNTY STANDARD SHEET A-5. CURB RAMP SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG).

(14) ~~REDI-ROCK RETAINING WALL DESIGNED BY CUMMINGS GEOTECHNOLOGY, INC. WEST WALL HAS HEIGHT OF 0' TO 7.5' AND EAST WALL HAS HEIGHT OF 0' TO 6'. WALLS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY. WALL SHALL BE CONSTRUCTED IN ACCORDANCE TO: "THIRD ADDENDUM TO REPORT OF RESULTS OF LIMITED GEOTECHNICAL ENGINEERING STUDY, PROPOSED STORMWATER DISPOSAL SYSTEM, MORAN VIEW ESTATES SUBDIVISION, SPOKANE, WA" BY CUMMINGS GEOTECHNOLOGY, INC.~~ DELETED

(15) STOP AND STREET SIGNS PER MUTCD AND SPOKANE COUNTY STANDARDS.

(16) ~~ROCK ARMOR SIMILAR TO RIPRAP. SEE DETAIL SHEET. EXTEND TO RIGHT OF WAY. L= 5.0' AT CURB L= 10.0' AT RIGHT OF WAY~~

(17) ~~4' HIGH CHAIN LINK FENCE OFFSET 1' FROM RETAINING WALL.~~ DELETED

(18) ~~CURB NOSE-DOWN TYPICAL EACH END. SEE DETAIL SHEET 10.~~

LIMITS OF EXISTING PAVEMENT

LIMITS OF NEW ASPHALT & SIDEWALK

NOTES

1. SEE CONSTRUCTION SPECIFICATIONS SHOWN ON DETAIL SHEET.
2. ALL CURB RETURNS ARE 20' RADIUS AT BACK OF CURB UNLESS OTHERWISE SHOWN.
3. ALL CURB AND OFFSET DATA IS REFERENCED TO BACK OF CURB, UNLESS OTHERWISE NOTED.
4. THE UNDERGROUND UTILITY LINES AND OFF-SITE UTILITIES LOCATION HAS BEEN EXTRACTED FROM RECORD UTILITY DRAWINGS AND FOUND SURFACE FEATURES. FIELD VERIFY EXACT LOCATIONS.
5. EXISTING OVERHEAD POWER, TELEPHONE AND OTHER UTILITIES WITHIN THE PROPOSED ROADWAYS SHALL BE RELOCATED AS NEEDED PRIOR TO CONSTRUCTION.
6. 1.0' (MIN.) OF COVER SHALL BE MAINTAINED OVER ALL STORM DRAIN PIPES.
7. THE W.S.D.O.T. TYPE I INLET SHALL BE PLACED SO THAT THE LONGER SIDE OF THE STRUCTURE IS PERPENDICULAR TO THE CURB. THE SHORTER SIDE SHALL ABUT THE FACE OF THE CURB.
8. CURB INLETS HAVE BEEN DESIGNED AT 1" LOWER THAN THE THE FLOW LINE OF THE CURB. RIM ELEVATIONS GIVEN REFLECT THE 1" DEPRESSION. SEE SPOKANE COUNTY STD. B-18. ASPHALT AND CURB TO HAVE SMOOTH TAPER INTO CURB INLETS.
9. CONTRACTOR TO VERIFY SANITARY SEWER SERVICE AND WATER SERVICE ELEVATIONS AT ALL CROSSINGS PRIOR TO INSTALLATIONS.

1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

DEVELOPER DATE

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: 65TH. AVENUE STA. 13+80 TO STA. 26+70.64

PROJECT TITLE: MORAN VIEW ESTATES SPOKANE COUNTY, WA

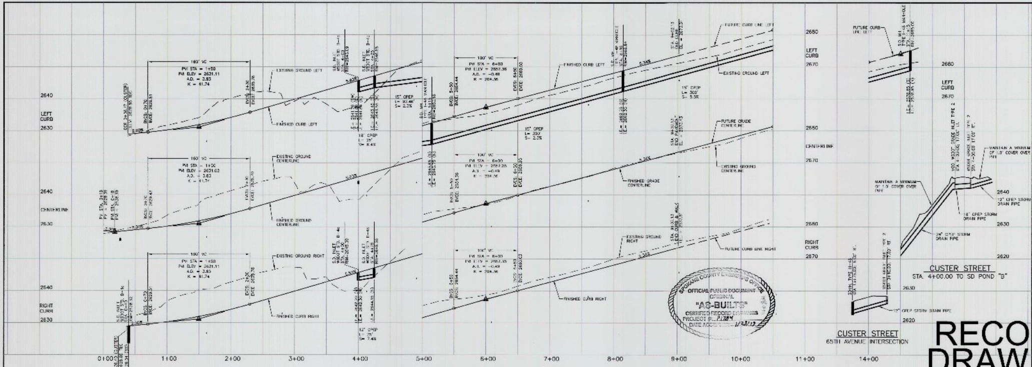
SEAL

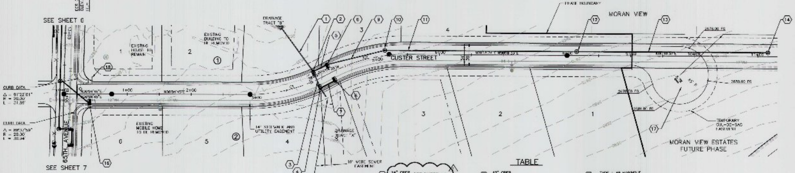
DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CBM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	7 OF 11

STREET

05079-LDWG C6T4-3

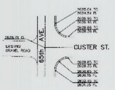
RECORD DRAWING





GRAPHIC SCALE

(IN FEET)
HORIZ. 1 inch = 50 ft.
VERT. 1 inch = 10 ft.



INTERSECTION DETAIL
SCALE: 1"=20'

BENCHMARK

SPIKE IN NW FACE OF POWER POLE S. SIDE OF 65TH AVENUE ADJACENT TO DEARBORN STREET
ELEVATION = 2555.58, NAVD 88

TABLE

1. 24" CPEP SEE SHEET 11A
L= 84'
S= 24.7%
I.E.= 2621.00 (OUT) 2632.4

2. MODIFIED GRATE INLET TYPE 2
SIMILAR TO WSDOT STD. PLAN B-4c
WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d.
STA. 4+00.00, 17.00' LT. SEE NOTE 7.
GRATE EL.= 2645.09
I.E.= 2641.86 (N)
I.E.= 2641.86 (E)
I.E.= 2641.76 (SW)

3. 18" CPEP
L= 34'
S= 1.0%

4. GRATE INLET TYPE 2
WSDOT STD. PLAN B-4c W/ FRAME AND VANED GRATE WSDOT STD. B-4d
STA. 4+00.00, 17.00' RT. SEE NOTE 7.
GRATE EL.= 2645.09
I.E.= 2642.20 (W)
I.E.= 2642.30 (N.E)

5. 18" CPEP
L= 25'
S= 6.4%

6. GRATE INLET TYPE 2
WSDOT STD. PLAN B-4c W/ FRAME AND VANED GRATE WSDOT STD. B-4d.
STA. 4+25.00, 17.00' LT. SEE NOTE 7.
GRATE EL.= 2646.55
I.E.= 2643.55 (N)
I.E.= 2643.45 (S)

7. 12" CPEP
L= 25'
S= 7.4%

8. GRATE INLET TYPE 2
WSDOT STD. PLAN B-4c W/ FRAME AND VANED GRATE WSDOT STD. B-4d.
STA. 4+25.00, 17.00' RT. SEE NOTE 7.
GRATE EL.= 2646.55
I.E.= 2644.15 (S)

9. 15" CPEP
L= 92.46'
S= 2.3%

10. TYPE I-48 MANHOLE,
SPOKANE CO. STD. SHEET U-5,
WITH TYPE 4 FRAME AND SOLID COVER.
STA. 5+15.00, 9.00' LT.
COVER EL.= 2652.18
I.E.= 2645.75 (N)
I.E.= 2645.65 (S)

11. 15" CPEP
L= 300'
S= 5.5%

12. TYPE I-48 MANHOLE,
SPOKANE CO. STD. SHEET U-5,
WITH TYPE 4 FRAME AND SOLID COVER.
STA. 8+15.00, 6.00' LT.
COVER EL.= 2668.64
I.E.= 2662.35 (N)
I.E.= 2662.25 (S)

13. 15" CPEP
L= 300'
S= 5.5%

14. TYPE I-48 MANHOLE,
SPOKANE CO. STD. SHEET U-5,
WITH TYPE 4 FRAME AND SOLID COVER.
STA. 11+15.00, 6.00' LT.
COVER EL.= 2685.00
I.E.= 2678.95 (N)
I.E.= 2678.85 (S)
TEMPORARY COVER, TO BE COMPLETED DURING LATER PHASE

15. 12" CPEP
L= 30'
S= 5.7%
I.E.= 2644.00 (N)

16. GRATE INLET TYPE 2
WSDOT STD. PLAN B-4c W/ FRAME AND VANED GRATE WSDOT STD. B-4d.
STA. 0+40.00, 17.00' RT. SEE NOTE 7.
GRATE EL.= 2628.32
I.E.= 2626.04 (SW)

17. TEMPORARY CUL-DE-SAC
6" CRUSHED ROCK TOP COURSE
3/4" MINUS COMPACTED TO 95% MAX. DENSITY (ASTM D698).

18. STOP AND STREET SIGNS PER M.U.T.C.D. STANDARDS. NOT CONSTRUCTED

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

DEVELOPER DATE

1-21-19

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	126.63	250.00	29°04'02"	64.81
C2	127.63	250.00	29°17'40"	65.36

NOTES

1. SEE CONSTRUCTION SPECIFICATIONS SHOWN ON DETAIL SHEET.
2. ALL CURB RETURNS ARE 30' RADIUS AT BACK OF CURB UNLESS OTHERWISE SHOWN.
3. ALL CURB AND OFFSET DATA IS REFERENCED TO BACK OF CURB, UNLESS OTHERWISE NOTED.
4. THE UNDERGROUND UTILITY LINES AND OFF-SITE UTILITIES LOCATION HAS BEEN EXTRACTED FROM RECORD UTILITY DRAWINGS AND FOUND SURFACE FEATURES. FIELD VERIFY EXACT LOCATIONS.
5. EXISTING OVERHEAD POWER, TELEPHONE AND OTHER UTILITIES WITHIN THE PROPOSED ROADWAYS SHALL BE RELOCATED AS NEEDED PRIOR TO CONSTRUCTION.
6. 1.0' (MIN.) OF COVER SHALL BE MAINTAINED OVER ALL STORM DRAIN PIPES.
7. THE W.S.D.O.T. TYPE II INLET SHALL BE PLACED SO THAT THE LONGER SIDE OF THE STRUCTURE IS PERPENDICULAR TO THE CURB. THE SHORTER SIDE SHALL ABUT THE FACE OF THE CURB.
8. CURB INLETS HAVE BEEN DESIGNED AT 1" LOWER THAN THE THE FLOW LINE OF THE CURB. RIM ELEVATIONS GIVEN REFLECT THE 1" DEPRESSION. SEE SPOKANE COUNTY STD. B 18. ASPHALT AND CURB TO HAVE SMOOTH TAPER INTO CURB INLETS.
9. CONTRACTOR TO VERIFY SANITARY SEWER SERVICE AND WATER SERVICE ELEVATIONS AT ALL CROSSINGS PRIOR TO INSTALLATIONS.

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

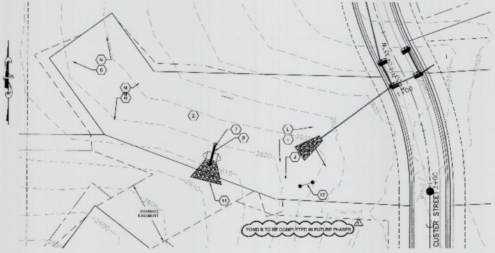
SHEET TITLE: CUSTER STREET
STA. 0+00 TO STA. 11+15

PROJECT TITLE: MORAN VIEW ESTATES
SPOKANE COUNTY, WA

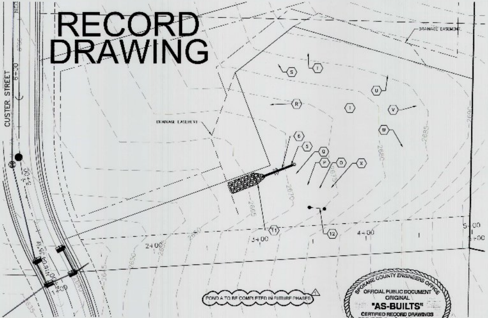
DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CJH
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	8 OF 11

STREET

RECORD DRAWING

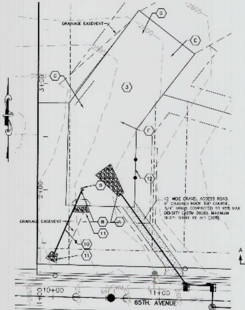


POND "B"
1" = 30'



POND "A"
1" = 30'

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1784
DATE ACCEPTED: 1/23/19



POND "C"
1" = 30'

TABLE

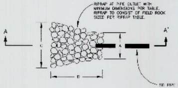
1. DETENTION POND "A"
   BOTTOM ELEV.= 2680.00
   BOTTOM AREA= 12,570 S.F.
   HEIGHT TO BERM= 5.5'
   MAX.WATER SURFACE EL. 2680.84 (50 YEAR, PHASE 1)
   FOR SEEDING SPECIFICATIONS SEE DETAIL SHEET 10
2. DETENTION POND "B"
   BOTTOM ELEV.= 2620.00
   BOTTOM AREA= 10,160 S.F.
   HEIGHT TO BERM= 3.5'
   MAX.WATER SURFACE EL. 2621.24 (50 YEAR, PHASE 1)
   FOR SEEDING SPECIFICATIONS SEE DETAIL SHEET 10
3. DETENTION POND "C"
   BOTTOM ELEV.= 2595.00
   BOTTOM AREA= 5,380 S.F.
   HEIGHT TO BERM= 4.0'
   MAX.WATER SURFACE EL. 2597.85 (50 YEAR, PHASE 1)
   FOR SEEDING SPECIFICATIONS SEE DETAIL SHEET 10
4. NOT USED
5. INSTALL END CAP ON INLET OF 12" CPEP STORM DRAIN PIPE. PROVIDE 4" DIAMETER OPENING (ORIFICE) ON END CAP.
   I.E.= 2680.00 (ORIFICE)
   CONSTRUCT 3' DIAMETER AND 1' DEEP SUMP AT INLET. FILL SUMP WITH ROCK OF SIMILAR SIZE TO RIP RAP PADS.
6. 12" CPEP
   L= 27'
   S= 1.5%
   I.E.= 2680.00 (IN)
   I.E.= 2679.60 (OUT)
7. INSTALL END CAP ON INLET OF 12" CPEP STORM DRAIN PIPE. PROVIDE 4" DIAMETER OPENING (ORIFICE) ON END CAP.
   I.E.= 2620.00 (ORIFICE)
   CONSTRUCT 3' DIAMETER AND 1' DEEP SUMP AT INLET. FILL SUMP WITH ROCK OF SIMILAR SIZE TO RIP RAP PADS.
8. 12" CPEP
   L= 17'
   S= 2.4%
   I.E.= 2620.00 (IN)
   I.E.= 2618.60 (OUT)
9. INSTALL END CAP ON INLET OF 12" CPEP STORM DRAIN PIPE. PROVIDE 4" DIAMETER OPENING (ORIFICE) ON END CAP.
   I.E.= 2595.00 (ORIFICE)
   CONSTRUCT 3' DIAMETER AND 1' DEEP SUMP AT INLET. FILL SUMP WITH ROCK OF SIMILAR SIZE TO RIP RAP PADS.
10. 12" CPEP
    L= 84'
    S= 6.3%
    I.E.= 2585.00 (IN)
    I.E.= 2591.00 (OUT)
11. RIP RAP. SEE DETAIL THIS SHEET.
12. DOUBLE SWING GATE. SEE DETAIL THIS SHEET.

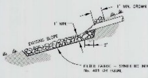
SEE SHEET 11A

NOT CONSTRUCTED

COORDINATE TABLE

A	N 2441.28 E 4716.26	N	N 2798.98 E 4748.23
B	N 2442.30 E 4881.28	O	N 2813.40 E 5271.21
C	N 2519.42 E 4683.53	P	N 2816.85 E 5260.13
D	N 2589.21 E 4738.53	Q	N 2827.56 E 5249.28
E	N 2567.77 E 4790.53	R	N 2892.38 E 5224.27
F	N 2508.81 E 4718.18	S	N 2950.59 E 5232.19
G	N 2746.56 E 4713.80	T	N 2941.48 E 5260.50
H	N 2681.46 E 4764.80	U	N 2920.37 E 5335.49
I	N 2652.06 E 4908.55	V	N 2881.59 E 5353.52
J	N 2635.58 E 4914.74	W	N 2852.10 E 5350.15
K	N 2647.60 E 4952.80	X	N 2814.25 E 5282.21
L	N 2685.37 E 4841.30		
M	N 2726.68 E 4777.50		





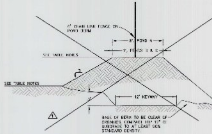
SECTION A-A'

PIPE OUTLET / RIPRAP DETAIL
NTS

RIP RAP TABLE

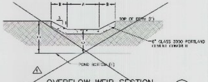
LOCATION	A	B	C	MIN.	AVG.	MAX.	THICKNESS	NOTES
POND "A" OUT	3.0'	8.2'	11.2'	1.5"	6.0"	8.3"	12.0"	EXTEND 11.2' WIDTH TO BOTTOM OF BERM
POND "B" IN	6.0'	24.7'	15.9'	1.5"	6.0"	8.3"	12.0"	
POND "B" WEIR/PIPE	10.0'	20.0'	30.0'	1.5"	6.0"	8.3"	12.0"	
POND "C" IN	6.0'	20.1'	17.7'	1.5"	6.0"	8.3"	12.0"	
POND "C" OUT	3.0'	8.2'	11.2'	1.5"	6.0"	8.3"	12.0"	
POND "C" WEIR	10.0'	5.0'	15.0'	1.5"	6.0"	8.3"	12.0"	

LOCATION	A	B	C	D	E	F
TRACT-A POND	4.0'	1.5'	4.0'	5.5'	2680.00	2685.50
TRACT-B POND	10.0'	3.75	2.25	3.5'	2620.00	2623.50
TRACT C POND	10.0'	4.75'	2.90'	4.0'	2595.00	2599.00

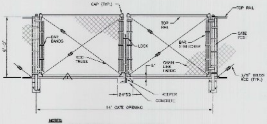


POND BERM SECTION
NTS

NOTES:
1. BOTTOM OF POND AND NON-BERM AREAS OF POND SHALL BE PLANTED WITH NATIVE-TYPE GRASSES ACCLIMATED TO ARID CONDITIONS
2. THE BASE OF THE BERM SHALL BE FIRM, UNYIELDING SUBGRADE, FREE OF ORGANICS AND FILL MATERIAL.
3. STANDARD DENSITY SHALL BE IN ACCORDANCE WITH ASTM D-1557.
4. POND BERM HEIGHTS GREATER THAN 12' SHALL COMPLY WITH THE GEOTECHNICAL REPORT: "ADDENDUM TO REPORT OF RESULTS OF LIMITED GEOTECHNICAL ENGINEERING STUDY, PROPOSED STORMWATER DISPOSAL SYSTEM, MORAN VIEW ESTATES SUBDIVISION, SPOKANE, WA." BY CUMMINGS GEOTECHNICAL, INC. DATED JANUARY 27, 2006.
5. THE DETENTION POND BERM SHALL BE CONSTRUCTED UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER AND MEET THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
6. THE POND BERM SHALL BE CONSTRUCTED OF NATIVE MATERIAL OR SIMILAR GRANULAR SOIL. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM UNIT WEIGHT AS DETERMINED BY THE MODIFIED PROCTOR METHOD AND INSTALLED AT A MAXIMUM OF 8" LIFTS.



OVERFLOW WEIR SECTION
NTS



NOTES:
1. SEE W.S.D.O.T. STANDARD PLAN L-2 FOR MEMBER SIZE.
2. GATES SHALL HAVE 6" CLEARANCE ABOVE PAVEMENT OR GRADING.
3. CHAIN LINK FENCE TO BE CONSTRUCTED PER W.S.D.O.T. SPECIFICATIONS TYPE A.

DOUBLE SWING GATE
NTS

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED PROFESSIONAL ENGINEER
1-21-19

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: DRAINAGE PONDS

PROJECT TITLE: MORAN VIEW ESTATES
SPOKANE COUNTY, WA

SEAL

DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CDM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	9 OF 11
	STREET

RECORD DRAWING

1) All work and materials shall be in conformance with the "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION" 1999, and as amended.

2) Locations of existing utilities shown in the plans are approximate. Prior to site construction, the Contractor shall be responsible for locating all underground and overhead utilities. Any conflicting utilities shall be relocated prior to construction of road and drainage facilities. Call the underground utility location service at 456-8000 before you dig.

3) The Contractor is required to have a complete set of the approved road and drainage plans on the job site whenever construction is in progress.

4) If the Contractor discovers any discrepancies between the plans and existing conditions encountered, the Contractor shall immediately notify the Design Engineer.

5) For construction of drywells, install filter fabric (Amoco 4545 or approved equivalent) between the washed drain rock and the native soils.

6) For any curb grades less than 0.8% (0.008 ft/ft), a Washington State licensed Professional Land Surveyor shall verify that the curb forms are at the grades noted on the approved plans, prior to placement of curb material. The Contractor is responsible for arranging and coordinating work with the Professional Land Surveyor.

7) The Contractor shall employ a licensed surveyor to verify that the cross gutter forms are at the correct plane grade prior to concrete placement. The cross gutters shall be constructed prior to paving, and the pavement shall then match the edge of concrete gutter.

8) The contractor shall review all geotechnical recommendations and investigation reports associated with the subject development prior to starting construction. Any discrepancies between design plans and geotechnical report shall be reported to the Design Engineer. Construction shall comply with recommendations of the geotechnical reports.

9) The contractor shall demolish and remove existing structures and associated improvements on the subject site prior to starting construction. Contractor shall coordinate demolition activities with owner for further direction and extent of work.

10) The floor of a Grassed Percolation Area (GPA) swale includes the level portion of the floor of the swale, and the sideslopes of the swale up to the GPA overflow elevation or top of drywell. The soil located in the floor of the GPA swale shall be a medium to well-draining material, with a minimum infiltration rate of 0.5 inches per hour. The Engineer shall provide a written statement which verifies that all GPA swales conform to this requirement. This written statement shall be submitted to the Spokane County Engineer's Office prior to installing finished landscaping/sod and prior to final acceptance. The swale floor material shall be matched to a native soil stratum which also meets or exceeds this minimum percolation rate of 0.5 inches per hour.

11) Irrigation system for storm water management ponds shall be provided by Contractor/Developer. Irrigation system shall be design/build.

CONSTRUCTION SPECIFICATIONS

Provide fresh, clean new crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Provide seed mixture composed of grass species and percentages as follows:

20 percent Elka Perennial Rye

20 percent Durar Hard Fescue

45 percent Covar Sheep Fescue

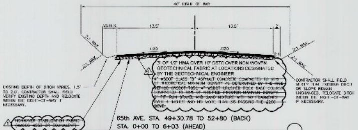
15 percent Reubens Canadian Bluegrass

Provide mixture composed of grass seed and fertilizer in percentages as follows:

Grass seed mixture: 90 lbs. per acre
Fertilizer: 16:16:16 timed release composition, 300 lbs. per acre

All seeding of slopes shall be done in accordance with WSDOT Standard Specifications.

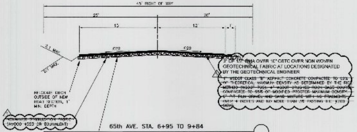
SEEDING SPECIFICATIONS



65th AVE. STA. 49+30.78 TO 52+80 (BACK)
STA. 0+00 TO 6+03 (AHEAD)

NTS

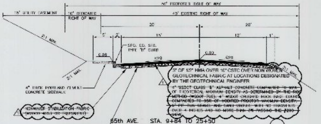
TOP 12" OF SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN 1% TO 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHOD (AASHTO T-180). ANY STRUCTURAL FILL MAKING UP THE SUBGRADE WITHIN 24" OF THE ASPHALT PAVEMENT SHALL ALSO BE COMPACTED TO 95% OF MAXIMUM DENSITY.



65th AVE. STA. 6+95 TO 9+84

NTS

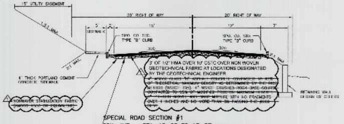
TOP 12" OF SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN 1% TO 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHOD (AASHTO T-180). ANY STRUCTURAL FILL MAKING UP THE SUBGRADE WITHIN 24" OF THE ASPHALT PAVEMENT SHALL ALSO BE COMPACTED TO 95% OF MAXIMUM DENSITY.



65th AVE. STA. 9+84 TO 25+50

NTS

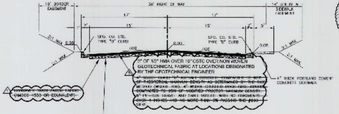
TOP 12" OF SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN 1% TO 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHOD (AASHTO T-180). ANY STRUCTURAL FILL MAKING UP THE SUBGRADE WITHIN 24" OF THE ASPHALT PAVEMENT SHALL ALSO BE COMPACTED TO 95% OF MAXIMUM DENSITY.



SPECIAL ROAD SECTION #1
65th AVE. ~~STA. 12+02 TO 13+27~~
STA. 18+53 TO 19+53 DELETED
STA. 21+58 TO 22+78 DELETED

TOP 12" OF SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN 1% TO 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHOD (AASHTO T-180). ANY STRUCTURAL FILL MAKING UP THE SUBGRADE WITHIN 24" OF THE ASPHALT PAVEMENT SHALL ALSO BE COMPACTED TO 95% OF MAXIMUM DENSITY.

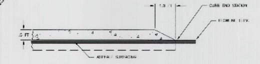
SPOKANE COUNTY ENGINEER'S OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1784
DATE ACCEPTED: 1/23/19



CUSTER STREET STA. 0+00 TO 9+02.13

NTS

TOP 12" OF SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN 1% TO 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHOD (AASHTO T-180). ANY STRUCTURAL FILL MAKING UP THE SUBGRADE WITHIN 24" OF THE ASPHALT PAVEMENT SHALL ALSO BE COMPACTED TO 95% OF MAXIMUM DENSITY.



CURB NOSEDOWN DETAIL

NTS

PAUL T. NELSON
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

DEVELOPER DATE

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: DETAIL SHEET

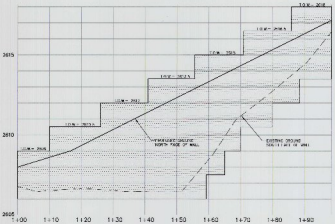
PROJECT TITLE: MORAN VIEW ESTATES
SPOKANE COUNTY, WA

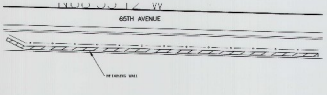
SEAL

DATE	05/15/06
DRAWN	KSN/RWH
CHECKED	CDM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	10 OF 11

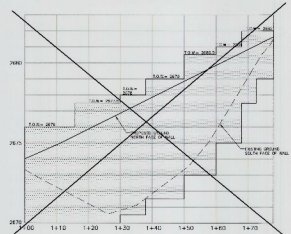
DETAIL

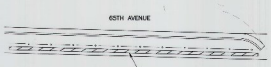
RECORD DRAWING



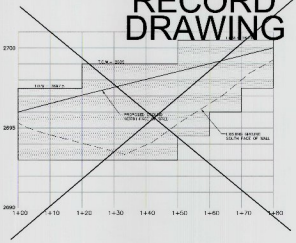


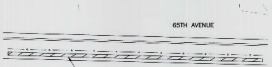
65TH. AVENUE WALL ROAD STA. 12+09.27 TO 13+07.22





65TH. AVENUE WALL ROAD STA. 18+73.09 TO 19+51.09





65TH. AVENUE WALL ROAD STA. 21+77.69 TO 22+57.69

OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFICATIONS DRAWINGS
PROJECT # 11-124
DATE ACCEPTED 1/21/19

NOTES:

1. RETAINING WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS AND STANDARD WALL DETAILS IN GEOTECH REPORT.
2. RETAINING WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DESIGN, SPRING, MORAN VIEW ESTATES SUBDIVISION, SPRANK, WASHINGTON, DATED 11/15/96 AND 12/19/96.
3. RETAINING WALLS SHALL BEARE ON THE APPROVED MATERIALS IN THE GEOTECHNICAL REPORT.

1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE I BELIEVE IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

GRAPHIC SCALE

1" = 10 FEET

MORE 1 inch = 1' L.
THEN 1 inch = 1' R.

CALL BEFORE YOU DIG 456-6000

No.	DESC. / DATE	BY
1		
2		
3		
4		
5		

DETAIL SHEET

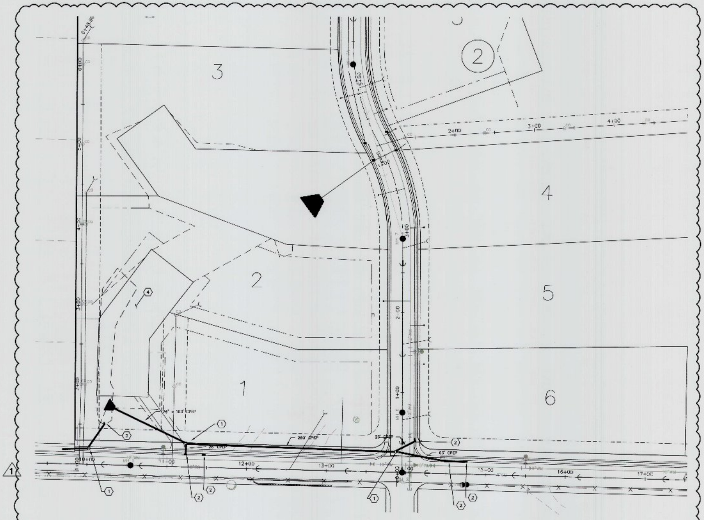
PROJECT TITLE: MORAN VIEW ESTATES
SPOKANE COUNTY, WA

DETAIL

DATE	5/15/96
DRAWN	KSN
CHECKED	DRM
SCALE	AS SHOWN
PROJECT NUMBER	05-079
DRAWING NO.	11 of 11

DETAIL-7

RECORD DRAWING



⟨1⟩ TYPE II-48 MANHOLE. SPOKANE COUNTY STANDARD PLAN U-5 WITH SOLID COVER.

⟨2⟩ MODIFIED GRATE INLET TYPE 2 SIMILAR TO WSDOT STD. PLAN B-4c WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d.

⟨3⟩ MODIFIED GRATE INLET TYPE 2 SIMILAR TO WSDOT STD. PLAN B-4c WITH KNOCKOUTS TO ACCOMODATE 24" CPEP AND VANED FRAME AND GRATE WSDOT STD. B-4d.
RIM ELEVATION = 2592.0
4" ORIFICE ELEVATION = 2591.0

⟨4⟩ POND BOTTOM ELEVATION = 2590.5
POND AREA = 4,210 SQ FT.

AS CONSTRUCTED STORM DRAINAGE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1784
DATE ACCEPTED: 1/23/19

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED PROFESSIONAL ENGINEER
1-21-19

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

CALL BEFORE YOU DIG 456-8000

No.	DESC. / DATE	BY
4		
3		
2		
1		

SHEET TITLE: ASBUILT DRAINAGE

PROJECT TITLE: MORAN VIEW ESTATES SPOKANE COUNTY, WA

SEAL

DATE	12/1/17
DRAWN	IPEC
CHECKED	PTN
SCALE	1" = 40'
PROJECT NUMBER	05-079
DRAWING NO.	11A OF 11

RECORD DRAWING